

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 276540

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

1. Operator Name and Address COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701		2. OGRID Number 229137
		3. API Number 30-015-46599
4. Property Code 38521	5. Property Name MYOX 21 STATE COM	6. Well No. 701H

7. Surface Location

UL - Lot A	Section 28	Township 25S	Range 28E	Lot Idn	Feet From 245	N/S Line N	Feet From 925	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot A	Section 16	Township 25S	Range 28E	Lot Idn A	Feet From 200	N/S Line N	Feet From 330	E/W Line E	County Eddy
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9. Pool Information

PURPLE SAGE;WOLFCAMP (GAS)	98220
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Additional Well Information

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 2958
16. Multiple N	17. Proposed Depth 19856	18. Formation Wolfcamp	19. Contractor	20. Spud Date 2/21/2020
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	650	500	0
Int1	12.25	9.625	40	8700	1450	0
Prod	8.75	5.5	20	19856	3000	8200

Casing/Cement Program: Additional Comments

Drill 17-1/2" hole to ~650' w/ fresh water. Run 13-3/8" 54.5# J-55 BTC casing to TD and cement to surface in one stage. Drill 12-1/4" hole to ~8,700' with cut brine emulsion. Run 9-5/8 40# L-80 BTC to TD and cement to surface in one stage. Drill 8-3/4" vertical hole, curve & lateral to 19856' with OBM. Run 5-1/2" 20# P110 BTC casing from TD to surface and cement to 8200' in one stage.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

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:

Printed Name: Electronically filed by Diane Kuykendall

Title: Production Accounting Director

Email Address: dkuykendall@concho.com

Date: 1/6/2020

Phone: 432-685-4372

OIL CONSERVATION DIVISION

Approved By: Raymond Podany

Title: Geologist

Approved Date: 1/15/2020 Expiration Date: 1/15/2022

Conditions of Approval Attached

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

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number 30-015-	2 Pool Code 98220	3 Pool Name Purple Sage; Wolfcamp
4 Property Code 38521	5 Property Name MYOX 21 STATE COM	6 Well Number 701H
7 OGRID No. 229137	8 Operator Name COG OPERATING LLC	9 Elevation 2958'

¹⁰ Surface Location

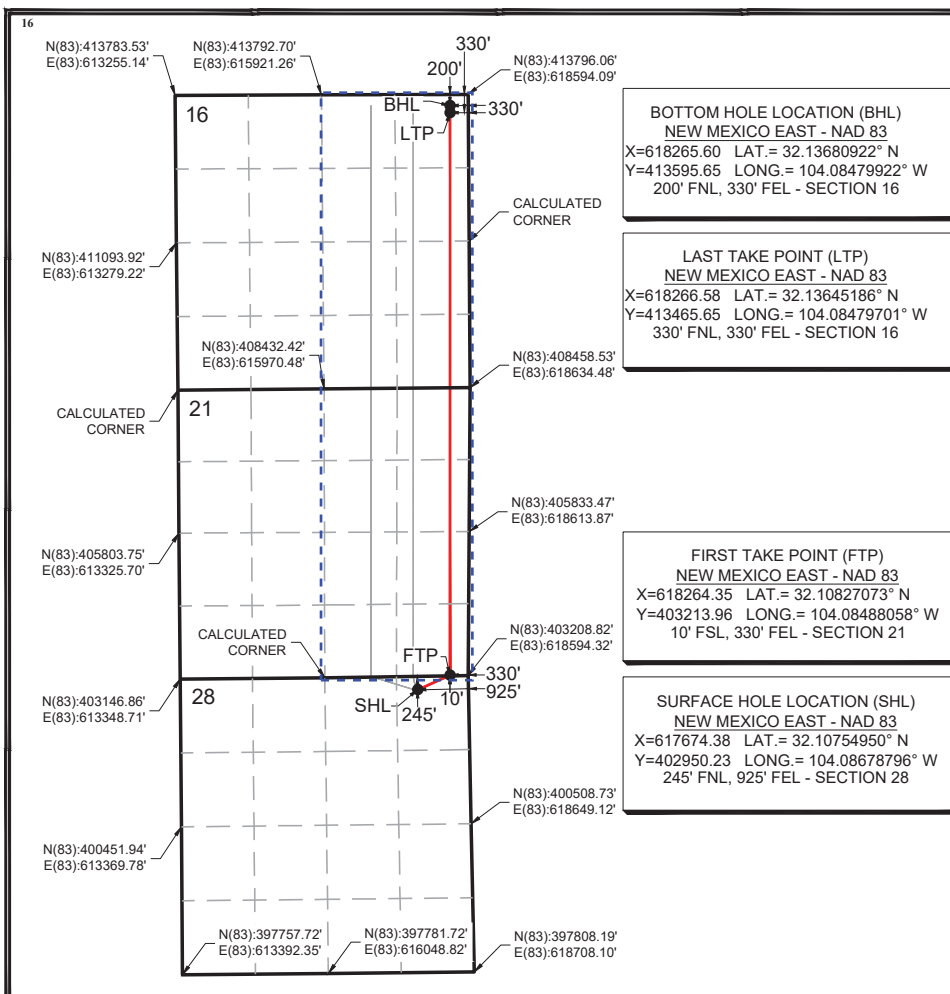
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	25-S	28-E		245'	NORTH	925'	EAST	EDDY

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
A	16	25-S	28-E		200'	NORTH	330'	EAST	EDDY

12 Dedicated Acres 640	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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.

**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] 01/06/2020
Signature Date

Robyn M. Russell

Printed Name

Russell@concho.com

E-mail Address

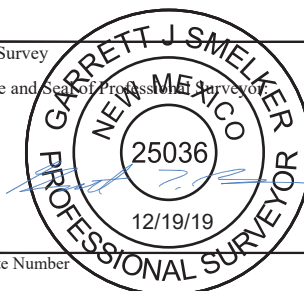
18 SURVEYOR CERTIFICATION

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.

Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number



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GAS CAPTURE PLAN

Date: 1/15/2020

☒ Original

Operator & OGRID No.: [229137] COG OPERATING LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
MYOX 21 STATE COM #701H	30-015-46599	A-28-25S-28E	0245N 0925E	3687	None	Processing Plant Location: Sec 35, Blk 57, T2S, Culberson County, TX

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to ETC Texas Pipeline, Ltd. and will be connected to ETC Texas Pipeline, Ltd. Low Pressure gathering system located in Eddy County, New Mexico. It will require 0' of pipeline to connect the facility to Low Pressure gathering system. COG OPERATING LLC provides (periodically) to ETC Texas Pipeline, Ltd. a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COG OPERATING LLC and ETC Texas Pipeline, Ltd. have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at ETC Texas Pipeline, Ltd. Processing Plant located in Sec. 28, Twn. 25S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on ETC Texas Pipeline, Ltd. system at that time. Based on current information, it is COG OPERATING LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Form APD Comments

Permit 276540

PERMIT COMMENTS

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701		API Number: 30-015-46599
		Well: MYOX 21 STATE COM #701H
Created By	Comment	Comment Date
rodrom	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	1/6/2020

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Form APD Conditions

Permit 276540

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701		API Number: 30-015-46599
		Well: MYOX 21 STATE COM #701H
OCD Reviewer	Condition	
rpodany	Will require a directional survey with the C-104	
rpodany	Cement is required to circulate on both surface and intermediate1 strings of casing	

NORTHERN DELAWARE BASIN

EDDY COUNTY, NM

MYOX 21 ST COM

MYOX 21 ST COM #701H

OWB

Plan: PWP1

Standard Survey Report

06 January, 2020

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well MYOX 21 ST COM #701H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Site:	MYOX 21 ST COM	MD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Well:	MYOX 21 ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	EDDY COUNTY, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	MYOX 21 ST COM		
Site Position:		Northing:	402,887.97 usft
From:	Map	Easting:	576,430.21 usft
Position Uncertainty:	3.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 26.693 N
		Longitude:	104° 5' 11.372 W
		Grid Convergence:	0.13 °

Well	MYOX 21 ST COM #701H		
Well Position	+N/-S	0.0 usft	Northing: 402,892.47 usft
	+E/-W	0.0 usft	Easting: 576,490.13 usft
Position Uncertainty	3.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 6' 26.736 N
		Longitude:	104° 5' 10.675 W
		Ground Level:	2,958.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/9/2019	6.92	59.84	47,563.61619364

Design	PWP1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	0.00

Survey Tool Program	Date	1/6/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	19,856.9	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well MYOX 21 ST COM #701H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Site:	MYOX 21 ST COM	MD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Well:	MYOX 21 ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00	

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well MYOX 21 ST COM #701H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Site:	MYOX 21 ST COM	MD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Well:	MYOX 21 ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
5,600.0	2.00	90.00	5,600.0	0.0	1.7	0.0	2.00	2.00	0.00
5,700.0	4.00	90.00	5,699.8	0.0	7.0	0.0	2.00	2.00	0.00
5,750.0	5.00	90.00	5,749.7	0.0	10.9	0.0	2.00	2.00	0.00
Start 3103.7 hold at 5750.0 MD									
5,800.0	5.00	90.00	5,799.5	0.0	15.3	0.0	0.00	0.00	0.00
5,900.0	5.00	90.00	5,899.1	0.0	24.0	0.0	0.00	0.00	0.00
6,000.0	5.00	90.00	5,998.7	0.0	32.7	0.0	0.00	0.00	0.00
6,100.0	5.00	90.00	6,098.4	0.0	41.4	0.0	0.00	0.00	0.00
6,200.0	5.00	90.00	6,198.0	0.0	50.1	0.0	0.00	0.00	0.00
6,300.0	5.00	90.00	6,297.6	0.0	58.8	0.0	0.00	0.00	0.00
6,400.0	5.00	90.00	6,397.2	0.0	67.6	0.0	0.00	0.00	0.00
6,500.0	5.00	90.00	6,496.8	0.0	76.3	0.0	0.00	0.00	0.00
6,600.0	5.00	90.00	6,596.4	0.0	85.0	0.0	0.00	0.00	0.00
6,700.0	5.00	90.00	6,696.1	0.0	93.7	0.0	0.00	0.00	0.00
6,800.0	5.00	90.00	6,795.7	0.0	102.4	0.0	0.00	0.00	0.00
6,900.0	5.00	90.00	6,895.3	0.0	111.1	0.0	0.00	0.00	0.00
7,000.0	5.00	90.00	6,994.9	0.0	119.8	0.0	0.00	0.00	0.00
7,100.0	5.00	90.00	7,094.5	0.0	128.6	0.0	0.00	0.00	0.00
7,200.0	5.00	90.00	7,194.2	0.0	137.3	0.0	0.00	0.00	0.00
7,300.0	5.00	90.00	7,293.8	0.0	146.0	0.0	0.00	0.00	0.00
7,400.0	5.00	90.00	7,393.4	0.0	154.7	0.0	0.00	0.00	0.00
7,500.0	5.00	90.00	7,493.0	0.0	163.4	0.0	0.00	0.00	0.00
7,600.0	5.00	90.00	7,592.6	0.0	172.1	0.0	0.00	0.00	0.00
7,700.0	5.00	90.00	7,692.3	0.0	180.9	0.0	0.00	0.00	0.00
7,800.0	5.00	90.00	7,791.9	0.0	189.6	0.0	0.00	0.00	0.00
7,900.0	5.00	90.00	7,891.5	0.0	198.3	0.0	0.00	0.00	0.00
8,000.0	5.00	90.00	7,991.1	0.0	207.0	0.0	0.00	0.00	0.00
8,100.0	5.00	90.00	8,090.7	0.0	215.7	0.0	0.00	0.00	0.00
8,200.0	5.00	90.00	8,190.4	0.0	224.4	0.0	0.00	0.00	0.00
8,300.0	5.00	90.00	8,290.0	0.0	233.1	0.0	0.00	0.00	0.00
8,400.0	5.00	90.00	8,389.6	0.0	241.9	0.0	0.00	0.00	0.00
8,500.0	5.00	90.00	8,489.2	0.0	250.6	0.0	0.00	0.00	0.00
8,600.0	5.00	90.00	8,588.8	0.0	259.3	0.0	0.00	0.00	0.00
8,700.0	5.00	90.00	8,688.5	0.0	268.0	0.0	0.00	0.00	0.00
8,800.0	5.00	90.00	8,788.1	0.0	276.7	0.0	0.00	0.00	0.00
8,853.7	5.00	90.00	8,841.6	0.0	281.4	0.0	0.00	0.00	0.00
Start DLS 10.00 TFO -74.27									
8,900.0	7.67	54.45	8,887.6	1.8	285.9	1.8	10.00	5.78	-76.83
9,000.0	16.68	32.11	8,985.3	17.9	299.0	17.9	10.00	9.00	-22.34
9,100.0	26.40	25.55	9,078.2	50.2	316.3	50.2	10.00	9.72	-6.56
9,200.0	36.26	22.38	9,163.5	97.7	337.2	97.7	10.00	9.87	-3.18

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well MYOX 21 ST COM #701H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Site:	MYOX 21 ST COM	MD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Well:	MYOX 21 ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,300.0	46.18	20.42	9,238.7	159.0	361.1	159.0	10.00	9.92	-1.96
9,400.0	56.12	19.03	9,301.3	232.2	387.3	232.2	10.00	9.94	-1.39
9,500.0	66.08	17.93	9,349.6	315.2	415.0	315.2	10.00	9.95	-1.10
9,600.0	76.04	16.99	9,382.0	405.3	443.3	405.3	10.00	9.96	-0.94
9,700.0	86.00	16.12	9,397.6	499.9	471.4	499.9	10.00	9.96	-0.86
9,738.6	89.85	15.80	9,399.0	537.0	482.0	537.0	10.00	9.96	-0.84
Start DLS 2.00 TFO -90.01									
9,800.0	89.85	14.57	9,399.2	596.2	498.1	596.2	2.00	0.00	-2.00
9,900.0	89.85	12.57	9,399.4	693.4	521.5	693.4	2.00	0.00	-2.00
10,000.0	89.85	10.57	9,399.7	791.4	541.6	791.4	2.00	0.00	-2.00
10,100.0	89.85	8.57	9,399.9	890.0	558.2	890.0	2.00	0.00	-2.00
10,200.0	89.85	6.57	9,400.2	989.1	571.4	989.1	2.00	0.00	-2.00
10,300.0	89.85	4.57	9,400.5	1,088.6	581.1	1,088.6	2.00	0.00	-2.00
10,400.0	89.85	2.57	9,400.7	1,188.4	587.3	1,188.4	2.00	0.00	-2.00
10,500.0	89.85	0.57	9,401.0	1,288.4	590.1	1,288.4	2.00	0.00	-2.00
10,528.3	89.85	0.01	9,401.1	1,316.6	590.2	1,316.6	2.00	0.00	-2.00
Start 9328.6 hold at 10528.3 MD									
10,600.0	89.85	0.01	9,401.2	1,388.4	590.2	1,388.4	0.00	0.00	0.00
10,700.0	89.85	0.01	9,401.5	1,488.4	590.3	1,488.4	0.00	0.00	0.00
10,800.0	89.85	0.01	9,401.8	1,588.4	590.3	1,588.4	0.00	0.00	0.00
10,900.0	89.85	0.01	9,402.0	1,688.4	590.3	1,688.4	0.00	0.00	0.00
11,000.0	89.85	0.01	9,402.3	1,788.4	590.3	1,788.4	0.00	0.00	0.00
11,100.0	89.85	0.01	9,402.5	1,888.4	590.3	1,888.4	0.00	0.00	0.00
11,200.0	89.85	0.01	9,402.8	1,988.4	590.3	1,988.4	0.00	0.00	0.00
11,300.0	89.85	0.01	9,403.0	2,088.4	590.3	2,088.4	0.00	0.00	0.00
11,400.0	89.85	0.01	9,403.3	2,188.4	590.3	2,188.4	0.00	0.00	0.00
11,500.0	89.85	0.01	9,403.6	2,288.4	590.4	2,288.4	0.00	0.00	0.00
11,600.0	89.85	0.01	9,403.8	2,388.4	590.4	2,388.4	0.00	0.00	0.00
11,700.0	89.85	0.01	9,404.1	2,488.4	590.4	2,488.4	0.00	0.00	0.00
11,800.0	89.85	0.01	9,404.3	2,588.4	590.4	2,588.4	0.00	0.00	0.00
11,900.0	89.85	0.01	9,404.6	2,688.4	590.4	2,688.4	0.00	0.00	0.00
12,000.0	89.85	0.01	9,404.8	2,788.4	590.4	2,788.4	0.00	0.00	0.00
12,100.0	89.85	0.01	9,405.1	2,888.4	590.4	2,888.4	0.00	0.00	0.00
12,200.0	89.85	0.01	9,405.3	2,988.4	590.4	2,988.4	0.00	0.00	0.00
12,300.0	89.85	0.01	9,405.6	3,088.4	590.5	3,088.4	0.00	0.00	0.00
12,400.0	89.85	0.01	9,405.9	3,188.4	590.5	3,188.4	0.00	0.00	0.00
12,500.0	89.85	0.01	9,406.1	3,288.4	590.5	3,288.4	0.00	0.00	0.00
12,600.0	89.85	0.01	9,406.4	3,388.4	590.5	3,388.4	0.00	0.00	0.00
12,700.0	89.85	0.01	9,406.6	3,488.4	590.5	3,488.4	0.00	0.00	0.00
12,800.0	89.85	0.01	9,406.9	3,588.4	590.5	3,588.4	0.00	0.00	0.00
12,900.0	89.85	0.01	9,407.1	3,688.4	590.5	3,688.4	0.00	0.00	0.00
13,000.0	89.85	0.01	9,407.4	3,788.4	590.5	3,788.4	0.00	0.00	0.00
13,100.0	89.85	0.01	9,407.7	3,888.4	590.6	3,888.4	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well MYOX 21 ST COM #701H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Site:	MYOX 21 ST COM	MD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Well:	MYOX 21 ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,200.0	89.85	0.01	9,407.9	3,988.4	590.6	3,988.4	0.00	0.00	0.00	
13,300.0	89.85	0.01	9,408.2	4,088.4	590.6	4,088.4	0.00	0.00	0.00	
13,400.0	89.85	0.01	9,408.4	4,188.4	590.6	4,188.4	0.00	0.00	0.00	
13,500.0	89.85	0.01	9,408.7	4,288.4	590.6	4,288.4	0.00	0.00	0.00	
13,600.0	89.85	0.01	9,408.9	4,388.4	590.6	4,388.4	0.00	0.00	0.00	
13,700.0	89.85	0.01	9,409.2	4,488.4	590.6	4,488.4	0.00	0.00	0.00	
13,800.0	89.85	0.01	9,409.5	4,588.4	590.7	4,588.4	0.00	0.00	0.00	
13,900.0	89.85	0.01	9,409.7	4,688.4	590.7	4,688.4	0.00	0.00	0.00	
14,000.0	89.85	0.01	9,410.0	4,788.4	590.7	4,788.4	0.00	0.00	0.00	
14,100.0	89.85	0.01	9,410.2	4,888.3	590.7	4,888.3	0.00	0.00	0.00	
14,200.0	89.85	0.01	9,410.5	4,988.3	590.7	4,988.3	0.00	0.00	0.00	
14,300.0	89.85	0.01	9,410.7	5,088.3	590.7	5,088.3	0.00	0.00	0.00	
14,400.0	89.85	0.01	9,411.0	5,188.3	590.7	5,188.3	0.00	0.00	0.00	
14,500.0	89.85	0.01	9,411.3	5,288.3	590.7	5,288.3	0.00	0.00	0.00	
14,600.0	89.85	0.01	9,411.5	5,388.3	590.8	5,388.3	0.00	0.00	0.00	
14,700.0	89.85	0.01	9,411.8	5,488.3	590.8	5,488.3	0.00	0.00	0.00	
14,800.0	89.85	0.01	9,412.0	5,588.3	590.8	5,588.3	0.00	0.00	0.00	
14,900.0	89.85	0.01	9,412.3	5,688.3	590.8	5,688.3	0.00	0.00	0.00	
15,000.0	89.85	0.01	9,412.5	5,788.3	590.8	5,788.3	0.00	0.00	0.00	
15,100.0	89.85	0.01	9,412.8	5,888.3	590.8	5,888.3	0.00	0.00	0.00	
15,200.0	89.85	0.01	9,413.0	5,988.3	590.8	5,988.3	0.00	0.00	0.00	
15,300.0	89.85	0.01	9,413.3	6,088.3	590.8	6,088.3	0.00	0.00	0.00	
15,400.0	89.85	0.01	9,413.6	6,188.3	590.9	6,188.3	0.00	0.00	0.00	
15,500.0	89.85	0.01	9,413.8	6,288.3	590.9	6,288.3	0.00	0.00	0.00	
15,600.0	89.85	0.01	9,414.1	6,388.3	590.9	6,388.3	0.00	0.00	0.00	
15,700.0	89.85	0.01	9,414.3	6,488.3	590.9	6,488.3	0.00	0.00	0.00	
15,800.0	89.85	0.01	9,414.6	6,588.3	590.9	6,588.3	0.00	0.00	0.00	
15,900.0	89.85	0.01	9,414.8	6,688.3	590.9	6,688.3	0.00	0.00	0.00	
16,000.0	89.85	0.01	9,415.1	6,788.3	590.9	6,788.3	0.00	0.00	0.00	
16,100.0	89.85	0.01	9,415.4	6,888.3	590.9	6,888.3	0.00	0.00	0.00	
16,200.0	89.85	0.01	9,415.6	6,988.3	591.0	6,988.3	0.00	0.00	0.00	
16,300.0	89.85	0.01	9,415.9	7,088.3	591.0	7,088.3	0.00	0.00	0.00	
16,400.0	89.85	0.01	9,416.1	7,188.3	591.0	7,188.3	0.00	0.00	0.00	
16,500.0	89.85	0.01	9,416.4	7,288.3	591.0	7,288.3	0.00	0.00	0.00	
16,600.0	89.85	0.01	9,416.6	7,388.3	591.0	7,388.3	0.00	0.00	0.00	
16,700.0	89.85	0.01	9,416.9	7,488.3	591.0	7,488.3	0.00	0.00	0.00	
16,800.0	89.85	0.01	9,417.2	7,588.3	591.0	7,588.3	0.00	0.00	0.00	
16,900.0	89.85	0.01	9,417.4	7,688.3	591.1	7,688.3	0.00	0.00	0.00	
17,000.0	89.85	0.01	9,417.7	7,788.3	591.1	7,788.3	0.00	0.00	0.00	
17,100.0	89.85	0.01	9,417.9	7,888.3	591.1	7,888.3	0.00	0.00	0.00	
17,200.0	89.85	0.01	9,418.2	7,988.3	591.1	7,988.3	0.00	0.00	0.00	
17,300.0	89.85	0.01	9,418.4	8,088.3	591.1	8,088.3	0.00	0.00	0.00	
17,400.0	89.85	0.01	9,418.7	8,188.3	591.1	8,188.3	0.00	0.00	0.00	
17,500.0	89.85	0.01	9,419.0	8,288.3	591.1	8,288.3	0.00	0.00	0.00	

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well MYOX 21 ST COM #701H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Site:	MYOX 21 ST COM	MD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Well:	MYOX 21 ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,600.0	89.85	0.01	9,419.2	8,388.3	591.1	8,388.3	0.00	0.00	0.00
17,700.0	89.85	0.01	9,419.5	8,488.3	591.2	8,488.3	0.00	0.00	0.00
17,800.0	89.85	0.01	9,419.7	8,588.3	591.2	8,588.3	0.00	0.00	0.00
17,900.0	89.85	0.01	9,420.0	8,688.3	591.2	8,688.3	0.00	0.00	0.00
18,000.0	89.85	0.01	9,420.2	8,788.3	591.2	8,788.3	0.00	0.00	0.00
18,100.0	89.85	0.01	9,420.5	8,888.3	591.2	8,888.3	0.00	0.00	0.00
18,200.0	89.85	0.01	9,420.7	8,988.3	591.2	8,988.3	0.00	0.00	0.00
18,300.0	89.85	0.01	9,421.0	9,088.3	591.2	9,088.3	0.00	0.00	0.00
18,400.0	89.85	0.01	9,421.3	9,188.3	591.2	9,188.3	0.00	0.00	0.00
18,500.0	89.85	0.01	9,421.5	9,288.3	591.3	9,288.3	0.00	0.00	0.00
18,600.0	89.85	0.01	9,421.8	9,388.3	591.3	9,388.3	0.00	0.00	0.00
18,700.0	89.85	0.01	9,422.0	9,488.3	591.3	9,488.3	0.00	0.00	0.00
18,800.0	89.85	0.01	9,422.3	9,588.3	591.3	9,588.3	0.00	0.00	0.00
18,900.0	89.85	0.01	9,422.5	9,688.3	591.3	9,688.3	0.00	0.00	0.00
19,000.0	89.85	0.01	9,422.8	9,788.3	591.3	9,788.3	0.00	0.00	0.00
19,100.0	89.85	0.01	9,423.1	9,888.3	591.3	9,888.3	0.00	0.00	0.00
19,200.0	89.85	0.01	9,423.3	9,988.3	591.3	9,988.3	0.00	0.00	0.00
19,300.0	89.85	0.01	9,423.6	10,088.3	591.4	10,088.3	0.00	0.00	0.00
19,400.0	89.85	0.01	9,423.8	10,188.3	591.4	10,188.3	0.00	0.00	0.00
19,500.0	89.85	0.01	9,424.1	10,288.3	591.4	10,288.3	0.00	0.00	0.00
19,600.0	89.85	0.01	9,424.3	10,388.3	591.4	10,388.3	0.00	0.00	0.00
19,700.0	89.85	0.01	9,424.6	10,488.3	591.4	10,488.3	0.00	0.00	0.00
19,800.0	89.85	0.01	9,424.9	10,588.3	591.4	10,588.3	0.00	0.00	0.00
19,856.9	89.85	0.01	9,425.0	10,645.2	591.4	10,645.2	0.00	0.00	0.00
TD at 19856.9									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (MYOX 21 ST CC - hit/miss target - Shape - plan misses target center by 187.6usft at 9519.2usft MD (9357.1 TVD, 332.0 N, 420.4 E) - Circle (radius 50.0)	0.00	0.00	9,399.0	263.7	590.0	403,156.18	577,080.09	32° 6' 29.332 N	104° 5' 3.809 W
LTP (MYOX 21 ST CC - plan misses target center by 1.0usft at 19726.9usft MD (9424.7 TVD, 10515.2 N, 591.4 E) - Point	0.00	0.00	9,424.7	10,515.2	592.4	413,407.67	577,082.54	32° 8' 10.786 N	104° 5' 3.505 W
PBHL (MYOX 21 ST C - plan hits target center - Rectangle (sides W100.0 H10,381.5 D20.0)	-0.15	180.00	9,425.0	10,645.2	591.4	413,537.67	577,081.56	32° 8' 12.072 N	104° 5' 3.513 W

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well MYOX 21 ST COM #701H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Site:	MYOX 21 ST COM	MD Reference:	KB=27' @ 2985.0usft (SCAN FREEDOM)
Well:	MYOX 21 ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5500	5500	0	0	Start Build 2.00
5750	5750	0	11	Start 3103.7 hold at 5750.0 MD
8854	8842	0	281	Start DLS 10.00 TFO -74.27
9739	9399	537	482	Start DLS 2.00 TFO -90.01
10,528	9401	1317	590	Start 9328.6 hold at 10528.3 MD
19,857	9425	10,645	591	TD at 19856.9

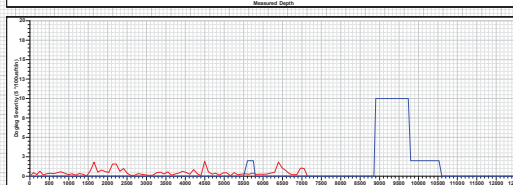
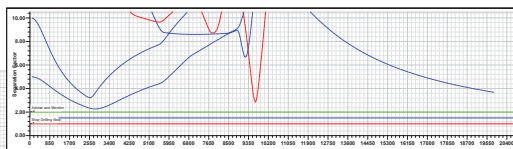
Checked By: _____ Approved By: _____ Date: _____



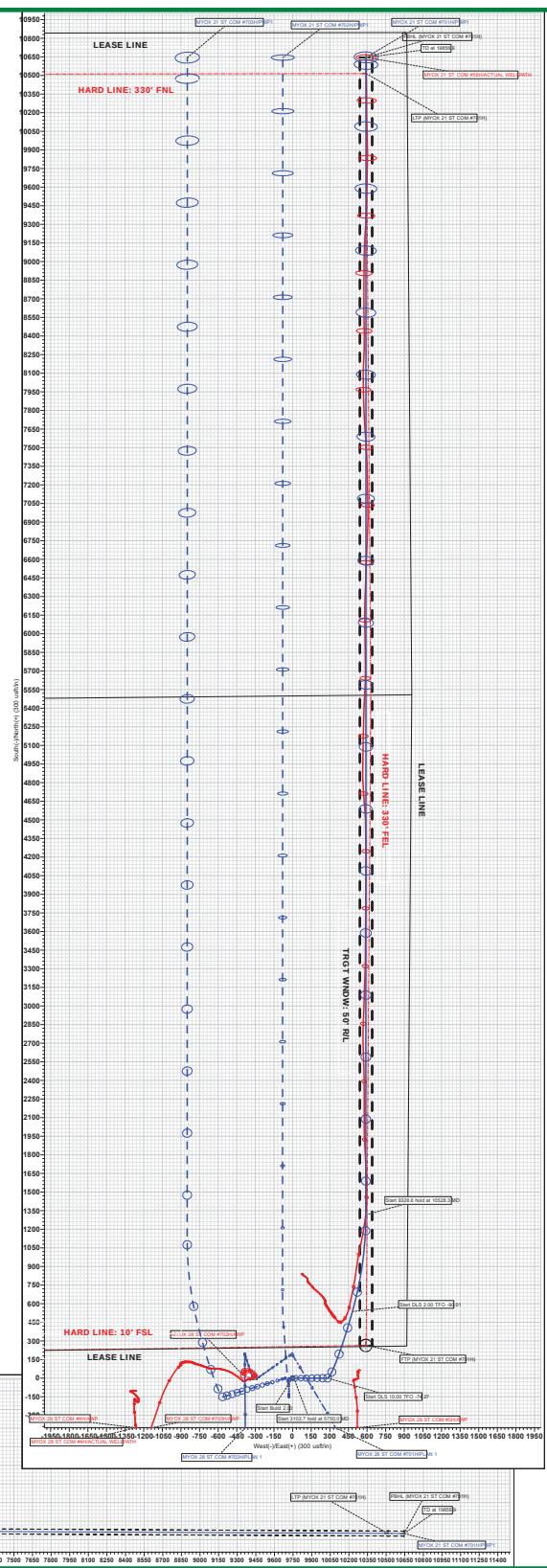
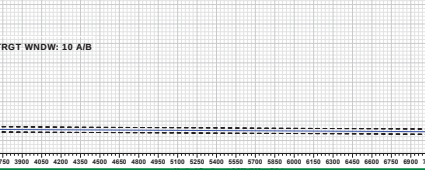
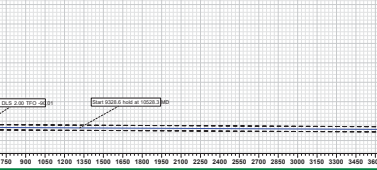
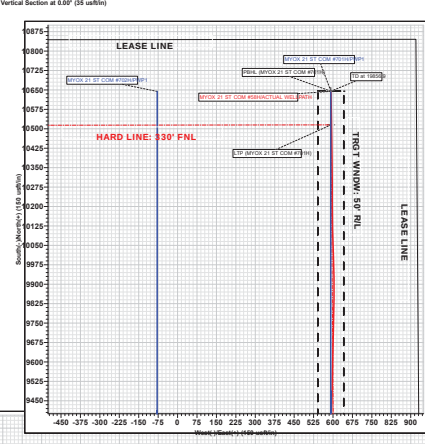
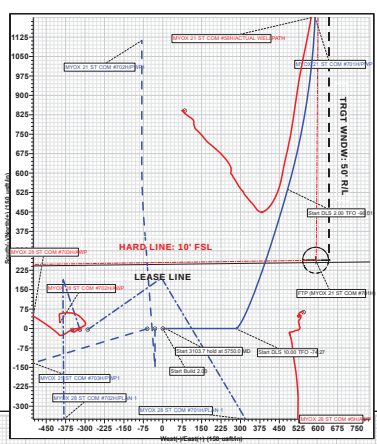
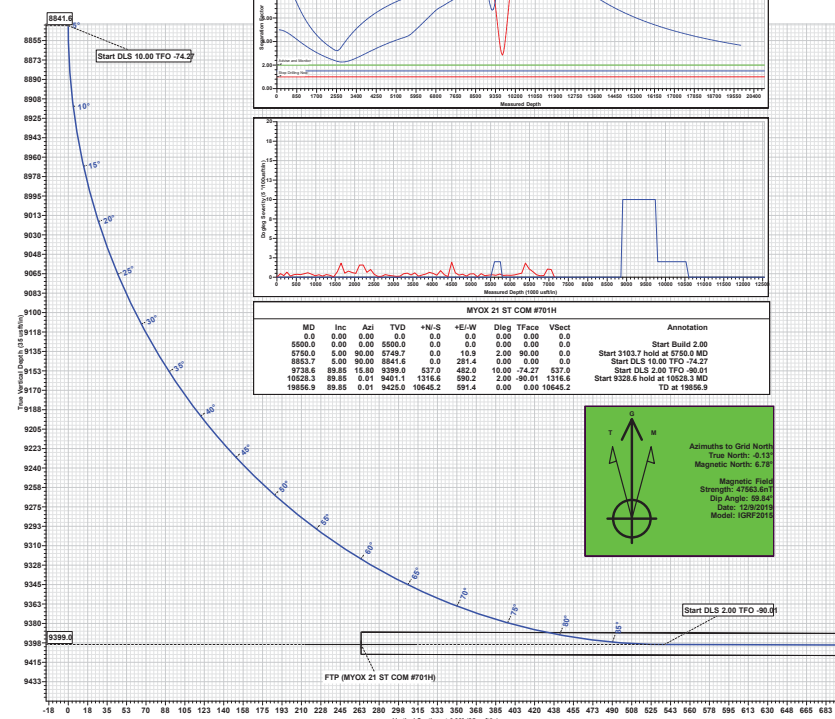
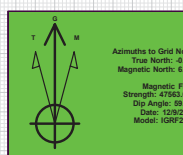
Project: EDDY COUNTY NM
 Site: MYOX 21 ST COM #701H
 Well: MYOX 21 ST COM #701H
 Wellbore: OWB
 Design: PWP1
 GL: 2958.0
 KB=27' @ 2955.0 (SCAN FREEDOM)

WELL DETAILS: MYOX 21 ST COM #701H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	402892.47	576490.13	32° 6' 26.736 N	104° 5' 10.615 W

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (MYOX 21 ST COM #701H)	9389.0	263.7	998.0	403156.13	577089.09
LTP (MYOX 21 ST COM #701H)	9424.7	10515.2	592.4	413407.67	577082.54
PRM (MYOX 21 ST COM #701H)	9425.0	10545.2	591.4	413537.67	577081.56



MD	Inc	Asl	TVD	+N/-S	+E/-W	Diag	FFace	OBact	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
5900.0	0.00	0.00	5900.0	0.0	0.0	0.00	0.00	0.0	Start 2103.7 hold at 5750.0 MD
5750.0	5.00	50.00	5749.7	0.0	10.9	2.00	50.00	0.0	Start DLS 10.00 TFO -74.27
8853.7	5.00	50.00	8841.6	0.0	281.4	0.00	0.00	0.0	Start DLS 2.00 TFO -49.01
9730.6	89.85	15.80	9389.0	137.0	482.0	10.00	-14.27	537.0	Start 9328.6 hold at 10523.3 MD
10523.3	89.85	0.01	9401.1	1316.6	599.2	2.00	90.01	1316.6	TD at 18555.9
18555.9	89.85	0.01	9425.0	10545.2	591.4	0.00	0.00	10545.2	



Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

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

First Take Point (FTP)

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

Last Take Point (LTP)

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

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

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018