District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 328696

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
CAZA OPERATING, LLC 200 N Loraine St Midland, TX 79701	249099
	3. API Number 30-025-50800

4. Property Code	5. Property Name	6. Well No.
39019	LENNOX 32 STATE	008H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	32	22S	35E	C	422	N	1730	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	32	22S	35E	O	20	S	2210	W	Lea

9. Pool Information

ROCK LAKE;BONE SPRING	52766

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3534
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	16378	3rd Bone Spring Sand		1/2/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1950	1250	0
Int1	12.25	9.625	40	5650	1600	0
Prod	8.75	5.5	20	16378	3200	0

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	Schaffer
Double Ram	5000	5000	Schaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name:	Electronically filed by Steve Morris	Approved By:	Paul F Kautz	
Title:	Engineer	Title:	Geologist	
Email Address:	steve.morris@morcorengineering.com	Approved Date:	11/17/2022	Expiration Date: 11/17/2024
Date:	11/9/2022 Phone: 432-201-3031	Conditions of Approval Attached		

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

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

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

[X] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-50800	52766	Rock Lake; Bone Spring

[4] Property Code	[5] Property Name	[6] Well Number
39019	LENNOX 32 STATE	8H

[7] OGRID No.	[8] Operator Name	[9] Elevation
249099	CAZA OPERATING LLC	3534'

[10] Surface Location

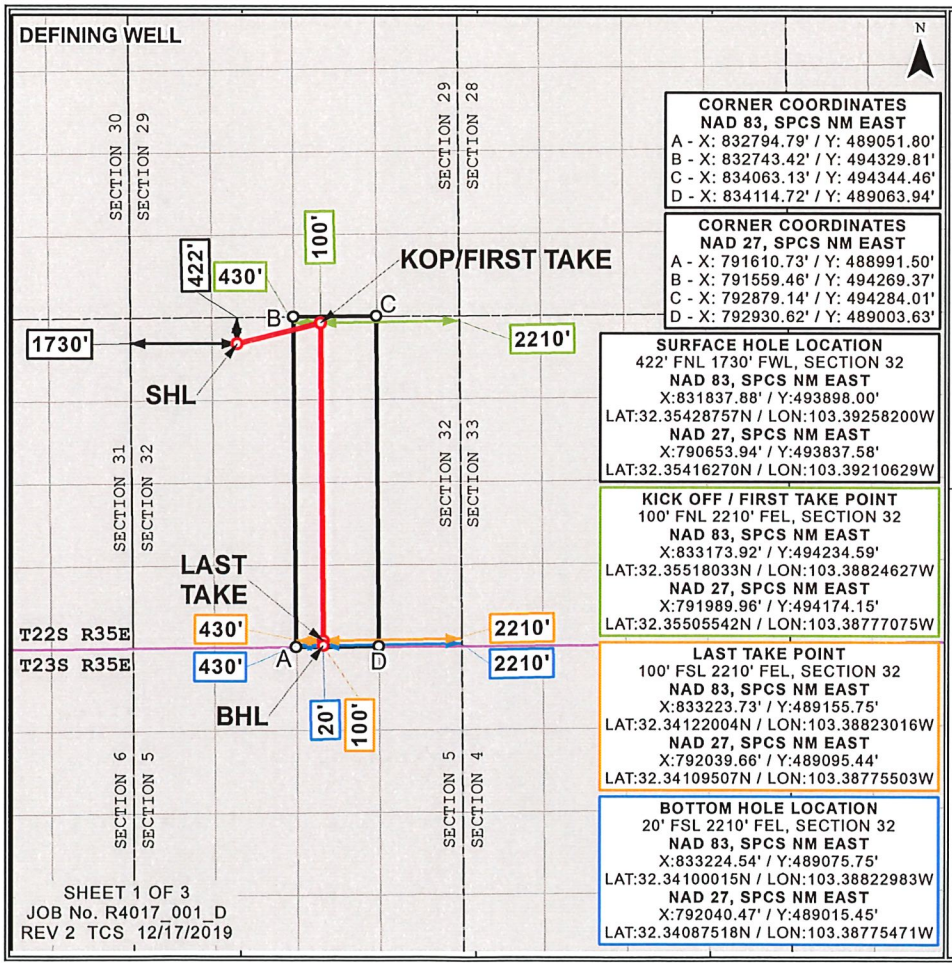
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	32	22S	35E		422	NORTH	1730	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	32	22S	35E		20	SOUTH	2210	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160.0			

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



CORNER COORDINATES NAD 83, SPCS NM EAST
A - X: 832794.79' / Y: 489051.80'
B - X: 832743.42' / Y: 494329.81'
C - X: 834063.13' / Y: 494344.46'
D - X: 834114.72' / Y: 489063.94'

CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 791610.73' / Y: 488991.50'
B - X: 791559.46' / Y: 494269.37'
C - X: 792879.14' / Y: 494284.01'
D - X: 792930.62' / Y: 489003.63'

SURFACE HOLE LOCATION
422' FNL 1730' FWL, SECTION 32
NAD 83, SPCS NM EAST
X:831837.88' / Y:493898.00'
LAT:32.35428757N / LON:103.39258200W
NAD 27, SPCS NM EAST
X:790653.94' / Y:493837.58'
LAT:32.35416270N / LON:103.39210629W

KICK OFF / FIRST TAKE POINT
100' FNL 2210' FEL, SECTION 32
NAD 83, SPCS NM EAST
X:833173.92' / Y:494234.59'
LAT:32.35518033N / LON:103.38824627W
NAD 27, SPCS NM EAST
X:791989.96' / Y:494174.15'
LAT:32.35505542N / LON:103.38777075W

LAST TAKE POINT
100' FSL 2210' FEL, SECTION 32
NAD 83, SPCS NM EAST
X:833223.73' / Y:489155.75'
LAT:32.34122004N / LON:103.38823016W
NAD 27, SPCS NM EAST
X:792039.66' / Y:489095.44'
LAT:32.34109507N / LON:103.38775503W

BOTTOM HOLE LOCATION
20' FSL 2210' FEL, SECTION 32
NAD 83, SPCS NM EAST
X:833224.54' / Y:489075.75'
LAT:32.34100015N / LON:103.38822983W
NAD 27, SPCS NM EAST
X:792040.47' / Y:489015.45'
LAT:32.34087518N / LON:103.38775471W

[17] OPERATOR CERTIFICATION

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

Signature — Date: 01/10/2020

Steve Morris
Printed Name

steve.morris@morcorengineering.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

JANUARY 9, 2020
Date of Survey

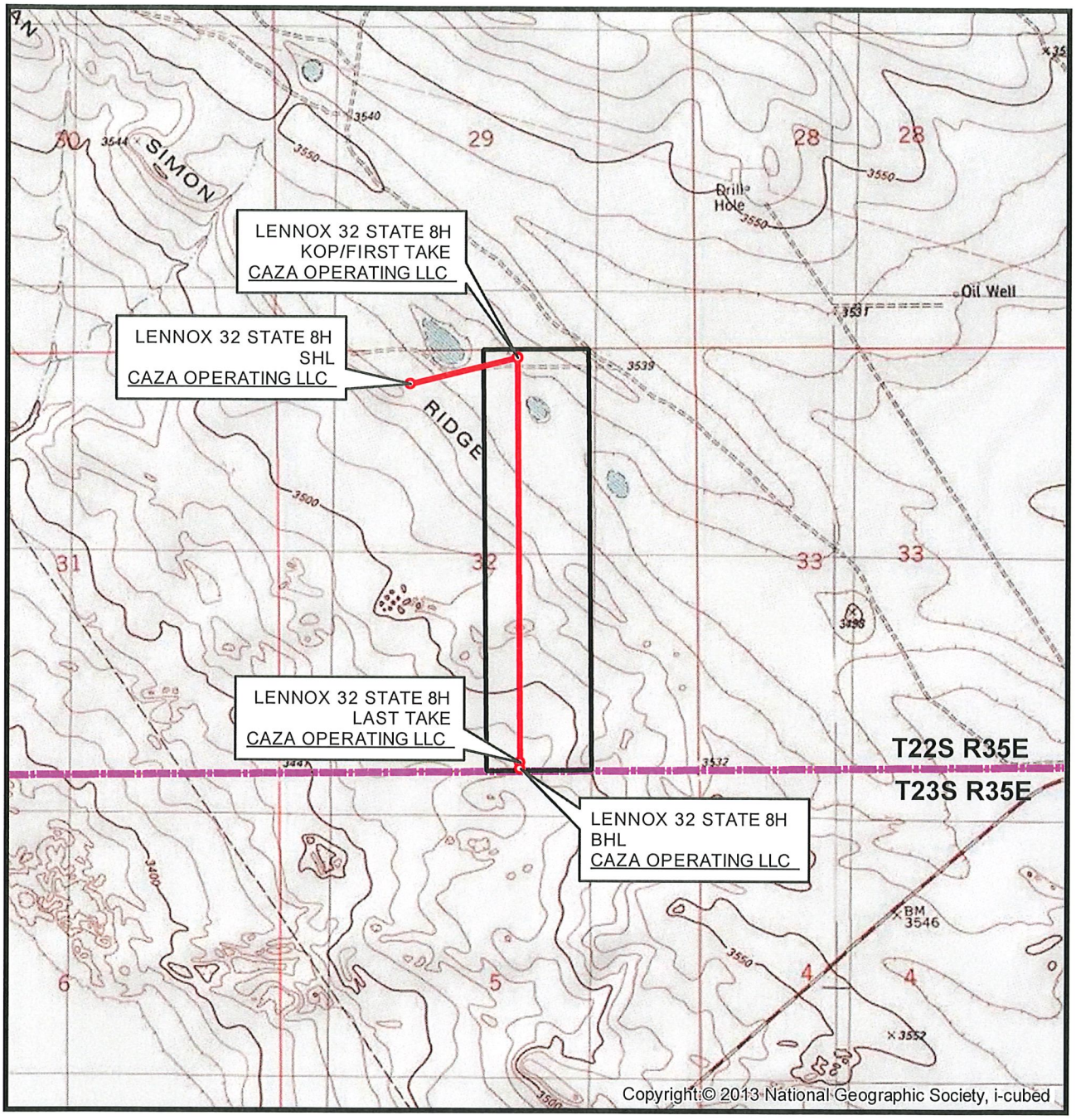
Signature and Seal of Professional Surveyor:

LLOYD P. SHORT NEW MEXICO 21653 PROFESSIONAL SURVEYOR

Certificate Number
LLOYD P. SHORT 21653

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99983935 Convergence: 00°30'07.11000"

LOCATION VERIFICATION MAP



SEC. 32 TWP. 22-S RGE. 35-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: CAZA OPERATING LLC
DESCRIPTION: 422' FNL & 1730' FWL
ELEVATION: 3534'
LEASE: LENNOX 32 STATE
U.S.G.S. TOPOGRAPHIC MAP: SAN SIMON SINK, NM.

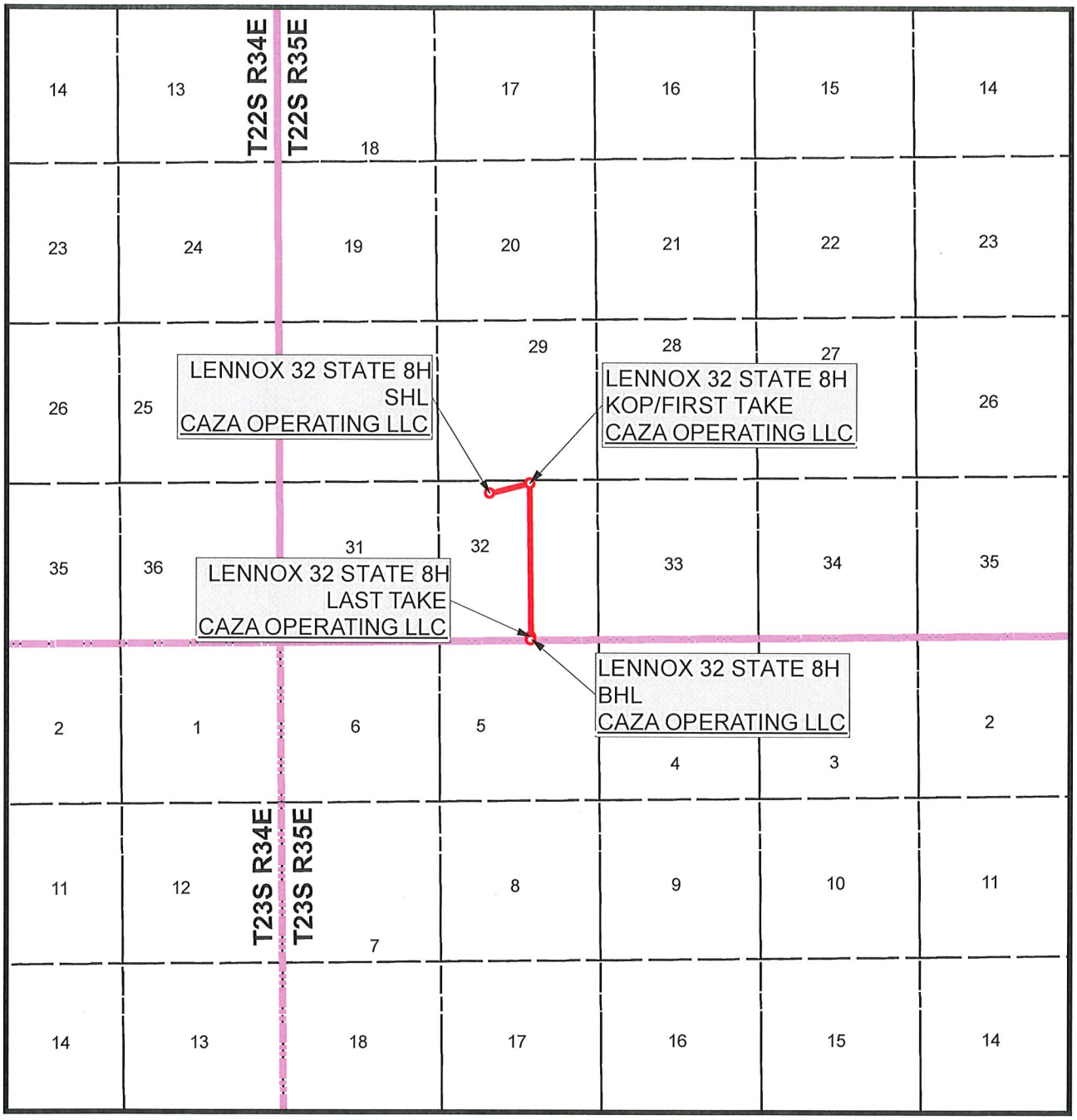
1 " = 2,000 '
CONTOUR INTERVAL = 10'

SHEET 2 OF 3

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE

JOB No. R4017_001_D

VICINITY MAP



SEC. 32 TWP. 22-S RGE. 35-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: CAZA OPERATING LLC
DESCRIPTION: 422' FNL & 1730' FWL
ELEVATION: 3534'
LEASE: LENNOX 32 STATE
U.S.G.S. TOPOGRAPHIC MAP: SAN SIMON SINK, NM.

1 " = 1 MILE

SHEET 3 OF 3

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. R4017_001_D

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form APD Conditions

Permit 328696

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
CAZA OPERATING, LLC [249099] 200 N Loraine St Midland, TX 79701	30-025-50800
	Well: LENNOX 32 STATE #008H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

Caza Petroleum

Caza Operating LLC

Lennox 32 State 8H
Lennox 32 State 8H
Lennox 32 State 8H
Lennox 32 State 8H

Plan: 181029 Lennox 32 State 8H

Morcor Standard Plan

29 October, 2018

MorCor Engineering

Caza Petroleum

Morcor Engineering

Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**Database:**	EDM 5000.1 Single User Db

Project Lennox 32 State 8H

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

Site Lennox 32 State 8H

Site Position:		**Northing:**	494,251.68 usft	**Latitude:**	32° 21' 18.731 N
From:	Lat/Long	**Easting:**	834,173.54 usft	**Longitude:**	103° 23' 6.032 W
Position Uncertainty:	1.0 usft	**Slot Radius:**	17-1/2 "	**Grid Convergence:**	0.51 °

Well Lennox 32 State 8H

Well Position	**+N/-S**	0.0 usft	**Northing:**	494,251.68 usft	**Latitude:**	32° 21' 18.731 N
	+E/-W	0.0 usft	**Easting:**	834,173.54 usft	**Longitude:**	103° 23' 6.032 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,539.0 usft

Wellbore Lennox 32 State 8H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/29/2018	6.59	60.15	47,975

Design 181029 Lennox 32 State 8H

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	188.14

Survey Tool Program **Date** 10/29/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	16,378.0	181029 Lennox 32 State 8H (Lennox 32 S	MWD	MWD - Standard

Caza Petroleum

Morcor Engineering

Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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	-3,561.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
100.0	0.00	276.00	100.0	-3,461.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
120.0	0.00	276.00	120.0	-3,441.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
20" Conductor										
200.0	0.00	276.00	200.0	-3,361.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
300.0	0.00	276.00	300.0	-3,261.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
400.0	0.00	276.00	400.0	-3,161.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
500.0	0.00	276.00	500.0	-3,061.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
600.0	0.00	276.00	600.0	-2,961.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
700.0	0.00	276.00	700.0	-2,861.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
800.0	0.00	276.00	800.0	-2,761.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
900.0	0.00	276.00	900.0	-2,661.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,000.0	0.00	276.00	1,000.0	-2,561.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,100.0	0.00	276.00	1,100.0	-2,461.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,200.0	0.00	276.00	1,200.0	-2,361.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,300.0	0.00	276.00	1,300.0	-2,261.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,400.0	0.00	276.00	1,400.0	-2,161.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,500.0	0.00	276.00	1,500.0	-2,061.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,600.0	0.00	276.00	1,600.0	-1,961.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,700.0	0.00	276.00	1,700.0	-1,861.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,800.0	0.00	276.00	1,800.0	-1,761.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,900.0	0.00	276.00	1,900.0	-1,661.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
1,953.0	0.00	276.00	1,953.0	-1,608.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
Rustler										
1,978.0	0.00	276.00	1,978.0	-1,583.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
13 3/8" Surface Casing										
2,000.0	0.00	276.00	2,000.0	-1,561.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,100.0	0.00	276.00	2,100.0	-1,461.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00

Caza Petroleum

Morcor Engineering

Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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)
2,200.0	0.00	276.00	2,200.0	-1,361.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,300.0	0.00	276.00	2,300.0	-1,261.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,400.0	0.00	276.00	2,400.0	-1,161.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,500.0	0.00	276.00	2,500.0	-1,061.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,528.0	0.00	276.00	2,528.0	-1,033.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
Top of Salt										
2,600.0	0.00	276.00	2,600.0	-961.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,700.0	0.00	276.00	2,700.0	-861.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,800.0	0.00	276.00	2,800.0	-761.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
2,900.0	0.00	276.00	2,900.0	-661.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
3,000.0	0.00	276.00	3,000.0	-561.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
3,100.0	0.00	276.00	3,100.0	-461.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
3,180.0	0.00	276.00	3,180.0	-381.0	0.0	0.0	834,173.54	494,251.68	0.00	0.00
Start Build 3.00										
3,200.0	0.60	276.00	3,200.0	-361.0	0.0	-0.1	834,173.43	494,251.69	0.00	3.00
3,300.0	3.60	276.00	3,299.9	-261.1	0.4	-3.7	834,169.79	494,252.07	0.14	3.00
3,380.0	6.00	276.00	3,379.6	-181.4	1.1	-10.4	834,163.13	494,252.77	0.39	3.00
Start 7280.0 hold at 3380.0 MD										
3,400.0	6.00	276.00	3,399.5	-161.5	1.3	-12.5	834,161.05	494,252.99	0.47	0.00
3,500.0	6.00	276.00	3,499.0	-62.0	2.4	-22.9	834,150.66	494,254.08	0.86	0.00
3,600.0	6.00	276.00	3,598.4	37.4	3.5	-33.3	834,140.26	494,255.17	1.25	0.00
3,700.0	6.00	276.00	3,697.9	136.9	4.6	-43.7	834,129.87	494,256.27	1.64	0.00
3,800.0	6.00	276.00	3,797.3	236.3	5.7	-54.1	834,119.47	494,257.36	2.03	0.00
3,900.0	6.00	276.00	3,896.8	335.8	6.8	-64.5	834,109.07	494,258.45	2.42	0.00
4,000.0	6.00	276.00	3,996.2	435.2	7.9	-74.9	834,098.68	494,259.54	2.81	0.00
4,100.0	6.00	276.00	4,095.7	534.7	9.0	-85.3	834,088.28	494,260.64	3.20	0.00
4,127.5	6.00	276.00	4,123.0	562.0	9.3	-88.1	834,085.43	494,260.94	3.31	0.00
Base of Salt										

Caza Petroleum

Morcor Engineering
Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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)
4,200.0	6.00	276.00	4,195.1	634.1	10.1	-95.6	834,077.89	494,261.73	3.59	0.00
4,300.0	6.00	276.00	4,294.6	733.6	11.1	-106.0	834,067.49	494,262.82	3.99	0.00
4,400.0	6.00	276.00	4,394.0	833.0	12.2	-116.4	834,057.10	494,263.91	4.38	0.00
4,500.0	6.00	276.00	4,493.5	932.5	13.3	-126.8	834,046.70	494,265.01	4.77	0.00
4,600.0	6.00	276.00	4,593.0	1,032.0	14.4	-137.2	834,036.30	494,266.10	5.16	0.00
4,700.0	6.00	276.00	4,692.4	1,131.4	15.5	-147.6	834,025.91	494,267.19	5.55	0.00
4,750.9	6.00	276.00	4,743.0	1,182.0	16.1	-152.9	834,020.62	494,267.75	5.75	0.00
Capitan										
4,800.0	6.00	276.00	4,791.9	1,230.9	16.6	-158.0	834,015.51	494,268.28	5.94	0.00
4,900.0	6.00	276.00	4,891.3	1,330.3	17.7	-168.4	834,005.12	494,269.38	6.33	0.00
5,000.0	6.00	276.00	4,990.8	1,429.8	18.8	-178.8	833,994.72	494,270.47	6.72	0.00
5,100.0	6.00	276.00	5,090.2	1,529.2	19.9	-189.2	833,984.33	494,271.56	7.11	0.00
5,200.0	6.00	276.00	5,189.7	1,628.7	21.0	-199.6	833,973.93	494,272.65	7.50	0.00
5,300.0	6.00	276.00	5,289.1	1,728.1	22.1	-210.0	833,963.54	494,273.75	7.89	0.00
5,400.0	6.00	276.00	5,388.6	1,827.6	23.2	-220.4	833,953.14	494,274.84	8.28	0.00
5,500.0	6.00	276.00	5,488.0	1,927.0	24.3	-230.8	833,942.74	494,275.93	8.67	0.00
5,600.0	6.00	276.00	5,587.5	2,026.5	25.3	-241.2	833,932.35	494,277.03	9.06	0.00
5,700.0	6.00	276.00	5,686.9	2,125.9	26.4	-251.6	833,921.95	494,278.12	9.45	0.00
5,701.1	6.00	276.00	5,688.0	2,127.0	26.5	-251.7	833,921.84	494,278.13	9.46	0.00
9 5/8" Intermediate Casing										
5,726.2	6.00	276.00	5,713.0	2,152.0	26.7	-254.3	833,919.23	494,278.40	9.56	0.00
Delaware										
5,800.0	6.00	276.00	5,786.4	2,225.4	27.5	-262.0	833,911.56	494,279.21	9.85	0.00
5,900.0	6.00	276.00	5,885.8	2,324.8	28.6	-272.4	833,901.16	494,280.30	10.24	0.00
6,000.0	6.00	276.00	5,985.3	2,424.3	29.7	-282.8	833,890.77	494,281.40	10.63	0.00
6,083.2	6.00	276.00	6,068.0	2,507.0	30.6	-291.4	833,882.12	494,282.30	10.95	0.00
Cherry Canyon										

Caza Petroleum

Morcor Engineering
Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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)
6,100.0	6.00	276.00	6,084.7	2,523.7	30.8	-293.2	833,880.37	494,282.49	11.02	0.00
6,200.0	6.00	276.00	6,184.2	2,623.2	31.9	-303.6	833,869.98	494,283.58	11.41	0.00
6,300.0	6.00	276.00	6,283.6	2,722.6	33.0	-314.0	833,859.58	494,284.67	11.80	0.00
6,400.0	6.00	276.00	6,383.1	2,822.1	34.1	-324.4	833,849.18	494,285.77	12.19	0.00
6,500.0	6.00	276.00	6,482.5	2,921.5	35.2	-334.7	833,838.79	494,286.86	12.58	0.00
6,600.0	6.00	276.00	6,582.0	3,021.0	36.3	-345.1	833,828.39	494,287.95	12.97	0.00
6,700.0	6.00	276.00	6,681.4	3,120.4	37.4	-355.5	833,818.00	494,289.04	13.36	0.00
6,800.0	6.00	276.00	6,780.9	3,219.9	38.5	-365.9	833,807.60	494,290.14	13.75	0.00
6,900.0	6.00	276.00	6,880.4	3,319.4	39.6	-376.3	833,797.21	494,291.23	14.14	0.00
7,000.0	6.00	276.00	6,979.8	3,418.8	40.6	-386.7	833,786.81	494,292.32	14.53	0.00
7,100.0	6.00	276.00	7,079.3	3,518.3	41.7	-397.1	833,776.42	494,293.41	14.92	0.00
7,200.0	6.00	276.00	7,178.7	3,617.7	42.8	-407.5	833,766.02	494,294.51	15.31	0.00
7,300.0	6.00	276.00	7,278.2	3,717.2	43.9	-417.9	833,755.62	494,295.60	15.71	0.00
7,400.0	6.00	276.00	7,377.6	3,816.6	45.0	-428.3	833,745.23	494,296.69	16.10	0.00
7,445.6	6.00	276.00	7,423.0	3,862.0	45.5	-433.1	833,740.48	494,297.19	16.27	0.00
Brushy Canyon										
7,500.0	6.00	276.00	7,477.1	3,916.1	46.1	-438.7	833,734.83	494,297.79	16.49	0.00
7,600.0	6.00	276.00	7,576.5	4,015.5	47.2	-449.1	833,724.44	494,298.88	16.88	0.00
7,700.0	6.00	276.00	7,676.0	4,115.0	48.3	-459.5	833,714.04	494,299.97	17.27	0.00
7,800.0	6.00	276.00	7,775.4	4,214.4	49.4	-469.9	833,703.65	494,301.06	17.66	0.00
7,900.0	6.00	276.00	7,874.9	4,313.9	50.5	-480.3	833,693.25	494,302.16	18.05	0.00
8,000.0	6.00	276.00	7,974.3	4,413.3	51.6	-490.7	833,682.86	494,303.25	18.44	0.00
8,100.0	6.00	276.00	8,073.8	4,512.8	52.7	-501.1	833,672.46	494,304.34	18.83	0.00
8,200.0	6.00	276.00	8,173.2	4,612.2	53.8	-511.5	833,662.06	494,305.43	19.22	0.00
8,300.0	6.00	276.00	8,272.7	4,711.7	54.9	-521.9	833,651.67	494,306.53	19.61	0.00
8,400.0	6.00	276.00	8,372.1	4,811.1	55.9	-532.3	833,641.27	494,307.62	20.00	0.00
8,500.0	6.00	276.00	8,471.6	4,910.6	57.0	-542.7	833,630.88	494,308.71	20.39	0.00

Caza Petroleum

Morcor Engineering
Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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	6.00	276.00	8,571.0	5,010.0	58.1	-553.1	833,620.48	494,309.80	20.78	0.00
8,700.0	6.00	276.00	8,670.5	5,109.5	59.2	-563.5	833,610.09	494,310.90	21.17	0.00
8,788.0	6.00	276.00	8,758.0	5,197.0	60.2	-572.6	833,600.94	494,311.86	21.52	0.00
Bone Spring										
8,800.0	6.00	276.00	8,769.9	5,208.9	60.3	-573.8	833,599.69	494,311.99	21.56	0.00
8,900.0	6.00	276.00	8,869.4	5,308.4	61.4	-584.2	833,589.29	494,313.08	21.96	0.00
9,000.0	6.00	276.00	8,968.8	5,407.8	62.5	-594.6	833,578.90	494,314.17	22.35	0.00
9,100.0	6.00	276.00	9,068.3	5,507.3	63.6	-605.0	833,568.50	494,315.27	22.74	0.00
9,200.0	6.00	276.00	9,167.8	5,606.8	64.7	-615.4	833,558.11	494,316.36	23.13	0.00
9,300.0	6.00	276.00	9,267.2	5,706.2	65.8	-625.8	833,547.71	494,317.45	23.52	0.00
9,400.0	6.00	276.00	9,366.7	5,805.7	66.9	-636.2	833,537.32	494,318.54	23.91	0.00
9,500.0	6.00	276.00	9,466.1	5,905.1	68.0	-646.6	833,526.92	494,319.64	24.30	0.00
9,600.0	6.00	276.00	9,565.6	6,004.6	69.1	-657.0	833,516.53	494,320.73	24.69	0.00
9,700.0	6.00	276.00	9,665.0	6,104.0	70.1	-667.4	833,506.13	494,321.82	25.08	0.00
9,800.0	6.00	276.00	9,764.5	6,203.5	71.2	-677.8	833,495.73	494,322.92	25.47	0.00
9,813.6	6.00	276.00	9,778.0	6,217.0	71.4	-679.2	833,494.32	494,323.06	25.52	0.00
1st Bone Spring Sand										
9,900.0	6.00	276.00	9,863.9	6,302.9	72.3	-688.2	833,485.34	494,324.01	25.86	0.00
10,000.0	6.00	276.00	9,963.4	6,402.4	73.4	-698.6	833,474.94	494,325.10	26.25	0.00
10,100.0	6.00	276.00	10,062.8	6,501.8	74.5	-709.0	833,464.55	494,326.19	26.64	0.00
10,200.0	6.00	276.00	10,162.3	6,601.3	75.6	-719.4	833,454.15	494,327.29	27.03	0.00
10,300.0	6.00	276.00	10,261.7	6,700.7	76.7	-729.8	833,443.76	494,328.38	27.42	0.00
10,391.8	6.00	276.00	10,353.0	6,792.0	77.7	-739.3	833,434.22	494,329.38	27.78	0.00
2nd Bone Spring Sand										
10,400.0	6.00	276.00	10,361.2	6,800.2	77.8	-740.2	833,433.36	494,329.47	27.82	0.00
10,500.0	6.00	276.00	10,460.6	6,899.6	78.9	-750.6	833,422.97	494,330.56	28.21	0.00
10,600.0	6.00	276.00	10,560.1	6,999.1	80.0	-761.0	833,412.57	494,331.66	28.60	0.00

Caza Petroleum

Morcor Engineering
Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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)
10,660.0	6.00	276.00	10,619.8	7,058.8	80.6	-767.2	833,406.33	494,332.31	28.83	0.00
Start Drop -3.00										
10,700.0	4.80	276.00	10,659.6	7,098.6	81.0	-770.9	833,402.59	494,332.71	28.97	3.00
10,800.0	1.80	276.00	10,759.4	7,198.4	81.6	-776.7	833,396.86	494,333.31	29.19	3.00
10,860.0	0.00	0.00	10,819.4	7,258.4	81.7	-777.6	833,395.93	494,333.41	29.22	3.00
Start 51.0 hold at 10860.0 MD										
10,900.0	0.00	180.00	10,859.4	7,298.4	81.7	-777.6	833,395.93	494,333.41	29.22	0.00
10,911.0	0.00	180.00	10,870.4	7,309.4	81.7	-777.6	833,395.93	494,333.41	29.22	0.00
Start Build 11.23										
11,000.0	9.99	180.00	10,958.9	7,397.9	74.0	-777.6	833,395.93	494,325.66	36.89	11.23
11,100.0	21.22	180.00	11,055.1	7,494.1	47.1	-777.6	833,395.93	494,298.80	63.48	11.23
11,200.0	32.45	180.00	11,144.2	7,583.2	2.0	-777.6	833,395.93	494,253.72	108.10	11.23
11,234.9	36.38	180.00	11,173.0	7,612.0	-17.7	-777.6	833,395.93	494,233.97	127.65	11.23
3rd Bone Spring Sand										
11,300.0	43.68	180.00	11,222.8	7,661.8	-59.5	-777.6	833,395.93	494,192.16	169.05	11.23
11,400.0	54.91	180.00	11,287.9	7,726.9	-135.2	-777.6	833,395.93	494,116.46	243.98	11.23
11,500.0	66.14	180.00	11,337.0	7,776.0	-222.1	-777.6	833,395.93	494,029.54	330.02	11.23
11,600.0	77.37	180.00	11,368.3	7,807.3	-317.0	-777.6	833,395.93	493,934.72	423.89	11.23
11,700.0	88.60	180.00	11,380.4	7,819.4	-416.0	-777.6	833,395.93	493,835.63	521.98	11.23
11,711.0	89.84	180.00	11,380.6	7,819.6	-427.0	-777.6	833,395.93	493,824.63	532.87	11.23
Start DLS 0.03 TFO -85.24										
11,800.0	89.84	179.98	11,380.8	7,819.8	-516.0	-777.6	833,395.95	493,735.63	620.97	0.03
11,900.0	89.84	179.95	11,381.1	7,820.1	-616.0	-777.5	833,396.01	493,635.63	719.96	0.03
12,000.0	89.85	179.93	11,381.4	7,820.4	-716.0	-777.4	833,396.11	493,535.63	818.93	0.03
12,100.0	89.85	179.90	11,381.6	7,820.6	-816.0	-777.3	833,396.27	493,435.63	917.90	0.03
12,200.0	89.85	179.87	11,381.9	7,820.9	-916.0	-777.1	833,396.46	493,335.63	1,016.87	0.03
12,300.0	89.85	179.85	11,382.2	7,821.2	-1,016.0	-776.8	833,396.71	493,235.63	1,115.82	0.03
12,400.0	89.85	179.82	11,382.4	7,821.4	-1,116.0	-776.5	833,396.99	493,135.63	1,214.77	0.03

Caza Petroleum

Morcor Engineering
Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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)
12,500.0	89.86	179.80	11,382.7	7,821.7	-1,216.0	-776.2	833,397.32	493,035.63	1,313.72	0.03
12,600.0	89.86	179.77	11,382.9	7,821.9	-1,316.0	-775.8	833,397.70	492,935.63	1,412.65	0.03
12,700.0	89.86	179.75	11,383.2	7,822.2	-1,416.0	-775.4	833,398.12	492,835.63	1,511.59	0.03
12,800.0	89.86	179.72	11,383.4	7,822.4	-1,516.0	-774.9	833,398.59	492,735.64	1,610.51	0.03
12,900.0	89.87	179.69	11,383.6	7,822.6	-1,616.0	-774.4	833,399.10	492,635.64	1,709.43	0.03
13,000.0	89.87	179.67	11,383.9	7,822.9	-1,716.0	-773.9	833,399.66	492,535.64	1,808.34	0.03
13,100.0	89.87	179.64	11,384.1	7,823.1	-1,816.0	-773.3	833,400.26	492,435.64	1,907.25	0.03
13,200.0	89.87	179.62	11,384.3	7,823.3	-1,916.0	-772.6	833,400.90	492,335.64	2,006.14	0.03
13,300.0	89.87	179.59	11,384.6	7,823.6	-2,016.0	-771.9	833,401.59	492,235.65	2,105.04	0.03
13,400.0	89.88	179.57	11,384.8	7,823.8	-2,116.0	-771.2	833,402.33	492,135.65	2,203.92	0.03
13,500.0	89.88	179.54	11,385.0	7,824.0	-2,216.0	-770.4	833,403.11	492,035.65	2,302.80	0.03
13,600.0	89.88	179.51	11,385.2	7,824.2	-2,316.0	-769.6	833,403.93	491,935.66	2,401.67	0.03
13,700.0	89.88	179.49	11,385.4	7,824.4	-2,416.0	-768.7	833,404.80	491,835.66	2,500.53	0.03
13,800.0	89.88	179.46	11,385.6	7,824.6	-2,516.0	-767.8	833,405.72	491,735.66	2,599.39	0.03
13,900.0	89.89	179.44	11,385.8	7,824.8	-2,616.0	-766.9	833,406.68	491,635.67	2,698.24	0.03
14,000.0	89.89	179.41	11,386.0	7,825.0	-2,716.0	-765.9	833,407.68	491,535.67	2,797.09	0.03
14,100.0	89.89	179.39	11,386.2	7,825.2	-2,816.0	-764.8	833,408.73	491,435.68	2,895.93	0.03
14,200.0	89.89	179.36	11,386.4	7,825.4	-2,916.0	-763.7	833,409.83	491,335.69	2,994.76	0.03
14,300.0	89.90	179.33	11,386.6	7,825.6	-3,016.0	-762.6	833,410.97	491,235.69	3,093.58	0.03
14,400.0	89.90	179.31	11,386.7	7,825.7	-3,116.0	-761.4	833,412.15	491,135.70	3,192.40	0.03
14,500.0	89.90	179.28	11,386.9	7,825.9	-3,216.0	-760.2	833,413.38	491,035.71	3,291.21	0.03
14,600.0	89.90	179.26	11,387.1	7,826.1	-3,316.0	-758.9	833,414.65	490,935.72	3,390.01	0.03
14,700.0	89.90	179.23	11,387.3	7,826.3	-3,416.0	-757.6	833,415.97	490,835.72	3,488.81	0.03
14,800.0	89.91	179.21	11,387.4	7,826.4	-3,515.9	-756.2	833,417.34	490,735.73	3,587.60	0.03
14,900.0	89.91	179.18	11,387.6	7,826.6	-3,615.9	-754.8	833,418.75	490,635.74	3,686.38	0.03
15,000.0	89.91	179.15	11,387.8	7,826.8	-3,715.9	-753.3	833,420.20	490,535.75	3,785.16	0.03
15,100.0	89.91	179.13	11,387.9	7,826.9	-3,815.9	-751.8	833,421.70	490,435.77	3,883.93	0.03

Caza Petroleum

Morcor Engineering

Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**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)
15,200.0	89.91	179.10	11,388.1	7,827.1	-3,915.9	-750.3	833,423.24	490,335.78	3,982.69	0.03
15,300.0	89.92	179.08	11,388.2	7,827.2	-4,015.9	-748.7	833,424.83	490,235.79	4,081.44	0.03
15,400.0	89.92	179.05	11,388.3	7,827.3	-4,115.9	-747.1	833,426.46	490,135.80	4,180.19	0.03
15,500.0	89.92	179.03	11,388.5	7,827.5	-4,215.9	-745.4	833,428.14	490,035.82	4,278.93	0.03
15,600.0	89.92	179.00	11,388.6	7,827.6	-4,315.8	-743.7	833,429.86	489,935.83	4,377.66	0.03
15,700.0	89.93	178.97	11,388.8	7,827.8	-4,415.8	-741.9	833,431.63	489,835.85	4,476.39	0.03
15,800.0	89.93	178.95	11,388.9	7,827.9	-4,515.8	-740.1	833,433.44	489,735.87	4,575.11	0.03
15,900.0	89.93	178.92	11,389.0	7,828.0	-4,615.8	-738.2	833,435.30	489,635.88	4,673.82	0.03
16,000.0	89.93	178.90	11,389.1	7,828.1	-4,715.8	-736.3	833,437.20	489,535.90	4,772.52	0.03
16,100.0	89.93	178.87	11,389.2	7,828.2	-4,815.8	-734.4	833,439.15	489,435.92	4,871.22	0.03
16,200.0	89.94	178.85	11,389.4	7,828.4	-4,915.7	-732.4	833,441.14	489,335.94	4,969.91	0.03
16,300.0	89.94	178.82	11,389.5	7,828.5	-5,015.7	-730.4	833,443.18	489,235.96	5,068.60	0.03
16,378.0	89.94	178.80	11,389.5	7,828.5	-5,093.7	-728.7	833,444.80	489,157.98	5,145.56	0.03

TD at 16378.0 - 5 1/2" Production Casing

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
120.0	120.0	20" Conductor	20	26
1,978.0	1,978.0	13 3/8" Surface Casing	13-3/8	17-1/2
5,701.1	5,688.0	9 5/8" Intermediate Casing	9-5/8	12-1/4
16,378.0	11,389.5	5 1/2" Production Casing	5-1/2	8-3/4

Caza Petroleum

Morcor Engineering
Morcor Standard Plan

MORCOR ENGINEERING

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Lennox 32 State 8H
Project:	Lennox 32 State 8H	**TVD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Site:	Lennox 32 State 8H	**MD Reference:**	WELL @ 3561.0usft (Original Well Elev)
Well:	Lennox 32 State 8H	**North Reference:**	Grid
Wellbore:	Lennox 32 State 8H	**Survey Calculation Method:**	Minimum Curvature
Design:	181029 Lennox 32 State 8H	**Database:**	EDM 5000.1 Single User Db

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,083.2	6,068.0	Cherry Canyon		0.00	
10,391.8	10,353.0	2nd Bone Spring Sand		0.00	
2,528.0	2,528.0	Top of Salt		0.00	
4,127.5	4,123.0	Base of Salt		0.00	
1,953.0	1,953.0	Rustler		0.00	
5,726.2	5,713.0	Delaware		0.00	
8,788.0	8,758.0	Bone Spring		0.00	
4,750.9	4,743.0	Capitan		0.00	
9,813.6	9,778.0	1st Bone Spring Sand		0.00	
7,445.6	7,423.0	Brushy Canyon		0.00	
11,234.9	11,173.0	3rd Bone Spring Sand		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,180.0	3,180.0	0.0	0.0	Start Build 3.00
3,380.0	3,379.6	1.1	-10.4	Start 7280.0 hold at 3380.0 MD
10,660.0	10,619.8	80.6	-767.2	Start Drop -3.00
10,860.0	10,819.4	81.7	-777.6	Start 51.0 hold at 10860.0 MD
10,911.0	10,870.4	81.7	-777.6	Start Build 11.23
11,711.0	11,380.6	-427.0	-777.6	Start DLS 0.03 TFO -85.24
16,378.0	11,389.5	-5,093.7	-728.7	TD at 16378.0

Checked By: _____ Approved By: _____ Date: _____

Caza Oil and Gas, Inc

H2S Drilling Operations Plan

Prepared by: Steve Morris

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

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.

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Caza Operating LLC **OGRID:** 249099 **Date:** 11/4/2022

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Lennox 32 State 8H		C-32-22S-35E	422'FNL 1730'FWL	500	1000	700

IV. Central Delivery Point Name: Lennox CTB [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Lennox 32 State 8H		01/15/2023	02/15/2023	03/01/2023	03/07/2023	03/14/2023

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

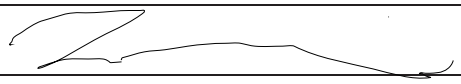
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature: 
Printed Name: Steve Morris
Title: Engineer
E-mail Address: steve.morris@morcorengineering.com
Date: 11/4/2022
Phone: 985-415-9729

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

Natural Gas Management Plan
Items VI-VIII

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

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid – Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

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

Drilling Operations

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

Production Operations

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 Mcfd.

Measurement & Estimation

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses with be installed.

- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

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

- During downhole well maintenance,Caza will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.