



Marathon Oil Permian LLC

RKB (Precision 601) 25' + GL(3518') @ 3543.00usft

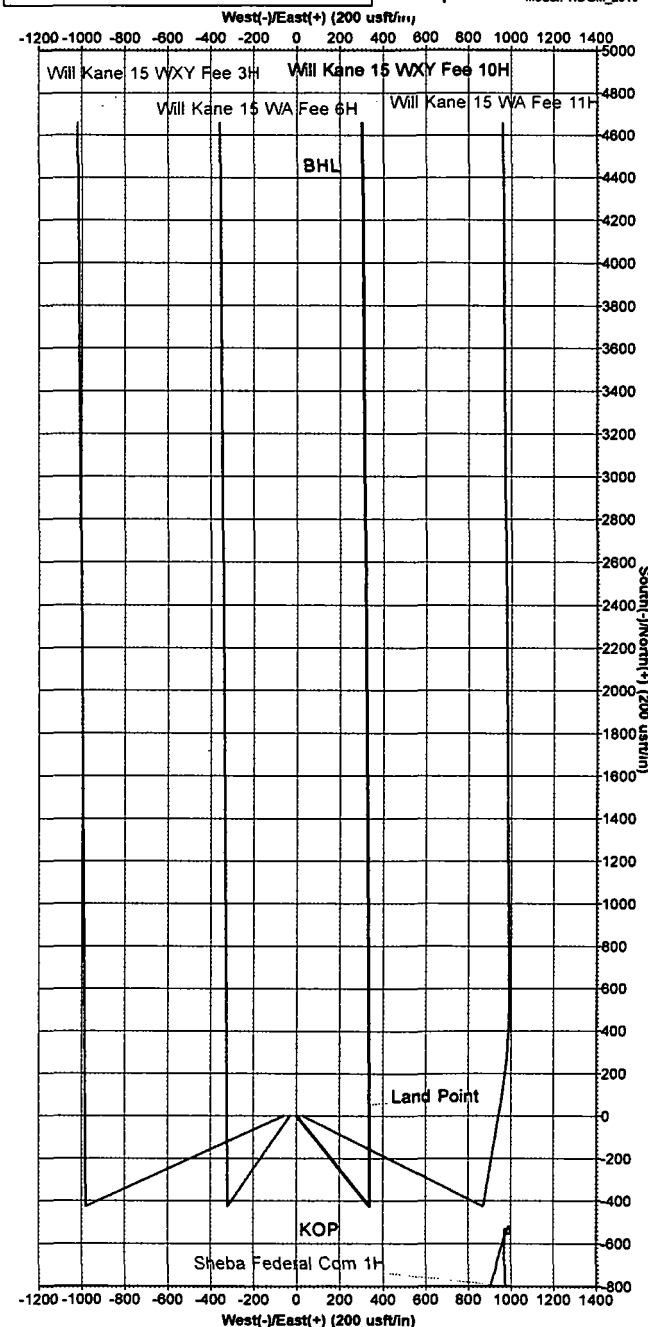
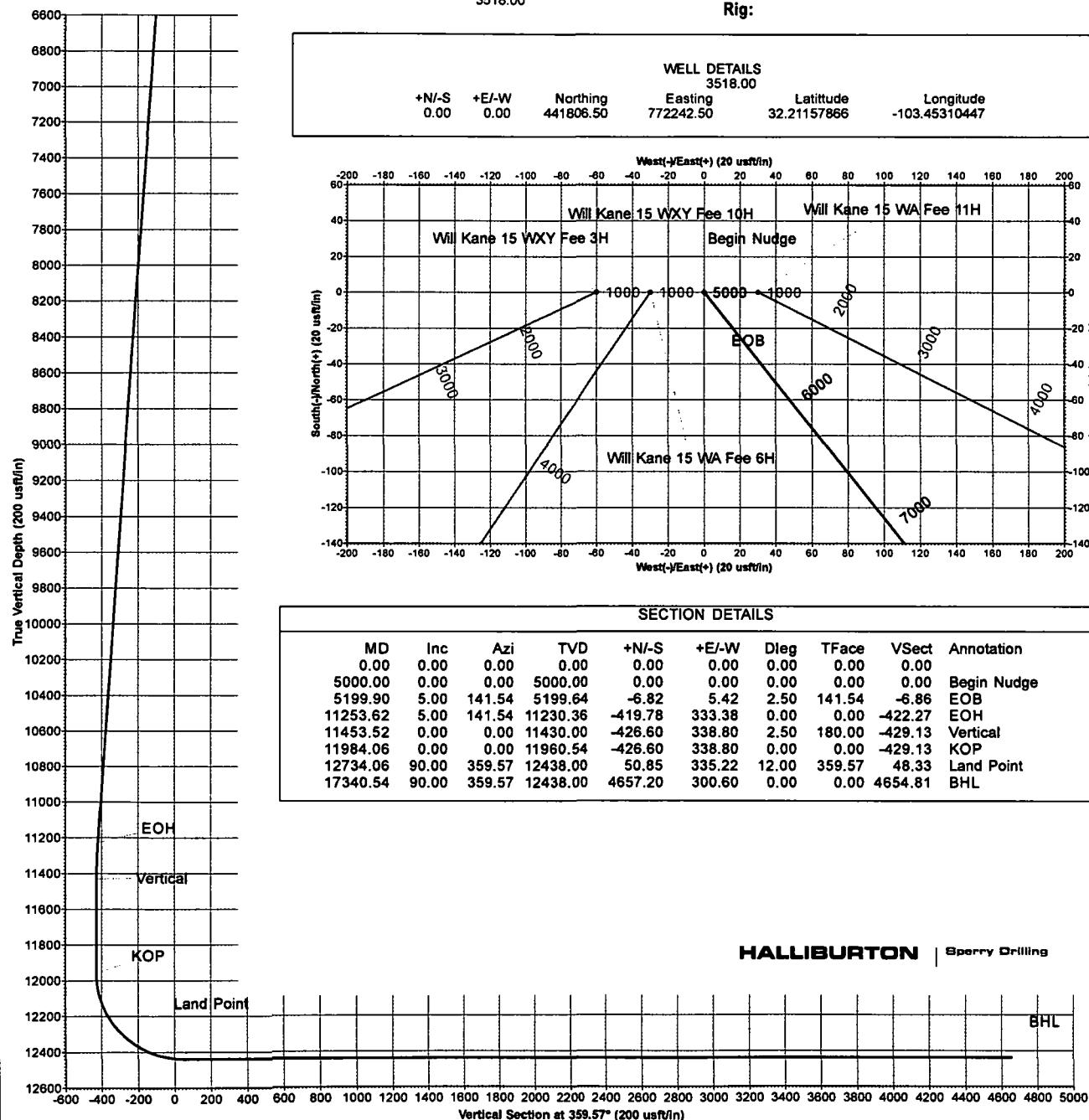
3518.00

Project: Lea County, New Mexico (NAD 27)
Site: Will Kane 15 Pad (Grid) [Permitting]
Well: Will Kane 15 WXY Fee 10H
Wellbore: Wellbore #1
Design: Plan 1
Rig:

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1886
Zone Name: New Mexico East 3001



Azimuths to Grid North
True North: -0.47°
Magnetic North: 8.18°
Magnetic Field
Strength: 47007.1nT
Dip Angle: 69.87°
Date: 5/1/2019
Model: HDQM_2019



Marathon Oil Permian LLC

Lea County, New Mexico (NAD 27) Will Kane 15 Pad (Grid) [Permitting]

API#

Will Kane 15 WXY Fee 10H

SHL: (520' FSL - 1329' FEL)

Wellbore #1

Plan: Plan 1

Sperry Drilling Services Combo Report

16 May, 2019

Well Coordinates: 32.21157866
-103.45310447

NAD 1927 (NADCON CONUS)
New Mexico East 3001
441,808.50 N
772,242.50 E

Ground Level: 3,518.00 usft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Centered on Well Will Kane 15 WXY Fee 10H
RKB (Precision 601) 25' + GL(3518') @ 3543.00usft
N
Grid
Midcon (2 decimal)

Version: 5000.15 Build: 91

Report Version: Midcon Combo v1.13

HALLIBURTON

Plan Report for Will Kane 15 WXY Fee 10H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
950.00	0.00	0.00	950.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	9 5/8"
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,100.00	0.00	0.00	1,100.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,700.00	0.00	0.00	2,700.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
2,900.00	0.00	0.00	2,900.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,100.00	0.00	0.00	3,100.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,200.00	0.00	0.00	3,200.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,300.00	0.00	0.00	3,300.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,400.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	

Plan Report for Will Kane 15 WXY Fee 10H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Tooface Angle (°)	Comments
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
3,500.00	0.00	0.00	3,500.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,600.00	0.00	0.00	3,600.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,700.00	0.00	0.00	3,700.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,800.00	0.00	0.00	3,800.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
3,900.00	0.00	0.00	3,900.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,000.00	0.00	0.00	4,000.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,100.00	0.00	0.00	4,100.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,200.00	0.00	0.00	4,200.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,300.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,400.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,500.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,600.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,700.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,800.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,900.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	
5,000.00	0.00	0.00	5,000.00	0.00 N	0.00 E	441,806.50	772,242.50	0.00	0.00	0.00	Begin Nudge
5,100.00	2.50	141.54	5,099.97	1.71 S	1.36 E	441,804.79	772,243.86	2.50	-1.72	141.54	
5,199.90	5.00	141.54	5,199.64	6.82 S	5.42 E	441,799.68	772,247.92	2.50	-6.86	0.00	EOB
5,200.00		141.54	5,199.75	6.83 S	5.42 E	441,799.67	772,247.92	0.00	-6.87	0.00	
5,300.00		141.54	5,299.37	13.65 S	10.84 E	441,792.85	772,253.34	0.00	-13.73	0.00	
5,400.00		141.54	5,398.99	20.47 S	16.26 E	441,786.03	772,258.76	0.00	-20.59	0.00	
5,500.00		141.54	5,498.61	27.29 S	21.68 E	441,779.21	772,264.18	0.00	-27.46	0.00	
5,600.00		141.54	5,598.23	34.12 S	27.09 E	441,772.38	772,269.59	0.00	-34.32	0.00	
5,700.00		141.54	5,697.85	40.94 S	32.51 E	441,765.56	772,275.01	0.00	-41.18	0.00	
5,800.00		141.54	5,797.47	47.76 S	37.93 E	441,758.74	772,280.43	0.00	-48.04	0.00	
5,900.00		141.54	5,897.09	54.58 S	43.35 E	441,751.92	772,285.85	0.00	-54.90	0.00	
6,000.00		141.54	5,996.71	61.40 S	48.76 E	441,745.10	772,291.26	0.00	-61.77	0.00	
6,100.00		141.54	6,096.33	68.22 S	54.18 E	441,738.28	772,296.68	0.00	-68.63	0.00	
6,200.00		141.54	6,195.94	75.04 S	59.60 E	441,731.46	772,302.10	0.00	-75.49	0.00	
6,300.00		141.54	6,295.56	81.87 S	65.02 E	441,724.63	772,307.52	0.00	-82.35	0.00	
6,400.00		141.54	6,395.18	88.69 S	70.43 E	441,717.81	772,312.93	0.00	-89.21	0.00	
6,500.00		141.54	6,494.80	95.51 S	75.85 E	441,710.99	772,318.35	0.00	-96.08	0.00	
6,600.00		141.54	6,594.42	102.33 S	81.27 E	441,704.17	772,323.77	0.00	-102.94	0.00	
6,700.00		141.54	6,694.04	109.15 S	86.69 E	441,697.35	772,329.19	0.00	-109.80	0.00	
6,800.00		141.54	6,793.66	115.97 S	92.10 E	441,690.53	772,334.60	0.00	-116.66	0.00	
6,900.00		141.54	6,893.28	122.79 S	97.52 E	441,683.71	772,340.02	0.00	-123.52	0.00	
7,000.00		141.54	6,992.90	129.62 S	102.94 E	441,676.88	772,345.44	0.00	-130.39	0.00	

Plan Report for Will Kane 15 WXY Fee 10H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
7,100.00		141.54	7,092.52	136.44 S	108.36 E	441,670.06	772,350.86	0.00	-137.25	0.00	
7,200.00		141.54	7,192.14	143.26 S	113.77 E	441,663.24	772,356.27	0.00	-144.11	0.00	
7,300.00		141.54	7,291.76	150.08 S	119.19 E	441,656.42	772,361.69	0.00	-150.97	0.00	
7,400.00		141.54	7,391.38	156.90 S	124.61 E	441,649.60	772,367.11	0.00	-157.83	0.00	
7,500.00		141.54	7,491.00	163.72 S	130.03 E	441,642.78	772,372.53	0.00	-164.70	0.00	
7,600.00		141.54	7,590.62	170.55 S	135.44 E	441,635.95	772,377.94	0.00	-171.56	0.00	
7,700.00		141.54	7,690.24	177.37 S	140.86 E	441,629.13	772,383.36	0.00	-178.42	0.00	
7,800.00		141.54	7,789.86	184.19 S	146.28 E	441,622.31	772,388.78	0.00	-185.28	0.00	
7,900.00		141.54	7,889.48	191.01 S	151.70 E	441,615.49	772,394.20	0.00	-192.14	0.00	
8,000.00		141.54	7,989.10	197.83 S	157.12 E	441,608.67	772,399.62	0.00	-199.01	0.00	
8,100.00		141.54	8,088.72	204.65 S	162.53 E	441,601.85	772,405.03	0.00	-205.87	0.00	
8,200.00		141.54	8,188.34	211.47 S	167.95 E	441,595.03	772,410.45	0.00	-212.73	0.00	
8,300.00		141.54	8,287.96	218.30 S	173.37 E	441,588.20	772,415.87	0.00	-219.59	0.00	
8,400.00		141.54	8,387.58	225.12 S	178.79 E	441,581.38	772,421.29	0.00	-226.45	0.00	
8,500.00		141.54	8,487.20	231.94 S	184.20 E	441,574.56	772,426.70	0.00	-233.31	0.00	
8,600.00		141.54	8,586.82	238.76 S	189.62 E	441,567.74	772,432.12	0.00	-240.18	0.00	
8,700.00		141.54	8,686.44	245.58 S	195.04 E	441,560.92	772,437.54	0.00	-247.04	0.00	
8,800.00		141.54	8,786.06	252.40 S	200.46 E	441,554.10	772,442.96	0.00	-253.90	0.00	
8,900.00		141.54	8,885.68	259.23 S	205.87 E	441,547.27	772,448.37	0.00	-260.76	0.00	
9,000.00		141.54	8,985.30	266.05 S	211.29 E	441,540.45	772,453.79	0.00	-267.62	0.00	
9,100.00		141.54	9,084.92	272.87 S	216.71 E	441,533.63	772,459.21	0.00	-274.49	0.00	
9,200.00		141.54	9,184.54	279.69 S	222.13 E	441,526.81	772,464.63	0.00	-281.35	0.00	
9,300.00		141.54	9,284.16	286.51 S	227.54 E	441,519.99	772,470.04	0.00	-288.21	0.00	
9,400.00		141.54	9,383.78	293.33 S	232.96 E	441,513.17	772,475.46	0.00	-295.07	0.00	
9,500.00		141.54	9,483.40	300.15 S	238.38 E	441,506.35	772,480.88	0.00	-301.93	0.00	
9,600.00		141.54	9,583.02	306.98 S	243.80 E	441,499.52	772,486.30	0.00	-308.80	0.00	
9,700.00		141.54	9,682.64	313.80 S	249.21 E	441,492.70	772,491.71	0.00	-315.66	0.00	
9,800.00		141.54	9,782.26	320.62 S	254.63 E	441,485.88	772,497.13	0.00	-322.52	0.00	
9,900.00		141.54	9,881.88	327.44 S	260.05 E	441,479.06	772,502.55	0.00	-329.38	0.00	
10,000.00		141.54	9,981.50	334.26 S	265.47 E	441,472.24	772,507.97	0.00	-336.24	0.00	
10,100.00		141.54	10,081.12	341.08 S	270.88 E	441,465.42	772,513.38	0.00	-343.11	0.00	
10,200.00		141.54	10,180.74	347.90 S	276.30 E	441,458.60	772,518.80	0.00	-349.97	0.00	
10,300.00		141.54	10,280.36	354.73 S	281.72 E	441,451.77	772,524.22	0.00	-356.83	0.00	
10,400.00		141.54	10,379.98	361.55 S	287.14 E	441,444.95	772,529.64	0.00	-363.69	0.00	
10,500.00		141.54	10,479.60	368.37 S	292.55 E	441,438.13	772,535.05	0.00	-370.55	0.00	
10,600.00		141.54	10,579.22	375.19 S	297.97 E	441,431.31	772,540.47	0.00	-377.42	0.00	
10,700.00		141.54	10,678.84	382.01 S	303.39 E	441,424.49	772,545.89	0.00	-384.28	0.00	

HALLIBURTON**Plan Report for Will Kane 15 WXY Fee 10H - Plan 1**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
10,800.00		141.54	10,778.46	388.83 S	308.81 E	441,417.67	772,551.31	0.00	-391.14	0.00	
10,900.00		141.54	10,878.08	395.66 S	314.22 E	441,410.84	772,556.72	0.00	-398.00	0.00	
11,000.00		141.54	10,977.70	402.48 S	319.64 E	441,404.02	772,562.14	0.00	-404.86	0.00	
11,100.00		141.54	11,077.32	409.30 S	325.06 E	441,397.20	772,567.56	0.00	-411.73	0.00	
11,200.00		141.54	11,176.94	416.12 S	330.48 E	441,390.38	772,572.98	0.00	-418.59	0.00	
11,253.62		141.54	11,230.36	419.78 S	333.38 E	441,386.72	772,575.88	0.00	-422.27	0.00	EOH
11,300.00	3.84	141.54	11,276.60	422.58 S	335.60 E	441,383.92	772,578.10	2.50	-425.08	180.00	
11,400.00	1.34	141.54	11,376.49	426.11 S	338.41 E	441,380.39	772,580.91	2.50	-428.64	180.00	
11,453.52	0.00	0.00	11,430.00	426.60 S	338.80 E	441,379.90	772,581.30	2.50	-429.13	-180.00	Vertical
11,500.00	0.00	0.00	11,476.48	426.60 S	338.80 E	441,379.90	772,581.30	0.00	-429.13	0.00	
11,600.00	0.00	0.00	11,576.48	426.60 S	338.80 E	441,379.90	772,581.30	0.00	-429.13	0.00	
11,700.00	0.00	0.00	11,676.48	426.60 S	338.80 E	441,379.90	772,581.30	0.00	-429.13	0.00	
11,800.00	0.00	0.00	11,776.48	426.60 S	338.80 E	441,379.90	772,581.30	0.00	-429.13	0.00	
11,900.00	0.00	0.00	11,876.48	426.60 S	338.80 E	441,379.90	772,581.30	0.00	-429.13	0.00	
11,984.06	0.00	0.00	11,960.54	426.60 S	338.80 E	441,379.90	772,581.30	0.00	-429.13	0.00	KOP
12,000.00	1.91	359.57	11,976.48	426.33 S	338.80 E	441,380.17	772,581.30	12.00	-428.86	359.57	
12,100.00	13.91	359.57	12,075.34	412.59 S	338.69 E	441,393.91	772,581.19	12.00	-415.12	0.00	
12,200.00	25.91	359.57	12,169.19	378.60 S	338.44 E	441,427.90	772,580.94	12.00	-381.13	0.00	
12,300.00	37.91	359.57	12,253.92	325.83 S	338.04 E	441,480.67	772,580.54	12.00	-328.36	0.00	
12,400.00	49.91	359.57	12,325.83	256.60 S	337.52 E	441,549.90	772,580.02	12.00	-259.13	0.00	
12,500.00	61.91	359.57	12,381.78	173.94 S	336.90 E	441,632.56	772,579.40	12.00	-176.46	0.00	
12,600.00	73.91	359.57	12,419.31	81.45 S	336.21 E	441,725.05	772,578.71	12.00	-83.97	0.00	
12,700.00	85.91	359.57	12,436.79	16.82 N	335.47 E	441,823.32	772,577.97	12.00	14.30	0.00	
12,734.06	90.00	359.57	12,438.00	50.85 N	335.22 E	441,857.35	772,577.72	12.00	48.33	0.00	Land Point
12,800.00	90.00	359.57	12,438.00	116.79 N	334.72 E	441,923.29	772,577.22	0.00	114.28	0.00	
12,900.00	90.00	359.57	12,438.00	216.79 N	333.97 E	442,023.29	772,576.47	0.00	214.28	0.00	
13,000.00	90.00	359.57	12,438.00	316.78 N	333.22 E	442,123.28	772,575.72	0.00	314.28	0.00	
13,100.00	90.00	359.57	12,438.00	416.78 N	332.47 E	442,223.28	772,574.97	0.00	414.28	0.00	
13,200.00	90.00	359.57	12,438.00	516.78 N	331.72 E	442,323.28	772,574.22	0.00	514.28	0.00	
13,300.00	90.00	359.57	12,438.00	616.78 N	330.97 E	442,423.28	772,573.47	0.00	614.28	0.00	
13,400.00	90.00	359.57	12,438.00	716.77 N	330.22 E	442,523.27	772,572.72	0.00	714.28	0.00	
13,500.00	90.00	359.57	12,438.00	816.77 N	329.47 E	442,623.27	772,571.97	0.00	814.28	0.00	
13,600.00	90.00	359.57	12,438.00	916.77 N	328.72 E	442,723.27	772,571.22	0.00	914.28	0.00	
13,700.00	90.00	359.57	12,438.00	1,016.77 N	327.97 E	442,823.27	772,570.47	0.00	1,014.28	0.00	
13,800.00	90.00	359.57	12,438.00	1,116.76 N	327.22 E	442,923.26	772,569.72	0.00	1,114.28	0.00	
13,900.00	90.00	359.57	12,438.00	1,216.76 N	326.47 E	443,023.26	772,568.97	0.00	1,214.28	0.00	

Plan Report for Will Kane 15 WXY Fee 10H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
14,000.00	90.00	359.57	12,438.00	1,316.76 N	325.72 E	443,123.26	772,568.22	0.00	1,314.28	0.00	
14,100.00	90.00	359.57	12,438.00	1,416.75 N	324.97 E	443,223.25	772,567.47	0.00	1,414.28	0.00	
14,200.00	90.00	359.57	12,438.00	1,516.75 N	324.22 E	443,323.25	772,566.72	0.00	1,514.28	0.00	
14,300.00	90.00	359.57	12,438.00	1,616.75 N	323.46 E	443,423.25	772,565.96	0.00	1,614.28	0.00	
14,400.00	90.00	359.57	12,438.00	1,716.75 N	322.71 E	443,523.25	772,565.21	0.00	1,714.28	0.00	
14,500.00	90.00	359.57	12,438.00	1,816.74 N	321.96 E	443,623.24	772,564.46	0.00	1,814.28	0.00	
14,600.00	90.00	359.57	12,438.00	1,916.74 N	321.21 E	443,723.24	772,563.71	0.00	1,914.28	0.00	
14,700.00	90.00	359.57	12,438.00	2,016.74 N	320.46 E	443,823.24	772,562.96	0.00	2,014.28	0.00	
14,800.00	90.00	359.57	12,438.00	2,116.73 N	319.71 E	443,923.23	772,562.21	0.00	2,114.28	0.00	
14,900.00	90.00	359.57	12,438.00	2,216.73 N	318.96 E	444,023.23	772,561.46	0.00	2,214.28	0.00	
15,000.00	90.00	359.57	12,438.00	2,316.73 N	318.21 E	444,123.23	772,560.71	0.00	2,314.28	0.00	
15,100.00	90.00	359.57	12,438.00	2,416.73 N	317.46 E	444,223.23	772,559.96	0.00	2,414.28	0.00	
15,200.00	90.00	359.57	12,438.00	2,516.72 N	316.71 E	444,323.22	772,559.21	0.00	2,514.28	0.00	
15,300.00	90.00	359.57	12,438.00	2,616.72 N	315.96 E	444,423.22	772,558.46	0.00	2,614.28	0.00	
15,400.00	90.00	359.57	12,438.00	2,716.72 N	315.21 E	444,523.22	772,557.71	0.00	2,714.28	0.00	
15,500.00	90.00	359.57	12,438.00	2,816.71 N	314.46 E	444,623.21	772,556.96	0.00	2,814.28	0.00	
15,600.00	90.00	359.57	12,438.00	2,916.71 N	313.71 E	444,723.21	772,556.21	0.00	2,914.28	0.00	
15,700.00	90.00	359.57	12,438.00	3,016.71 N	312.96 E	444,823.21	772,555.46	0.00	3,014.28	0.00	
15,800.00	90.00	359.57	12,438.00	3,116.71 N	312.21 E	444,923.21	772,554.71	0.00	3,114.28	0.00	
15,900.00	90.00	359.57	12,438.00	3,216.70 N	311.46 E	445,023.20	772,553.96	0.00	3,214.28	0.00	
16,000.00	90.00	359.57	12,438.00	3,316.70 N	310.71 E	445,123.20	772,553.21	0.00	3,314.28	0.00	
16,100.00	90.00	359.57	12,438.00	3,416.70 N	309.96 E	445,223.20	772,552.46	0.00	3,414.28	0.00	
16,200.00	90.00	359.57	12,438.00	3,516.69 N	309.21 E	445,323.19	772,551.71	0.00	3,514.28	0.00	
16,300.00	90.00	359.57	12,438.00	3,616.69 N	308.45 E	445,423.19	772,550.95	0.00	3,614.28	0.00	
16,400.00	90.00	359.57	12,438.00	3,716.69 N	307.70 E	445,523.19	772,550.20	0.00	3,714.28	0.00	
16,500.00	90.00	359.57	12,438.00	3,816.69 N	306.95 E	445,623.19	772,549.45	0.00	3,814.28	0.00	
16,600.00	90.00	359.57	12,438.00	3,916.68 N	306.20 E	445,723.18	772,548.70	0.00	3,914.28	0.00	
16,700.00	90.00	359.57	12,438.00	4,016.68 N	305.45 E	445,823.18	772,547.95	0.00	4,014.28	0.00	
16,800.00	90.00	359.57	12,438.00	4,116.68 N	304.70 E	445,923.18	772,547.20	0.00	4,114.28	0.00	
16,900.00	90.00	359.57	12,438.00	4,216.67 N	303.95 E	446,023.17	772,546.45	0.00	4,214.28	0.00	
17,000.00	90.00	359.57	12,438.00	4,316.67 N	303.20 E	446,123.17	772,545.70	0.00	4,314.28	0.00	
17,100.00	90.00	359.57	12,438.00	4,416.67 N	302.45 E	446,223.17	772,544.95	0.00	4,414.28	0.00	
17,200.00	90.00	359.57	12,438.00	4,516.67 N	301.70 E	446,323.17	772,544.20	0.00	4,514.28	0.00	
17,300.00	90.00	359.57	12,438.00	4,616.66 N	300.95 E	446,423.16	772,543.45	0.00	4,614.28	0.00	
17,340.54	90.00	359.57	12,438.00	4,657.20 N	300.60 E	446,463.70	772,543.10	0.00	4,654.81	0.00	BHL

Plan Report for Will Kane 15 WXY Fee 10H - Plan 1

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,000.00	5,000.00	0.00	0.00	Begin Nudge
5,199.90	5,199.64	-6.82	5.42	EOB
11,253.62	11,230.36	-419.78	333.38	EOH
11,453.52	11,430.00	-426.60	338.80	Vertical
11,984.06	11,960.54	-426.60	338.80	KOP
12,734.06	12,438.00	50.85	335.22	Land Point
17,340.54	12,438.00	4,657.20	300.60	BHL

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/-S (usft)	+E/-W (usft)	
User	No Target (Freehand)	359.57	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	17,340.54	Plan 1	2_MWD+HRGM+AX

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
950.00	950.00	9 5/8"	9-5/8	12-1/4

Plan Report for Will Kane 15 WXY Fee 10H - Plan 1

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Will Kane 10H FTP (100' FSL - 990' FEL) ()									
	0.00	0.00	12,438.00	-426.60	338.80	441,379.90	772,581.30	32.21039844	-103.45202046
- plan misses target center by 197.82usft at 12362.83usft MD (12300.81 TVD, -284.08 N, 337.73 E)									
- Point									
Will Kane 10H BHL (100' FNL - 990' FEL) ()									
	0.00	0.00	12,438.00	4,657.20	300.60	446,463.70	772,543.10	32.22437300	-103.45200917
- plan hits target center									
- Point									

Directional Difficulty Index

Average Dogleg over Survey:	0.58 °/100usft	Maximum Dogleg over Survey:	12.00 °/100usft at 12,734.06 usft
Net Tortousity applicable to Plans:	0.58 °/100usft	Directional Difficulty Index:	6.152

Audit Info

North Reference Sheet for Will Kane 15 Pad (Grid) [Permitting] - Will Kane 15 WXY Fee 10H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to RKB (Precision 601) 25' + GL(3518') @ 3543.00usft. Northing and Easting are relative to Will Kane 15 WXY Fee 10H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33333333°, Longitude Origin:0.00000000°, Latitude Origin:0.00000000°

False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 0.99999398

Grid Coordinates of Well: 441,806.50 usft N, 772,242.50 usft E

Geographical Coordinates of Well: 32° 12' 41.68" N, 103° 27' 11.18" W

Grid Convergence at Surface is: 0.47°

Based upon Minimum Curvature type calculations, at a Measured Depth of 17,340.54usft

the Bottom Hole Displacement is 4,666.89usft in the Direction of 3.69° (Grid).

Magnetic Convergence at surface is: -6.16° (1 May 2019, , HDGM_2019)

