



EXPLORING WHAT'S POSSIBLE

Apache Corporation

Eddy County, NM (NAD 83 NME)

Salt Fork 3-4 Federal Com

1H

30-015-43665

NM OIL CONSERVATION
ARTESIA DISTRICT

SEP 04 2018

OH / Job #61545

RECEIVED

Design: Surveys (H&P 482)

Standard Survey Report

07 August, 2017



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services LP

Survey Report



Company: Apache Corporation
Project: Eddy County, NM (NAD 83 NME)
Site: Salt Fork 3-4 Federal Com
Well: 1H
Wellbore: OH / Job #61545
Design: Surveys (H&P 482)

Local Co-ordinate Reference: Well 1H
TVD Reference: GL + KB @ 3436.00usft (H&P 482)
MD Reference: GL + KB @ 3436.00usft (H&P 482)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

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

Site		Salt Fork 3-4 Federal Com			
Site Position:		Northing:	614,456.20 usft	Latitude:	32° 41' 19.07240 N
From:	Map	Easting:	655,869.01 usft	Longitude:	103° 57' 39.79616 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well	1H					
Well Position	+N/-S	0.00 usft	Northing:	614,456.20 usft	Latitude:	32° 41' 19.07240 N
	+E/-W	0.00 usft	Easting:	655,869.01 usft	Longitude:	103° 57' 39.79616 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,410.00 usft

Wellbore	OH / Job #61545				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/26/2017	7.50	60.60	48,282

Design	Surveys (H&P 482)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	266.78	

Survey Program	Date 8/7/2017				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	7,720.00	Phoenix Gyro Surveys (OH / Job #61545)	PHX_SPT_GTD	PHX Continuous north-seeking gyro	
7,720.00	15,485.00	Phoenix MWD Surveys (OH / Job #61545)	MWD+HDGM	OWSG Rev.2 MWD + HDGM	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Buid 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	0.15	47.05	100.00	0.09	0.10	-0.10	0.15	0.15	0.00
200.00	0.89	50.72	200.00	0.67	0.79	-0.83	0.74	0.74	3.67
300.00	0.91	65.41	299.98	1.49	2.12	-2.20	0.23	0.02	14.69
400.00	1.14	69.07	399.97	2.18	3.77	-3.88	0.24	0.23	3.66
500.00	0.62	61.68	499.95	2.79	5.17	-5.32	0.53	-0.52	-7.39
600.00	0.69	81.42	599.95	3.14	6.24	-6.41	0.23	0.07	19.74
700.00	1.04	38.17	699.94	3.94	7.40	-7.61	0.72	0.35	-43.25
800.00	0.71	75.51	799.93	4.81	8.56	-8.82	0.64	-0.33	37.34
900.00	0.43	101.92	899.92	4.89	9.53	-9.79	0.38	-0.28	26.41



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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 (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.61	114.10	999.92	4.59	10.38	-10.62	0.21	0.18	12.18
1,100.00	0.43	96.90	1,099.91	4.33	11.24	-11.47	0.24	-0.18	-17.20
1,200.00	0.29	170.66	1,199.91	4.03	11.65	-11.86	0.45	-0.14	73.76
1,300.00	0.47	279.61	1,299.91	3.85	11.29	-11.49	0.63	0.18	108.95
1,400.00	0.65	229.67	1,399.91	3.55	10.45	-10.64	0.50	0.18	-49.94
1,500.00	0.67	231.60	1,499.90	2.82	9.56	-9.71	0.03	0.02	1.93
1,600.00	0.62	224.90	1,599.89	2.08	8.72	-8.83	0.09	-0.05	-6.70
1,700.00	0.83	216.23	1,699.89	1.11	7.91	-7.96	0.24	0.21	-8.67
1,800.00	0.77	217.00	1,799.88	-0.01	7.08	-7.07	0.06	-0.06	0.77
1,900.00	0.85	208.75	1,899.87	-1.20	6.32	-6.24	0.14	0.08	-8.25
2,000.00	0.61	232.25	1,999.86	-2.17	5.54	-5.41	0.38	-0.24	23.50
2,100.00	0.61	237.46	2,099.85	-2.79	4.67	-4.51	0.06	0.00	5.21
2,200.00	0.61	230.71	2,199.85	-3.41	3.81	-3.61	0.07	0.00	-6.75
2,300.00	0.89	296.68	2,299.84	-3.40	2.71	-2.51	0.85	0.28	65.97
2,400.00	0.56	309.57	2,399.83	-2.74	1.63	-1.48	0.37	-0.33	12.89
2,500.00	0.75	333.42	2,499.83	-1.84	0.96	-0.86	0.33	0.19	23.85
2,600.00	0.54	281.22	2,599.82	-1.16	0.21	-0.14	0.60	-0.21	-52.20
2,700.00	0.51	267.56	2,699.82	-1.09	-0.70	0.76	0.13	-0.03	-13.66
2,800.00	0.48	254.28	2,799.81	-1.22	-1.54	1.61	0.12	-0.03	-13.28
2,900.00	0.52	256.39	2,899.81	-1.44	-2.39	2.47	0.04	0.04	2.11
3,000.00	0.53	244.62	2,999.80	-1.75	-3.25	3.34	0.11	0.01	-11.77
3,100.00	0.74	223.71	3,099.80	-2.41	-4.11	4.24	0.31	0.21	-20.91
3,200.00	0.61	248.60	3,199.79	-3.08	-5.05	5.22	0.32	-0.13	24.89
3,300.00	0.76	226.52	3,299.78	-3.73	-6.03	6.23	0.30	0.15	-22.08
3,400.00	0.79	246.08	3,399.77	-4.46	-7.14	7.38	0.26	0.03	19.56
3,500.00	0.69	222.91	3,499.77	-5.18	-8.18	8.46	0.31	-0.10	-23.17
3,600.00	0.79	248.04	3,599.76	-5.88	-9.23	9.55	0.34	0.10	25.13
3,700.00	0.68	240.60	3,699.75	-6.43	-10.39	10.73	0.15	-0.11	-7.44
3,800.00	0.29	346.99	3,799.75	-6.48	-10.96	11.31	0.81	-0.39	106.39
3,900.00	0.74	259.11	3,899.74	-6.35	-11.65	11.99	0.78	0.45	-87.88
4,000.00	0.61	269.51	3,999.74	-6.48	-12.82	13.16	0.18	-0.13	10.40
4,100.00	0.84	255.84	4,099.73	-6.66	-14.06	14.41	0.29	0.23	-13.67
4,200.00	0.97	248.30	4,199.72	-7.15	-15.56	15.94	0.18	0.13	-7.54
4,300.00	0.75	261.21	4,299.71	-7.57	-16.99	17.39	0.29	-0.22	12.91
4,400.00	0.19	286.12	4,399.70	-7.62	-17.80	18.20	0.58	-0.56	24.91
4,500.00	0.35	321.07	4,499.70	-7.34	-18.15	18.53	0.22	0.16	34.95
4,600.00	0.51	293.90	4,599.70	-6.92	-18.75	19.11	0.25	0.16	-27.17
4,700.00	0.74	267.18	4,699.69	-6.77	-19.80	20.15	0.37	0.23	-26.72
4,800.00	1.09	271.10	4,799.68	-6.78	-21.40	21.74	0.36	0.35	3.92
4,900.00	0.96	284.02	4,899.66	-6.56	-23.16	23.49	0.26	-0.13	12.92
5,000.00	0.68	307.00	4,999.65	-6.00	-24.45	24.75	0.43	-0.28	22.98
5,100.00	1.03	268.26	5,099.64	-5.67	-25.82	26.10	0.66	0.35	-38.74
5,200.00	1.16	307.62	5,199.63	-5.08	-27.52	27.76	0.75	0.13	39.36

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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 (°/100usft)	Turn Rate (°/100usft)
5,300.00	1.12	297.82	5,299.61	-4.01	-29.19	29.36	0.20	-0.04	-9.80
5,400.00	0.69	247.53	5,399.60	-3.78	-30.61	30.77	0.86	-0.43	-50.29
5,500.00	0.82	218.37	5,499.59	-4.57	-31.61	31.81	0.40	0.13	-29.16
5,600.00	1.95	278.64	5,599.56	-4.88	-33.73	33.95	1.70	1.13	60.27
5,700.00	0.46	278.07	5,699.54	-4.57	-35.81	36.01	1.49	-1.49	-0.57
5,800.00	0.37	240.91	5,799.53	-4.67	-36.49	36.70	0.28	-0.09	-37.16
5,900.00	0.34	251.88	5,899.53	-4.92	-37.06	37.27	0.07	-0.03	10.97
6,000.00	0.45	154.76	5,999.53	-5.36	-37.17	37.41	0.60	0.11	-97.12
6,100.00	0.63	257.34	6,099.53	-5.84	-37.54	37.81	0.85	0.18	102.58
6,200.00	0.63	244.30	6,199.52	-6.20	-38.57	38.86	0.14	0.00	-13.04
6,300.00	0.58	1.36	6,299.52	-5.93	-39.06	39.33	1.03	-0.05	117.06
6,400.00	0.39	22.72	6,399.51	-5.11	-38.91	39.14	0.26	-0.19	21.36
6,500.00	0.68	352.78	6,499.51	-4.21	-38.86	39.03	0.39	0.29	-29.94
6,600.00	1.02	348.38	6,599.50	-2.75	-39.11	39.20	0.35	0.34	-4.40
6,700.00	1.12	343.42	6,699.48	-0.94	-39.57	39.56	0.14	0.10	-4.96
6,800.00	1.36	0.84	6,799.46	1.18	-39.83	39.70	0.44	0.24	17.42
6,900.00	0.18	286.56	6,899.45	2.42	-39.96	39.76	1.32	-1.18	-74.28
7,000.00	0.65	253.82	6,999.45	2.30	-40.66	40.46	0.51	0.47	-32.74
7,100.00	1.07	5.61	7,099.44	3.07	-41.11	40.87	1.44	0.42	111.79
7,200.00	0.83	355.30	7,199.43	4.72	-41.08	40.75	0.29	-0.24	-10.31
7,300.00	0.96	185.54	7,299.42	4.61	-41.22	40.90	1.78	0.13	-169.76
7,400.00	0.74	190.12	7,399.41	3.14	-41.41	41.17	0.23	-0.22	4.58
7,500.00	0.88	195.01	7,499.40	1.77	-41.73	41.56	0.16	0.14	4.89
7,600.00	0.78	249.40	7,599.39	0.78	-42.56	42.45	0.76	-0.10	54.39
7,700.00	0.58	244.27	7,699.38	0.32	-43.66	43.57	0.21	-0.20	-5.13
7,720.00	0.42	197.99	7,719.38	0.21	-43.77	43.69	2.10	-0.80	-231.40
Tie In									
7,878.00	4.32	237.95	7,877.22	-3.50	-48.99	49.11	2.54	2.47	25.29
First Phoenix MWD Survey									
7,925.00	9.62	239.48	7,923.86	-6.43	-53.88	54.16	11.28	11.28	3.26
7,972.00	15.32	245.69	7,969.73	-10.99	-62.93	63.45	12.44	12.13	13.21
8,019.00	14.39	256.11	8,015.17	-14.95	-74.26	74.98	6.01	-1.98	22.17
8,067.00	15.49	261.23	8,061.55	-17.36	-86.39	87.22	3.58	2.29	10.67
8,114.00	20.93	259.66	8,106.18	-19.82	-100.86	101.81	11.62	11.57	-3.34
8,161.00	27.11	257.29	8,149.09	-23.69	-119.58	120.72	13.31	13.15	-5.04
8,208.00	32.35	255.71	8,189.89	-29.15	-142.23	143.64	11.27	11.15	-3.36
8,255.00	34.43	254.47	8,229.13	-35.82	-167.22	168.97	4.66	4.43	-2.64
8,302.00	38.03	252.78	8,267.03	-43.66	-193.86	196.01	7.95	7.66	-3.60
8,349.00	43.85	254.41	8,302.52	-52.33	-223.40	225.98	12.59	12.38	3.47
8,396.00	49.02	255.92	8,334.91	-61.03	-256.31	259.33	11.24	11.00	3.21
8,443.00	54.90	254.75	8,363.86	-70.41	-292.10	295.59	12.66	12.51	-2.49
8,490.00	60.66	251.38	8,388.91	-82.02	-330.10	334.18	13.67	12.26	-7.17
8,537.00	66.62	249.12	8,409.77	-96.26	-369.71	374.53	13.39	12.68	-4.81
8,584.00	71.65	248.15	8,426.50	-112.26	-410.59	416.25	10.87	10.70	-2.06



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8,631.00	76.60	247.73	8,439.36	-129.24	-452.48	459.02	10.57	10.53	-0.89
8,678.00	78.96	247.62	8,449.31	-146.69	-494.97	502.42	5.03	5.02	-0.23
8,725.00	83.41	247.99	8,456.51	-164.23	-537.96	546.33	9.50	9.47	0.79
8,824.00	88.32	247.23	8,463.64	-201.83	-629.23	639.56	5.02	4.96	-0.77
8,888.00	89.64	245.57	8,464.78	-227.45	-687.86	699.54	3.31	2.06	-2.59
8,983.00	90.08	246.63	8,465.01	-265.93	-774.71	788.42	1.21	0.46	1.12
9,078.00	90.65	249.00	8,464.41	-301.80	-862.67	878.25	2.57	0.60	2.49
9,172.00	90.36	254.18	8,463.58	-331.48	-951.83	968.93	5.52	-0.31	5.51
9,267.00	90.12	260.25	8,463.18	-352.49	-1,044.43	1,062.57	6.39	-0.25	6.39
9,361.00	89.79	264.99	8,463.25	-364.56	-1,137.62	1,156.29	5.05	-0.35	5.04
9,456.00	90.05	261.04	8,463.39	-376.11	-1,231.90	1,251.07	4.17	0.27	-4.16
9,550.00	89.44	262.36	8,463.81	-389.68	-1,324.91	1,344.69	1.55	-0.65	1.40
9,645.00	89.31	262.62	8,464.84	-402.10	-1,419.09	1,439.42	0.31	-0.14	0.27
9,739.00	88.93	264.29	8,466.29	-412.81	-1,512.46	1,533.25	1.82	-0.40	1.78
9,834.00	89.00	264.47	8,468.00	-422.11	-1,606.99	1,628.15	0.20	0.07	0.19
9,928.00	88.91	264.29	8,469.72	-431.31	-1,700.52	1,722.05	0.21	-0.10	-0.19
10,023.00	90.14	268.16	8,470.50	-437.57	-1,795.29	1,817.02	4.27	1.29	4.07
10,118.00	90.43	273.08	8,470.03	-436.54	-1,890.26	1,911.78	5.19	0.31	5.18
10,212.00	90.56	273.87	8,469.22	-430.84	-1,984.08	2,005.14	0.85	0.14	0.84
10,401.00	90.47	273.70	8,467.52	-418.37	-2,172.66	2,192.72	0.10	-0.05	-0.09
10,496.00	90.45	273.61	8,466.76	-412.31	-2,267.47	2,287.03	0.10	-0.02	-0.09
10,591.00	90.54	272.03	8,465.94	-407.64	-2,362.34	2,381.50	1.67	0.09	-1.66
10,685.00	90.45	271.76	8,465.12	-404.53	-2,456.29	2,475.12	0.30	-0.10	-0.29
10,780.00	90.49	271.85	8,464.35	-401.54	-2,551.24	2,569.75	0.10	0.04	0.09
10,875.00	90.54	271.85	8,463.49	-398.47	-2,646.18	2,664.38	0.05	0.05	0.00
10,969.00	90.45	271.59	8,462.68	-395.65	-2,740.14	2,758.03	0.29	-0.10	-0.28
11,064.00	90.45	271.67	8,461.93	-392.95	-2,835.10	2,852.68	0.08	0.00	0.08
11,159.00	91.07	270.27	8,460.67	-391.34	-2,930.07	2,947.42	1.61	0.65	-1.47
11,253.00	91.13	269.92	8,458.87	-391.18	-3,024.06	3,041.24	0.38	0.06	-0.37
11,348.00	91.53	269.92	8,456.66	-391.31	-3,119.03	3,136.08	0.42	0.42	0.00
11,443.00	91.48	269.74	8,454.17	-391.60	-3,214.00	3,230.91	0.20	-0.05	-0.19
11,537.00	91.55	269.83	8,451.68	-391.95	-3,307.96	3,324.75	0.12	0.07	0.10
11,632.00	91.51	269.65	8,449.15	-392.38	-3,402.93	3,419.59	0.19	-0.04	-0.19
11,726.00	91.46	269.65	8,446.71	-392.95	-3,496.89	3,513.44	0.05	-0.05	0.00
11,821.00	92.08	269.74	8,443.78	-393.46	-3,591.85	3,608.27	0.66	0.65	0.09
11,915.00	92.08	269.74	8,440.36	-393.89	-3,685.78	3,702.08	0.00	0.00	0.00
12,010.00	92.05	269.92	8,436.94	-394.17	-3,780.72	3,796.89	0.19	-0.03	0.19
12,104.00	92.03	269.83	8,433.60	-394.37	-3,874.66	3,890.69	0.10	-0.02	-0.10
12,199.00	92.12	269.83	8,430.16	-394.65	-3,969.60	3,985.49	0.09	0.09	0.00
12,293.00	92.05	269.74	8,426.74	-395.01	-4,063.54	4,079.30	0.12	-0.07	-0.10
12,388.00	91.99	269.83	8,423.39	-395.36	-4,158.48	4,174.11	0.11	-0.06	0.09
12,447.00	91.99	269.92	8,421.34	-395.49	-4,217.44	4,232.99	0.15	0.00	0.15
12,577.00	92.01	269.92	8,416.80	-395.67	-4,347.36	4,362.72	0.02	0.02	0.00



Phoenix Technology Services LP

Survey Report



Company: Apache Corporation
Project: Eddy County, NM (NAD 83 NME)
Site: Salt Fork 3-4 Federal Com
Well: 1H
Wellbore: OH / Job #61545
Design: Surveys (H&P 482)

Local Co-ordinate Reference: Well 1H
TVD Reference: GL + KB @ 3436.00usft (H&P 482)
MD Reference: GL + KB @ 3436.00usft (H&P 482)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

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)
12,671.00	91.62	270.09	8,413.82	-395.66	-4,441.31	4,456.52	0.45	-0.41	0.18
12,766.00	91.51	269.65	8,411.23	-395.88	-4,536.28	4,551.35	0.48	-0.12	-0.46
12,860.00	91.35	269.65	8,408.88	-396.45	-4,630.25	4,645.20	0.17	-0.17	0.00
12,955.00	91.33	269.21	8,406.66	-397.40	-4,725.22	4,740.07	0.46	-0.02	-0.46
13,050.00	91.51	269.65	8,404.31	-398.34	-4,820.18	4,834.94	0.50	0.19	0.46
13,144.00	91.77	270.09	8,401.62	-398.56	-4,914.14	4,928.77	0.54	0.28	0.47
13,239.00	91.64	270.09	8,398.79	-398.41	-5,009.10	5,023.57	0.14	-0.14	0.00
13,334.00	91.40	269.74	8,396.27	-398.55	-5,104.07	5,118.39	0.45	-0.25	-0.37
13,428.00	90.01	269.57	8,395.11	-399.11	-5,198.06	5,212.26	1.49	-1.48	-0.18
13,523.00	90.12	269.83	8,395.01	-399.61	-5,293.06	5,307.14	0.30	0.12	0.27
13,617.00	90.01	269.65	8,394.90	-400.04	-5,387.05	5,401.01	0.22	-0.12	-0.19
13,712.00	90.01	269.74	8,394.88	-400.54	-5,482.05	5,495.89	0.09	0.00	0.09
13,806.00	91.00	270.97	8,394.06	-399.96	-5,576.04	5,589.70	1.68	1.05	1.31
13,901.00	89.09	269.21	8,393.98	-399.81	-5,671.04	5,684.54	2.73	-2.01	-1.85
13,996.00	89.46	269.57	8,395.18	-400.82	-5,766.02	5,779.43	0.54	0.39	0.38
14,090.00	89.64	269.74	8,395.92	-401.39	-5,860.02	5,873.31	0.26	0.19	0.18
14,185.00	89.51	269.57	8,396.63	-401.96	-5,955.01	5,968.19	0.23	-0.14	-0.18
14,279.00	89.77	269.57	8,397.22	-402.67	-6,049.01	6,062.07	0.28	0.28	0.00
14,374.00	90.03	269.57	8,397.38	-403.38	-6,144.01	6,156.96	0.27	0.27	0.00
14,469.00	90.03	269.65	8,397.33	-404.03	-6,239.00	6,251.85	0.08	0.00	0.08
14,563.00	91.15	273.87	8,396.36	-401.14	-6,332.93	6,345.46	4.64	1.19	4.49
14,658.00	89.95	269.74	8,395.45	-398.15	-6,427.86	6,440.07	4.53	-1.26	-4.35
14,752.00	89.88	269.48	8,395.59	-398.79	-6,521.86	6,533.96	0.29	-0.07	-0.28
14,847.00	90.01	269.39	8,395.68	-399.73	-6,616.85	6,628.86	0.17	0.14	-0.09
14,941.00	90.54	269.57	8,395.23	-400.58	-6,710.85	6,722.75	0.60	0.56	0.19
15,036.00	90.67	269.83	8,394.23	-401.08	-6,805.84	6,817.62	0.31	0.14	0.27
15,225.00	91.00	269.39	8,391.47	-402.36	-6,994.81	7,006.37	0.29	0.17	-0.23
15,319.00	91.02	269.21	8,389.82	-403.51	-7,088.79	7,100.27	0.19	0.02	-0.19
15,414.00	90.93	269.30	8,388.20	-404.75	-7,183.77	7,195.16	0.13	-0.09	0.09
15,435.00	90.85	269.20	8,387.87	-405.02	-7,204.77	7,216.14	0.59	-0.36	-0.47
HL:15435'MD, 90.85°Inc, 269.20°Az									
15,450.00	90.80	269.13	8,387.66	-405.24	-7,219.76	7,231.13	0.59	-0.36	-0.47
Final Phoenix MWD Survey									
15,485.00	90.80	269.13	8,387.17	-405.77	-7,254.76	7,266.09	0.00	0.00	0.00
PTD:15485'MD, 90.80°Inc, 269.13°Az									

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Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,720.00	7,719.38	0.21	-43.77	Tie In
7,878.00	7,877.22	-3.50	-48.99	First Phoenix MWD Survey
15,435.00	8,387.87	-405.02	-7,204.77	HL:15435'MD, 90.85°Inc, 269.20°Azm
15,450.00	8,387.66	-405.24	-7,219.76	Final Phoenix MWD Survey
15,485.00	8,387.17	-405.77	-7,254.76	PTD:15485'MD, 90.80°Inc, 269.13°Azm