

Submit a Copy To Appropriate District Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-015-45643
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Collie 35-34-22-27 Fee
8. Well Number 401H
9. OGRID Number 246289
10. Pool name or Wildcat Purple Sage Wolfcamp Gas Pool
11. Elevation (Show whether DR, RKB, RT, GR, etc.)

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☐ Gas Well ☒ Other	
2. Name of Operator WPX Energy Permian, LLC	
3. Address of Operator 3500 One Williams Center	
4. Well Location Unit Letter L : 2,338 feet from the South line and 427 feet from the West line Section 36 Township 22S Range 27E NMPM Eddy County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS. ☐
DOWNHOLE COMMINGLE ☐	P AND A ☐
CLOSED-LOOP SYSTEM ☐	CASING/CEMENT JOB ☐
OTHER: ☐	OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Amending our lateral to remove S shaped transition originally planned.
 SHL, LTP and BHL stay the same.
 FTP will now be 330 FEL, 330 FSL (formally 930 FSL)

Will also use a whipstock, which will replace the cement plug.

Please find the following attached:
 Revised Directional Plan
 Revised cement info based on using whipstock
 Revised WBD showing whipstock

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Dana Thompson TITLE Regulatory Tech DATE 10-21-2020

Type or print name Dana Thompson E-mail address: dana.thompson@wpxenergy.com PHONE: 539-573-3588

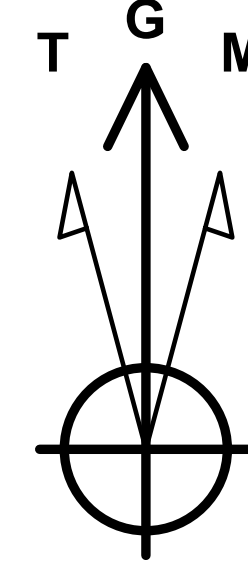
For State Use Only

APPROVED BY: [Signature] TITLE _____ DATE 12/31/2020
 Conditions of Approval (if any): _____



Company: WPX Energy
Well: Collie 35-34-22-27 #401H
County: Eddy County, New Mexico (NAD 83)
Rig: H&P 600
Wellbore: Wellbore #2
Design: Design #1
Date: 11:05, October 20 2020

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



Azimuths to Grid North
True North: -0.10°
Magnetic North: 7.02°

Magnetic Field
Strength: 47703.0nT
Dip Angle: 60.02°
Date: 10/28/2020
Model: IFR

To convert a Magnetic Direction to a Grid Direction, Add 7.017°
To convert a Magnetic Direction to a True Direction, Add 7.114° East
To convert a True Direction to a Grid Direction, Subtract 0.097°



WELL DETAILS: Collie 35-34-22-27 #401H

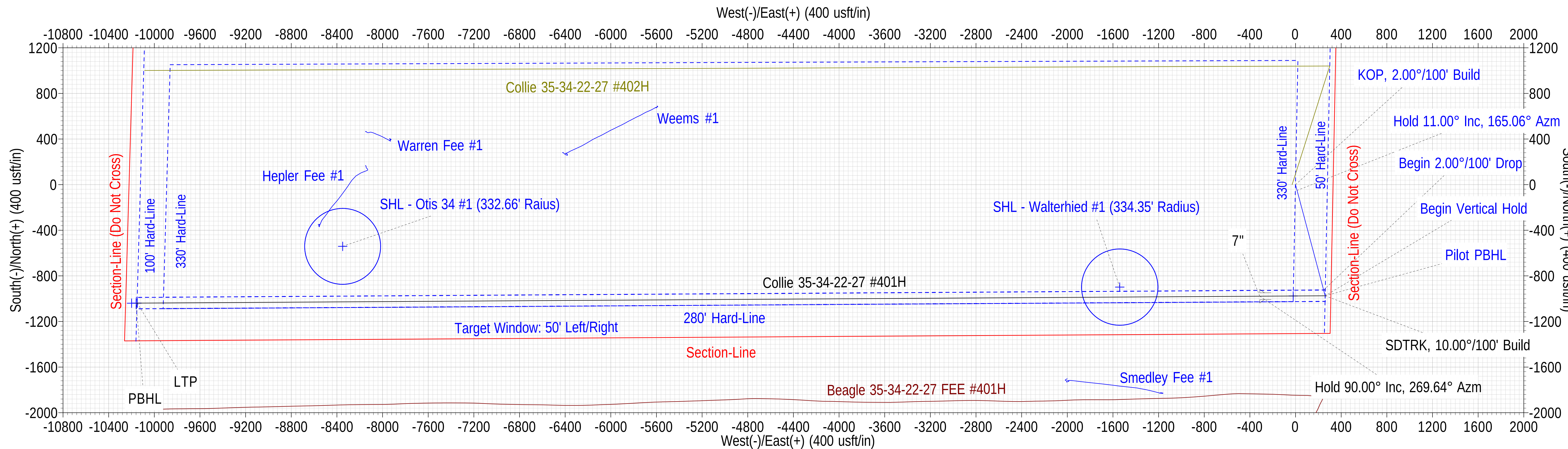
+N/-S	+E/-W	GL @ 3078.20	WELL @ 3104.70usft (H&P 600)	Longitude
0.00	0.00	Northing 492037.38	Easting 597057.54	32° 21' 9.189 N 104° 9' 10.406 W

DESIGN TARGET DETAILS

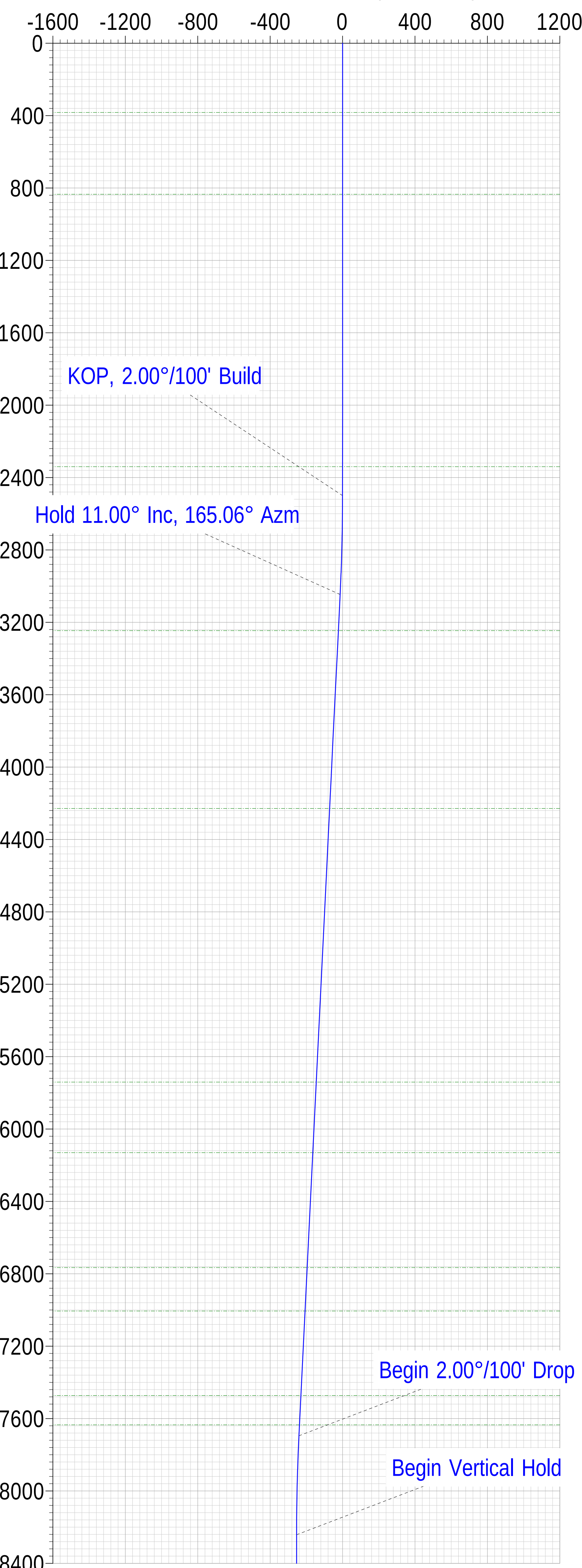
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Pilot PBHL	10100.00	-974.52	259.98	491062.86	597317.52	32° 20' 59.541 N	104° 9' 7.395 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP	9235.00	-1039.03	-10148.45	490998.35	586909.09	32° 20' 59.061 N	104° 11' 8.735 W
PBHL	9235.00	-1039.09	-10158.45	490998.29	586899.09	32° 20' 59.060 N	104° 11' 8.851 W
FTP	9235.00	-976.26	-20.11	491061.12	597037.43	32° 20' 59.528 N	104° 9' 10.660 W

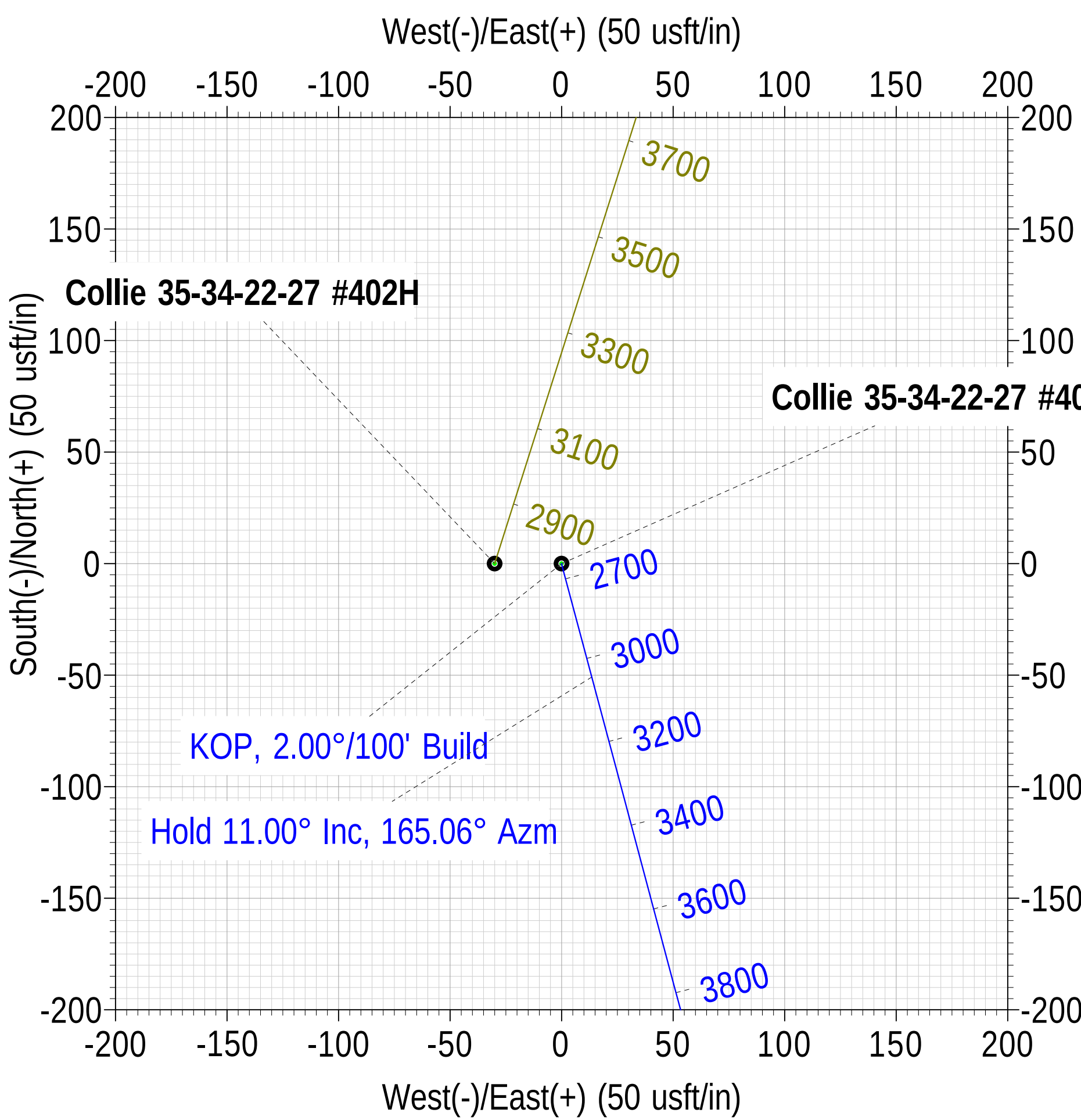


Vertical Section at 269.64° (400 usft/in)



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
383.00	383.00	Salado
835.00	835.00	Castile
2340.00	2340.00	Bell Canyon (Base of Salt)
3246.00	3253.10	Cherry Canyon
4229.00	4254.49	Brushy Canyon
5741.00	5794.77	Bone Spring
6131.00	6192.07	Avalon
6766.00	6838.94	1st Bone Spring Sand
7006.00	7083.43	2nd Bone Spring Lime
7473.00	7559.17	2nd Bone Spring Sand
7635.00	7724.20	3rd Bone Spring Lime
8804.00	8899.19	3rd Bone Spring Sand
9115.00	9278.12	Wolfcamp Top
9142.00	9324.71	WC_X
9215.00	9503.91	WC_Y
9222.00	9533.46	Top Target
9235.00	9655.74	Landing Point



SURVEY PROGRAM

Depth From	Depth To	Survey/Plan	Tool
0.00	10193.70	Pilot Design #1 (Pilot Hole)	MWD+IFR1

SURVEY PROGRAM

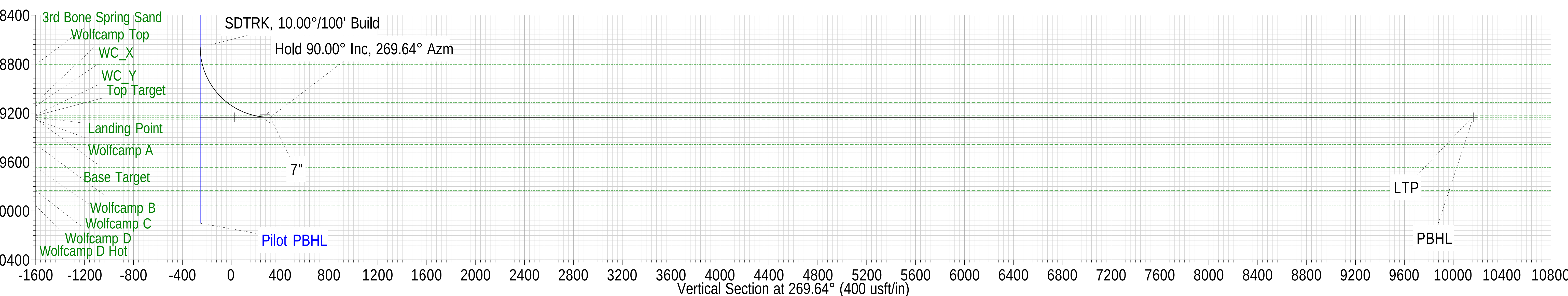
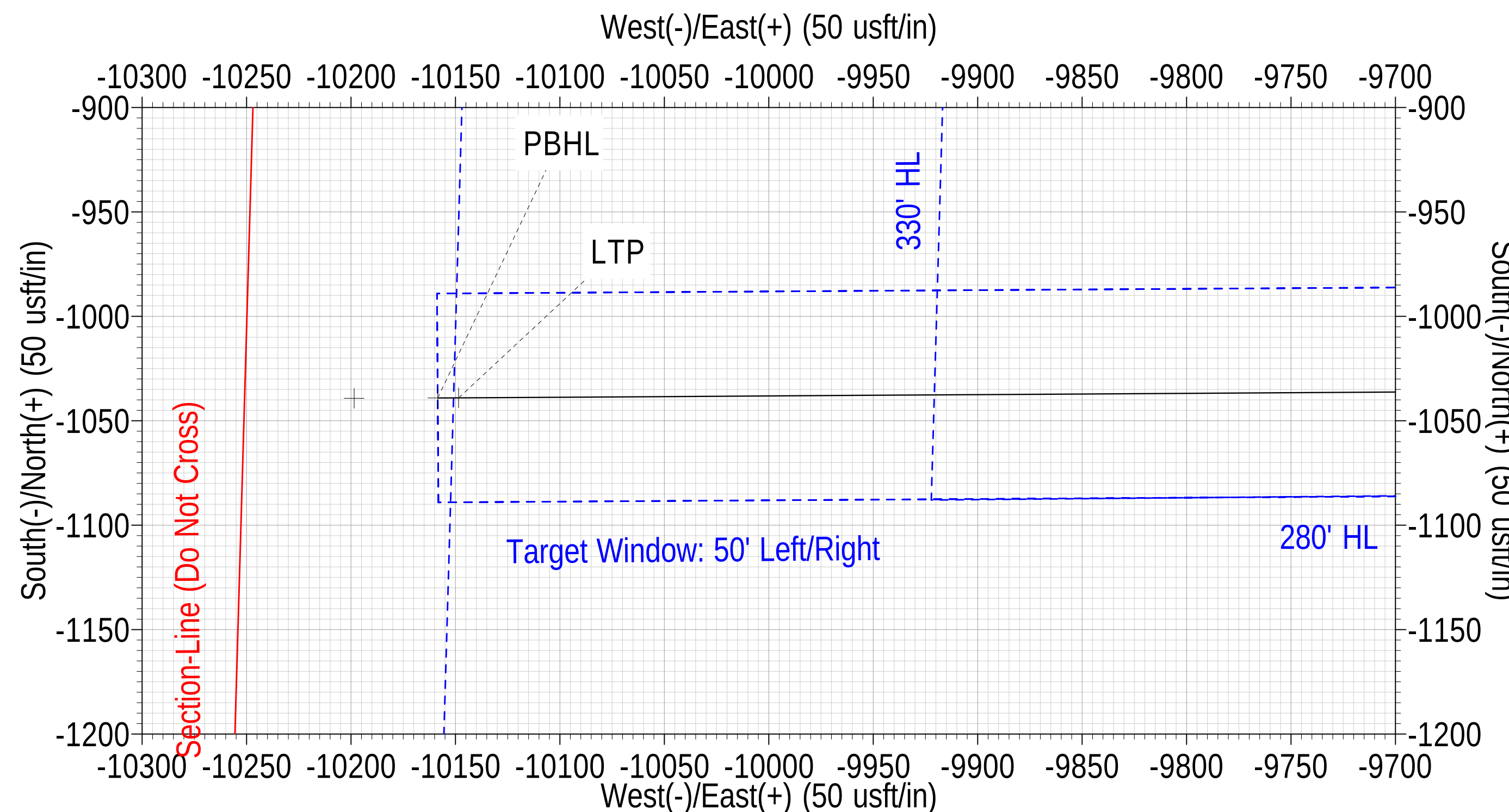
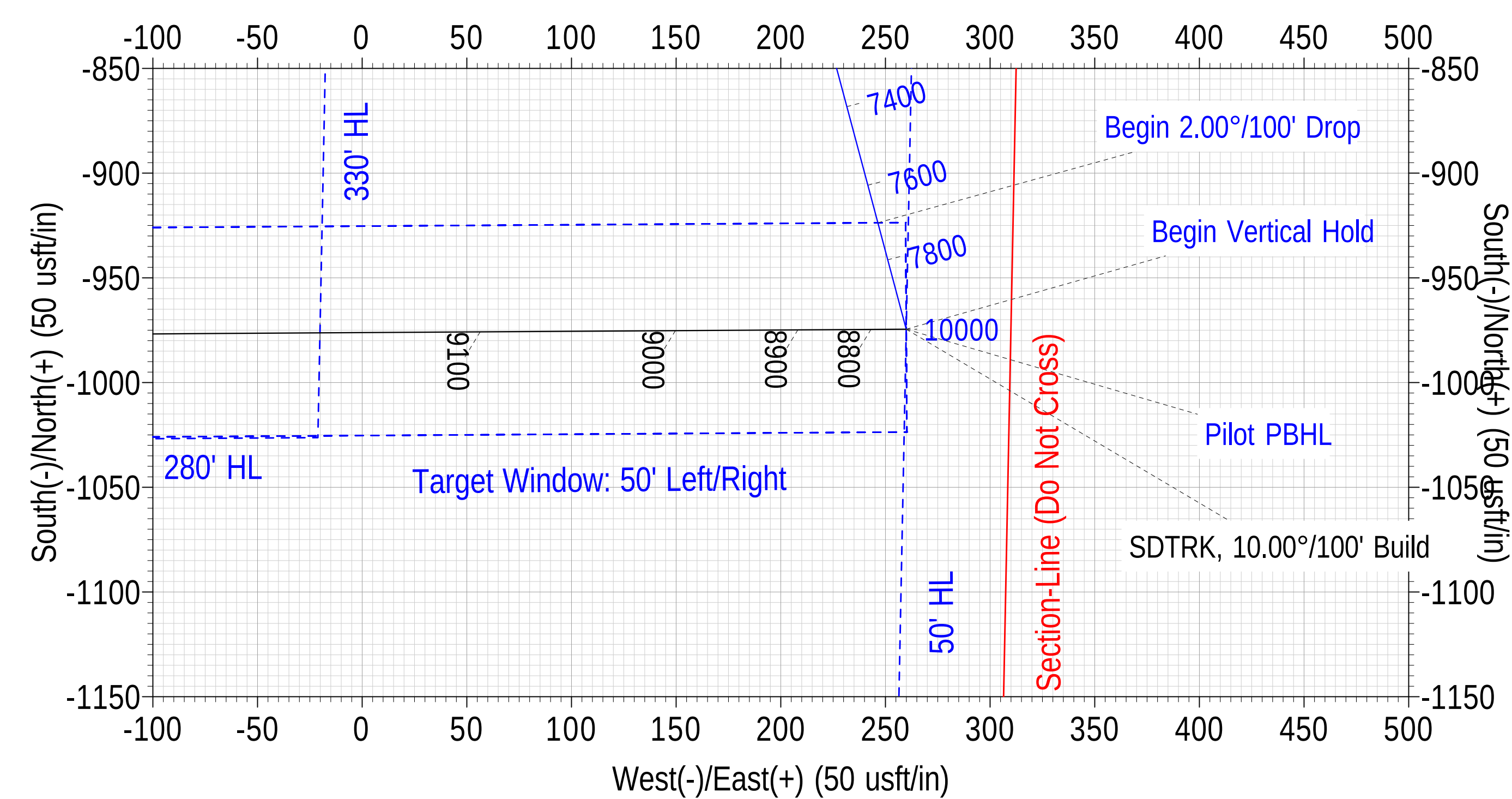
Depth From	Depth To	Survey/Plan	Tool
0.00	8755.74	Pilot Design #1 (Pilot Hole)	MWD+IFR1
8755.74	19501.41	Design #1 (Wellbore #2)	MWD+IFR1

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.000	0.00	KOP, 2.00°/100' Build
3049.83	11.00	165.06	3046.46	-50.82	13.56	2.00	165.063	-13.24	Hold 11.00° Inc, 165.06° Azm
7785.87	11.00	165.06	7695.54	-923.70	246.42	0.00	0.000	-240.61	Begin 2.00°/100' Drop
8335.70	0.00	0.00	8242.00	-974.52	259.98	2.00	180.000	-253.85	Begin Vertical Hold
10193.70	0.00	0.00	10100.00	-974.52	259.98	0.00	0.000	-253.85	Pilot PBHL

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
8755.74	0.00	0.00	8662.04	-974.52	259.98	0.00	0.000	-253.85	SDTRK, 10.00°/100' Build
9655.74	90.00	269.64	9235.00	-978.07	-312.97	10.00	269.645	319.11	Hold 90.00° Inc, 269.64° Azm
19491.41	90.00	269.64	9235.00	-1039.03	-10148.45	0.00	0.000	10154.78	LTP
19501.41	90.00	269.64	9235.00	-1039.09	-10158.45	0.00	0.000	10164.78	PBHL





WPX Energy

**Eddy County, New Mexico (NAD 83)
Collie 35-34-22-27 FEE (#401H, #402H)
Collie 35-34-22-27 #401H**

Pilot Hole

Plan: Pilot Design #1

Standard Planning Report

20 October, 2020





MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Pilot Design #1		

Project	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Collie 35-34-22-27 FEE (#401H, #402H)		
Site Position:		Northing:	492,037.38 usft
From:	Map	Easting:	597,057.54 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 21' 9.189 N
		Longitude:	104° 9' 10.406 W

Well	Collie 35-34-22-27 #401H		
Well Position	+N/-S	0.00 usft	Northing: 492,037.38 usft
	+E/-W	0.00 usft	Easting: 597,057.54 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.097 °	Ground Level:	3,078.20 usft

Wellbore	Pilot Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IFR	10/28/2020	7.114	60.020	47,703.00

Design	Pilot Design #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	269.64	

Plan Survey Tool Program	Date	10/20/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	10,193.70	Pilot Design #1 (Pilot Hole)	MWD+IFR1	
			OWSG MWD + IFR1		

Plan Sections											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000		
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.000		
3,049.83	11.00	165.06	3,046.46	-50.82	13.56	2.00	2.00	0.00	165.063		
7,785.87	11.00	165.06	7,695.54	-923.70	246.42	0.00	0.00	0.00	0.000		
8,335.70	0.00	0.00	8,242.00	-974.52	259.98	2.00	-2.00	0.00	180.000		
10,193.70	0.00	0.00	10,100.00	-974.52	259.98	0.00	0.00	0.00	0.000	Pilot PBHL - Collie :	



MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Pilot Design #1		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
383.00	0.00	0.00	383.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
460.00	0.00	0.00	460.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
835.00	0.00	0.00	835.00	0.00	0.00	0.00	0.00	0.00	0.00
Castile									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,340.00	0.00	0.00	2,340.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon (Base of Salt)									
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 2.00°/100' Build									
2,600.00	2.00	165.06	2,599.98	-1.69	0.45	-0.44	2.00	2.00	0.00
2,700.00	4.00	165.06	2,699.84	-6.74	1.80	-1.76	2.00	2.00	0.00
2,800.00	6.00	165.06	2,799.45	-15.16	4.05	-3.95	2.00	2.00	0.00
2,900.00	8.00	165.06	2,898.70	-26.94	7.19	-7.02	2.00	2.00	0.00
3,000.00	10.00	165.06	2,997.47	-42.05	11.22	-10.95	2.00	2.00	0.00
3,049.83	11.00	165.06	3,046.46	-50.82	13.56	-13.24	2.00	2.00	0.00
Hold 11.00° Inc, 165.06° Azm									
3,100.00	11.00	165.06	3,095.71	-60.07	16.03	-15.65	0.00	0.00	0.00
3,200.00	11.00	165.06	3,193.87	-78.50	20.94	-20.45	0.00	0.00	0.00
3,253.10	11.00	165.06	3,246.00	-88.29	23.55	-23.00	0.00	0.00	0.00
Cherry Canyon									
3,300.00	11.00	165.06	3,292.04	-96.93	25.86	-25.25	0.00	0.00	0.00
3,400.00	11.00	165.06	3,390.20	-115.36	30.78	-30.05	0.00	0.00	0.00
3,500.00	11.00	165.06	3,488.36	-133.79	35.69	-34.85	0.00	0.00	0.00
3,600.00	11.00	165.06	3,586.53	-152.22	40.61	-39.65	0.00	0.00	0.00
3,700.00	11.00	165.06	3,684.69	-170.65	45.53	-44.45	0.00	0.00	0.00
3,800.00	11.00	165.06	3,782.86	-189.08	50.44	-49.25	0.00	0.00	0.00
3,900.00	11.00	165.06	3,881.02	-207.51	55.36	-54.05	0.00	0.00	0.00



MS Directional Planning Report



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Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Pilot Design #1		

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)
4,000.00	11.00	165.06	3,979.18	-225.95	60.28	-58.86	0.00	0.00	0.00
4,100.00	11.00	165.06	4,077.35	-244.38	65.19	-63.66	0.00	0.00	0.00
4,200.00	11.00	165.06	4,175.51	-262.81	70.11	-68.46	0.00	0.00	0.00
4,254.49	11.00	165.06	4,229.00	-272.85	72.79	-71.07	0.00	0.00	0.00
Brushy Canyon									
4,300.00	11.00	165.06	4,273.68	-281.24	75.03	-73.26	0.00	0.00	0.00
4,400.00	11.00	165.06	4,371.84	-299.67	79.94	-78.06	0.00	0.00	0.00
4,500.00	11.00	165.06	4,470.00	-318.10	84.86	-82.86	0.00	0.00	0.00
4,600.00	11.00	165.06	4,568.17	-336.53	89.78	-87.66	0.00	0.00	0.00
4,700.00	11.00	165.06	4,666.33	-354.96	94.69	-92.46	0.00	0.00	0.00
4,800.00	11.00	165.06	4,764.50	-373.39	99.61	-97.26	0.00	0.00	0.00
4,900.00	11.00	165.06	4,862.66	-391.82	104.53	-102.06	0.00	0.00	0.00
5,000.00	11.00	165.06	4,960.82	-410.25	109.44	-106.86	0.00	0.00	0.00
5,100.00	11.00	165.06	5,058.99	-428.68	114.36	-111.67	0.00	0.00	0.00
5,200.00	11.00	165.06	5,157.15	-447.11	119.28	-116.47	0.00	0.00	0.00
5,300.00	11.00	165.06	5,255.31	-465.54	124.19	-121.27	0.00	0.00	0.00
5,400.00	11.00	165.06	5,353.48	-483.97	129.11	-126.07	0.00	0.00	0.00
5,500.00	11.00	165.06	5,451.64	-502.40	134.03	-130.87	0.00	0.00	0.00
5,600.00	11.00	165.06	5,549.81	-520.83	138.94	-135.67	0.00	0.00	0.00
5,700.00	11.00	165.06	5,647.97	-539.26	143.86	-140.47	0.00	0.00	0.00
5,794.77	11.00	165.06	5,741.00	-556.73	148.52	-145.02	0.00	0.00	0.00
Bone Spring									
5,800.00	11.00	165.06	5,746.13	-557.69	148.78	-145.27	0.00	0.00	0.00
5,859.20	11.00	165.06	5,804.25	-568.60	151.69	-148.11	0.00	0.00	0.00
9 5/8"									
5,900.00	11.00	165.06	5,844.30	-576.12	153.70	-150.07	0.00	0.00	0.00
6,000.00	11.00	165.06	5,942.46	-594.55	158.61	-154.87	0.00	0.00	0.00
6,100.00	11.00	165.06	6,040.63	-612.98	163.53	-159.67	0.00	0.00	0.00
6,192.07	11.00	165.06	6,131.00	-629.95	168.06	-164.09	0.00	0.00	0.00
Avalon									
6,200.00	11.00	165.06	6,138.79	-631.42	168.45	-164.47	0.00	0.00	0.00
6,300.00	11.00	165.06	6,236.95	-649.85	173.36	-169.28	0.00	0.00	0.00
6,400.00	11.00	165.06	6,335.12	-668.28	178.28	-174.08	0.00	0.00	0.00
6,500.00	11.00	165.06	6,433.28	-686.71	183.20	-178.88	0.00	0.00	0.00
6,600.00	11.00	165.06	6,531.44	-705.14	188.11	-183.68	0.00	0.00	0.00
6,700.00	11.00	165.06	6,629.61	-723.57	193.03	-188.48	0.00	0.00	0.00
6,800.00	11.00	165.06	6,727.77	-742.00	197.95	-193.28	0.00	0.00	0.00
6,838.94	11.00	165.06	6,766.00	-749.18	199.86	-195.15	0.00	0.00	0.00
1st Bone Spring Sand									
6,900.00	11.00	165.06	6,825.94	-760.43	202.86	-198.08	0.00	0.00	0.00
7,000.00	11.00	165.06	6,924.10	-778.86	207.78	-202.88	0.00	0.00	0.00
7,083.43	11.00	165.06	7,006.00	-794.24	211.88	-206.89	0.00	0.00	0.00
2nd Bone Spring Lime									
7,100.00	11.00	165.06	7,022.26	-797.29	212.70	-207.68	0.00	0.00	0.00
7,200.00	11.00	165.06	7,120.43	-815.72	217.61	-212.48	0.00	0.00	0.00
7,300.00	11.00	165.06	7,218.59	-834.15	222.53	-217.28	0.00	0.00	0.00
7,400.00	11.00	165.06	7,316.76	-852.58	227.45	-222.09	0.00	0.00	0.00
7,500.00	11.00	165.06	7,414.92	-871.01	232.36	-226.89	0.00	0.00	0.00
7,559.17	11.00	165.06	7,473.00	-881.92	235.27	-229.73	0.00	0.00	0.00
2nd Bone Spring Sand									
7,600.00	11.00	165.06	7,513.08	-889.44	237.28	-231.69	0.00	0.00	0.00
7,700.00	11.00	165.06	7,611.25	-907.87	242.20	-236.49	0.00	0.00	0.00
7,724.20	11.00	165.06	7,635.00	-912.33	243.39	-237.65	0.00	0.00	0.00



MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Pilot Design #1		

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)
3rd Bone Spring Lime									
7,785.87	11.00	165.06	7,695.54	-923.70	246.42	-240.61	0.00	0.00	0.00
Begin 2.00°/100' Drop									
7,800.00	10.71	165.06	7,709.42	-926.27	247.11	-241.28	2.00	-2.00	0.00
7,900.00	8.71	165.06	7,807.98	-942.57	251.45	-245.53	2.00	-2.00	0.00
8,000.00	6.71	165.06	7,907.07	-955.54	254.91	-248.91	2.00	-2.00	0.00
8,100.00	4.71	165.06	8,006.57	-965.16	257.48	-251.41	2.00	-2.00	0.00
8,200.00	2.71	165.06	8,106.35	-971.42	259.15	-253.04	2.00	-2.00	0.00
8,300.00	0.71	165.06	8,206.30	-974.31	259.92	-253.79	2.00	-2.00	0.00
8,335.70	0.00	0.00	8,242.00	-974.52	259.98	-253.85	2.00	-2.00	0.00
Begin Vertical Hold									
8,400.00	0.00	0.00	8,306.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,500.00	0.00	0.00	8,406.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,600.00	0.00	0.00	8,506.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,700.00	0.00	0.00	8,606.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,800.00	0.00	0.00	8,706.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,897.70	0.00	0.00	8,804.00	-974.52	259.98	-253.85	0.00	0.00	0.00
3rd Bone Spring Sand									
8,900.00	0.00	0.00	8,806.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,000.00	0.00	0.00	8,906.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,100.00	0.00	0.00	9,006.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,200.00	0.00	0.00	9,106.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,208.70	0.00	0.00	9,115.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Wolfcamp Top									
9,235.70	0.00	0.00	9,142.00	-974.52	259.98	-253.85	0.00	0.00	0.00
WC_X									
9,300.00	0.00	0.00	9,206.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,308.70	0.00	0.00	9,215.00	-974.52	259.98	-253.85	0.00	0.00	0.00
WC_Y									
9,315.70	0.00	0.00	9,222.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Top Target									
9,328.70	0.00	0.00	9,235.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Landing Point									
9,342.70	0.00	0.00	9,249.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Base Target									
9,348.70	0.00	0.00	9,255.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Wolfcamp A									
9,400.00	0.00	0.00	9,306.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,500.00	0.00	0.00	9,406.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,549.70	0.00	0.00	9,456.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Wolfcamp B									
9,600.00	0.00	0.00	9,506.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,700.00	0.00	0.00	9,606.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,738.70	0.00	0.00	9,645.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Wolfcamp C									
9,800.00	0.00	0.00	9,706.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,900.00	0.00	0.00	9,806.30	-974.52	259.98	-253.85	0.00	0.00	0.00
9,927.70	0.00	0.00	9,834.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Wolfcamp D									
10,000.00	0.00	0.00	9,906.30	-974.52	259.98	-253.85	0.00	0.00	0.00
10,051.70	0.00	0.00	9,958.00	-974.52	259.98	-253.85	0.00	0.00	0.00
Wolfcamp D Hot									


MS Directional
 Planning Report


Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Pilot Design #1		

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)	
10,100.00	0.00	0.00	10,006.30	-974.52	259.98	-253.85	0.00	0.00	0.00	
10,193.70	0.00	0.00	10,100.00	-974.52	259.98	-253.85	0.00	0.00	0.00	
Pilot PBHL										

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										
Pilot PBHL - Collie 35-	0.00	0.00	10,100.00	-974.52	259.98	491,062.86	597,317.52	32° 20' 59.541 N	104° 9' 7.395 W	
- plan hits target center										
- Point										

Casing Points									
Measured Depth (usft)	Vertical Depth (usft)	Name			Casing Diameter (")	Hole Diameter (")			
460.00	460.00	13 3/8"			13-3/8	17-1/2			
5,859.20	5,804.25	9 5/8"			9-5/8	12-1/4			



MS Directional Planning Report



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Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Pilot Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
383.00	383.00	Salado			
835.00	835.00	Castile			
2,340.00	2,340.00	Bell Canyon (Base of Salt)			
3,253.10	3,246.00	Cherry Canyon			
4,254.49	4,229.00	Brushy Canyon			
5,794.77	5,741.00	Bone Spring			
6,192.07	6,131.00	Avalon			
6,838.94	6,766.00	1st Bone Spring Sand			
7,083.43	7,006.00	2nd Bone Spring Lime			
7,559.17	7,473.00	2nd Bone Spring Sand			
7,724.20	7,635.00	3rd Bone Spring Lime			
8,897.70	8,804.00	3rd Bone Spring Sand			
9,208.70	9,115.00	Wolfcamp Top			
9,235.70	9,142.00	WC_X			
9,308.70	9,215.00	WC_Y			
9,315.70	9,222.00	Top Target			
9,328.70	9,235.00	Landing Point			
9,342.70	9,249.00	Base Target			
9,348.70	9,255.00	Wolfcamp A			
9,549.70	9,456.00	Wolfcamp B			
9,738.70	9,645.00	Wolfcamp C			
9,927.70	9,834.00	Wolfcamp D			
10,051.70	9,958.00	Wolfcamp D Hot			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,500.00	2,500.00	0.00	0.00	KOP, 2.00°/100' Build
3,049.83	3,046.46	-50.82	13.56	Hold 11.00° Inc, 165.06° Azm
7,785.87	7,695.54	-923.70	246.42	Begin 2.00°/100' Drop
8,335.70	8,242.00	-974.52	259.98	Begin Vertical Hold
10,193.70	10,100.00	-974.52	259.98	Pilot PBHL



WPX Energy

**Eddy County, New Mexico (NAD 83)
Collie 35-34-22-27 FEE (#401H, #402H)
Collie 35-34-22-27 #401H**

Wellbore #2

Plan: Design #1

Standard Planning Report

20 October, 2020





MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #2		
Design:	Design #1		

Project	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Collie 35-34-22-27 FEE (#401H, #402H)		
Site Position:		Northing:	492,037.38 usft
From:	Map	Easting:	597,057.54 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 21' 9.189 N
		Longitude:	104° 9' 10.406 W

Well	Collie 35-34-22-27 #401H		
Well Position	+N/-S	0.00 usft	Northing: 492,037.38 usft
	+E/-W	0.00 usft	Easting: 597,057.54 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.097 °	Ground Level:	3,078.20 usft

Wellbore	Wellbore #2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IFR	10/28/2020	7.114	60.020	47,703.00

Design	Design #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	8,755.74	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	269.64	

Plan Survey Tool Program	Date	10/20/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	8,755.74	19,501.41	Design #1 (Wellbore #2)	MWD+IFR1	
				OWSG MWD + IFR1	

Plan Sections											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target	
8,755.74	0.00	0.00	8,662.04	-974.52	259.98	0.00	0.00	0.00	0.000		
9,655.74	90.00	269.64	9,235.00	-978.07	-312.97	10.00	10.00	-10.04	269.645		
19,491.41	90.00	269.64	9,235.00	-1,039.03	-10,148.45	0.00	0.00	0.00	0.000	LTP - Collie 35-34-2	
19,501.41	90.00	269.64	9,235.00	-1,039.09	-10,158.45	0.00	0.00	0.00	0.000	PBHL - Collie 35-34	



MS Directional Planning Report



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Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #2		
Design:	Design #1		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
460.00	0.00	0.00	460.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	2.00	165.06	2,599.98	-1.69	0.45	-0.44	2.00	2.00	0.00
2,700.00	4.00	165.06	2,699.84	-6.74	1.80	-1.76	2.00	2.00	0.00
2,800.00	6.00	165.06	2,799.45	-15.16	4.05	-3.95	2.00	2.00	0.00
2,900.00	8.00	165.06	2,898.70	-26.94	7.19	-7.02	2.00	2.00	0.00
3,000.00	10.00	165.06	2,997.47	-42.05	11.22	-10.95	2.00	2.00	0.00
3,049.83	11.00	165.06	3,046.46	-50.82	13.56	-13.24	2.00	2.00	0.00
3,100.00	11.00	165.06	3,095.71	-60.07	16.03	-15.65	0.00	0.00	0.00
3,200.00	11.00	165.06	3,193.87	-78.50	20.94	-20.45	0.00	0.00	0.00
3,300.00	11.00	165.06	3,292.04	-96.93	25.86	-25.25	0.00	0.00	0.00
3,400.00	11.00	165.06	3,390.20	-115.36	30.78	-30.05	0.00	0.00	0.00
3,500.00	11.00	165.06	3,488.36	-133.79	35.69	-34.85	0.00	0.00	0.00
3,600.00	11.00	165.06	3,586.53	-152.22	40.61	-39.65	0.00	0.00	0.00
3,700.00	11.00	165.06	3,684.69	-170.65	45.53	-44.45	0.00	0.00	0.00
3,800.00	11.00	165.06	3,782.86	-189.08	50.44	-49.25	0.00	0.00	0.00
3,900.00	11.00	165.06	3,881.02	-207.51	55.36	-54.05	0.00	0.00	0.00
4,000.00	11.00	165.06	3,979.18	-225.95	60.28	-58.86	0.00	0.00	0.00
4,100.00	11.00	165.06	4,077.35	-244.38	65.19	-63.66	0.00	0.00	0.00
4,200.00	11.00	165.06	4,175.51	-262.81	70.11	-68.46	0.00	0.00	0.00
4,300.00	11.00	165.06	4,273.68	-281.24	75.03	-73.26	0.00	0.00	0.00
4,400.00	11.00	165.06	4,371.84	-299.67	79.94	-78.06	0.00	0.00	0.00
4,500.00	11.00	165.06	4,470.00	-318.10	84.86	-82.86	0.00	0.00	0.00
4,600.00	11.00	165.06	4,568.17	-336.53	89.78	-87.66	0.00	0.00	0.00
4,700.00	11.00	165.06	4,666.33	-354.96	94.69	-92.46	0.00	0.00	0.00
4,800.00	11.00	165.06	4,764.50	-373.39	99.61	-97.26	0.00	0.00	0.00
4,900.00	11.00	165.06	4,862.66	-391.82	104.53	-102.06	0.00	0.00	0.00
5,000.00	11.00	165.06	4,960.82	-410.25	109.44	-106.86	0.00	0.00	0.00



MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #2		
Design:	Design #1		

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)
5,100.00	11.00	165.06	5,058.99	-428.68	114.36	-111.67	0.00	0.00	0.00
5,200.00	11.00	165.06	5,157.15	-447.11	119.28	-116.47	0.00	0.00	0.00
5,300.00	11.00	165.06	5,255.31	-465.54	124.19	-121.27	0.00	0.00	0.00
5,400.00	11.00	165.06	5,353.48	-483.97	129.11	-126.07	0.00	0.00	0.00
5,500.00	11.00	165.06	5,451.64	-502.40	134.03	-130.87	0.00	0.00	0.00
5,600.00	11.00	165.06	5,549.81	-520.83	138.94	-135.67	0.00	0.00	0.00
5,700.00	11.00	165.06	5,647.97	-539.26	143.86	-140.47	0.00	0.00	0.00
5,800.00	11.00	165.06	5,746.13	-557.69	148.78	-145.27	0.00	0.00	0.00
5,859.20	11.00	165.06	5,804.25	-568.60	151.69	-148.11	0.00	0.00	0.00
9 5/8"									
5,900.00	11.00	165.06	5,844.30	-576.12	153.70	-150.07	0.00	0.00	0.00
6,000.00	11.00	165.06	5,942.46	-594.55	158.61	-154.87	0.00	0.00	0.00
6,100.00	11.00	165.06	6,040.63	-612.98	163.53	-159.67	0.00	0.00	0.00
6,200.00	11.00	165.06	6,138.79	-631.42	168.45	-164.47	0.00	0.00	0.00
6,300.00	11.00	165.06	6,236.95	-649.85	173.36	-169.28	0.00	0.00	0.00
6,400.00	11.00	165.06	6,335.12	-668.28	178.28	-174.08	0.00	0.00	0.00
6,500.00	11.00	165.06	6,433.28	-686.71	183.20	-178.88	0.00	0.00	0.00
6,600.00	11.00	165.06	6,531.44	-705.14	188.11	-183.68	0.00	0.00	0.00
6,700.00	11.00	165.06	6,629.61	-723.57	193.03	-188.48	0.00	0.00	0.00
6,800.00	11.00	165.06	6,727.77	-742.00	197.95	-193.28	0.00	0.00	0.00
6,900.00	11.00	165.06	6,825.94	-760.43	202.86	-198.08	0.00	0.00	0.00
7,000.00	11.00	165.06	6,924.10	-778.86	207.78	-202.88	0.00	0.00	0.00
7,100.00	11.00	165.06	7,022.26	-797.29	212.70	-207.68	0.00	0.00	0.00
7,200.00	11.00	165.06	7,120.43	-815.72	217.61	-212.48	0.00	0.00	0.00
7,300.00	11.00	165.06	7,218.59	-834.15	222.53	-217.28	0.00	0.00	0.00
7,400.00	11.00	165.06	7,316.76	-852.58	227.45	-222.09	0.00	0.00	0.00
7,500.00	11.00	165.06	7,414.92	-871.01	232.36	-226.89	0.00	0.00	0.00
7,600.00	11.00	165.06	7,513.08	-889.44	237.28	-231.69	0.00	0.00	0.00
7,700.00	11.00	165.06	7,611.25	-907.87	242.20	-236.49	0.00	0.00	0.00
7,785.87	11.00	165.06	7,695.54	-923.70	246.42	-240.61	0.00	0.00	0.00
7,800.00	10.71	165.06	7,709.42	-926.27	247.11	-241.28	2.00	-2.00	0.00
7,900.00	8.71	165.06	7,807.98	-942.57	251.45	-245.53	2.00	-2.00	0.00
8,000.00	6.71	165.06	7,907.07	-955.54	254.91	-248.91	2.00	-2.00	0.00
8,100.00	4.71	165.06	8,006.57	-965.16	257.48	-251.41	2.00	-2.00	0.00
8,200.00	2.71	165.06	8,106.35	-971.42	259.15	-253.04	2.00	-2.00	0.00
8,300.00	0.71	165.06	8,206.30	-974.31	259.92	-253.79	2.00	-2.00	0.00
8,335.70	0.00	0.00	8,242.00	-974.52	259.98	-253.85	2.00	-2.00	0.00
8,400.00	0.00	0.00	8,306.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,500.00	0.00	0.00	8,406.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,600.00	0.00	0.00	8,506.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,700.00	0.00	0.00	8,606.30	-974.52	259.98	-253.85	0.00	0.00	0.00
8,755.74	0.00	0.00	8,662.04	-974.52	259.98	-253.85	0.00	0.00	0.00
SDTRK, 10.00°/100' Build									
8,800.00	4.43	269.64	8,706.26	-974.53	258.27	-252.14	10.00	10.00	0.00
8,850.00	9.43	269.64	8,755.88	-974.57	252.24	-246.11	10.00	10.00	0.00
8,899.19	14.35	269.64	8,804.00	-974.63	242.11	-235.98	10.00	10.00	0.00
3rd Bone Spring Sand									
8,900.00	14.43	269.64	8,804.78	-974.63	241.91	-235.78	10.00	10.00	0.00
8,950.00	19.43	269.64	8,852.60	-974.72	227.36	-221.23	10.00	10.00	0.00
9,000.00	24.43	269.64	8,898.97	-974.84	208.70	-202.57	10.00	10.00	0.00
9,050.00	29.43	269.64	8,943.53	-974.98	186.06	-179.93	10.00	10.00	0.00
9,100.00	34.43	269.64	8,985.96	-975.14	159.63	-153.50	10.00	10.00	0.00
9,150.00	39.43	269.64	9,025.92	-975.33	129.60	-123.47	10.00	10.00	0.00



MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #2		
Design:	Design #1		

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)
9,200.00	44.43	269.64	9,063.10	-975.54	96.20	-90.07	10.00	10.00	0.00
9,250.00	49.43	269.64	9,097.24	-975.76	59.69	-53.56	10.00	10.00	0.00
9,278.12	52.24	269.64	9,115.00	-975.90	37.89	-31.76	10.00	10.00	0.00
Wolfcamp Top									
9,300.00	54.43	269.64	9,128.06	-976.01	20.35	-14.21	10.00	10.00	0.00
9,324.71	56.90	269.64	9,142.00	-976.13	-0.05	6.19	10.00	10.00	0.00
WC_X									
9,350.00	59.43	269.64	9,155.34	-976.27	-21.54	27.67	10.00	10.00	0.00
9,400.00	64.43	269.64	9,178.87	-976.54	-65.64	71.78	10.00	10.00	0.00
9,450.00	69.43	269.64	9,198.46	-976.83	-111.63	117.76	10.00	10.00	0.00
9,500.00	74.43	269.64	9,213.96	-977.12	-159.14	165.28	10.00	10.00	0.00
9,503.91	74.82	269.64	9,215.00	-977.14	-162.92	169.05	10.00	10.00	0.00
WC_Y									
9,533.46	77.77	269.64	9,222.00	-977.32	-191.62	197.76	10.00	10.00	0.00
Top Target									
9,550.00	79.43	269.64	9,225.27	-977.42	-207.83	213.97	10.00	10.00	0.00
9,600.00	84.43	269.64	9,232.29	-977.73	-257.32	263.46	10.00	10.00	0.00
9,650.00	89.43	269.64	9,234.97	-978.04	-307.23	313.37	10.00	10.00	0.00
9,655.74	90.00	269.64	9,235.00	-978.07	-312.97	319.11	10.00	10.00	0.00
Hold 90.00° Inc, 269.64° Azm - Landing Point - 7"									
9,700.00	90.00	269.64	9,235.00	-978.35	-357.23	363.37	0.00	0.00	0.00
9,800.00	90.00	269.64	9,235.00	-978.97	-457.23	463.37	0.00	0.00	0.00
9,900.00	90.00	269.64	9,235.00	-979.59	-557.22	563.37	0.00	0.00	0.00
10,000.00	90.00	269.64	9,235.00	-980.21	-657.22	663.37	0.00	0.00	0.00
10,100.00	90.00	269.64	9,235.00	-980.83	-757.22	763.37	0.00	0.00	0.00
10,200.00	90.00	269.64	9,235.00	-981.45	-857.22	863.37	0.00	0.00	0.00
10,300.00	90.00	269.64	9,235.00	-982.07	-957.22	963.37	0.00	0.00	0.00
10,400.00	90.00	269.64	9,235.00	-982.69	-1,057.21	1,063.37	0.00	0.00	0.00
10,500.00	90.00	269.64	9,235.00	-983.31	-1,157.21	1,163.37	0.00	0.00	0.00
10,600.00	90.00	269.64	9,235.00	-983.93	-1,257.21	1,263.37	0.00	0.00	0.00
10,700.00	90.00	269.64	9,235.00	-984.55	-1,357.21	1,363.37	0.00	0.00	0.00
10,800.00	90.00	269.64	9,235.00	-985.17	-1,457.21	1,463.37	0.00	0.00	0.00
10,900.00	90.00	269.64	9,235.00	-985.78	-1,557.21	1,563.37	0.00	0.00	0.00
11,000.00	90.00	269.64	9,235.00	-986.40	-1,657.20	1,663.37	0.00	0.00	0.00
11,100.00	90.00	269.64	9,235.00	-987.02	-1,757.20	1,763.37	0.00	0.00	0.00
11,200.00	90.00	269.64	9,235.00	-987.64	-1,857.20	1,863.37	0.00	0.00	0.00
11,300.00	90.00	269.64	9,235.00	-988.26	-1,957.20	1,963.37	0.00	0.00	0.00
11,400.00	90.00	269.64	9,235.00	-988.88	-2,057.20	2,063.37	0.00	0.00	0.00
11,500.00	90.00	269.64	9,235.00	-989.50	-2,157.19	2,163.37	0.00	0.00	0.00
11,600.00	90.00	269.64	9,235.00	-990.12	-2,257.19	2,263.37	0.00	0.00	0.00
11,700.00	90.00	269.64	9,235.00	-990.74	-2,357.19	2,363.37	0.00	0.00	0.00
11,800.00	90.00	269.64	9,235.00	-991.36	-2,457.19	2,463.37	0.00	0.00	0.00
11,900.00	90.00	269.64	9,235.00	-991.98	-2,557.19	2,563.37	0.00	0.00	0.00
12,000.00	90.00	269.64	9,235.00	-992.60	-2,657.18	2,663.37	0.00	0.00	0.00
12,100.00	90.00	269.64	9,235.00	-993.22	-2,757.18	2,763.37	0.00	0.00	0.00
12,200.00	90.00	269.64	9,235.00	-993.84	-2,857.18	2,863.37	0.00	0.00	0.00
12,300.00	90.00	269.64	9,235.00	-994.46	-2,957.18	2,963.37	0.00	0.00	0.00
12,400.00	90.00	269.64	9,235.00	-995.08	-3,057.18	3,063.37	0.00	0.00	0.00
12,500.00	90.00	269.64	9,235.00	-995.70	-3,157.17	3,163.37	0.00	0.00	0.00
12,600.00	90.00	269.64	9,235.00	-996.32	-3,257.17	3,263.37	0.00	0.00	0.00
12,700.00	90.00	269.64	9,235.00	-996.94	-3,357.17	3,363.37	0.00	0.00	0.00
12,800.00	90.00	269.64	9,235.00	-997.56	-3,457.17	3,463.37	0.00	0.00	0.00
12,900.00	90.00	269.64	9,235.00	-998.18	-3,557.17	3,563.37	0.00	0.00	0.00



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Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #2		
Design:	Design #1		

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)	
13,000.00	90.00	269.64	9,235.00	-998.80	-3,657.16	3,663.37	0.00	0.00	0.00	
13,100.00	90.00	269.64	9,235.00	-999.42	-3,757.16	3,763.37	0.00	0.00	0.00	
13,200.00	90.00	269.64	9,235.00	-1,000.04	-3,857.16	3,863.37	0.00	0.00	0.00	
13,300.00	90.00	269.64	9,235.00	-1,000.66	-3,957.16	3,963.37	0.00	0.00	0.00	
13,400.00	90.00	269.64	9,235.00	-1,001.28	-4,057.16	4,063.37	0.00	0.00	0.00	
13,500.00	90.00	269.64	9,235.00	-1,001.90	-4,157.16	4,163.37	0.00	0.00	0.00	
13,600.00	90.00	269.64	9,235.00	-1,002.52	-4,257.15	4,263.37	0.00	0.00	0.00	
13,700.00	90.00	269.64	9,235.00	-1,003.14	-4,357.15	4,363.37	0.00	0.00	0.00	
13,800.00	90.00	269.64	9,235.00	-1,003.76	-4,457.15	4,463.37	0.00	0.00	0.00	
13,900.00	90.00	269.64	9,235.00	-1,004.38	-4,557.15	4,563.37	0.00	0.00	0.00	
14,000.00	90.00	269.64	9,235.00	-1,005.00	-4,657.15	4,663.37	0.00	0.00	0.00	
14,100.00	90.00	269.64	9,235.00	-1,005.62	-4,757.14	4,763.37	0.00	0.00	0.00	
14,200.00	90.00	269.64	9,235.00	-1,006.24	-4,857.14	4,863.37	0.00	0.00	0.00	
14,300.00	90.00	269.64	9,235.00	-1,006.86	-4,957.14	4,963.37	0.00	0.00	0.00	
14,400.00	90.00	269.64	9,235.00	-1,007.48	-5,057.14	5,063.37	0.00	0.00	0.00	
14,500.00	90.00	269.64	9,235.00	-1,008.10	-5,157.14	5,163.37	0.00	0.00	0.00	
14,600.00	90.00	269.64	9,235.00	-1,008.72	-5,257.13	5,263.37	0.00	0.00	0.00	
14,700.00	90.00	269.64	9,235.00	-1,009.34	-5,357.13	5,363.37	0.00	0.00	0.00	
14,800.00	90.00	269.64	9,235.00	-1,009.96	-5,457.13	5,463.37	0.00	0.00	0.00	
14,900.00	90.00	269.64	9,235.00	-1,010.57	-5,557.13	5,563.37	0.00	0.00	0.00	
15,000.00	90.00	269.64	9,235.00	-1,011.19	-5,657.13	5,663.37	0.00	0.00	0.00	
15,100.00	90.00	269.64	9,235.00	-1,011.81	-5,757.12	5,763.37	0.00	0.00	0.00	
15,200.00	90.00	269.64	9,235.00	-1,012.43	-5,857.12	5,863.37	0.00	0.00	0.00	
15,300.00	90.00	269.64	9,235.00	-1,013.05	-5,957.12	5,963.37	0.00	0.00	0.00	
15,400.00	90.00	269.64	9,235.00	-1,013.67	-6,057.12	6,063.37	0.00	0.00	0.00	
15,500.00	90.00	269.64	9,235.00	-1,014.29	-6,157.12	6,163.37	0.00	0.00	0.00	
15,600.00	90.00	269.64	9,235.00	-1,014.91	-6,257.11	6,263.37	0.00	0.00	0.00	
15,700.00	90.00	269.64	9,235.00	-1,015.53	-6,357.11	6,363.37	0.00	0.00	0.00	
15,800.00	90.00	269.64	9,235.00	-1,016.15	-6,457.11	6,463.37	0.00	0.00	0.00	
15,900.00	90.00	269.64	9,235.00	-1,016.77	-6,557.11	6,563.37	0.00	0.00	0.00	
16,000.00	90.00	269.64	9,235.00	-1,017.39	-6,657.11	6,663.37	0.00	0.00	0.00	
16,100.00	90.00	269.64	9,235.00	-1,018.01	-6,757.11	6,763.37	0.00	0.00	0.00	
16,200.00	90.00	269.64	9,235.00	-1,018.63	-6,857.10	6,863.37	0.00	0.00	0.00	
16,300.00	90.00	269.64	9,235.00	-1,019.25	-6,957.10	6,963.37	0.00	0.00	0.00	
16,400.00	90.00	269.64	9,235.00	-1,019.87	-7,057.10	7,063.37	0.00	0.00	0.00	
16,500.00	90.00	269.64	9,235.00	-1,020.49	-7,157.10	7,163.37	0.00	0.00	0.00	
16,600.00	90.00	269.64	9,235.00	-1,021.11	-7,257.10	7,263.37	0.00	0.00	0.00	
16,700.00	90.00	269.64	9,235.00	-1,021.73	-7,357.09	7,363.37	0.00	0.00	0.00	
16,800.00	90.00	269.64	9,235.00	-1,022.35	-7,457.09	7,463.37	0.00	0.00	0.00	
16,900.00	90.00	269.64	9,235.00	-1,022.97	-7,557.09	7,563.37	0.00	0.00	0.00	
17,000.00	90.00	269.64	9,235.00	-1,023.59	-7,657.09	7,663.37	0.00	0.00	0.00	
17,100.00	90.00	269.64	9,235.00	-1,024.21	-7,757.09	7,763.37	0.00	0.00	0.00	
17,200.00	90.00	269.64	9,235.00	-1,024.83	-7,857.08	7,863.37	0.00	0.00	0.00	
17,300.00	90.00	269.64	9,235.00	-1,025.45	-7,957.08	7,963.37	0.00	0.00	0.00	
17,400.00	90.00	269.64	9,235.00	-1,026.07	-8,057.08	8,063.37	0.00	0.00	0.00	
17,500.00	90.00	269.64	9,235.00	-1,026.69	-8,157.08	8,163.37	0.00	0.00	0.00	
17,600.00	90.00	269.64	9,235.00	-1,027.31	-8,257.08	8,263.37	0.00	0.00	0.00	
17,700.00	90.00	269.64	9,235.00	-1,027.93	-8,357.07	8,363.37	0.00	0.00	0.00	
17,800.00	90.00	269.64	9,235.00	-1,028.55	-8,457.07	8,463.37	0.00	0.00	0.00	
17,900.00	90.00	269.64	9,235.00	-1,029.17	-8,557.07	8,563.37	0.00	0.00	0.00	
18,000.00	90.00	269.64	9,235.00	-1,029.79	-8,657.07	8,663.37	0.00	0.00	0.00	
18,100.00	90.00	269.64	9,235.00	-1,030.41	-8,757.07	8,763.37	0.00	0.00	0.00	
18,200.00	90.00	269.64	9,235.00	-1,031.03	-8,857.06	8,863.37	0.00	0.00	0.00	
18,300.00	90.00	269.64	9,235.00	-1,031.65	-8,957.06	8,963.37	0.00	0.00	0.00	



MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #2		
Design:	Design #1		

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)
18,400.00	90.00	269.64	9,235.00	-1,032.27	-9,057.06	9,063.37	0.00	0.00	0.00
18,500.00	90.00	269.64	9,235.00	-1,032.89	-9,157.06	9,163.37	0.00	0.00	0.00
18,600.00	90.00	269.64	9,235.00	-1,033.51	-9,257.06	9,263.37	0.00	0.00	0.00
18,700.00	90.00	269.64	9,235.00	-1,034.13	-9,357.06	9,363.37	0.00	0.00	0.00
18,800.00	90.00	269.64	9,235.00	-1,034.75	-9,457.05	9,463.37	0.00	0.00	0.00
18,900.00	90.00	269.64	9,235.00	-1,035.36	-9,557.05	9,563.37	0.00	0.00	0.00
19,000.00	90.00	269.64	9,235.00	-1,035.98	-9,657.05	9,663.37	0.00	0.00	0.00
19,100.00	90.00	269.64	9,235.00	-1,036.60	-9,757.05	9,763.37	0.00	0.00	0.00
19,200.00	90.00	269.64	9,235.00	-1,037.22	-9,857.05	9,863.37	0.00	0.00	0.00
19,300.00	90.00	269.64	9,235.00	-1,037.84	-9,957.04	9,963.37	0.00	0.00	0.00
19,400.00	90.00	269.64	9,235.00	-1,038.46	-10,057.04	10,063.37	0.00	0.00	0.00
19,491.41	90.00	269.64	9,235.00	-1,039.03	-10,148.45	10,154.78	0.00	0.00	0.00
LTP									
19,501.41	90.00	269.64	9,235.00	-1,039.09	-10,158.45	10,164.78	0.00	0.00	0.00
PBHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - Collie 35-34-22- - hit/miss target - Shape - Point	0.00	0.00	9,235.00	-976.26	-20.11	491,061.12	597,037.43	32° 20' 59.528 N	104° 9' 10.660 W
- plan misses target center by 70.52usft at 9386.24usft MD (9172.78 TVD, -976.46 N, -53.30 E)									
LTP - Collie 35-34-22- - plan hits target center - Point	0.00	0.00	9,235.00	-1,039.03	-10,148.45	490,998.35	586,909.09	32° 20' 59.061 N	104° 11' 8.735 W
PBHL - Collie 35-34-2 - plan hits target center - Rectangle (sides W100.00 H10,418.63 D0.00)	0.00	0.00	9,235.00	-1,039.09	-10,158.45	490,998.29	586,899.09	32° 20' 59.060 N	104° 11' 8.851 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
460.00	460.00	13 3/8"	13-3/8	17-1/2	
5,859.20	5,804.25	9 5/8"	9-5/8	12-1/4	
9,655.74	9,235.00	7"	7	8-3/4	



MS Directional Planning Report



Database:	EDM 5000.14 Conroe DB	Local Co-ordinate Reference:	Well Collie 35-34-22-27 #401H
Company:	WPX Energy	TVD Reference:	WELL @ 3104.70usft (H&P 600)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	WELL @ 3104.70usft (H&P 600)
Site:	Collie 35-34-22-27 FEE (#401H, #402H)	North Reference:	Grid
Well:	Collie 35-34-22-27 #401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #2		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
383.00	383.00	Salado			
835.00	835.00	Castile			
2,340.00	2,340.00	Bell Canyon (Base of Salt)			
3,253.10	3,246.00	Cherry Canyon			
4,254.49	4,229.00	Brushy Canyon			
5,794.77	5,741.00	Bone Spring			
6,192.07	6,131.00	Avalon			
6,838.94	6,766.00	1st Bone Spring Sand			
7,083.43	7,006.00	2nd Bone Spring Lime			
7,559.17	7,473.00	2nd Bone Spring Sand			
7,724.20	7,635.00	3rd Bone Spring Lime			
8,899.19	8,804.00	3rd Bone Spring Sand			
9,278.12	9,115.00	Wolfcamp Top			
9,324.71	9,142.00	WC_X			
9,503.91	9,215.00	WC_Y			
9,533.46	9,222.00	Top Target			
9,655.74	9,235.00	Landing Point			

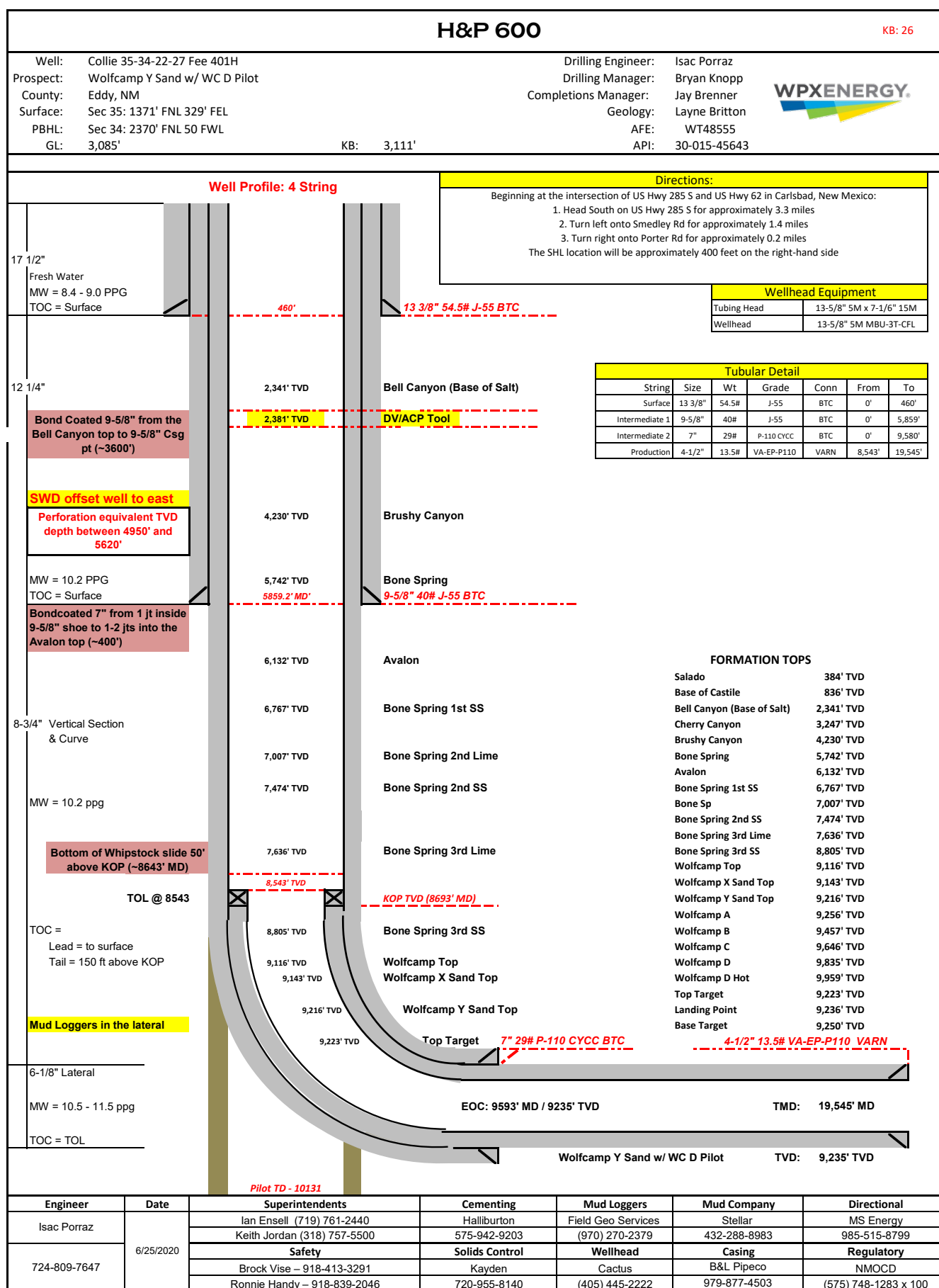
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,755.74	8,662.04	-974.52	259.98	SDTRK, 10.00°/100' Build
9,655.74	9,235.00	-978.07	-312.97	Hold 90.00° Inc, 269.64° Azm
19,491.41	9,235.00	-1,039.03	-10,148.45	LTP
19,501.41	9,235.00	-1,039.09	-10,158.45	PBHL

9-5/8" Openhole Hydraulic Whipstock

Objective: Set a hydraulic whipstock in the pilot hole to kickoff into a sidetrack to drill the curve.

- 1 MU hydraulic whiptock assembly and TIH with 5" DP
 - a. Final set depth for the bottom of the whipstock slide will be at ~8642' or 50' above KOP
 - b. Verify whipstock shear pin rating as to not exceed flow rate and PU/Slack off limitations of the tool
 - c. Whipstock BHA
 - i. 9-5/8" 3° Whipstock
 - ii. 8-3/4" Mill assembly
 - iii. 5-3/4" Running tool
 - iv. (1) jt of 5" DP
 - v. Bypass valve
 - vi. Float Sub
 - vii. UBHO
 - viii. (1) jt of 5" DP
- 2 Once on depth:
 - a. RU WL
 - b. RIH with Gyro and land in the UBHO sub
 - c. Orient Whipstock to 269° to 270° azimuth
 - a. Verify azimuth multiple times by pulling and reseating gyro in UHBO at least 3 times
 - b. POOH with WL and Gyro once azimuth has been confirmed
- 3 Proceed ahead with setting procedure per Wild Cat toolhand and SOP's
 - a. Stage up mud pumps to increase pressure for shearing pins and setting anchor
 - b. PU and Slack off per toolhand to verify anchor is set
 - c. RIH with Gyro to confirm whipstock orientation
 - d. POOH with WL and RD
 - e. Shear off mills from whipstock
 - f. Mill 10'-12' of rathole. At the minimum, we want to mill 6' to ensure the bit to bend on our curve motor will be in openhole
 - g. Rotate and work through whipstcock window to ensure it is cleaned up
- 4 Circulate bottoms up, Flow check, slug the pipe, and POOH racking back DP, HWDP, and DCs verifying fill.
Note: Change DP breaks every trip.



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

CONDITIONS

Action 13416

CONDITIONS OF APPROVAL

Operator:	WPX ENERGY PERMIAN, LLC 3500 One Williams Center Tulsa, OK74172			OGRID:	246289	Action Number:	13416	Action Type:	C-103A
OCD Reviewer	Condition								
pkautz	None								