



Cathedral Energy Services

Survey Report

30-015-43720

Company: Caza Operating, LLC
Project: Eddy County, NM (NAD27)
Site: Sec. 22-T23S-R27E
Well: Forehand Ranch 22 Federal #6H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Forehand Ranch 22 Federal #6H
TVD Reference: 27' RKB @ 3172.00usft (Nabors 893)
MD Reference: 27' RKB @ 3172.00usft (Nabors 893)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Project	Eddy County, NM (NAD27)		
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		Using geodetic scale factor

Site	Sec. 22-T23S-R27E		
Site Position:		Northing:	468,975.80 usft
From:	Map	Easting:	550,495.80 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32.289225
		Longitude:	-104.169926
		Grid Convergence:	0.09 °

Well	Forehand Ranch 22 Federal #6H		
Well Position	+N/-S	0.00 usft	Northing: 468,975.80 usft
	+E/-W	0.00 usft	Easting: 550,495.80 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32.289225
		Longitude:	-104.169926
		Ground Level:	3,145.00 usft

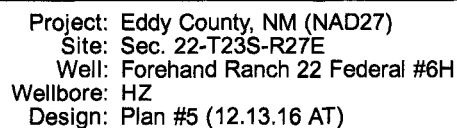
Wellbore	HZ		
Magnetics	Model Name	Sample Date	Declination
	HDGM	11/14/2016	(°) 7.47
			Dip Angle
			(°) 60.10
			Field Strength
			(nT) 48,167

Design	FINAL		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	8,531.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
		Direction	Direction
		(°)	(°)
		184.18	

Survey Program	Date 12/18/2016		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
135.00	8,531.00	CES MWD (Pilot Hole)	MWD+HDGM
8,581.00	16,042.00	CES MWD (HZ)	MWD+HDGM
			Description
			OWSG MWD + HDGM
			OWSG MWD + HDGM

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Formations /
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Comments
(usft)			(usft)			(usft)	(°/100usf	(°/100u	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
135.00	0.40	259.30	135.00	-0.09	-0.46	0.12	0.30	0.30	
226.00	0.90	102.50	226.00	-0.30	-0.08	0.31	1.40	0.55	
306.00	1.20	86.00	305.98	-0.38	1.37	0.28	0.53	0.37	
406.00	1.20	113.70	405.96	-0.73	3.38	0.48	0.57	0.00	
592.00	0.80	106.00	591.93	-1.87	6.41	1.40	0.23	-0.22	
776.00	0.70	121.40	775.92	-2.81	8.60	2.17	0.12	-0.05	
959.00	0.90	126.10	958.90	-4.24	10.72	3.44	0.11	0.11	
1,143.00	1.00	118.20	1,142.87	-5.85	13.30	4.86	0.09	0.05	
1,334.00	1.10	122.30	1,333.84	-7.61	16.32	6.40	0.07	0.05	
1,523.00	3.10	119.40	1,522.71	-11.09	22.30	9.44	1.06	1.06	
1,712.00	1.20	185.80	1,711.59	-15.57	26.56	13.59	1.50	-1.01	

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 30 2017
RECEIVED



Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	13979.00	89.20	182.40	9132.92	-5093.69	-372.78	0.00	0.00	5107.31	Tie On @ 13979' MD
2	14039.00	89.20	182.40	9133.75	-5153.63	-375.29	0.00	0.00	5167.27	PTB/Start 1 st Build
3	14231.46	89.38	184.32	9136.14	-5345.74	-386.56	1.00	84.63	5359.69	EOB: @ 14043'
4	14608.95	89.38	184.32	9156.00	-7177.91	-524.85	0.00	0.00	7197.07	PBHL @ 14608' MD



+N/S	+E/W	Northing	Ground Level:	3145.00	Latitude	Longitude
0.00	0.00	468975.80	Easting		32.289225	-104.169926



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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Formations / Comments
1,902.00	1.60	158.70	1,901.53	-20.02	27.32	17.98	0.40	0.21	
2,091.00	1.40	276.40	2,090.50	-22.22	25.98	20.27	1.36	-0.11	
2,282.00	1.50	271.20	2,281.44	-21.91	21.17	20.31	0.09	0.05	
2,471.00	1.40	264.10	2,470.38	-22.10	16.40	20.84	0.11	-0.05	
2,662.00	1.50	270.80	2,661.31	-22.30	11.57	21.40	0.10	0.05	
2,852.00	1.60	261.70	2,851.25	-22.65	6.46	22.12	0.14	0.05	
3,041.00	1.60	265.40	3,040.17	-23.24	1.22	23.09	0.05	0.00	
3,231.00	1.80	281.20	3,230.09	-22.87	-4.35	23.13	0.27	0.11	
3,421.00	1.70	286.00	3,420.00	-21.52	-9.99	22.19	0.09	-0.05	
3,611.00	1.80	290.40	3,609.91	-19.70	-15.49	20.78	0.09	0.05	
3,800.00	1.80	286.40	3,798.82	-17.83	-21.12	19.32	0.07	0.00	
3,989.00	1.80	281.40	3,987.73	-16.40	-26.88	18.32	0.08	0.00	
4,178.00	1.50	352.50	4,176.66	-13.36	-30.11	15.52	1.02	-0.16	
4,368.00	1.40	342.00	4,366.60	-8.69	-31.15	10.94	0.15	-0.05	
4,557.00	1.40	337.10	4,555.55	-4.37	-32.76	6.75	0.06	0.00	
4,747.00	1.40	5.90	4,745.49	0.08	-33.43	2.36	0.37	0.00	
4,937.00	0.60	29.30	4,935.46	3.25	-32.70	-0.86	0.46	-0.42	
5,127.00	0.60	25.90	5,125.45	5.02	-31.78	-2.69	0.02	0.00	
5,316.00	0.30	24.00	5,314.45	6.36	-31.15	-4.07	0.16	-0.16	
5,465.00	0.40	9.80	5,463.44	7.23	-30.90	-4.96	0.09	0.07	
5,594.00	0.40	14.50	5,592.44	8.11	-30.71	-5.85	0.03	0.00	
5,689.00	0.30	300.80	5,687.44	8.56	-30.84	-6.28	0.45	-0.11	
5,784.00	0.50	260.80	5,782.44	8.62	-31.47	-6.30	0.35	0.21	
5,878.00	1.10	278.30	5,876.43	8.68	-32.76	-6.27	0.68	0.64	
5,972.00	1.60	270.00	5,970.40	8.81	-34.97	-6.24	0.57	0.53	
6,068.00	2.20	274.60	6,066.35	8.96	-38.15	-6.16	0.64	0.62	
6,163.00	0.50	110.10	6,161.33	8.96	-39.57	-6.05	2.83	-1.79	
6,257.00	1.40	90.50	6,255.32	8.81	-38.04	-6.02	1.00	0.96	
6,352.00	1.10	101.10	6,350.29	8.63	-35.99	-5.98	0.40	-0.32	
6,446.00	1.20	97.30	6,444.27	8.33	-34.12	-5.82	0.13	0.11	
6,541.00	1.10	113.50	6,539.25	7.84	-32.30	-5.46	0.36	-0.11	
6,637.00	1.40	131.40	6,635.23	6.70	-30.58	-4.45	0.51	0.31	
6,731.00	1.80	145.50	6,729.20	4.72	-28.88	-2.60	0.59	0.43	
6,826.00	1.40	171.90	6,824.16	2.34	-27.87	-0.30	0.87	-0.42	
6,921.00	1.00	196.50	6,919.14	0.40	-27.94	1.64	0.68	-0.42	
7,016.00	1.30	172.50	7,014.12	-1.47	-28.04	3.51	0.59	0.32	
7,111.00	2.20	226.10	7,109.08	-3.80	-29.21	5.92	1.86	0.95	
7,206.00	2.10	253.80	7,204.02	-5.55	-32.20	7.88	1.09	-0.11	
7,301.00	0.70	315.10	7,298.99	-5.62	-34.28	8.11	1.97	-1.47	
7,395.00	0.70	301.10	7,392.98	-4.92	-35.17	7.47	0.18	0.00	
7,490.00	1.10	12.50	7,487.97	-3.73	-35.47	6.31	1.16	0.42	
7,585.00	0.90	347.70	7,582.96	-2.11	-35.43	4.69	0.50	-0.21	
7,679.00	1.80	28.30	7,676.93	-0.09	-34.89	2.63	1.34	0.96	
7,774.00	1.40	15.20	7,771.90	2.34	-33.88	0.13	0.57	-0.42	
7,869.00	2.50	17.80	7,866.84	5.44	-32.94	-3.02	1.16	1.16	
7,963.00	1.80	19.20	7,960.77	8.78	-31.83	-6.44	0.75	-0.74	
8,058.00	1.50	18.30	8,055.73	11.37	-30.95	-9.09	0.32	-0.32	
8,152.00	1.70	20.90	8,149.70	13.84	-30.07	-11.61	0.23	0.21	
8,246.00	1.10	6.70	8,243.67	16.04	-29.46	-13.85	0.73	-0.64	
8,341.00	0.50	319.60	8,338.66	17.26	-29.63	-15.06	0.89	-0.63	
8,436.00	0.50	286.70	8,433.66	17.70	-30.29	-15.44	0.30	0.00	
8,531.00	0.70	278.60	8,528.65	17.90	-31.26	-15.58	0.23	0.21	
8,581.00	5.90	196.30	8,578.56	15.48	-32.29	-13.09	11.69	10.40	



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8,636.00	11.00	190.10	8,632.95	7.60	-34.00	-5.10	9.41	9.27	
8,683.00	18.30	186.30	8,678.39	-4.17	-35.60	6.75	15.66	15.53	
8,731.00	25.50	186.20	8,722.90	-21.95	-37.54	24.63	15.00	15.00	
8,778.00	33.40	186.10	8,763.79	-44.91	-40.02	47.71	16.81	16.81	
8,825.00	37.20	186.10	8,802.14	-71.91	-42.90	74.85	8.09	8.09	
8,872.00	39.90	185.30	8,838.90	-101.06	-45.80	104.13	5.84	5.74	
8,920.00	42.60	184.70	8,874.98	-132.58	-48.56	135.77	5.69	5.62	
8,967.00	45.60	184.80	8,908.73	-165.17	-51.27	168.47	6.38	6.38	
9,015.00	47.30	185.40	8,941.80	-199.82	-54.36	203.25	3.66	3.54	
9,062.00	49.40	184.20	8,973.03	-234.82	-57.29	238.37	4.86	4.47	
9,110.00	52.20	184.70	9,003.37	-271.90	-60.18	275.56	5.89	5.83	
9,157.00	54.50	185.70	9,031.42	-309.45	-63.61	313.26	5.18	4.89	
9,204.00	57.00	185.10	9,057.87	-348.12	-67.26	352.10	5.42	5.32	
9,251.00	61.20	184.20	9,082.00	-388.31	-70.52	392.41	9.09	8.94	
9,299.00	65.20	184.30	9,103.64	-431.02	-73.69	435.25	8.34	8.33	
9,346.00	72.00	182.50	9,120.78	-474.68	-76.27	478.98	14.90	14.47	
9,393.00	77.50	181.90	9,133.14	-519.97	-78.01	524.28	11.77	11.70	
9,440.00	80.10	182.10	9,142.27	-566.05	-79.62	570.35	5.55	5.53	
9,487.00	84.60	183.10	9,148.52	-612.57	-81.73	616.90	9.80	9.57	
9,498.00	85.70	183.30	9,149.45	-623.51	-82.34	627.86	10.16	10.00	
9,545.00	90.10	183.90	9,151.17	-670.38	-85.29	674.81	9.45	9.36	
9,593.00	90.00	183.80	9,151.13	-718.27	-88.52	722.81	0.29	-0.21	
9,688.00	91.10	183.50	9,150.22	-813.07	-94.56	817.80	1.20	1.16	
9,783.00	91.30	183.80	9,148.23	-907.85	-100.61	912.77	0.38	0.21	
9,877.00	91.90	183.00	9,145.61	-1,001.65	-106.18	1,006.73	1.06	0.64	
9,971.00	89.50	182.80	9,144.46	-1,095.52	-110.94	1,100.69	2.56	-2.55	
10,066.00	90.30	183.30	9,144.62	-1,190.38	-115.99	1,195.67	0.99	0.84	
10,161.00	90.60	184.60	9,143.88	-1,285.15	-122.54	1,290.66	1.40	0.32	
10,255.00	90.00	184.30	9,143.39	-1,378.87	-129.83	1,384.66	0.71	-0.64	
10,350.00	89.20	183.40	9,144.05	-1,473.65	-136.21	1,479.66	1.27	-0.84	
10,444.00	90.10	184.00	9,144.62	-1,567.45	-142.27	1,573.65	1.15	0.96	
10,539.00	88.90	183.60	9,145.45	-1,662.23	-148.57	1,668.64	1.33	-1.26	
10,635.00	89.70	184.00	9,146.63	-1,758.01	-154.93	1,764.63	0.93	0.83	
10,730.00	89.90	183.70	9,146.96	-1,852.80	-161.31	1,859.63	0.38	0.21	
10,844.00	90.00	182.60	9,147.06	-1,966.63	-167.57	1,973.61	0.97	0.09	
10,939.00	93.00	182.60	9,144.57	-2,061.48	-171.88	2,068.53	3.16	3.16	
11,034.00	92.90	183.70	9,139.68	-2,156.21	-177.10	2,163.39	1.16	-0.11	
11,130.00	92.00	184.10	9,135.58	-2,251.90	-183.62	2,259.30	1.03	-0.94	
11,224.00	91.30	184.60	9,132.87	-2,345.59	-190.75	2,353.26	0.92	-0.74	
11,320.00	89.00	185.30	9,132.62	-2,441.23	-199.03	2,449.24	2.50	-2.40	
11,414.00	88.60	185.40	9,134.59	-2,534.80	-207.79	2,543.20	0.44	-0.43	
11,510.00	89.70	185.50	9,136.01	-2,630.35	-216.91	2,639.16	1.15	1.15	
11,604.00	90.30	185.90	9,136.01	-2,723.88	-226.24	2,733.13	0.77	0.64	
11,700.00	89.70	186.00	9,136.01	-2,819.37	-236.20	2,829.08	0.63	-0.62	
11,794.00	89.40	184.10	9,136.75	-2,912.99	-244.47	2,923.07	2.05	-0.32	
11,889.00	90.60	183.70	9,136.75	-3,007.77	-250.93	3,018.06	1.33	1.26	
11,984.00	90.30	183.10	9,136.00	-3,102.60	-256.56	3,113.05	0.71	-0.32	
12,079.00	91.10	183.60	9,134.84	-3,197.43	-262.12	3,208.03	0.99	0.84	
12,175.00	88.80	182.00	9,134.93	-3,293.31	-266.80	3,304.00	2.92	-2.40	
12,270.00	90.30	182.70	9,135.67	-3,388.22	-270.70	3,398.94	1.74	1.58	
12,365.00	91.10	184.70	9,134.51	-3,483.01	-276.83	3,493.92	2.27	0.84	
12,460.00	90.70	184.90	9,133.02	-3,577.67	-284.78	3,588.91	0.47	-0.42	
12,555.00	90.70	184.70	9,131.86	-3,672.33	-292.73	3,683.89	0.21	0.00	



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12,650.00	89.30	184.60	9,131.86	-3,767.01	-300.43	3,778.89	1.48	-1.47	
12,745.00	88.60	184.10	9,133.60	-3,861.72	-307.63	3,873.87	0.91	-0.74	
12,839.00	89.60	185.10	9,135.08	-3,955.40	-315.17	3,967.85	1.50	1.06	
12,934.00	89.70	184.40	9,135.66	-4,050.07	-323.04	4,062.85	0.74	0.11	
13,030.00	90.20	184.00	9,135.74	-4,145.82	-330.07	4,158.85	0.67	0.52	
13,125.00	89.80	183.30	9,135.74	-4,240.62	-336.11	4,253.84	0.85	-0.42	
13,220.00	88.90	182.60	9,136.82	-4,335.49	-341.00	4,348.81	1.20	-0.95	
13,315.00	88.60	182.20	9,138.89	-4,430.38	-344.98	4,443.74	0.53	-0.32	
13,410.00	90.10	181.60	9,139.97	-4,525.32	-348.13	4,538.66	1.70	1.58	
13,505.00	91.80	183.00	9,138.39	-4,620.23	-351.94	4,633.59	2.32	1.79	
13,600.00	91.80	182.70	9,135.41	-4,715.06	-356.66	4,728.52	0.32	0.00	
13,695.00	90.70	182.60	9,133.34	-4,809.94	-361.05	4,823.46	1.16	-1.16	
13,790.00	90.20	182.10	9,132.59	-4,904.85	-364.95	4,918.41	0.74	-0.53	
13,885.00	90.10	182.50	9,132.34	-4,999.78	-368.76	5,013.36	0.43	-0.11	
13,979.00	89.20	182.40	9,132.92	-5,093.69	-372.78	5,107.31	0.96	-0.96	
14,075.00	89.30	182.10	9,134.17	-5,189.60	-376.55	5,203.25	0.33	0.10	
14,170.00	89.80	182.00	9,134.92	-5,284.54	-379.95	5,298.18	0.54	0.53	
14,265.00	90.10	183.20	9,135.00	-5,379.44	-384.26	5,393.14	1.30	0.32	
14,359.00	86.90	184.60	9,137.46	-5,473.18	-390.65	5,487.09	3.72	-3.40	
14,454.00	86.40	184.20	9,143.01	-5,567.73	-397.92	5,581.93	0.67	-0.53	
14,548.00	87.00	183.80	9,148.42	-5,661.35	-404.47	5,675.77	0.77	0.64	
14,643.00	89.90	182.60	9,150.99	-5,756.15	-409.77	5,770.71	3.30	3.05	
14,738.00	92.10	183.40	9,149.34	-5,851.00	-414.74	5,865.67	2.46	2.32	
14,834.00	92.40	183.70	9,145.57	-5,946.74	-420.68	5,961.59	0.44	0.31	
14,929.00	91.00	185.50	9,142.75	-6,041.39	-428.29	6,056.54	2.40	-1.47	
15,023.00	88.90	185.40	9,142.83	-6,134.96	-437.22	6,150.51	2.24	-2.23	
15,119.00	89.30	186.00	9,144.34	-6,230.47	-446.75	6,246.46	0.75	0.42	
15,213.00	89.00	185.60	9,145.73	-6,323.98	-456.25	6,340.42	0.53	-0.32	
15,308.00	89.60	185.90	9,146.89	-6,418.50	-465.77	6,435.37	0.71	0.63	
15,402.00	90.60	186.50	9,146.73	-6,511.94	-475.92	6,529.31	1.24	1.06	
15,497.00	89.10	186.80	9,146.98	-6,606.30	-486.92	6,624.22	1.61	-1.58	
15,578.00	90.10	187.20	9,147.54	-6,686.70	-496.79	6,705.12	1.33	1.23	
15,673.00	88.50	185.00	9,148.70	-6,781.14	-506.89	6,800.05	2.86	-1.68	
15,767.00	90.60	184.80	9,149.44	-6,874.79	-514.92	6,894.04	2.24	2.23	
15,862.00	88.60	184.00	9,150.11	-6,969.50	-522.20	6,989.03	2.27	-2.11	
15,957.00	90.10	184.40	9,151.18	-7,064.24	-529.16	7,084.02	1.63	1.58	
15,987.00	90.30	184.30	9,151.08	-7,094.15	-531.44	7,114.02	0.75	0.67	Last CES Survey
16,042.00	90.30	184.30	9,150.79	-7,149.00	-535.56	7,169.02	0.00	0.00	Projection to Bit - Forehand 6H PBHL P5



Cathedral Energy Services

Survey Report

Company: Caza Operating, LLC
Project: Eddy County, NM (NAD27)
Site: Sec. 22-T23S-R27E
Well: Forehand Ranch 22 Federal #6H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Forehand Ranch 22 Federal #6H
TVD Reference: 27' RKB @ 3172.00usft (Nabors 893)
MD Reference: 27' RKB @ 3172.00usft (Nabors 893)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
4875' VS Tgt P4	0.00	0.00	9,136.00	-4,861.05	-368.84	464,115.18	550,126.99	32.275865	-104.171143
- actual wellpath misses target center by 6.42usft at 13746.37usft MD (9132.83 TVD, -4861.25 N, -363.26 E)									
- Point									
Forehand 6H PBHL P3	0.00	0.00	9,156.00	-7,177.91	-524.85	461,798.52	549,971.00	32.269498	-104.171659
- actual wellpath misses target center by 31.27usft at 16042.00usft MD (9150.79 TVD, -7149.00 N, -535.56 E)									
- Point									
Forehand 6H PBHL	0.00	0.00	9,273.00	-7,177.91	-524.85	461,798.52	549,971.00	32.269498	-104.171659
- actual wellpath misses target center by 126.04usft at 16042.00usft MD (9150.79 TVD, -7149.00 N, -535.56 E)									
- Point									
2500' VS Tgt	0.00	0.00	9,137.00	-2,491.37	-209.28	466,484.65	550,286.54	32.282378	-104.170615
- actual wellpath misses target center by 6.51usft at 11370.96usft MD (9133.60 TVD, -2491.96 N, -203.76 E)									
- Point									
Forehand 6H PBHL P2	0.00	0.00	9,150.00	-7,177.91	-524.85	461,798.52	549,971.00	32.269498	-104.171659
- actual wellpath misses target center by 30.84usft at 16042.00usft MD (9150.79 TVD, -7149.00 N, -535.56 E)									
- Point									
Forehand 6H PBHL P4	0.00	0.00	9,146.00	-7,177.91	-524.85	461,798.52	549,971.00	32.269498	-104.171659
- actual wellpath misses target center by 31.20usft at 16042.00usft MD (9150.79 TVD, -7149.00 N, -535.56 E)									
- Point									
4875' VS Tgt	0.00	0.00	9,146.00	-4,861.05	-368.84	464,115.18	550,126.99	32.275865	-104.171143
- actual wellpath misses target center by 14.30usft at 13746.29usft MD (9132.83 TVD, -4861.18 N, -363.26 E)									
- Point									
Forehand 6H PBHL P5	0.00	0.00	9,156.00	-7,177.91	-524.85	461,798.52	549,971.00	32.269498	-104.171659
- actual wellpath misses target center by 31.27usft at 16042.00usft MD (9150.79 TVD, -7149.00 N, -535.56 E)									
- Point									
2500' VS Tgt P4	0.00	0.00	9,127.00	-2,491.37	-209.28	466,484.65	550,286.54	32.282378	-104.170615
- actual wellpath misses target center by 8.63usft at 11370.75usft MD (9133.60 TVD, -2491.75 N, -203.74 E)									
- Point									
Plat PBHL	0.00	0.00	9,273.00	-6,848.30	-542.05	462,128.10	549,953.80	32.270404	-104.171713
- actual wellpath misses target center by 126.84usft at 15743.90usft MD (9149.58 TVD, -6851.77 N, -512.97 E)									
- Point									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
15,987.00	9,151.08	-7,094.15	-531.44	Last CES Survey
16,042.00	9,150.79	-7,149.00	-535.56	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____