



HOBBS OCD

OCT 27 2016

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Chevron

Lea County, NM (NAD27 NME)

SD WE 23 Fed P25

3H

OH

Plan: Plan 1 04-20-16

Standard Planning Report

20 April, 2016





Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR
 Company: Chevron
 Project: Lea County, NM (NAD27 NME)
 Site: SD WE 23 Fed P25
 Well: 3H
 Wellbore: OH
 Design: Plan 1 04-20-16

Local Co-ordinate Reference: Well 3H
 TVD Reference: RKB @ 3156.00usft (Pace X30)
 MD Reference: RKB @ 3156.00usft (Pace X30)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD27 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 SD WE 23 Fed P25

Site Position: Northing: 372,222.00 usft Latitude: 32° 1' 17.35050 N
 From: Map Easting: 713,232.00 usft Longitude: 103° 38' 43.16343 W
 Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.36 °

Well 3H

Well Position: +N/-S 0.00 usft Northing: 372,222.00 usft Latitude: 32° 1' 17.34735 N
 +E/-W 50.00 usft Easting: 713,282.00 usft Longitude: 103° 38' 42.58268 W
 Position Uncertainty: 0.00 usft Wellhead Elevation: 0.00 usft Ground Level: 3,123.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/20/2016	6.97	59.73	48,020

Design Plan 1 04-20-16

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
 (usft) (usft) (usft) (°)
 0.00 0.00 0.00 1.78

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	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,210.31	3.15	120.73	1,210.21	-2.96	4.98	1.50	1.50	0.00	120.73	
8,383.06	3.15	120.73	8,372.08	-204.69	344.27	0.00	0.00	0.00	0.00	
9,297.32	89.80	359.71	8,960.63	366.19	369.08	10.00	9.48	-13.24	-120.99	
19,192.32	89.80	359.71	8,995.00	10,261.00	319.00	0.00	0.00	0.00	0.00	BHL - SD WE P25 3H



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 Survey Calculation Method: Minimum Curvature

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
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
KOP1, Start Build 1.50°/100'									
1,100.00	1.50	120.73	1,099.99	-0.67	1.13	-0.63	1.50	1.50	0.00
1,200.00	3.00	120.73	1,199.91	-2.68	4.50	-2.53	1.50	1.50	0.00
1,210.31	3.15	120.73	1,210.21	-2.96	4.98	-2.80	1.50	1.50	0.00
Hold 3.15° Inc at 120.73° Azm									
1,300.00	3.15	120.73	1,299.76	-5.48	9.22	-5.19	0.00	0.00	0.00
1,400.00	3.15	120.73	1,399.61	-8.29	13.95	-7.86	0.00	0.00	0.00
1,500.00	3.15	120.73	1,499.45	-11.11	18.68	-10.52	0.00	0.00	0.00
1,600.00	3.15	120.73	1,599.30	-13.92	23.41	-13.18	0.00	0.00	0.00
1,700.00	3.15	120.73	1,699.15	-16.73	28.14	-15.85	0.00	0.00	0.00
1,800.00	3.15	120.73	1,799.00	-19.54	32.87	-18.51	0.00	0.00	0.00
1,900.00	3.15	120.73	1,898.85	-22.36	37.60	-21.18	0.00	0.00	0.00
2,000.00	3.15	120.73	1,998.70	-25.17	42.33	-23.84	0.00	0.00	0.00
2,100.00	3.15	120.73	2,098.55	-27.98	47.06	-26.50	0.00	0.00	0.00
2,200.00	3.15	120.73	2,198.39	-30.79	51.79	-29.17	0.00	0.00	0.00
2,300.00	3.15	120.73	2,298.24	-33.60	56.52	-31.83	0.00	0.00	0.00
2,400.00	3.15	120.73	2,398.09	-36.42	61.25	-34.50	0.00	0.00	0.00
2,500.00	3.15	120.73	2,497.94	-39.23	65.98	-37.16	0.00	0.00	0.00
2,600.00	3.15	120.73	2,597.79	-42.04	70.71	-39.82	0.00	0.00	0.00
2,700.00	3.15	120.73	2,697.64	-44.85	75.44	-42.49	0.00	0.00	0.00
2,800.00	3.15	120.73	2,797.48	-47.67	80.17	-45.15	0.00	0.00	0.00
2,900.00	3.15	120.73	2,897.33	-50.48	84.90	-47.82	0.00	0.00	0.00
3,000.00	3.15	120.73	2,997.18	-53.29	89.63	-50.48	0.00	0.00	0.00
3,100.00	3.15	120.73	3,097.03	-56.10	94.36	-53.14	0.00	0.00	0.00
3,200.00	3.15	120.73	3,196.88	-58.92	99.09	-55.81	0.00	0.00	0.00
3,300.00	3.15	120.73	3,296.73	-61.73	103.82	-58.47	0.00	0.00	0.00
3,400.00	3.15	120.73	3,396.58	-64.54	108.55	-61.14	0.00	0.00	0.00
3,500.00	3.15	120.73	3,496.42	-67.35	113.29	-63.80	0.00	0.00	0.00
3,600.00	3.15	120.73	3,596.27	-70.17	118.02	-66.47	0.00	0.00	0.00
3,700.00	3.15	120.73	3,696.12	-72.98	122.75	-69.13	0.00	0.00	0.00
3,800.00	3.15	120.73	3,795.97	-75.79	127.48	-71.79	0.00	0.00	0.00
3,900.00	3.15	120.73	3,895.82	-78.60	132.21	-74.46	0.00	0.00	0.00
4,000.00	3.15	120.73	3,995.67	-81.42	136.94	-77.12	0.00	0.00	0.00
4,100.00	3.15	120.73	4,095.51	-84.23	141.67	-79.79	0.00	0.00	0.00
4,200.00	3.15	120.73	4,195.36	-87.04	146.40	-82.45	0.00	0.00	0.00
4,300.00	3.15	120.73	4,295.21	-89.85	151.13	-85.11	0.00	0.00	0.00
4,400.00	3.15	120.73	4,395.06	-92.67	155.86	-87.78	0.00	0.00	0.00
4,500.00	3.15	120.73	4,494.91	-95.48	160.59	-90.44	0.00	0.00	0.00
4,600.00	3.15	120.73	4,594.76	-98.29	165.32	-93.11	0.00	0.00	0.00
4,700.00	3.15	120.73	4,694.61	-101.10	170.05	-95.77	0.00	0.00	0.00
4,800.00	3.15	120.73	4,794.45	-103.92	174.78	-98.43	0.00	0.00	0.00
4,900.00	3.15	120.73	4,894.30	-106.73	179.51	-101.10	0.00	0.00	0.00
5,000.00	3.15	120.73	4,994.15	-109.54	184.24	-103.76	0.00	0.00	0.00



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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	3.15	120.73	5,094.00	-112.35	188.97	-106.43	0.00	0.00	0.00
5,200.00	3.15	120.73	5,193.85	-115.17	193.70	-109.09	0.00	0.00	0.00
5,300.00	3.15	120.73	5,293.70	-117.98	198.43	-111.75	0.00	0.00	0.00
5,400.00	3.15	120.73	5,393.54	-120.79	203.16	-114.42	0.00	0.00	0.00
5,500.00	3.15	120.73	5,493.39	-123.60	207.89	-117.08	0.00	0.00	0.00
5,600.00	3.15	120.73	5,593.24	-126.41	212.62	-119.75	0.00	0.00	0.00
5,700.00	3.15	120.73	5,693.09	-129.23	217.35	-122.41	0.00	0.00	0.00
5,800.00	3.15	120.73	5,792.94	-132.04	222.08	-125.07	0.00	0.00	0.00
5,900.00	3.15	120.73	5,892.79	-134.85	226.81	-127.74	0.00	0.00	0.00
6,000.00	3.15	120.73	5,992.64	-137.66	231.54	-130.40	0.00	0.00	0.00
6,100.00	3.15	120.73	6,092.48	-140.48	236.27	-133.07	0.00	0.00	0.00
6,200.00	3.15	120.73	6,192.33	-143.29	241.00	-135.73	0.00	0.00	0.00
6,300.00	3.15	120.73	6,292.18	-146.10	245.73	-138.40	0.00	0.00	0.00
6,400.00	3.15	120.73	6,392.03	-148.91	250.46	-141.06	0.00	0.00	0.00
6,500.00	3.15	120.73	6,491.88	-151.73	255.19	-143.72	0.00	0.00	0.00
6,600.00	3.15	120.73	6,591.73	-154.54	259.93	-146.39	0.00	0.00	0.00
6,700.00	3.15	120.73	6,691.57	-157.35	264.66	-149.05	0.00	0.00	0.00
6,800.00	3.15	120.73	6,791.42	-160.16	269.39	-151.72	0.00	0.00	0.00
6,900.00	3.15	120.73	6,891.27	-162.98	274.12	-154.38	0.00	0.00	0.00
7,000.00	3.15	120.73	6,991.12	-165.79	278.85	-157.04	0.00	0.00	0.00
7,100.00	3.15	120.73	7,090.97	-168.60	283.58	-159.71	0.00	0.00	0.00
7,200.00	3.15	120.73	7,190.82	-171.41	288.31	-162.37	0.00	0.00	0.00
7,300.00	3.15	120.73	7,290.67	-174.23	293.04	-165.04	0.00	0.00	0.00
7,400.00	3.15	120.73	7,390.51	-177.04	297.77	-167.70	0.00	0.00	0.00
7,500.00	3.15	120.73	7,490.36	-179.85	302.50	-170.36	0.00	0.00	0.00
7,600.00	3.15	120.73	7,590.21	-182.66	307.23	-173.03	0.00	0.00	0.00
7,700.00	3.15	120.73	7,690.06	-185.48	311.96	-175.69	0.00	0.00	0.00
7,800.00	3.15	120.73	7,789.91	-188.29	316.69	-178.36	0.00	0.00	0.00
7,900.00	3.15	120.73	7,889.76	-191.10	321.42	-181.02	0.00	0.00	0.00
8,000.00	3.15	120.73	7,989.60	-193.91	326.15	-183.68	0.00	0.00	0.00
8,100.00	3.15	120.73	8,089.45	-196.73	330.88	-186.35	0.00	0.00	0.00
8,200.00	3.15	120.73	8,189.30	-199.54	335.61	-189.01	0.00	0.00	0.00
8,300.00	3.15	120.73	8,289.15	-202.35	340.34	-191.68	0.00	0.00	0.00
8,383.06	3.15	120.73	8,372.08	-204.69	344.27	-193.89	0.00	0.00	0.00
KOP2, Start Build-Turn 10.00°/100'									
8,400.00	2.70	88.24	8,389.00	-204.91	345.07	-194.09	10.00	-2.66	-191.74
8,450.00	5.74	27.71	8,438.88	-202.66	347.41	-191.77	10.00	6.08	-121.07
8,500.00	10.42	14.58	8,488.37	-196.06	349.72	-185.10	10.00	9.36	-26.26
8,550.00	15.30	9.64	8,537.11	-185.17	351.96	-174.15	10.00	9.76	-9.88
8,600.00	20.24	7.06	8,584.71	-170.08	354.13	-158.99	10.00	9.88	-5.16
8,650.00	25.20	5.46	8,630.81	-150.88	356.21	-139.74	10.00	9.92	-3.20
8,700.00	30.18	4.36	8,675.07	-127.74	358.18	-116.55	10.00	9.95	-2.20
8,750.00	35.16	3.55	8,717.15	-100.82	360.02	-89.58	10.00	9.96	-1.63
8,800.00	40.14	2.91	8,756.72	-70.33	361.73	-59.06	10.00	9.97	-1.27
8,850.00	45.13	2.40	8,793.49	-36.51	363.29	-25.21	10.00	9.98	-1.03
8,900.00	50.12	1.96	8,827.18	0.39	364.69	11.72	10.00	9.98	-0.87
8,950.00	55.11	1.59	8,857.53	40.09	365.92	51.44	10.00	9.98	-0.75
9,000.00	60.11	1.26	8,884.30	82.28	366.96	93.64	10.00	9.98	-0.66
9,050.00	65.10	0.96	8,907.30	126.65	367.82	138.02	10.00	9.99	-0.60
9,100.00	70.09	0.68	8,926.36	172.86	368.47	184.22	10.00	9.99	-0.55
9,150.00	75.09	0.42	8,941.31	220.55	368.93	231.91	10.00	9.99	-0.52
9,200.00	80.08	0.17	8,952.06	269.36	369.18	280.70	10.00	9.99	-0.49
9,250.00	85.07	359.93	8,958.52	318.93	369.23	330.25	10.00	9.99	-0.48
9,297.32	89.80	359.71	8,960.63	366.19	369.08	377.48	10.00	9.99	-0.47



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LP, 89.8° Inc at 359.71° Azm									
9,300.00	89.80	359.71	8,960.64	368.87	369.07	380.16	0.00	0.00	0.00
9,400.00	89.80	359.71	8,960.99	468.86	368.56	480.09	0.00	0.00	0.00
9,500.00	89.80	359.71	8,961.34	568.86	368.06	580.02	0.00	0.00	0.00
9,600.00	89.80	359.71	8,961.68	668.86	367.55	679.96	0.00	0.00	0.00
9,700.00	89.80	359.71	8,962.03	768.86	367.04	779.89	0.00	0.00	0.00
9,800.00	89.80	359.71	8,962.38	868.86	366.54	879.83	0.00	0.00	0.00
9,900.00	89.80	359.71	8,962.73	968.85	366.03	979.76	0.00	0.00	0.00
10,000.00	89.80	359.71	8,963.07	1,068.85	365.53	1,079.69	0.00	0.00	0.00
10,100.00	89.80	359.71	8,963.42	1,168.85	365.02	1,179.63	0.00	0.00	0.00
10,200.00	89.80	359.71	8,963.77	1,268.85	364.51	1,279.56	0.00	0.00	0.00
10,300.00	89.80	359.71	8,964.12	1,368.85	364.01	1,379.50	0.00	0.00	0.00
10,400.00	89.80	359.71	8,964.46	1,468.85	363.50	1,479.43	0.00	0.00	0.00
10,500.00	89.80	359.71	8,964.81	1,568.84	363.00	1,579.37	0.00	0.00	0.00
10,600.00	89.80	359.71	8,965.16	1,668.84	362.49	1,679.30	0.00	0.00	0.00
10,700.00	89.80	359.71	8,965.50	1,768.84	361.98	1,779.23	0.00	0.00	0.00
10,800.00	89.80	359.71	8,965.85	1,868.84	361.48	1,879.17	0.00	0.00	0.00
10,900.00	89.80	359.71	8,966.20	1,968.84	360.97	1,979.10	0.00	0.00	0.00
11,000.00	89.80	359.71	8,966.55	2,068.83	360.46	2,079.04	0.00	0.00	0.00
11,100.00	89.80	359.71	8,966.89	2,168.83	359.96	2,178.97	0.00	0.00	0.00
11,200.00	89.80	359.71	8,967.24	2,268.83	359.45	2,278.90	0.00	0.00	0.00
11,300.00	89.80	359.71	8,967.59	2,368.83	358.95	2,378.84	0.00	0.00	0.00
11,400.00	89.80	359.71	8,967.94	2,468.83	358.44	2,478.77	0.00	0.00	0.00
11,500.00	89.80	359.71	8,968.28	2,568.82	357.93	2,578.71	0.00	0.00	0.00
11,600.00	89.80	359.71	8,968.63	2,668.82	357.43	2,678.64	0.00	0.00	0.00
11,700.00	89.80	359.71	8,968.98	2,768.82	356.92	2,778.57	0.00	0.00	0.00
11,800.00	89.80	359.71	8,969.33	2,868.82	356.42	2,878.51	0.00	0.00	0.00
11,900.00	89.80	359.71	8,969.67	2,968.82	355.91	2,978.44	0.00	0.00	0.00
12,000.00	89.80	359.71	8,970.02	3,068.82	355.40	3,078.38	0.00	0.00	0.00
12,100.00	89.80	359.71	8,970.37	3,168.81	354.90	3,178.31	0.00	0.00	0.00
12,200.00	89.80	359.71	8,970.71	3,268.81	354.39	3,278.25	0.00	0.00	0.00
12,300.00	89.80	359.71	8,971.06	3,368.81	353.88	3,378.18	0.00	0.00	0.00
12,400.00	89.80	359.71	8,971.41	3,468.81	353.38	3,478.11	0.00	0.00	0.00
12,500.00	89.80	359.71	8,971.76	3,568.81	352.87	3,578.05	0.00	0.00	0.00
12,600.00	89.80	359.71	8,972.10	3,668.80	352.37	3,677.98	0.00	0.00	0.00
12,700.00	89.80	359.71	8,972.45	3,768.80	351.86	3,777.92	0.00	0.00	0.00
12,800.00	89.80	359.71	8,972.80	3,868.80	351.35	3,877.85	0.00	0.00	0.00
12,900.00	89.80	359.71	8,973.15	3,968.80	350.85	3,977.78	0.00	0.00	0.00
13,000.00	89.80	359.71	8,973.49	4,068.80	350.34	4,077.72	0.00	0.00	0.00
13,100.00	89.80	359.71	8,973.84	4,168.79	349.84	4,177.65	0.00	0.00	0.00
13,200.00	89.80	359.71	8,974.19	4,268.79	349.33	4,277.59	0.00	0.00	0.00
13,300.00	89.80	359.71	8,974.54	4,368.79	348.82	4,377.52	0.00	0.00	0.00
13,400.00	89.80	359.71	8,974.88	4,468.79	348.32	4,477.45	0.00	0.00	0.00
13,500.00	89.80	359.71	8,975.23	4,568.79	347.81	4,577.39	0.00	0.00	0.00
13,600.00	89.80	359.71	8,975.58	4,668.79	347.30	4,677.32	0.00	0.00	0.00
13,700.00	89.80	359.71	8,975.92	4,768.78	346.80	4,777.26	0.00	0.00	0.00
13,800.00	89.80	359.71	8,976.27	4,868.78	346.29	4,877.19	0.00	0.00	0.00
13,900.00	89.80	359.71	8,976.62	4,968.78	345.79	4,977.12	0.00	0.00	0.00
14,000.00	89.80	359.71	8,976.97	5,068.78	345.28	5,077.06	0.00	0.00	0.00
14,100.00	89.80	359.71	8,977.31	5,168.78	344.77	5,176.99	0.00	0.00	0.00
14,200.00	89.80	359.71	8,977.66	5,268.77	344.27	5,276.93	0.00	0.00	0.00
14,300.00	89.80	359.71	8,978.01	5,368.77	343.76	5,376.86	0.00	0.00	0.00
14,400.00	89.80	359.71	8,978.36	5,468.77	343.26	5,476.80	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR
Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD WE 23 Fed P25
Well: 3H
Wellbore: OH
Design: Plan 1 04-20-16

Local Co-ordinate Reference: Well 3H
TVD Reference: RKB @ 3156.00usft (Pace X30)
MD Reference: RKB @ 3156.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
14,500.00	89.80	359.71	8,978.70	5,568.77	342.75	5,576.73	0.00	0.00	0.00
14,600.00	89.80	359.71	8,979.05	5,668.77	342.24	5,676.66	0.00	0.00	0.00
14,700.00	89.80	359.71	8,979.40	5,768.76	341.74	5,776.60	0.00	0.00	0.00
14,800.00	89.80	359.71	8,979.74	5,868.76	341.23	5,876.53	0.00	0.00	0.00
14,900.00	89.80	359.71	8,980.09	5,968.76	340.73	5,976.47	0.00	0.00	0.00
15,000.00	89.80	359.71	8,980.44	6,068.76	340.22	6,076.40	0.00	0.00	0.00
15,100.00	89.80	359.71	8,980.79	6,168.76	339.71	6,176.33	0.00	0.00	0.00
15,200.00	89.80	359.71	8,981.13	6,268.75	339.21	6,276.27	0.00	0.00	0.00
15,300.00	89.80	359.71	8,981.48	6,368.75	338.70	6,376.20	0.00	0.00	0.00
15,400.00	89.80	359.71	8,981.83	6,468.75	338.19	6,476.14	0.00	0.00	0.00
15,500.00	89.80	359.71	8,982.18	6,568.75	337.69	6,576.07	0.00	0.00	0.00
15,600.00	89.80	359.71	8,982.52	6,668.75	337.18	6,676.00	0.00	0.00	0.00
15,700.00	89.80	359.71	8,982.87	6,768.75	336.68	6,775.94	0.00	0.00	0.00
15,800.00	89.80	359.71	8,983.22	6,868.74	336.17	6,875.87	0.00	0.00	0.00
15,900.00	89.80	359.71	8,983.57	6,968.74	335.66	6,975.81	0.00	0.00	0.00
16,000.00	89.80	359.71	8,983.91	7,068.74	335.16	7,075.74	0.00	0.00	0.00
16,100.00	89.80	359.71	8,984.26	7,168.74	334.65	7,175.68	0.00	0.00	0.00
16,200.00	89.80	359.71	8,984.61	7,268.74	334.15	7,275.61	0.00	0.00	0.00
16,300.00	89.80	359.71	8,984.95	7,368.73	333.64	7,375.54	0.00	0.00	0.00
16,400.00	89.80	359.71	8,985.30	7,468.73	333.13	7,475.48	0.00	0.00	0.00
16,500.00	89.80	359.71	8,985.65	7,568.73	332.63	7,575.41	0.00	0.00	0.00
16,600.00	89.80	359.71	8,986.00	7,668.73	332.12	7,675.35	0.00	0.00	0.00
16,700.00	89.80	359.71	8,986.34	7,768.73	331.61	7,775.28	0.00	0.00	0.00
16,800.00	89.80	359.71	8,986.69	7,868.72	331.11	7,875.21	0.00	0.00	0.00
16,900.00	89.80	359.71	8,987.04	7,968.72	330.60	7,975.15	0.00	0.00	0.00
17,000.00	89.80	359.71	8,987.39	8,068.72	330.10	8,075.08	0.00	0.00	0.00
17,100.00	89.80	359.71	8,987.73	8,168.72	329.59	8,175.02	0.00	0.00	0.00
17,200.00	89.80	359.71	8,988.08	8,268.72	329.08	8,274.95	0.00	0.00	0.00
17,300.00	89.80	359.71	8,988.43	8,368.72	328.58	8,374.88	0.00	0.00	0.00
17,400.00	89.80	359.71	8,988.78	8,468.71	328.07	8,474.82	0.00	0.00	0.00
17,500.00	89.80	359.71	8,989.12	8,568.71	327.57	8,574.75	0.00	0.00	0.00
17,600.00	89.80	359.71	8,989.47	8,668.71	327.06	8,674.69	0.00	0.00	0.00
17,700.00	89.80	359.71	8,989.82	8,768.71	326.55	8,774.62	0.00	0.00	0.00
17,800.00	89.80	359.71	8,990.16	8,868.71	326.05	8,874.55	0.00	0.00	0.00
17,900.00	89.80	359.71	8,990.51	8,968.70	325.54	8,974.49	0.00	0.00	0.00
18,000.00	89.80	359.71	8,990.86	9,068.70	325.03	9,074.42	0.00	0.00	0.00
18,100.00	89.80	359.71	8,991.21	9,168.70	324.53	9,174.36	0.00	0.00	0.00
18,200.00	89.80	359.71	8,991.55	9,268.70	324.02	9,274.29	0.00	0.00	0.00
18,300.00	89.80	359.71	8,991.90	9,368.70	323.52	9,374.23	0.00	0.00	0.00
18,400.00	89.80	359.71	8,992.25	9,468.69	323.01	9,474.16	0.00	0.00	0.00
18,500.00	89.80	359.71	8,992.60	9,568.69	322.50	9,574.09	0.00	0.00	0.00
18,600.00	89.80	359.71	8,992.94	9,668.69	322.00	9,674.03	0.00	0.00	0.00
18,700.00	89.80	359.71	8,993.29	9,768.69	321.49	9,773.96	0.00	0.00	0.00
18,800.00	89.80	359.71	8,993.64	9,868.69	320.99	9,873.90	0.00	0.00	0.00
18,900.00	89.80	359.71	8,993.98	9,968.69	320.48	9,973.83	0.00	0.00	0.00
19,000.00	89.80	359.71	8,994.33	10,068.68	319.97	10,073.76	0.00	0.00	0.00
19,100.00	89.80	359.71	8,994.68	10,168.68	319.47	10,173.70	0.00	0.00	0.00
19,192.32	89.80	359.71	8,995.00	10,261.00	319.00	10,265.96	0.00	0.00	0.00

TD at 19192.32



Database: Compass 5000 GCR
Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD WE 23 Fed P25
Well: 3H
Wellbore: OH
Design: Plan 1 04-20-16

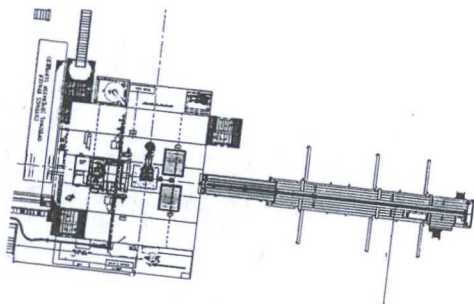
Local Co-ordinate Reference: Well 3H
TVD Reference: RKB @ 3156.00usft (Pace X30)
MD Reference: RKB @ 3156.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
BHL - SD WE P25 3H	0.00	0.00	8,995.00	10,261.00	319.00	382,483.00	713,601.00	32° 2' 58.86971 N	103° 38' 38.11678 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.00	1,000.00	0.00	0.00	KOP1, Start Build 1.50°/100'
1,210.31	1,210.21	-2.96	4.98	Hold 3.15° Inc at 120.73° Azm
8,383.06	8,372.08	-204.69	344.27	KOP2, Start Build-Turn 10.00°/100'
9,297.32	8,960.63	366.19	369.08	LP, 89.8° Inc at 359.71° Azm
19,192.32	8,995.00	10,261.00	319.00	TD at 19192.32



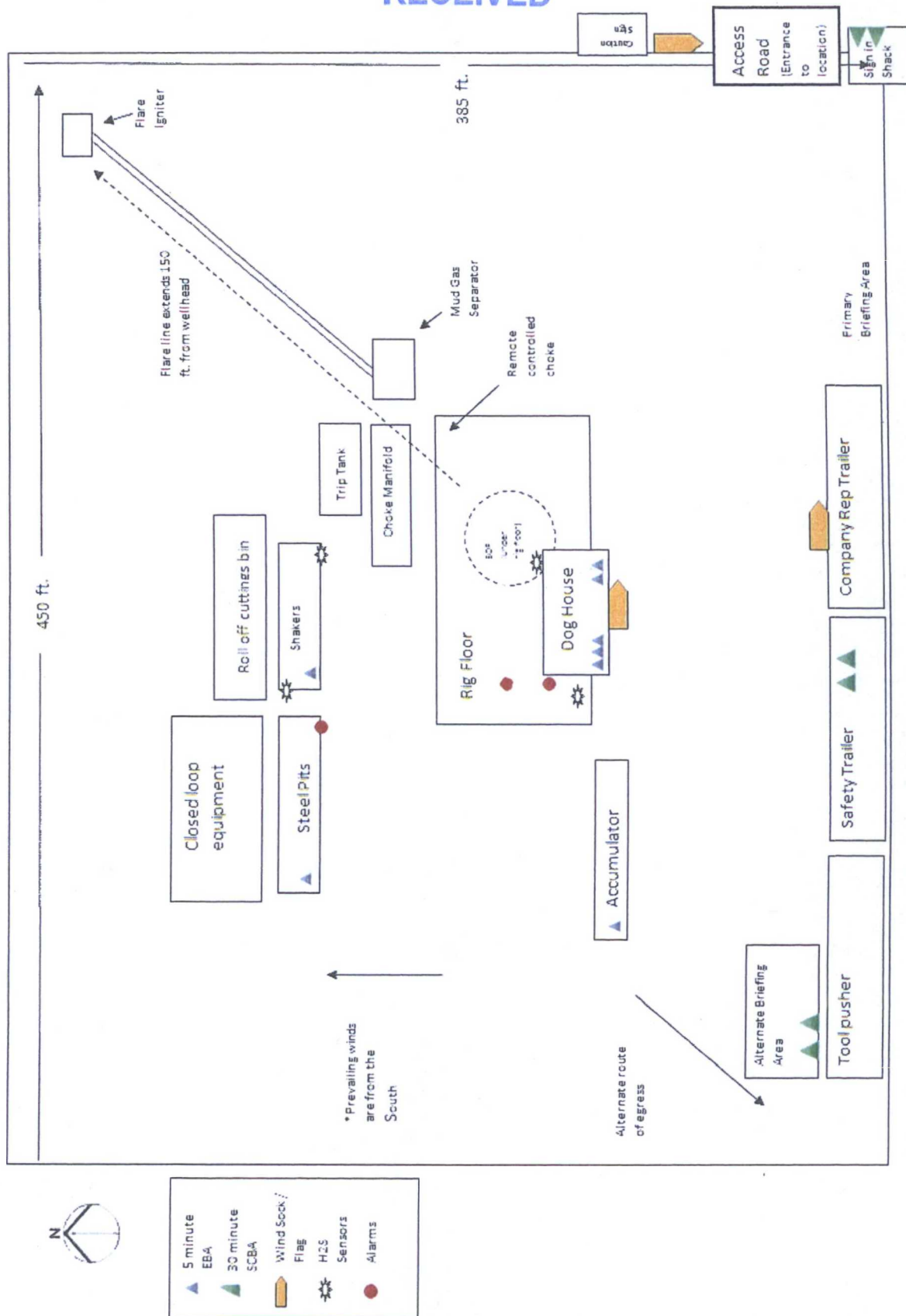
H₂S Preparedness and Contingency Plan Summary



HOBBS OCD

OCT 27 2016

RECEIVED





HOBBS OCD

OCT 27 2016

RECEIVED

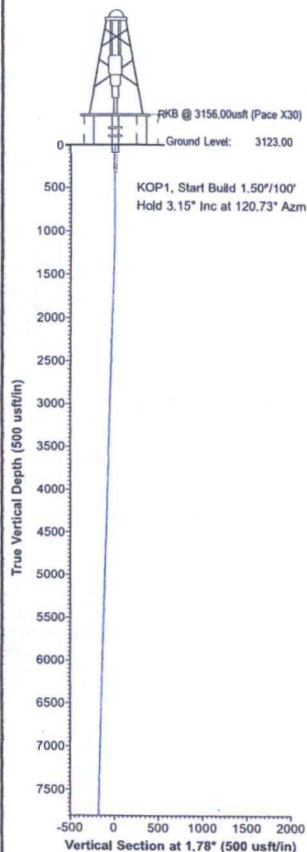
Project: Lea County, NM (NAD27 NME)
Site: SD-WE 23 Fed P25
Well: 3H
Wellbore: OH
Design: Plan 1 04-20-16
Rig: Pace X30



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: -0.36°
Magnetic North: 6.60°
Magnetic Field
Strength: 48020.2nT
Dip Angle: 59.73°
Date: 4/29/2016
Model: HDGM



RECEIVED

WELL DETAILS													
+N/-S		+E/-W		Northing		Ground Level		3123.00		Latitude		Longitude	
0.00		0.00		372222.00		713282.00				32° 1' 17.34735 N		103° 38' 42.58268 W	

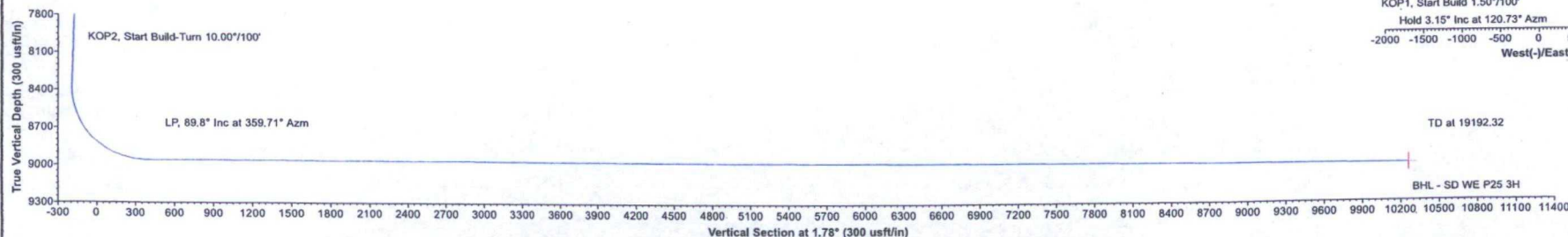
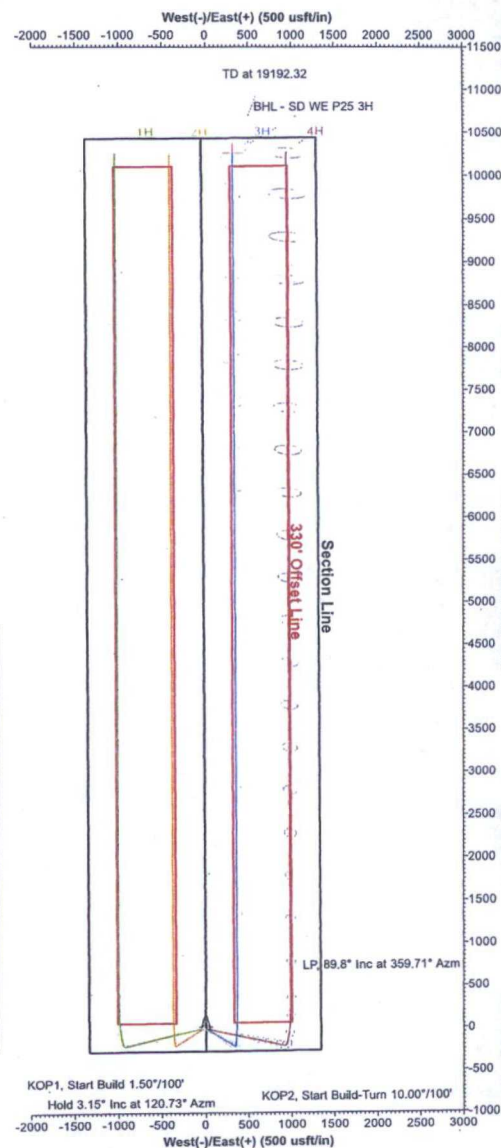
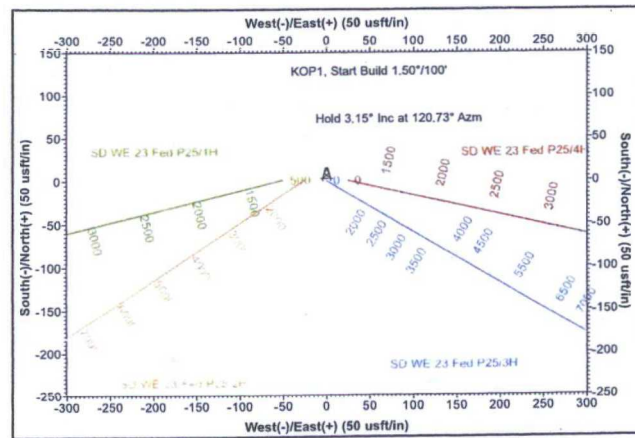
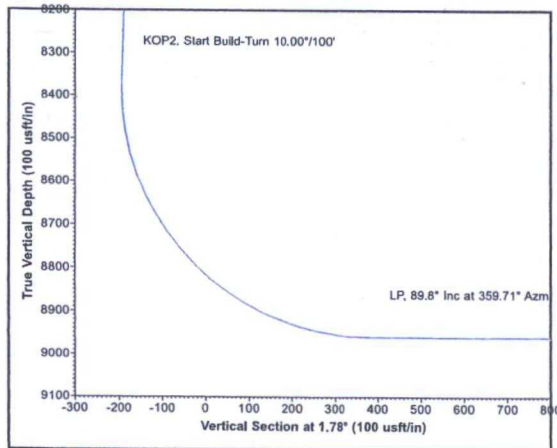
SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeci	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00		KOP1, Start Build 1.50°/100'
3	1210.31	3.15	120.73	1210.21	-2.96	4.98	1.50	120.73	-2.80		Hold 3.15° Inc at 120.73° Azm
4	8383.06	3.15	120.73	8372.08	-204.69	344.27	0.00	0.00	-193.89		KOP2, Start Build-Turn 10.00°/100'
5	9297.32	89.80	359.71	8960.83	366.19	369.08	10.00	-120.99	377.48		LP, 89.8° Inc at 359.71° Azm
6	19192.32	89.80	359.71	8995.00	10261.00	319.00	0.00	0.00	10265.96	BHL - SD WE P25 3H	TD at 19192.32

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - SD WE P25 3H	8995.00	10261.00	319.00	382483.00	713601.00	32° 2' 58.86970 N	103° 38' 38.11678 W

LEGEND	
—	4H, OH, Plan 1 04-20-16 V0
—	2H, OH, Plan 1 04-20-16 V0
—	1H, OH, Plan 1 04-20-16 V0
—	Plan 1 04-20-16

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Well 3H, Grid North
Latitude: 32° 1' 17.34735 N
Longitude: 103° 38' 42.58268 W
Grid East: 713282.00
Grid North: 372222.00
Scale Factor: 1.000
Geomagnetic Model: HDGM
Sample Date: 20-Apr-16
Magnetic Declination: 6.97°
Dip Angle from Horizontal: 59.73°
Magnetic Field Strength: 48020
To convert a Magnetic Direction to a Grid Direction, Add 6.60°
To convert a Magnetic Direction to a True Direction, Add 6.97° East
To convert a True Direction to a Grid Direction, Subtract 0.36°

FORMATION TOP DETAILS
No formation data is available



For the latest performance data, always visit our website: www.tenaris.com

June 17 2015



Connection: TenarisXP™ BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 5.500 in.
Wall: 0.361 in.
Weight: 20.00 lbs/ft
Grade: P110-IC
Min. Wall Thickness: 87.5 %



PIPE BODY DATA

GEOMETRY			
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft
Nominal ID	4.778 in.	Wall Thickness	0.361 in.
Plain End Weight	19.83 lbs/ft	Standard Drift Diameter	4.653 in.
		Special Drift Diameter	N/A

PERFORMANCE

Body Yield Strength	641 x 1000 lbs	Internal Yield	12630 psi
Collapse	12100 psi	SMYS	110000 psi

TENARISXP™ BTC CONNECTION DATA

GEOMETRY			
Connection OD	6.100 in.	Coupling Length	9.450 in.
Critical Section Area	5.828 sq. in.	Threads per in.	5.00
		Connection ID	4.766 in.
		Make-Up Loss	4.204 in.

PERFORMANCE

Tension Efficiency	100 %	Joint Yield Strength	641 x 1000 lbs
Structural Compression Efficiency	100 %	Structural Compression Strength	641 x 1000 lbs
External Pressure Capacity	12100 psi	Internal Pressure Capacity ⁽¹⁾	12630 psi
		Structural Bending ⁽²⁾	92 %/100 ft

ESTIMATED MAKE-UP TORQUES⁽³⁾

Minimum	11270 ft-lbs	Optimum	12520 ft-lbs
		Maximum	13770 ft-lbs

OPERATIONAL LIMIT TORQUES

Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs
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BLANKING DIMENSIONS

Blanking Dimensions

(1) Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.

(2) Structural rating, pure bending to yield (i.e no other loads applied)

(3) Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at licensees@oilfield.tenaris.com. Torque values may be further reviewed.

For additional information, please contact us at contact-tenarishydril@tenaris.com