

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 26-T3N-R68W

DOUTHIT 8N-27HZ

Plan A

Plan: Rev A0 Permit

Sperry Drilling Services

Proposal Report

08 April, 2014

Well Coordinates: 1,316,248.04 N, 3,150,357.36 E (40° 12' 00.88" N, 104° 57' 42.19" W)

Ground Level: 4,942.00 usft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Geodetic Scale Factor Applied

Version: 5000.1 Build: 70

Centered on Well DOUTHIT 8N-27HZ

RKB = 17' @ 4959.00usft (Drilling Rig)

N

True

API - US Survey Feet - Custom

HALLIBURTON

Project: Weld County, CO (NAD 83)
Site: Sec. 26-T3N-R68W
Well: DOUTHIT 8N-27HZ
Wellbore: Plan A
Design: Rev A0 Permit

Anadarko Petroleum Corp.

HALLIBURTON
Sperry Drilling

SECTION DETAILS

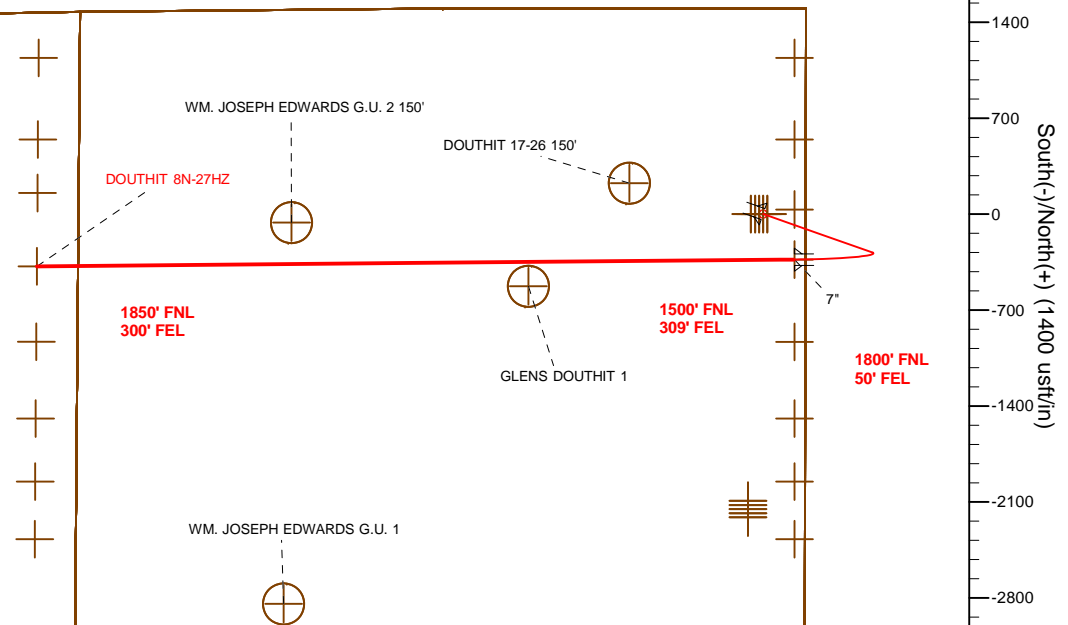
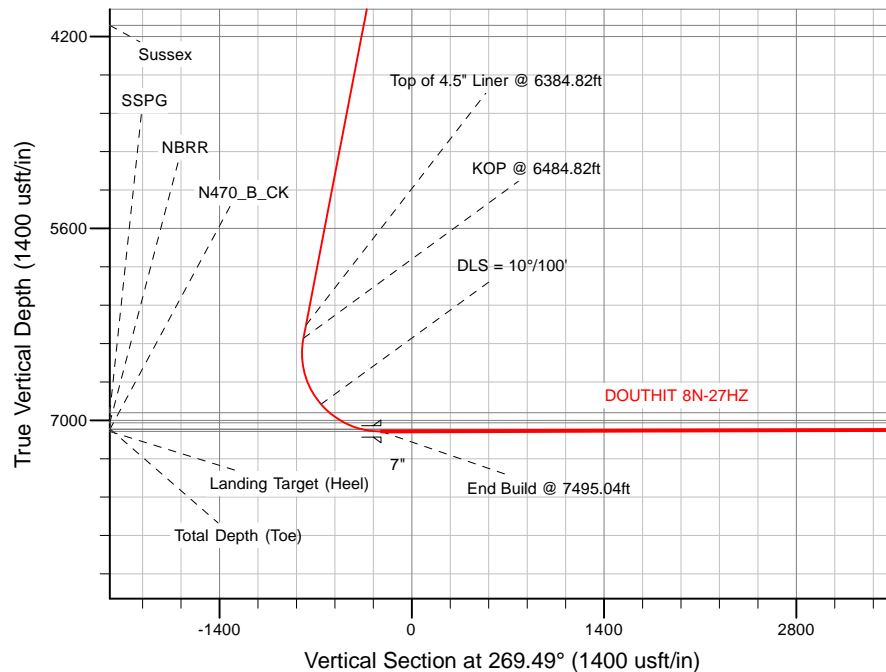
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
3	2576.79	11.54	109.43	2572.90	-19.25	54.57	2.00	109.43	-54.40	
4	6484.82	11.54	109.43	6401.99	-279.26	791.58	0.00	0.00	-789.06	
5	7495.04	90.19	269.49	7081.00	-331.75	227.42	10.00	159.66	-224.45	DOUTHIT 8N-27HZ_CP
6	13011.31	90.19	269.49	7063.00	-381.19	-5288.60	0.00	0.00	5291.79	DOUTHIT 8N-27HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Polygon
DOUTHIT 8N-27HZ_SEC	0.00	0.00	0.00	40° 12' 0.882 N	104° 57' 42.192 W	Polygon
DOUTHIT 8N-27HZ_SHL	0.00	0.00	0.00	40° 12' 0.882 N	104° 57' 42.192 W	Polygon
DOUTHIT 8N-27HZ_BHL	7063.00	-381.19	-5288.60	40° 11' 57.109 N	104° 58' 50.347 W	Point
DOUTHIT 8N-27HZ_CP	7081.00	-331.75	227.42	40° 11' 57.603 N	104° 57' 39.261 W	Point

West(-)/East(+) (1400 usft/in)

-4200 -3500 -2800 -2100 -1400 -700 0 700 1400



TVD MD

6304.01 6384.82 Top of 4.5" Liner @ 6384.82ft
6401.99 6484.82 KOP @ 6484.82ft

WELL DETAILS: DOUTHIT 8N-27HZ

Ground Level: 4942.00

RKB = 17" @ 4959.00usft (Drilling Rig)

Plan: Rev A0 Permit (DOUTHIT 8N-27HZ/Plan A)

Created By: Clint Eshelman Date: 4/8/2014
Reviewed: _____ Date: _____

Plan Report for DOUTHIT 8N-27HZ - Rev A0 Permit

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)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DOUTHIT 8N-27HZ_SEC - DOUTHIT 8N-27HZ_SHL										
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	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	0.00
900.00	0.00	0.00	900.00	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	0.00
1,076.00	0.00	0.00	1,076.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills Base										
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,126.00	0.00	0.00	1,126.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"										
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 2000.00ft										
2,100.00	2.00	109.43	2,099.98	-0.58	1.65	-1.64	2.00	2.00	0.00	109.43
2,200.00	4.00	109.43	2,199.84	-2.32	6.58	-6.56	2.00	2.00	0.00	0.00
2,300.00	6.00	109.43	2,299.45	-5.22	14.80	-14.75	2.00	2.00	0.00	0.00
2,400.00	8.00	109.43	2,398.70	-9.28	26.29	-26.21	2.00	2.00	0.00	0.00
2,500.00	10.00	109.43	2,497.47	-14.48	41.04	-40.91	2.00	2.00	0.00	0.00
2,576.79	11.54	109.43	2,572.90	-19.25	54.57	-54.40	2.00	2.00	0.00	0.00
End Nudge @ 2576.79ft										
2,600.00	11.54	109.43	2,595.64	-20.80	58.95	-58.76	0.00	0.00	0.00	0.00
2,700.00	11.54	109.43	2,693.62	-27.45	77.81	-77.56	0.00	0.00	0.00	0.00
2,800.00	11.54	109.43	2,791.60	-34.10	96.67	-96.36	0.00	0.00	0.00	0.00
2,900.00	11.54	109.43	2,889.58	-40.76	115.53	-115.16	0.00	0.00	0.00	0.00
3,000.00	11.54	109.43	2,987.56	-47.41	134.38	-133.96	0.00	0.00	0.00	0.00
3,100.00	11.54	109.43	3,085.54	-54.06	153.24	-152.76	0.00	0.00	0.00	0.00
3,200.00	11.54	109.43	3,183.52	-60.72	172.10	-171.55	0.00	0.00	0.00	0.00
3,300.00	11.54	109.43	3,281.50	-67.37	190.96	-190.35	0.00	0.00	0.00	0.00
3,400.00	11.54	109.43	3,379.48	-74.02	209.82	-209.15	0.00	0.00	0.00	0.00
3,500.00	11.54	109.43	3,477.46	-80.67	228.68	-227.95	0.00	0.00	0.00	0.00
3,600.00	11.54	109.43	3,575.44	-87.33	247.54	-246.75	0.00	0.00	0.00	0.00
3,700.00	11.54	109.43	3,673.42	-93.98	266.40	-265.55	0.00	0.00	0.00	0.00
3,703.65	11.54	109.43	3,677.00	-94.22	267.08	-266.23	0.00	0.00	0.00	0.00
Parkman										
3,800.00	11.54	109.43	3,771.40	-100.63	285.25	-284.35	0.00	0.00	0.00	0.00
3,900.00	11.54	109.43	3,869.38	-107.29	304.11	-303.15	0.00	0.00	0.00	0.00
4,000.00	11.54	109.43	3,967.36	-113.94	322.97	-321.94	0.00	0.00	0.00	0.00
4,100.00	11.54	109.43	4,065.34	-120.59	341.83	-340.74	0.00	0.00	0.00	0.00
4,153.74	11.54	109.43	4,118.00	-124.17	351.97	-350.85	0.00	0.00	0.00	0.00
Sussex										
4,200.00	11.54	109.43	4,163.32	-127.25	360.69	-359.54	0.00	0.00	0.00	0.00
4,300.00	11.54	109.43	4,261.30	-133.90	379.55	-378.34	0.00	0.00	0.00	0.00
4,400.00	11.54	109.43	4,359.28	-140.55	398.41	-397.14	0.00	0.00	0.00	0.00

Plan Report for DOUTHIT 8N-27HZ - Rev A0 Permit

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)	Toolface Azimuth (°)
4,500.00	11.54	109.43	4,457.26	-147.21	417.26	-415.94	0.00	0.00	0.00	0.00
4,600.00	11.54	109.43	4,555.24	-153.86	436.12	-434.74	0.00	0.00	0.00	0.00
4,700.00	11.54	109.43	4,653.22	-160.51	454.98	-453.54	0.00	0.00	0.00	0.00
4,800.00	11.54	109.43	4,751.20	-167.16	473.84	-472.33	0.00	0.00	0.00	0.00
4,900.00	11.54	109.43	4,849.18	-173.82	492.70	-491.13	0.00	0.00	0.00	0.00
5,000.00	11.54	109.43	4,947.16	-180.47	511.56	-509.93	0.00	0.00	0.00	0.00
5,100.00	11.54	109.43	5,045.14	-187.12	530.42	-528.73	0.00	0.00	0.00	0.00
5,200.00	11.54	109.43	5,143.12	-193.78	549.28	-547.53	0.00	0.00	0.00	0.00
5,300.00	11.54	109.43	5,241.10	-200.43	568.13	-566.33	0.00	0.00	0.00	0.00
5,400.00	11.54	109.43	5,339.08	-207.08	586.99	-585.13	0.00	0.00	0.00	0.00
5,500.00	11.54	109.43	5,437.06	-213.74	605.85	-603.93	0.00	0.00	0.00	0.00
5,600.00	11.54	109.43	5,535.04	-220.39	624.71	-622.72	0.00	0.00	0.00	0.00
5,700.00	11.54	109.43	5,633.02	-227.04	643.57	-641.52	0.00	0.00	0.00	0.00
5,800.00	11.54	109.43	5,731.00	-233.70	662.43	-660.32	0.00	0.00	0.00	0.00
5,900.00	11.54	109.43	5,828.98	-240.35	681.29	-679.12	0.00	0.00	0.00	0.00
6,000.00	11.54	109.43	5,926.96	-247.00	700.15	-697.92	0.00	0.00	0.00	0.00
6,100.00	11.54	109.43	6,024.94	-253.65	719.00	-716.72	0.00	0.00	0.00	0.00
6,200.00	11.54	109.43	6,122.92	-260.31	737.86	-735.52	0.00	0.00	0.00	0.00
6,300.00	11.54	109.43	6,220.90	-266.96	756.72	-754.32	0.00	0.00	0.00	0.00
6,384.82	11.54	109.43	6,304.01	-272.60	772.72	-770.26	0.00	0.00	0.00	0.00
Top of 4.5" Liner @ 6384.82ft										
6,400.00	11.54	109.43	6,318.88	-273.61	775.58	-773.11	0.00	0.00	0.00	0.00
6,484.82	11.54	109.43	6,401.99	-279.26	791.58	-789.06	0.00	0.00	0.00	0.00
KOP @ 6484.82ft										
6,500.00	10.13	112.43	6,416.90	-280.27	794.24	-791.72	10.00	-9.28	19.77	159.66
6,600.00	4.04	189.21	6,516.25	-287.12	801.82	-799.23	10.00	-6.08	76.78	156.72
6,700.00	11.39	249.25	6,615.39	-294.12	792.00	-789.35	10.00	7.35	60.04	80.29
6,800.00	21.05	259.04	6,711.31	-301.05	765.06	-762.35	10.00	9.65	9.79	20.60
6,900.00	30.92	262.79	6,801.10	-307.70	721.83	-719.07	10.00	9.87	3.75	11.16
7,000.00	40.84	264.85	6,882.03	-313.88	663.63	-660.81	10.00	9.93	2.06	7.77
DLS = 10°/100'										
7,086.54	49.46	266.06	6,943.00	-318.69	602.53	-599.67	10.00	9.95	1.39	6.10
SSPG										
7,100.00	50.80	266.22	6,951.63	-319.38	592.22	-589.36	10.00	9.96	1.18	5.25
7,200.00	60.76	267.24	7,007.80	-324.06	509.77	-506.87	10.00	9.96	1.02	5.15
7,219.42	62.70	267.41	7,017.00	-324.85	492.68	-489.77	10.00	9.97	0.90	4.57
NBRR										
7,300.00	70.73	268.08	7,048.83	-327.75	418.79	-415.86	10.00	9.97	0.83	4.49
7,361.60	76.88	268.54	7,066.00	-329.49	359.69	-356.74	10.00	9.97	0.75	4.22
N470_B_CK										
7,400.00	80.71	268.82	7,073.46	-330.36	322.04	-319.08	10.00	9.97	0.72	4.09
7,495.04	90.19	269.49	7,081.00	-331.75	227.42	-224.45	10.00	9.98	0.70	4.04
End Build @ 7495.04ft - Landing Target (Heel) - 7" - DOUTHIT 8N-27HZ_CP										
7,500.00	90.19	269.49	7,080.98	-331.79	222.46	-219.49	0.00	0.00	0.00	3.99
7,600.00	90.19	269.49	7,080.66	-332.69	122.46	-119.50	0.00	0.00	0.00	0.00
7,700.00	90.19	269.49	7,080.33	-333.59	22.47	-19.50	0.00	0.00	0.00	0.00
7,800.00	90.19	269.49	7,080.00	-334.48	-77.53	80.50	0.00	0.00	0.00	0.00
7,900.00	90.19	269.49	7,079.68	-335.38	-177.52	180.50	0.00	0.00	0.00	0.00
8,000.00	90.19	269.49	7,079.35	-336.28	-277.52	280.50	0.00	0.00	0.00	0.00
8,100.00	90.19	269.49	7,079.03	-337.17	-377.52	380.50	0.00	0.00	0.00	0.00
8,200.00	90.19	269.49	7,078.70	-338.07	-477.51	480.50	0.00	0.00	0.00	0.00
8,300.00	90.19	269.49	7,078.37	-338.96	-577.51	580.50	0.00	0.00	0.00	0.00
8,400.00	90.19	269.49	7,078.05	-339.86	-677.50	680.50	0.00	0.00	0.00	0.00
8,500.00	90.19	269.49	7,077.72	-340.76	-777.50	780.50	0.00	0.00	0.00	0.00
8,600.00	90.19	269.49	7,077.39	-341.65	-877.49	880.50	0.00	0.00	0.00	0.00
8,700.00	90.19	269.49	7,077.07	-342.55	-977.49	980.50	0.00	0.00	0.00	0.00
8,800.00	90.19	269.49	7,076.74	-343.45	-1,077.48	1,080.50	0.00	0.00	0.00	0.00
8,900.00	90.19	269.49	7,076.42	-344.34	-1,177.48	1,180.50	0.00	0.00	0.00	0.00
9,000.00	90.19	269.49	7,076.09	-345.24	-1,277.47	1,280.50	0.00	0.00	0.00	0.00

Plan Report for DOUTHIT 8N-27HZ - Rev A0 Permit

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)	Toolface Azimuth (°)
9,100.00	90.19	269.49	7,075.76	-346.13	-1,377.47	1,380.50	0.00	0.00	0.00	0.00
9,200.00	90.19	269.49	7,075.44	-347.03	-1,477.47	1,480.50	0.00	0.00	0.00	0.00
9,300.00	90.19	269.49	7,075.11	-347.93	-1,577.46	1,580.50	0.00	0.00	0.00	0.00
9,400.00	90.19	269.49	7,074.78	-348.82	-1,677.46	1,680.50	0.00	0.00	0.00	0.00
9,500.00	90.19	269.49	7,074.46	-349.72	-1,777.45	1,780.49	0.00	0.00	0.00	0.00
9,600.00	90.19	269.49	7,074.13	-350.62	-1,877.45	1,880.49	0.00	0.00	0.00	0.00
9,700.00	90.19	269.49	7,073.81	-351.51	-1,977.44	1,980.49	0.00	0.00	0.00	0.00
9,800.00	90.19	269.49	7,073.48	-352.41	-2,077.44	2,080.49	0.00	0.00	0.00	0.00
9,900.00	90.19	269.49	7,073.15	-353.31	-2,177.43	2,180.49	0.00	0.00	0.00	0.00
10,000.00	90.19	269.49	7,072.83	-354.20	-2,277.43	2,280.49	0.00	0.00	0.00	0.00
10,100.00	90.19	269.49	7,072.50	-355.10	-2,377.42	2,380.49	0.00	0.00	0.00	0.00
10,200.00	90.19	269.49	7,072.17	-355.99	-2,477.42	2,480.49	0.00	0.00	0.00	0.00
10,300.00	90.19	269.49	7,071.85	-356.89	-2,577.42	2,580.49	0.00	0.00	0.00	0.00
10,400.00	90.19	269.49	7,071.52	-357.79	-2,677.41	2,680.49	0.00	0.00	0.00	0.00
10,500.00	90.19	269.49	7,071.19	-358.68	-2,777.41	2,780.49	0.00	0.00	0.00	0.00
10,600.00	90.19	269.49	7,070.87	-359.58	-2,877.40	2,880.49	0.00	0.00	0.00	0.00
10,700.00	90.19	269.49	7,070.54	-360.48	-2,977.40	2,980.49	0.00	0.00	0.00	0.00
10,800.00	90.19	269.49	7,070.22	-361.37	-3,077.39	3,080.49	0.00	0.00	0.00	0.00
10,900.00	90.19	269.49	7,069.89	-362.27	-3,177.39	3,180.49	0.00	0.00	0.00	0.00
11,000.00	90.19	269.49	7,069.56	-363.16	-3,277.38	3,280.49	0.00	0.00	0.00	0.00
11,100.00	90.19	269.49	7,069.24	-364.06	-3,377.38	3,380.49	0.00	0.00	0.00	0.00
11,200.00	90.19	269.49	7,068.91	-364.96	-3,477.37	3,480.49	0.00	0.00	0.00	0.00
11,300.00	90.19	269.49	7,068.58	-365.85	-3,577.37	3,580.49	0.00	0.00	0.00	0.00
11,400.00	90.19	269.49	7,068.26	-366.75	-3,677.37	3,680.48	0.00	0.00	0.00	0.00
11,500.00	90.19	269.49	7,067.93	-367.65	-3,777.36	3,780.48	0.00	0.00	0.00	0.00
11,600.00	90.19	269.49	7,067.61	-368.54	-3,877.36	3,880.48	0.00	0.00	0.00	0.00
11,700.00	90.19	269.49	7,067.28	-369.44	-3,977.35	3,980.48	0.00	0.00	0.00	0.00
11,800.00	90.19	269.49	7,066.95	-370.33	-4,077.35	4,080.48	0.00	0.00	0.00	0.00
11,900.00	90.19	269.49	7,066.63	-371.23	-4,177.34	4,180.48	0.00	0.00	0.00	0.00
12,000.00	90.19	269.49	7,066.30	-372.13	-4,277.34	4,280.48	0.00	0.00	0.00	0.00
12,100.00	90.19	269.49	7,065.97	-373.02	-4,377.33	4,380.48	0.00	0.00	0.00	0.00
12,200.00	90.19	269.49	7,065.65	-373.92	-4,477.33	4,480.48	0.00	0.00	0.00	0.00
12,300.00	90.19	269.49	7,065.32	-374.82	-4,577.32	4,580.48	0.00	0.00	0.00	0.00
12,400.00	90.19	269.49	7,064.99	-375.71	-4,677.32	4,680.48	0.00	0.00	0.00	0.00
12,500.00	90.19	269.49	7,064.67	-376.61	-4,777.32	4,780.48	0.00	0.00	0.00	0.00
12,600.00	90.19	269.49	7,064.34	-377.50	-4,877.31	4,880.48	0.00	0.00	0.00	0.00
12,700.00	90.19	269.49	7,064.02	-378.40	-4,977.31	4,980.48	0.00	0.00	0.00	0.00
12,800.00	90.19	269.49	7,063.69	-379.30	-5,077.30	5,080.48	0.00	0.00	0.00	0.00
12,900.00	90.19	269.49	7,063.36	-380.19	-5,177.30	5,180.48	0.00	0.00	0.00	0.00
13,000.00	90.19	269.49	7,063.04	-381.09	-5,277.29	5,280.48	0.00	0.00	0.00	0.00
13,011.30	90.19	269.49	7,063.00	-381.19	-5,288.59	5,291.78	0.00	0.00	0.00	0.00
Total Depth (Toe)										
13,011.31	90.19	269.49	7,063.00	-381.19	-5,288.60	5,291.79	0.00	0.00	0.00	0.00
TD Well @ 13011.31ft - DOUTHIT 8N-27HZ_BHL										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.00	2,000.00	0.00	0.00	Begin Nudge @ 2000.00ft
2,576.79	2,572.90	-19.25	54.57	End Nudge @ 2576.79ft
6,384.82	6,304.01	-272.60	772.72	Top of 4.5" Liner @ 6384.82ft
6,484.82	6,401.99	-279.26	791.58	KOP @ 6484.82ft
7,000.00	6,882.03	-313.88	663.63	DLS = 10°/100'
7,495.04	7,081.00	-331.75	227.42	End Build @ 7495.04ft
13,011.31	7,063.00	-381.19	-5,288.60	TD Well @ 13011.31ft

Plan Report for DOUTHIT 8N-27HZ - Rev A0 Permit

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	269.49	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	7,495.04	Rev A0 Permit	MWD
7,495.04	13,011.31	Rev A0 Permit	MWD

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,126.00	1,126.00	9 5/8"	9-5/8	13-1/2
7,495.04	7,081.00	7"	7	8-3/4

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,076.00	1,076.00	Fox Hills Base		0.00	
3,703.65	3,677.00	Parkman		0.00	
4,153.74	4,118.00	Sussex		0.00	
7,086.54	6,943.00	SSPG		0.00	
7,219.42	7,017.00	NBRR		0.00	
7,361.60	7,066.00	N470_B_CK		0.00	
7,495.04	7,081.00	Landing Target (Heel)		0.00	
13,011.30	7,063.00	Total Depth (Toe)		0.00	

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
DOUTHIT 8N-27HZ_SEC	0.00	0.00	0.00	Polygon
DOUTHIT 8N-27HZ_SHL	0.00	0.00	0.00	Point
DOUTHIT 8N-27HZ_BHL	7,063.00	-381.19	-5,288.60	Point
DOUTHIT 8N-27HZ_CP	7,081.00	-331.75	227.42	Point

Directional Difficulty Index

Average Dogleg over Survey:	0.87 °/100usft	Maximum Dogleg over Survey:	10.00 °/100usft at 7,495.04 usft
Net Tortousity applicable to Plans:	0.87 °/100usft	Directional Difficulty Index:	6.336

Plan Report for DOUTHIT 8N-27HZ - Rev A0 Permit

Audit Info

North Reference Sheet for Sec. 26-T3N-R68W - DOUTHIT 8N-27HZ - Plan A

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
Vertical Depths are relative to RKB = 17' @ 4959.00usft (Drilling Rig). Northing and Easting are relative to DOUTHIT 8N-27HZ
Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980
Projection method is Lambert Conformal Conic (2 parallel)
Central Meridian is -105.50°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:40° 47' 0.000 N°
False Easting: 3,000,000.00usft, False Northing: 1,000,000.00usft, Scale Reduction: 0.99995723

Grid Coordinates of Well: 1,316,248.04 usft N, 3,150,357.36 usft E
Geographical Coordinates of Well: 40° 12' 00.88" N, 104° 57' 42.19" W
Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 13,011.31usft
the Bottom Hole Displacement is 5,302.32usft in the Direction of 265.88° (True).
Magnetic Convergence at surface is: -8.27° (8 April 2014, , BGGM2013)

