

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 278929

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 30-015-46873
4. Property Code 327322	5. Property Name ATTICUS STATE COM	6. Well No. 702H

7. Surface Location

UL - Lot P	Section 36	Township 25S	Range 27E	Lot Idn P	Feet From 315	N/S Line S	Feet From 990	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot B	Section 24	Township 25S	Range 27E	Lot Idn B	Feet From 200	N/S Line N	Feet From 1350	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 OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3096
16. Multiple N	17. Proposed Depth 24605	18. Formation Wolfcamp	19. Contractor	20. Spud Date 4/15/2020
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	500	500	0
Int1	12.25	9.625	40	8550	1000	0
Prod	8.75	5.5	20	24605	3500	0

Casing/Cement Program: Additional Comments

Drill 17-1/2" hole to ~500' w/ fresh water spud mud. 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 ~8,550' with cut brine. Run 9-5/8 40# J-55 BTC to TD and cement to surface in one stage. Drill 8-3/4" vertical, curve and lateral to ~24,605' with OBM. Run 5.5" 20# P110 BTC casing from TD to surface and cement to surface in one stage.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron
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.

OIL CONSERVATION DIVISION

Signature:			
Printed Name:	Electronically filed by Diane Kuykendall	Approved By:	Raymond Podany
Title:	Production Accounting Director	Title:	Geologist
Email Address:	dkuykendall@concho.com	Approved Date:	3/20/2020
Date:	3/17/2020	Expiration Date:	3/20/2022
Phone:	432-685-4372	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	5 Property Name ATTICUS STATE COM	6 Well Number 702H
7 OGRID No. 229137	8 Operator Name COG OPERATING LLC	9 Elevation 3096'

10 Surface Location

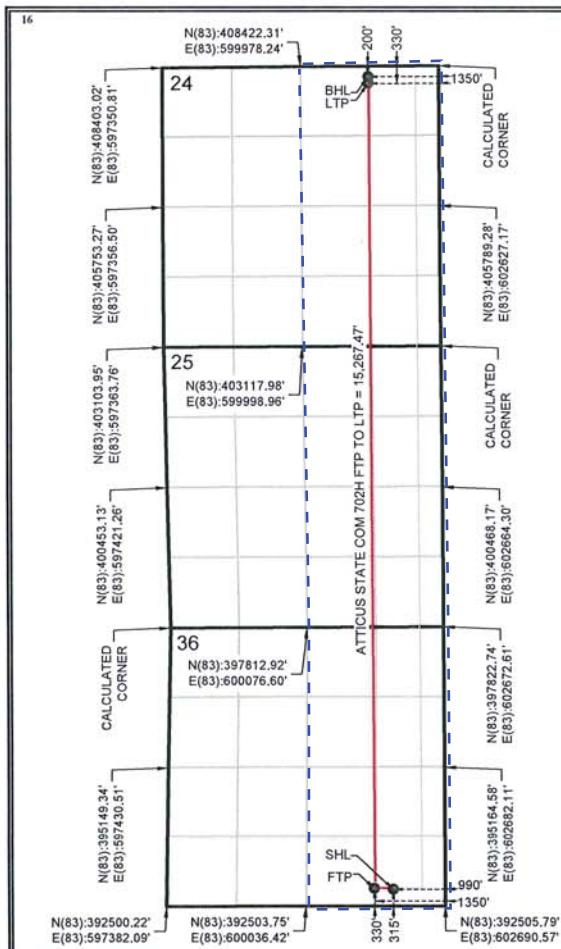
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	25-S	27-E		315'	SOUTH	990'	EAST	EDDY

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
B	24	25-S	27-E		200'	NORTH	1350'	EAST	EDDY

12 Dedicated Acres 960	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.



BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83
X=601264.45 LAT.= 32.12216095° N
Y=408232.04 LONG.= 104.13975622° W
200' FNL, 1350' FEL - SECTION 24

LAST TAKE POINT (LTP)
NEW MEXICO EAST - NAD 83
X=601265.12 LAT.= 32.12180358° N
Y=408102.04 LONG.= 104.13975480° W
330' FNL, 1350' FEL - SECTION 24

FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83
X=601339.51 LAT.= 32.07983428° N
Y=392834.75 LONG.= 104.13960311° W
330' FSL, 1350' FEL - SECTION 36

SURFACE HOLE LOCATION (SHL)
NEW MEXICO EAST - NAD 83
X=601699.60 LAT.= 32.07979191° N
Y=392819.99 LONG.= 104.13844057° W
315' FSL, 990' FEL - SECTION 36

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]
Signature

03/05/2020

Date

Robyn M. Russell

Printed Name

Russell@concho.com

E-mail Address

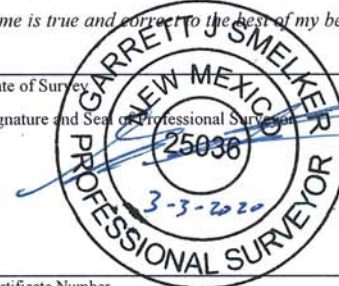
18 SURVEYOR CERTIFICATION

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: 3/20/2020

☒ 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, recomplete to new zone, re-frac) activity.

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
ATTICUS STATE COM #702H	30-015-46873	P-36-25S-27E	0315S 0990E	4992	None	Processing Plant Location: Sec 35, Blk 57, T2S, Culberson County, TX It will require additional ETC line to connect the facility to the low pressure gathering system of which the amount is unknown currently.

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. 36, Twn. 25S, Rng. 27E, 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 278929

PERMIT COMMENTS

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701		API Number: 30-015-46873
		Well: ATTICUS STATE COM #702H
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.	3/5/2020

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Form APD Conditions
Permit 278929

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701		API Number: 30-015-46873
		Well: ATTICUS STATE COM #702H

OCD Reviewer	Condition
ksimmons	Will require a directional survey with the C-104
ksimmons	Cement is required to circulate on both surface and intermediate1 strings of casing
ksimmons	Operator must notify other operator(s) with well(s) in same quarter-quarter section before commencing both drilling and completing operations.

NORTHERN DELAWARE BASIN

EDDY COUNTY, NM

ATTICUS ST COM PROJECT

ATTICUS ST COM #702H

OWB

Plan: PWP1

Standard Survey Report

12 March, 2020

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well ATTICUS ST COM #702H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Site:	ATTICUS ST COM PROJECT	MD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Well:	ATTICUS ST COM #702H	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		

Well	ATTICUS ST COM #702H				
Well Position	+N/-S	0.0 usft	Northing:	392,762.62 usft	Latitude: 32° 4' 46.810 N
	+E/-W	0.0 usft	Easting:	560,515.54 usft	Longitude: 104° 8' 16.619 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level: 3,096.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/12/2020	6.91	59.81	47,514.48474154

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	358.38	

Survey Tool Program	Date	3/12/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	24,605.3	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

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

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well ATTICUS ST COM #702H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Site:	ATTICUS ST COM PROJECT	MD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Well:	ATTICUS ST COM #702H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
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	
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	234.00	5,600.0	-1.0	-1.4	-1.0	2.00	2.00	0.00	
5,700.0	4.00	234.00	5,699.8	-4.1	-5.6	-3.9	2.00	2.00	0.00	

Concho Resources LLC

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Well:	ATTICUS ST COM #702H	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)
5,750.0	5.00	234.00	5,749.7	-6.4	-8.8	-6.2	2.00	2.00	0.00
Start 2923.5 hold at 5750.0 MD									
5,800.0	5.00	234.00	5,799.5	-9.0	-12.3	-8.6	0.00	0.00	0.00
5,900.0	5.00	234.00	5,899.1	-14.1	-19.4	-13.5	0.00	0.00	0.00
6,000.0	5.00	234.00	5,998.7	-19.2	-26.4	-18.5	0.00	0.00	0.00
6,100.0	5.00	234.00	6,098.4	-24.3	-33.5	-23.4	0.00	0.00	0.00
6,200.0	5.00	234.00	6,198.0	-29.5	-40.5	-28.3	0.00	0.00	0.00
6,300.0	5.00	234.00	6,297.6	-34.6	-47.6	-33.2	0.00	0.00	0.00
6,400.0	5.00	234.00	6,397.2	-39.7	-54.7	-38.1	0.00	0.00	0.00
6,500.0	5.00	234.00	6,496.8	-44.8	-61.7	-43.1	0.00	0.00	0.00
6,600.0	5.00	234.00	6,596.4	-50.0	-68.8	-48.0	0.00	0.00	0.00
6,700.0	5.00	234.00	6,696.1	-55.1	-75.8	-52.9	0.00	0.00	0.00
6,800.0	5.00	234.00	6,795.7	-60.2	-82.9	-57.8	0.00	0.00	0.00
6,900.0	5.00	234.00	6,895.3	-65.3	-89.9	-62.8	0.00	0.00	0.00
7,000.0	5.00	234.00	6,994.9	-70.4	-97.0	-67.7	0.00	0.00	0.00
7,100.0	5.00	234.00	7,094.5	-75.6	-104.0	-72.6	0.00	0.00	0.00
7,200.0	5.00	234.00	7,194.2	-80.7	-111.1	-77.5	0.00	0.00	0.00
7,300.0	5.00	234.00	7,293.8	-85.8	-118.1	-82.4	0.00	0.00	0.00
7,400.0	5.00	234.00	7,393.4	-90.9	-125.2	-87.4	0.00	0.00	0.00
7,500.0	5.00	234.00	7,493.0	-96.1	-132.2	-92.3	0.00	0.00	0.00
7,600.0	5.00	234.00	7,592.6	-101.2	-139.3	-97.2	0.00	0.00	0.00
7,700.0	5.00	234.00	7,692.3	-106.3	-146.3	-102.1	0.00	0.00	0.00
7,800.0	5.00	234.00	7,791.9	-111.4	-153.4	-107.1	0.00	0.00	0.00
7,900.0	5.00	234.00	7,891.5	-116.5	-160.4	-112.0	0.00	0.00	0.00
8,000.0	5.00	234.00	7,991.1	-121.7	-167.5	-116.9	0.00	0.00	0.00
8,100.0	5.00	234.00	8,090.7	-126.8	-174.5	-121.8	0.00	0.00	0.00
8,200.0	5.00	234.00	8,190.4	-131.9	-181.6	-126.7	0.00	0.00	0.00
8,300.0	5.00	234.00	8,290.0	-137.0	-188.6	-131.7	0.00	0.00	0.00
8,400.0	5.00	234.00	8,389.6	-142.2	-195.7	-136.6	0.00	0.00	0.00
8,500.0	5.00	234.00	8,489.2	-147.3	-202.7	-141.5	0.00	0.00	0.00
8,600.0	5.00	234.00	8,588.8	-152.4	-209.8	-146.4	0.00	0.00	0.00
8,673.5	5.00	234.00	8,662.1	-156.2	-215.0	-150.1	0.00	0.00	0.00
Start DLS 10.00 TFO 118.25									
8,700.0	4.41	265.91	8,688.5	-156.9	-216.9	-150.7	10.00	-2.22	120.62
8,800.0	11.17	329.39	8,787.6	-148.8	-225.7	-142.4	10.00	6.76	63.48
8,900.0	20.73	340.60	8,883.7	-123.8	-236.5	-117.0	10.00	9.56	11.21
9,000.0	30.56	344.85	8,973.7	-82.4	-249.1	-75.4	10.00	9.84	4.25
9,100.0	40.47	347.16	9,055.0	-26.1	-263.0	-18.7	10.00	9.91	2.31
9,200.0	50.41	348.69	9,125.1	43.5	-277.8	51.3	10.00	9.94	1.53
9,300.0	60.37	349.83	9,181.8	124.3	-293.0	132.5	10.00	9.96	1.14
9,400.0	70.34	350.77	9,223.5	213.8	-308.3	222.4	10.00	9.96	0.93
9,500.0	80.30	351.59	9,248.8	309.2	-323.1	318.2	10.00	9.97	0.82
9,598.3	90.10	352.35	9,257.0	406.1	-336.8	415.4	10.00	9.97	0.78
Start DLS 2.00 TFO 89.97									

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well ATTICUS ST COM #702H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Site:	ATTICUS ST COM PROJECT	MD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Well:	ATTICUS ST COM #702H	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)
9,600.0	90.10	352.38	9,257.0	407.8	-337.0	417.1	2.00	0.00	2.00
9,700.0	90.10	354.38	9,256.8	507.1	-348.5	516.8	2.00	0.00	2.00
9,800.0	90.10	356.38	9,256.6	606.8	-356.6	616.6	2.00	0.00	2.00
9,900.0	90.10	358.38	9,256.5	706.7	-361.1	716.6	2.00	0.00	2.00
9,966.5	90.10	359.72	9,256.3	773.2	-362.2	783.1	2.00	0.00	2.00
Start 14638.7 hold at 9966.5 MD									
10,000.0	90.10	359.72	9,256.3	806.7	-362.4	816.6	0.00	0.00	0.00
10,100.0	90.10	359.72	9,256.1	906.7	-362.9	916.6	0.00	0.00	0.00
10,200.0	90.10	359.72	9,255.9	1,006.7	-363.4	1,016.5	0.00	0.00	0.00
10,300.0	90.10	359.72	9,255.7	1,106.7	-363.9	1,116.5	0.00	0.00	0.00
10,400.0	90.10	359.72	9,255.6	1,206.7	-364.4	1,216.5	0.00	0.00	0.00
10,500.0	90.10	359.72	9,255.4	1,306.7	-364.9	1,316.4	0.00	0.00	0.00
10,600.0	90.10	359.72	9,255.2	1,406.7	-365.4	1,416.4	0.00	0.00	0.00
10,700.0	90.10	359.72	9,255.0	1,506.7	-365.9	1,516.4	0.00	0.00	0.00
10,800.0	90.10	359.72	9,254.8	1,606.7	-366.4	1,616.4	0.00	0.00	0.00
10,900.0	90.10	359.72	9,254.7	1,706.7	-366.9	1,716.3	0.00	0.00	0.00
11,000.0	90.10	359.72	9,254.5	1,806.7	-367.4	1,816.3	0.00	0.00	0.00
11,100.0	90.10	359.72	9,254.3	1,906.7	-367.9	1,916.3	0.00	0.00	0.00
11,200.0	90.10	359.72	9,254.1	2,006.7	-368.4	2,016.3	0.00	0.00	0.00
11,300.0	90.10	359.72	9,253.9	2,106.7	-368.9	2,116.2	0.00	0.00	0.00
11,400.0	90.10	359.72	9,253.8	2,206.7	-369.4	2,216.2	0.00	0.00	0.00
11,500.0	90.10	359.72	9,253.6	2,306.7	-369.8	2,316.2	0.00	0.00	0.00
11,600.0	90.10	359.72	9,253.4	2,406.7	-370.3	2,416.1	0.00	0.00	0.00
11,700.0	90.10	359.72	9,253.2	2,506.7	-370.8	2,516.1	0.00	0.00	0.00
11,800.0	90.10	359.72	9,253.0	2,606.7	-371.3	2,616.1	0.00	0.00	0.00
11,900.0	90.10	359.72	9,252.9	2,706.7	-371.8	2,716.1	0.00	0.00	0.00
12,000.0	90.10	359.72	9,252.7	2,806.7	-372.3	2,816.0	0.00	0.00	0.00
12,100.0	90.10	359.72	9,252.5	2,906.6	-372.8	2,916.0	0.00	0.00	0.00
12,200.0	90.10	359.72	9,252.3	3,006.6	-373.3	3,016.0	0.00	0.00	0.00
12,300.0	90.10	359.72	9,252.1	3,106.6	-373.8	3,116.0	0.00	0.00	0.00
12,400.0	90.10	359.72	9,252.0	3,206.6	-374.3	3,215.9	0.00	0.00	0.00
12,500.0	90.10	359.72	9,251.8	3,306.6	-374.8	3,315.9	0.00	0.00	0.00
12,600.0	90.10	359.72	9,251.6	3,406.6	-375.3	3,415.9	0.00	0.00	0.00
12,700.0	90.10	359.72	9,251.4	3,506.6	-375.8	3,515.8	0.00	0.00	0.00
12,800.0	90.10	359.72	9,251.2	3,606.6	-376.3	3,615.8	0.00	0.00	0.00
12,900.0	90.10	359.72	9,251.1	3,706.6	-376.8	3,715.8	0.00	0.00	0.00
13,000.0	90.10	359.72	9,250.9	3,806.6	-377.3	3,815.8	0.00	0.00	0.00
13,100.0	90.10	359.72	9,250.7	3,906.6	-377.8	3,915.7	0.00	0.00	0.00
13,200.0	90.10	359.72	9,250.5	4,006.6	-378.3	4,015.7	0.00	0.00	0.00
13,300.0	90.10	359.72	9,250.3	4,106.6	-378.8	4,115.7	0.00	0.00	0.00
13,400.0	90.10	359.72	9,250.2	4,206.6	-379.3	4,215.7	0.00	0.00	0.00
13,500.0	90.10	359.72	9,250.0	4,306.6	-379.8	4,315.6	0.00	0.00	0.00
13,600.0	90.10	359.72	9,249.8	4,406.6	-380.3	4,415.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well ATTICUS ST COM #702H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Site:	ATTICUS ST COM PROJECT	MD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Well:	ATTICUS ST COM #702H	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)
13,700.0	90.10	359.72	9,249.6	4,506.6	-380.8	4,515.6	0.00	0.00	0.00
13,800.0	90.10	359.72	9,249.4	4,606.6	-381.3	4,615.5	0.00	0.00	0.00
13,900.0	90.10	359.72	9,249.3	4,706.6	-381.8	4,715.5	0.00	0.00	0.00
14,000.0	90.10	359.72	9,249.1	4,806.6	-382.2	4,815.5	0.00	0.00	0.00
14,100.0	90.10	359.72	9,248.9	4,906.6	-382.7	4,915.5	0.00	0.00	0.00
14,200.0	90.10	359.72	9,248.7	5,006.6	-383.2	5,015.4	0.00	0.00	0.00
14,300.0	90.10	359.72	9,248.5	5,106.6	-383.7	5,115.4	0.00	0.00	0.00
14,400.0	90.10	359.72	9,248.4	5,206.6	-384.2	5,215.4	0.00	0.00	0.00
14,500.0	90.10	359.72	9,248.2	5,306.6	-384.7	5,315.4	0.00	0.00	0.00
14,600.0	90.10	359.72	9,248.0	5,406.6	-385.2	5,415.3	0.00	0.00	0.00
14,700.0	90.10	359.72	9,247.8	5,506.6	-385.7	5,515.3	0.00	0.00	0.00
14,800.0	90.10	359.72	9,247.6	5,606.6	-386.2	5,615.3	0.00	0.00	0.00
14,900.0	90.10	359.72	9,247.5	5,706.6	-386.7	5,715.2	0.00	0.00	0.00
15,000.0	90.10	359.72	9,247.3	5,806.6	-387.2	5,815.2	0.00	0.00	0.00
15,100.0	90.10	359.72	9,247.1	5,906.6	-387.7	5,915.2	0.00	0.00	0.00
15,200.0	90.10	359.72	9,246.9	6,006.6	-388.2	6,015.2	0.00	0.00	0.00
15,300.0	90.10	359.72	9,246.7	6,106.6	-388.7	6,115.1	0.00	0.00	0.00
15,400.0	90.10	359.72	9,246.6	6,206.6	-389.2	6,215.1	0.00	0.00	0.00
15,500.0	90.10	359.72	9,246.4	6,306.6	-389.7	6,315.1	0.00	0.00	0.00
15,600.0	90.10	359.72	9,246.2	6,406.6	-390.2	6,415.1	0.00	0.00	0.00
15,700.0	90.10	359.72	9,246.0	6,506.6	-390.7	6,515.0	0.00	0.00	0.00
15,800.0	90.10	359.72	9,245.8	6,606.6	-391.2	6,615.0	0.00	0.00	0.00
15,900.0	90.10	359.72	9,245.7	6,706.6	-391.7	6,715.0	0.00	0.00	0.00
16,000.0	90.10	359.72	9,245.5	6,806.6	-392.2	6,814.9	0.00	0.00	0.00
16,100.0	90.10	359.72	9,245.3	6,906.6	-392.7	6,914.9	0.00	0.00	0.00
16,200.0	90.10	359.72	9,245.1	7,006.6	-393.2	7,014.9	0.00	0.00	0.00
16,300.0	90.10	359.72	9,244.9	7,106.6	-393.7	7,114.9	0.00	0.00	0.00
16,400.0	90.10	359.72	9,244.8	7,206.6	-394.2	7,214.8	0.00	0.00	0.00
16,500.0	90.10	359.72	9,244.6	7,306.6	-394.7	7,314.8	0.00	0.00	0.00
16,600.0	90.10	359.72	9,244.4	7,406.6	-395.1	7,414.8	0.00	0.00	0.00
16,700.0	90.10	359.72	9,244.2	7,506.6	-395.6	7,514.8	0.00	0.00	0.00
16,800.0	90.10	359.72	9,244.0	7,606.6	-396.1	7,614.7	0.00	0.00	0.00
16,900.0	90.10	359.72	9,243.9	7,706.6	-396.6	7,714.7	0.00	0.00	0.00
17,000.0	90.10	359.72	9,243.7	7,806.6	-397.1	7,814.7	0.00	0.00	0.00
17,100.0	90.10	359.72	9,243.5	7,906.6	-397.6	7,914.6	0.00	0.00	0.00
17,200.0	90.10	359.72	9,243.3	8,006.6	-398.1	8,014.6	0.00	0.00	0.00
17,300.0	90.10	359.72	9,243.1	8,106.6	-398.6	8,114.6	0.00	0.00	0.00
17,400.0	90.10	359.72	9,243.0	8,206.6	-399.1	8,214.6	0.00	0.00	0.00
17,500.0	90.10	359.72	9,242.8	8,306.6	-399.6	8,314.5	0.00	0.00	0.00
17,600.0	90.10	359.72	9,242.6	8,406.6	-400.1	8,414.5	0.00	0.00	0.00
17,700.0	90.10	359.72	9,242.4	8,506.6	-400.6	8,514.5	0.00	0.00	0.00
17,800.0	90.10	359.72	9,242.2	8,606.6	-401.1	8,614.5	0.00	0.00	0.00
17,900.0	90.10	359.72	9,242.1	8,706.6	-401.6	8,714.4	0.00	0.00	0.00
18,000.0	90.10	359.72	9,241.9	8,806.6	-402.1	8,814.4	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well ATTICUS ST COM #702H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Site:	ATTICUS ST COM PROJECT	MD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Well:	ATTICUS ST COM #702H	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)
18,100.0	90.10	359.72	9,241.7	8,906.6	-402.6	8,914.4	0.00	0.00	0.00
18,200.0	90.10	359.72	9,241.5	9,006.6	-403.1	9,014.4	0.00	0.00	0.00
18,300.0	90.10	359.72	9,241.3	9,106.6	-403.6	9,114.3	0.00	0.00	0.00
18,400.0	90.10	359.72	9,241.2	9,206.6	-404.1	9,214.3	0.00	0.00	0.00
18,500.0	90.10	359.72	9,241.0	9,306.6	-404.6	9,314.3	0.00	0.00	0.00
18,600.0	90.10	359.72	9,240.8	9,406.6	-405.1	9,414.2	0.00	0.00	0.00
18,700.0	90.10	359.72	9,240.6	9,506.6	-405.6	9,514.2	0.00	0.00	0.00
18,800.0	90.10	359.72	9,240.4	9,606.6	-406.1	9,614.2	0.00	0.00	0.00
18,900.0	90.10	359.72	9,240.3	9,706.6	-406.6	9,714.2	0.00	0.00	0.00
19,000.0	90.10	359.72	9,240.1	9,806.6	-407.1	9,814.1	0.00	0.00	0.00
19,100.0	90.10	359.72	9,239.9	9,906.6	-407.5	9,914.1	0.00	0.00	0.00
19,200.0	90.10	359.72	9,239.7	10,006.6	-408.0	10,014.1	0.00	0.00	0.00
19,300.0	90.10	359.72	9,239.5	10,106.5	-408.5	10,114.1	0.00	0.00	0.00
19,400.0	90.10	359.72	9,239.4	10,206.5	-409.0	10,214.0	0.00	0.00	0.00
19,500.0	90.10	359.72	9,239.2	10,306.5	-409.5	10,314.0	0.00	0.00	0.00
19,600.0	90.10	359.72	9,239.0	10,406.5	-410.0	10,414.0	0.00	0.00	0.00
19,700.0	90.10	359.72	9,238.8	10,506.5	-410.5	10,513.9	0.00	0.00	0.00
19,800.0	90.10	359.72	9,238.6	10,606.5	-411.0	10,613.9	0.00	0.00	0.00
19,900.0	90.10	359.72	9,238.5	10,706.5	-411.5	10,713.9	0.00	0.00	0.00
20,000.0	90.10	359.72	9,238.3	10,806.5	-412.0	10,813.9	0.00	0.00	0.00
20,100.0	90.10	359.72	9,238.1	10,906.5	-412.5	10,913.8	0.00	0.00	0.00
20,200.0	90.10	359.72	9,237.9	11,006.5	-413.0	11,013.8	0.00	0.00	0.00
20,300.0	90.10	359.72	9,237.7	11,106.5	-413.5	11,113.8	0.00	0.00	0.00
20,400.0	90.10	359.72	9,237.6	11,206.5	-414.0	11,213.8	0.00	0.00	0.00
20,500.0	90.10	359.72	9,237.4	11,306.5	-414.5	11,313.7	0.00	0.00	0.00
20,600.0	90.10	359.72	9,237.2	11,406.5	-415.0	11,413.7	0.00	0.00	0.00
20,700.0	90.10	359.72	9,237.0	11,506.5	-415.5	11,513.7	0.00	0.00	0.00
20,800.0	90.10	359.72	9,236.8	11,606.5	-416.0	11,613.6	0.00	0.00	0.00
20,900.0	90.10	359.72	9,236.7	11,706.5	-416.5	11,713.6	0.00	0.00	0.00
21,000.0	90.10	359.72	9,236.5	11,806.5	-417.0	11,813.6	0.00	0.00	0.00
21,100.0	90.10	359.72	9,236.3	11,906.5	-417.5	11,913.6	0.00	0.00	0.00
21,200.0	90.10	359.72	9,236.1	12,006.5	-418.0	12,013.5	0.00	0.00	0.00
21,300.0	90.10	359.72	9,235.9	12,106.5	-418.5	12,113.5	0.00	0.00	0.00
21,400.0	90.10	359.72	9,235.8	12,206.5	-419.0	12,213.5	0.00	0.00	0.00
21,500.0	90.10	359.72	9,235.6	12,306.5	-419.5	12,313.5	0.00	0.00	0.00
21,600.0	90.10	359.72	9,235.4	12,406.5	-420.0	12,413.4	0.00	0.00	0.00
21,700.0	90.10	359.72	9,235.2	12,506.5	-420.4	12,513.4	0.00	0.00	0.00
21,800.0	90.10	359.72	9,235.0	12,606.5	-420.9	12,613.4	0.00	0.00	0.00
21,900.0	90.10	359.72	9,234.9	12,706.5	-421.4	12,713.3	0.00	0.00	0.00
22,000.0	90.10	359.72	9,234.7	12,806.5	-421.9	12,813.3	0.00	0.00	0.00
22,100.0	90.10	359.72	9,234.5	12,906.5	-422.4	12,913.3	0.00	0.00	0.00
22,200.0	90.10	359.72	9,234.3	13,006.5	-422.9	13,013.3	0.00	0.00	0.00
22,300.0	90.10	359.72	9,234.1	13,106.5	-423.4	13,113.2	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well ATTICUS ST COM #702H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Site:	ATTICUS ST COM PROJECT	MD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Well:	ATTICUS ST COM #702H	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)
22,400.0	90.10	359.72	9,234.0	13,206.5	-423.9	13,213.2	0.00	0.00	0.00
22,500.0	90.10	359.72	9,233.8	13,306.5	-424.4	13,313.2	0.00	0.00	0.00
22,600.0	90.10	359.72	9,233.6	13,406.5	-424.9	13,413.2	0.00	0.00	0.00
22,700.0	90.10	359.72	9,233.4	13,506.5	-425.4	13,513.1	0.00	0.00	0.00
22,800.0	90.10	359.72	9,233.2	13,606.5	-425.9	13,613.1	0.00	0.00	0.00
22,900.0	90.10	359.72	9,233.1	13,706.5	-426.4	13,713.1	0.00	0.00	0.00
23,000.0	90.10	359.72	9,232.9	13,806.5	-426.9	13,813.0	0.00	0.00	0.00
23,100.0	90.10	359.72	9,232.7	13,906.5	-427.4	13,913.0	0.00	0.00	0.00
23,200.0	90.10	359.72	9,232.5	14,006.5	-427.9	14,013.0	0.00	0.00	0.00
23,300.0	90.10	359.72	9,232.3	14,106.5	-428.4	14,113.0	0.00	0.00	0.00
23,400.0	90.10	359.72	9,232.2	14,206.5	-428.9	14,212.9	0.00	0.00	0.00
23,500.0	90.10	359.72	9,232.0	14,306.5	-429.4	14,312.9	0.00	0.00	0.00
23,600.0	90.10	359.72	9,231.8	14,406.5	-429.9	14,412.9	0.00	0.00	0.00
23,700.0	90.10	359.72	9,231.6	14,506.5	-430.4	14,512.9	0.00	0.00	0.00
23,800.0	90.10	359.72	9,231.4	14,606.5	-430.9	14,612.8	0.00	0.00	0.00
23,900.0	90.10	359.72	9,231.3	14,706.5	-431.4	14,712.8	0.00	0.00	0.00
24,000.0	90.10	359.72	9,231.1	14,806.5	-431.9	14,812.8	0.00	0.00	0.00
24,100.0	90.10	359.72	9,230.9	14,906.5	-432.4	14,912.7	0.00	0.00	0.00
24,200.0	90.10	359.72	9,230.7	15,006.5	-432.8	15,012.7	0.00	0.00	0.00
24,300.0	90.10	359.72	9,230.5	15,106.5	-433.3	15,112.7	0.00	0.00	0.00
24,400.0	90.10	359.72	9,230.4	15,206.5	-433.8	15,212.7	0.00	0.00	0.00
24,500.0	90.10	359.72	9,230.2	15,306.5	-434.3	15,312.6	0.00	0.00	0.00
24,600.0	90.10	359.72	9,230.0	15,406.5	-434.8	15,412.6	0.00	0.00	0.00
24,605.3	90.10	359.72	9,230.0	15,411.8	-434.9	15,417.9	0.00	0.00	0.00
TD at 24605.3									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LTP (ATTICUS ST CC	0.00	0.00	9,230.0	15,281.8	-434.2	408,044.38	560,081.36	32° 7' 18.054 N	104° 8' 21.345 W
- plan misses target center by 0.2usft at 24475.3usft MD (9230.2 TVD, 15281.8 N, -434.2 E)									
- Point									
PBHL (ATTICUS ST C	0.10	179.72	9,230.0	15,411.8	-434.9	408,174.38	560,080.68	32° 7' 19.341 N	104° 8' 21.351 W
- plan hits target center									
- Rectangle (sides W100.0 H15,267.5 D20.0)									
FTP (ATTICUS ST CC	0.00	0.00	9,257.0	14.8	-360.1	392,777.38	560,155.45	32° 4' 46.963 N	104° 8' 20.804 W
- plan misses target center by 142.8usft at 9264.3usft MD (9163.2 TVD, 94.3 N, -287.6 E)									
- Circle (radius 50.0)									

Concho Resources LLC

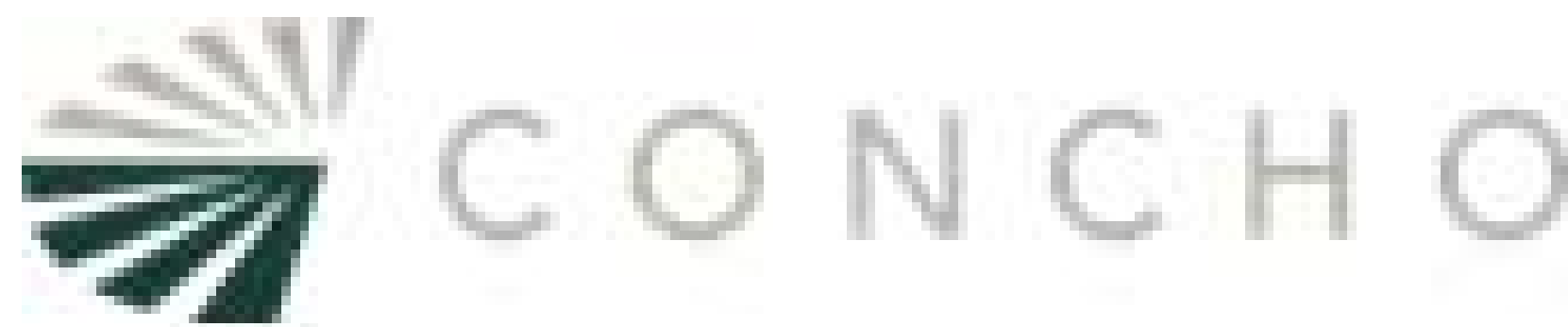
Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well ATTICUS ST COM #702H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Site:	ATTICUS ST COM PROJECT	MD Reference:	KB=25' @ 3121.0usft (PIONEER 84)
Well:	ATTICUS ST COM #702H	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	-6	-9	Start 2923.5 hold at 5750.0 MD
8674	8662	-156	-215	Start DLS 10.00 TFO 118.25
9598	9257	406	-337	Start DLS 2.00 TFO 89.97
9967	9256	773	-362	Start 14638.7 hold at 9966.5 MD
24,605	9230	15,412	-435	TD at 24605.3

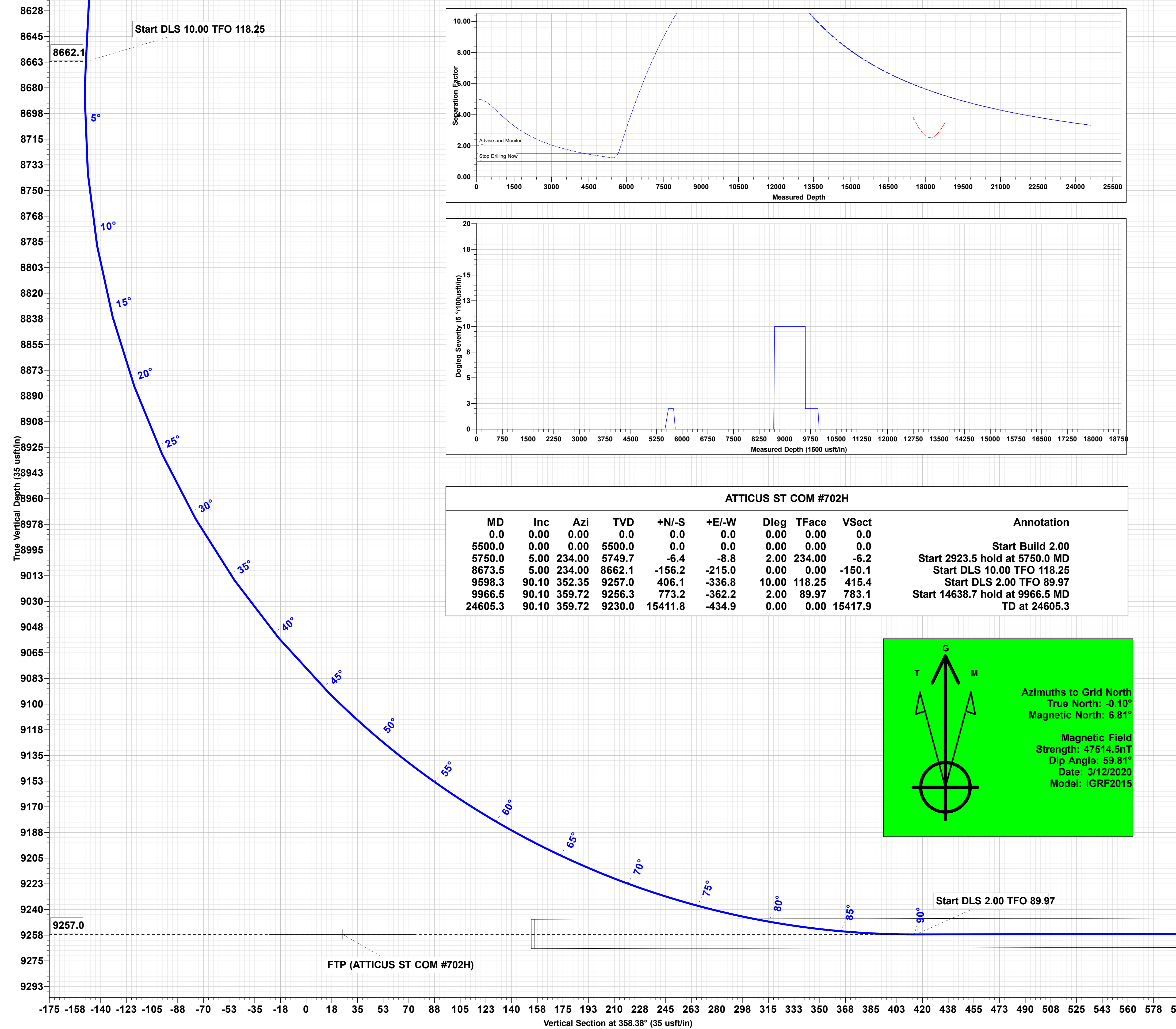
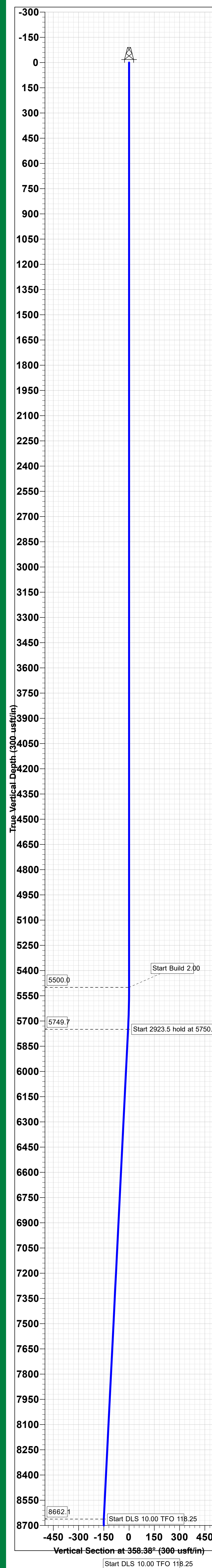
Checked By: _____ Approved By: _____ Date: _____



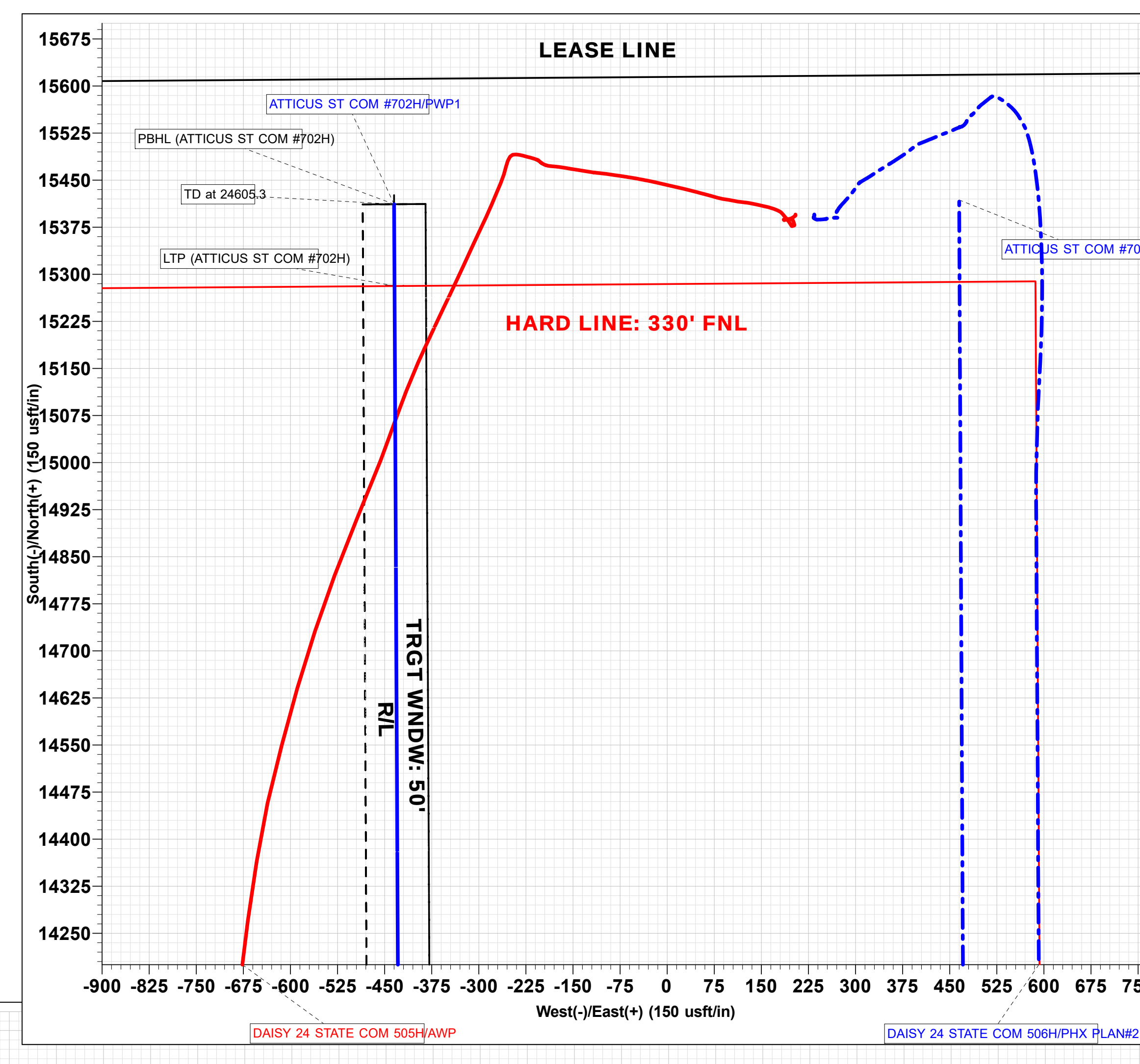
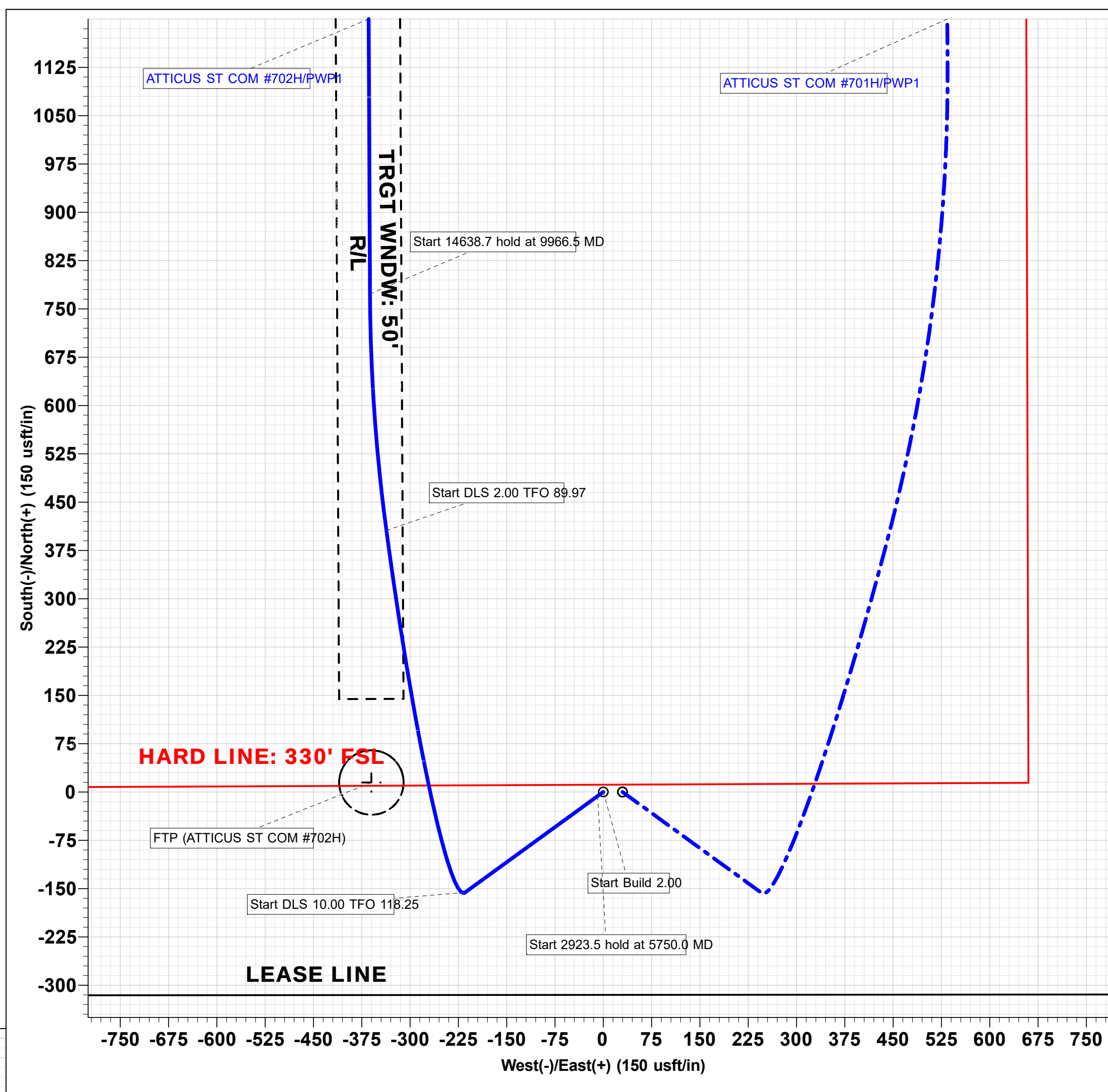
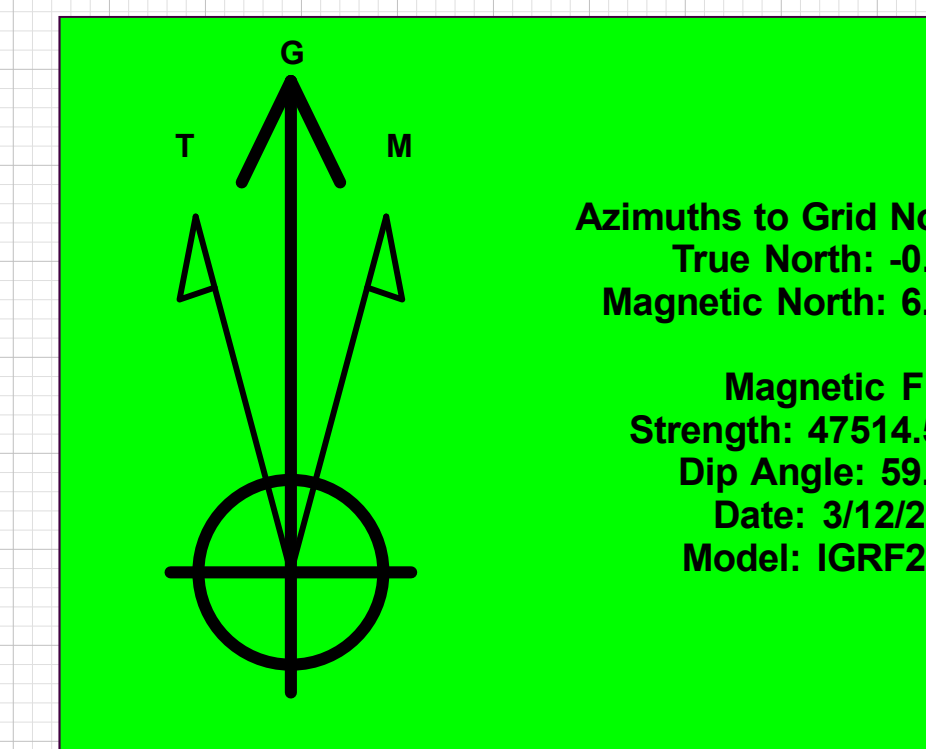
Project: EDDY COUNTY, NM
Site: ATTICUS ST COM PROJECT
Well: ATTICUS ST COM #702H
Wellbore: OWB
Design: PWP1
GL: 3096.0
KB=25' @ 3121.0usft (PIONEER 84)

WELL DETAILS: ATTICUS ST COM #702H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	392762.62	560515.54	32° 4' 46.810 N	104° 8' 16.619 W

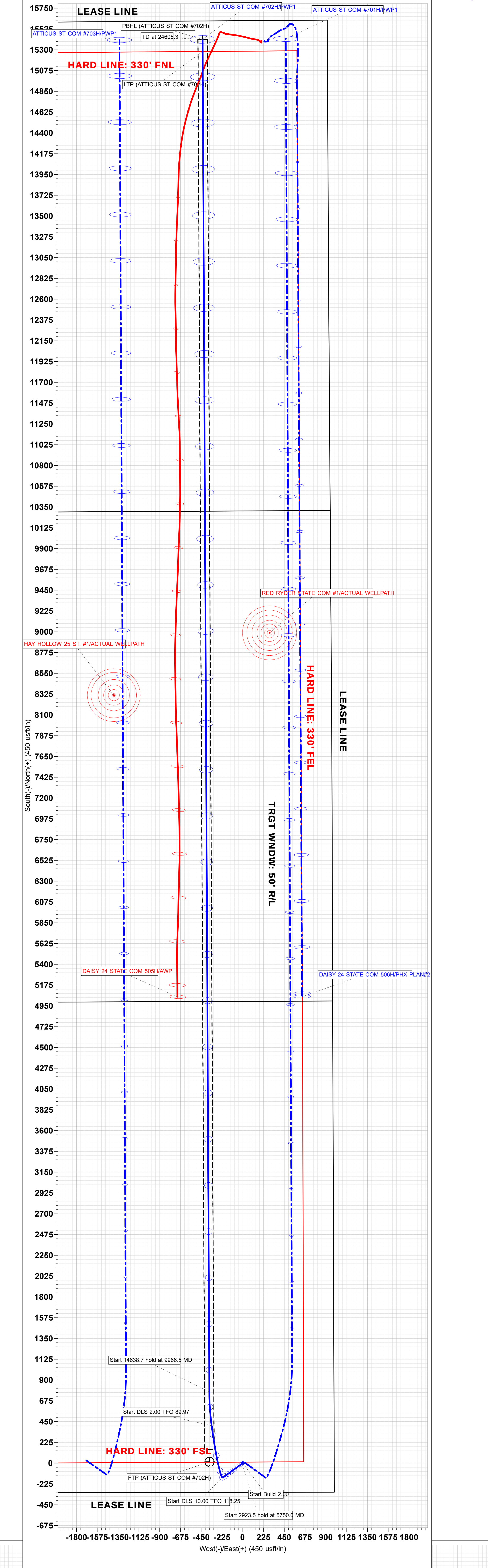
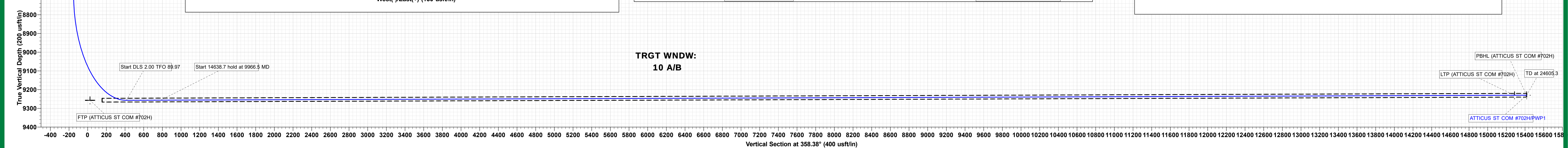
DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP (ATTICUS ST COM #702H)	9230.0	15291.8	-434.2	408044.38	560081.36	32° 7' 18.054 N	104° 8' 21.345 W
PBHL (ATTICUS ST COM #702H)	9230.0	15411.8	-434.9	408174.38	560080.68	32° 7' 19.341 N	104° 8' 21.351 W
FTP (ATTICUS ST COM #702H)	9257.0	14.8	-360.1	392777.38	560155.45	32° 4' 46.963 N	104° 8' 20.804 W



ATTICUS ST COM #702H									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
5500.0	0.00	0.00	5500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
5750.0	5.00	234.00	5749.7	-6.4	-8.8	2.00	234.00	-6.2	Start 2923.5 hold at 5750.0 MD
8673.5	5.00	234.00	8662.1	-156.2	-215.0	0.00	0.00	-150.1	Start DLS 10.00 TFO 118.25
9598.3	90.10	352.35	9257.0	406.1	-336.8	10.00	118.25	415.4	Start DLS 2.00 TFO 89.97
9966.5	90.10	359.72	9256.3	773.2	-362.2	2.00	89.97	783.1	Start 14638.7 hold at 9966.5 MD
24605.3	90.10	359.72	9230.0	15411.8	-434.9	0.00	0.00	15417.9	TD at 24605.3



TRGT WNDW:
10 A/B



Intent ☒ As Drilled ☐

API #		
Operator Name: COG Operating LLC	Property Name: Atticus State Com	Well Number 702H

Kick Off Point (KOP)

UL P	Section 36	Township 25S	Range 27E	Lot	Feet 315	From N/S FSL	Feet 990	From E/W FEL	County Eddy
Latitude 32.07979191					Longitude -104.13844057			NAD 83	

First Take Point (FTP)

UL P	Section 36	Township 25S	Range 27E	Lot	Feet 330	From N/S FSL	Feet 1350	From E/W FEL	County Eddy
Latitude 32.07983428					Longitude -104.13960311			NAD 83	

Last Take Point (LTP)

UL B	Section 24	Township 25S	Range 27E	Lot	Feet 330	From N/S FNL	Feet 1350	From E/W FEL	County Eddy
Latitude 32.12180358					Longitude -104.13975480			NAD 83	

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

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