



OCD – HOBBS
07/31/2019
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Concho Resources, Inc.

Lea County, NM (NAD 27 NME)
(Pork Pie) Sec-15_T24-S_R-35-E
Pork Pie State Com #704H

OWB

Plan: Pilot Hole

Standard Planning Report

23 July, 2019



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Pork Pie State Com #704H
Company:	Concho Resources, Inc.	TVD Reference:	KB @ 3362.0usft (Latshaw 44)
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB @ 3362.0usft (Latshaw 44)
Site:	(Pork Pie) Sec-15_T24-S_R-35-E	North Reference:	Grid
Well:	Pork Pie State Com #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Pilot Hole		

Project	Lea County, NM (NAD 27 NME)		
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	(Pork Pie) Sec-15_T24-S_R-35-E		
Site Position:		Northing:	442,049.80 usft
From:	Map	Easting:	803,079.50 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 12' 41.450 N
		Longitude:	103° 21' 12.259 W
		Grid Convergence:	0.52 °

Well	Pork Pie State Com #704H		
Well Position	+N/-S	0.0 usft	Northing: 442,049.80 usft
	+E/-W	0.0 usft	Easting: 803,079.50 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 12' 41.450 N
			Longitude: 103° 21' 12.259 W
			Ground Level: 3,337.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	07/23/19	6.62	60.06	47,738.04368051

Design	Pilot Hole			
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	197.51

Plan Survey Tool Program	Date	07/23/19		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	12,518.3	Pilot Hole (OWB)	MWD
			OWSG MWD - Standard	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,253.1	5.06	197.51	2,252.8	-10.7	-3.4	2.00	2.00	0.00	197.51	
6,765.1	5.06	197.51	6,747.2	-390.3	-123.1	0.00	0.00	0.00	0.00	
7,018.3	0.00	0.00	7,000.0	-401.0	-126.5	2.00	-2.00	0.00	180.00	
12,518.3	0.00	0.00	12,500.0	-401.0	-126.5	0.00	0.00	0.00	0.00	

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Well:	Pork Pie State Com #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Pilot Hole		

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
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
NUDGE - Build 2.00									
2,100.0	2.00	197.51	2,100.0	-1.7	-0.5	1.7	2.00	2.00	0.00
2,200.0	4.00	197.51	2,199.8	-6.7	-2.1	7.0	2.00	2.00	0.00
2,253.1	5.06	197.51	2,252.8	-10.7	-3.4	11.2	2.00	2.00	0.00
HOLD - 4512.0 at 2253.1 MD									
2,300.0	5.06	197.51	2,299.5	-14.6	-4.6	15.3	0.00	0.00	0.00
2,400.0	5.06	197.51	2,399.1	-23.0	-7.3	24.1	0.00	0.00	0.00
2,500.0	5.06	197.51	2,498.7	-31.4	-9.9	33.0	0.00	0.00	0.00
2,600.0	5.06	197.51	2,598.3	-39.8	-12.6	41.8	0.00	0.00	0.00
2,700.0	5.06	197.51	2,697.9	-48.3	-15.2	50.6	0.00	0.00	0.00
2,800.0	5.06	197.51	2,797.5	-56.7	-17.9	59.4	0.00	0.00	0.00
2,900.0	5.06	197.51	2,897.1	-65.1	-20.5	68.3	0.00	0.00	0.00
3,000.0	5.06	197.51	2,996.8	-73.5	-23.2	77.1	0.00	0.00	0.00
3,100.0	5.06	197.51	3,096.4	-81.9	-25.8	85.9	0.00	0.00	0.00
3,200.0	5.06	197.51	3,196.0	-90.3	-28.5	94.7	0.00	0.00	0.00
3,300.0	5.06	197.51	3,295.6	-98.8	-31.2	103.5	0.00	0.00	0.00
3,400.0	5.06	197.51	3,395.2	-107.2	-33.8	112.4	0.00	0.00	0.00
3,500.0	5.06	197.51	3,494.8	-115.6	-36.5	121.2	0.00	0.00	0.00
3,600.0	5.06	197.51	3,594.4	-124.0	-39.1	130.0	0.00	0.00	0.00
3,700.0	5.06	197.51	3,694.0	-132.4	-41.8	138.8	0.00	0.00	0.00
3,800.0	5.06	197.51	3,793.6	-140.8	-44.4	147.7	0.00	0.00	0.00
3,900.0	5.06	197.51	3,893.2	-149.2	-47.1	156.5	0.00	0.00	0.00
4,000.0	5.06	197.51	3,992.9	-157.7	-49.7	165.3	0.00	0.00	0.00
4,100.0	5.06	197.51	4,092.5	-166.1	-52.4	174.1	0.00	0.00	0.00
4,200.0	5.06	197.51	4,192.1	-174.5	-55.0	183.0	0.00	0.00	0.00
4,300.0	5.06	197.51	4,291.7	-182.9	-57.7	191.8	0.00	0.00	0.00
4,400.0	5.06	197.51	4,391.3	-191.3	-60.4	200.6	0.00	0.00	0.00
4,500.0	5.06	197.51	4,490.9	-199.7	-63.0	209.4	0.00	0.00	0.00
4,600.0	5.06	197.51	4,590.5	-208.1	-65.7	218.3	0.00	0.00	0.00
4,700.0	5.06	197.51	4,690.1	-216.6	-68.3	227.1	0.00	0.00	0.00
4,800.0	5.06	197.51	4,789.7	-225.0	-71.0	235.9	0.00	0.00	0.00
4,900.0	5.06	197.51	4,889.3	-233.4	-73.6	244.7	0.00	0.00	0.00

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Well:	Pork Pie State Com #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Pilot Hole		

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)
5,000.0	5.06	197.51	4,989.0	-241.8	-76.3	253.6	0.00	0.00	0.00
5,100.0	5.06	197.51	5,088.6	-250.2	-78.9	262.4	0.00	0.00	0.00
5,200.0	5.06	197.51	5,188.2	-258.6	-81.6	271.2	0.00	0.00	0.00
5,300.0	5.06	197.51	5,287.8	-267.1	-84.2	280.0	0.00	0.00	0.00
5,400.0	5.06	197.51	5,387.4	-275.5	-86.9	288.8	0.00	0.00	0.00
5,500.0	5.06	197.51	5,487.0	-283.9	-89.6	297.7	0.00	0.00	0.00
5,600.0	5.06	197.51	5,586.6	-292.3	-92.2	306.5	0.00	0.00	0.00
5,700.0	5.06	197.51	5,686.2	-300.7	-94.9	315.3	0.00	0.00	0.00
5,800.0	5.06	197.51	5,785.8	-309.1	-97.5	324.1	0.00	0.00	0.00
5,900.0	5.06	197.51	5,885.4	-317.5	-100.2	333.0	0.00	0.00	0.00
6,000.0	5.06	197.51	5,985.1	-326.0	-102.8	341.8	0.00	0.00	0.00
6,100.0	5.06	197.51	6,084.7	-334.4	-105.5	350.6	0.00	0.00	0.00
6,200.0	5.06	197.51	6,184.3	-342.8	-108.1	359.4	0.00	0.00	0.00
6,300.0	5.06	197.51	6,283.9	-351.2	-110.8	368.3	0.00	0.00	0.00
6,400.0	5.06	197.51	6,383.5	-359.6	-113.4	377.1	0.00	0.00	0.00
6,500.0	5.06	197.51	6,483.1	-368.0	-116.1	385.9	0.00	0.00	0.00
6,600.0	5.06	197.51	6,582.7	-376.4	-118.8	394.7	0.00	0.00	0.00
6,700.0	5.06	197.51	6,682.3	-384.9	-121.4	403.6	0.00	0.00	0.00
6,765.1	5.06	197.51	6,747.2	-390.3	-123.1	409.3	0.00	0.00	0.00
DROP - -2.00									
6,800.0	4.37	197.51	6,782.0	-393.1	-124.0	412.2	2.00	-2.00	0.00
6,900.0	2.37	197.51	6,881.8	-398.7	-125.8	418.0	2.00	-2.00	0.00
7,000.0	0.37	197.51	6,981.7	-400.9	-126.5	420.4	2.00	-2.00	0.00
7,018.3	0.00	0.00	7,000.0	-401.0	-126.5	420.5	2.00	-2.00	0.00
HOLD - 5500.0 at 7018.3 MD									
7,100.0	0.00	0.00	7,081.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,181.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,281.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,381.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,481.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,581.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,681.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,781.7	-401.0	-126.5	420.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,881.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,981.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,081.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,181.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,300.0	0.00	0.00	8,281.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,381.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,500.0	0.00	0.00	8,481.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,581.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,681.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,781.7	-401.0	-126.5	420.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,881.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,981.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,100.0	0.00	0.00	9,081.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,200.0	0.00	0.00	9,181.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,300.0	0.00	0.00	9,281.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,381.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,481.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,600.0	0.00	0.00	9,581.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,681.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,800.0	0.00	0.00	9,781.7	-401.0	-126.5	420.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,881.7	-401.0	-126.5	420.5	0.00	0.00	0.00

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Wellbore:	OWB		
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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)	
10,000.0	0.00	0.00	9,981.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,081.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,181.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,281.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,381.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,481.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,581.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,681.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,781.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,881.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,981.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,100.0	0.00	0.00	11,081.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,181.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,281.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,381.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,481.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,581.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,681.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,781.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
11,900.0	0.00	0.00	11,881.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
12,000.0	0.00	0.00	11,981.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
12,100.0	0.00	0.00	12,081.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
12,200.0	0.00	0.00	12,181.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
12,300.0	0.00	0.00	12,281.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
12,400.0	0.00	0.00	12,381.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
12,500.0	0.00	0.00	12,481.7	-401.0	-126.5	420.5	0.00	0.00	0.00	
12,518.3	0.00	0.00	12,500.0	-401.0	-126.5	420.5	0.00	0.00	0.00	
TD at 12518.3										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL (Pork Pie State - hit/miss target - Shape)	-1.28	359.51	11,937.0	10,009.7	-216.3	452,059.50	802,863.20	32° 14' 20.515 N	103° 21' 13.715 W	
- plan misses target center by 10411.1usft at 11955.3usft MD (11937.0 TVD, -401.0 N, -126.5 E)										
- Rectangle (sides W60.0 H10,412.0 D30.0)										
LTP (Pork Pie State C - plan misses target center by 10361.1usft at 11955.3usft MD (11937.0 TVD, -401.0 N, -126.5 E) - Point	0.00	0.00	11,937.0	9,959.7	-215.9	452,009.50	802,863.60	32° 14' 20.020 N	103° 21' 13.715 W	
FTP (Pork Pie State C - plan hits target center - Point	0.00	0.00	12,157.0	-401.0	-126.5	441,648.80	802,953.00	32° 12' 37.494 N	103° 21' 13.774 W	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Pork Pie State Com #704H
Company:	Concho Resources, Inc.	TVD Reference:	KB @ 3362.0usft (Latshaw 44)
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB @ 3362.0usft (Latshaw 44)
Site:	(Pork Pie) Sec-15_T24-S_R-35-E	North Reference:	Grid
Well:	Pork Pie State Com #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Pilot Hole		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	NUDGE - Build 2.00
2,253.1	2,252.8	-10.7	-3.4	HOLD - 4512.0 at 2253.1 MD
6,765.1	6,747.2	-390.3	-123.1	DROP - -2.00
7,018.3	7,000.0	-401.0	-126.5	HOLD - 5500.0 at 7018.3 MD
12,518.3	12,500.0	-401.0	-126.5	TD at 12518.3