

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N
2N-65W-13 Guest East Pad
GUEST 3N-12HZ

Plan A

Plan: Permit Rev-3

Sperry Drilling Services

Proposal Report

04 June, 2015

Well Coordinates: 14,577,131.17 N, 1,748,119.50 E (40° 08' 15.93" N, 104° 36' 52.71" W)

Ground Level: 4,872.00 usft

Local Coordinate Origin:

Centered on Well GUEST 3N-12HZ

Viewing Datum:

GL 4872 & KB 17 @ 4889.00usft (ASSUMED)

TVDs to System:

N

North Reference:

True

Unit System:

Dec-Deg - API - US Survey Feet - Custom

Version: 5000.1 Build: 73

HALLIBURTON

Project: WELD-NAD83-UTMFT13N

Site: 2N-65W-13 Guest East Pad

Well: GUEST 3N-12HZ

Wellbore: Plan A

Design: Permit Rev-3

US ROCKIES WATTENBERG PLANNING

HALLIBURTON

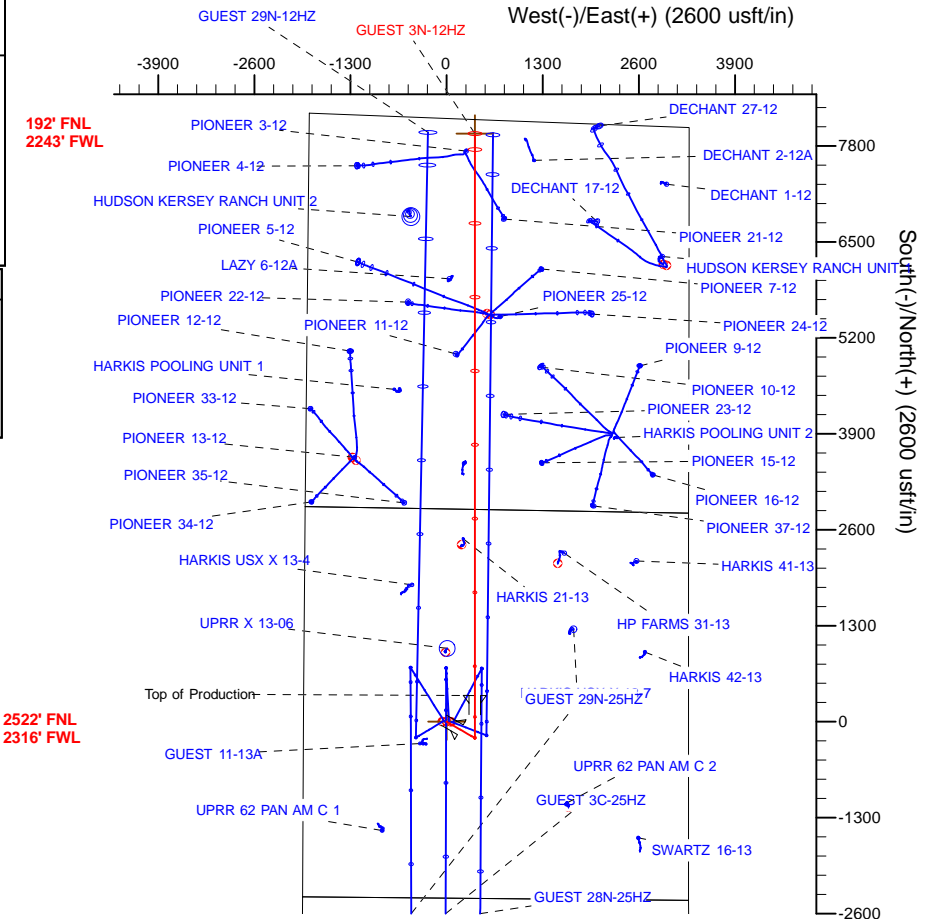
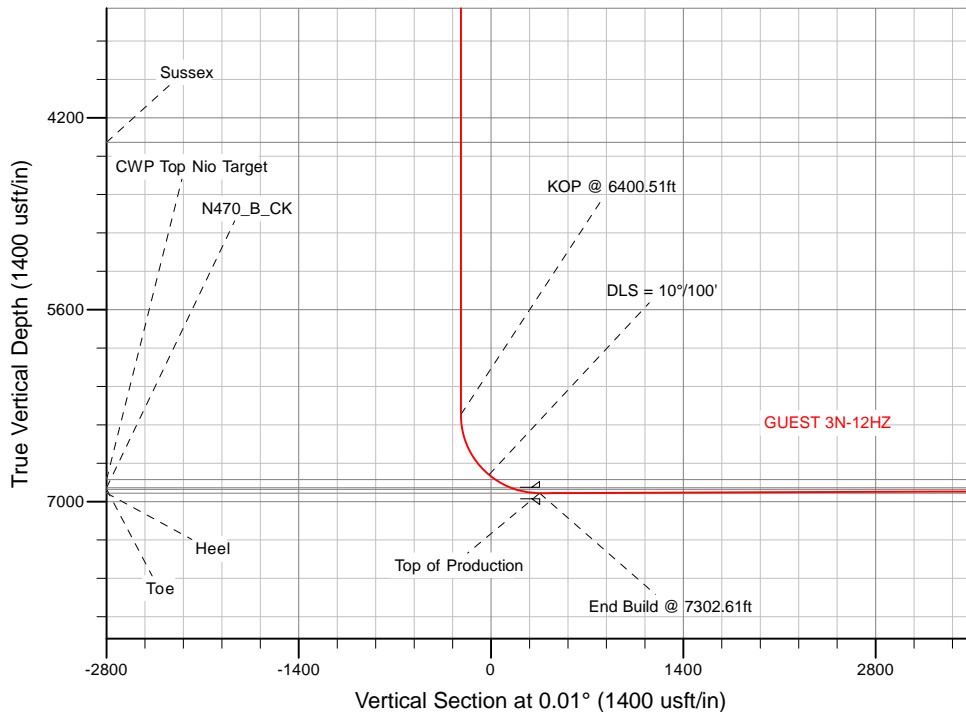
Sperry Drilling

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	250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
3	916.67	10.00	120.00	913.29	-29.02	50.26	1.50	120.00	-29.01	
4	2861.67	10.00	120.00	2828.74	-197.89	342.75	0.00	0.00	-197.83	
5	3361.67	0.00	0.00	3326.20	-219.65	380.44	2.00	180.00	-219.58	
6	6400.51	0.00	0.00	6365.04	-219.65	380.44	0.00	0.00	-219.58	
7	7302.61	90.21	0.01	6938.00	355.42	380.59	10.00	0.01	355.48	
8	14915.32	90.21	0.01	6910.00	7968.07	382.51	0.00	0.00	7968.13	GUEST 3N-12HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
GUEST 3N-12HZ_SHL	0.00	0.00	0.00	40.137759	-104.614642	Point
GUEST 3N-12HZ_BHL	6910.00	7968.07	382.51	40.159640	-104.613273	Point



ANNOTATIONS

TVD	MD	Annotation
250.00	250.00	Begin Nudge @ 250.00ft
913.29	916.67	End Nudge @ 916.67ft
2828.74	2861.67	Begin Drop @ 2861.67ft
3326.21	3361.67	End Drop @ 3361.67ft
6365.05	6400.51	KOP @ 6400.51ft
6803.63	6900.00	DLS = 10°/100'
6938.00	7302.61	End Build @ 7302.61ft
6910.00	14915.32	TD Well @ 14915.32ft

WELL DETAILS: GUEST 3N-12HZ

Ground Level: 4872.00

GL 4872 & KB 17 @ 4889.00usft (ASSUMED)

Plan: Permit Rev-3 (GUEST 3N-12HZ/Plan A)

Created By: Clint Eshelman Date: 6/4/2015
Reviewed: _____ Date: _____



Plan Report for GUEST 3N-12HZ - Permit Rev-3

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
GUEST 3N-12HZ_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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 250.00ft										
300.00	0.75	120.00	300.00	-0.16	0.28	-0.16	1.50	1.50	0.00	120.00
400.00	2.25	120.00	399.96	-1.47	2.55	-1.47	1.50	1.50	0.00	0.00
500.00	3.75	120.00	499.82	-4.09	7.08	-4.09	1.50	1.50	0.00	0.00
600.00	5.25	120.00	599.51	-8.01	13.88	-8.01	1.50	1.50	0.00	0.00
700.00	6.75	120.00	698.96	-13.24	22.93	-13.23	1.50	1.50	0.00	0.00
800.00	8.25	120.00	798.10	-19.76	34.23	-19.76	1.50	1.50	0.00	0.00
900.00	9.75	120.00	896.87	-27.59	47.78	-27.58	1.50	1.50	0.00	0.00
916.67	10.00	120.00	913.29	-29.02	50.26	-29.01	1.50	1.50	0.00	0.00
End Nudge @ 916.67ft										
1,000.00	10.00	120.00	995.35	-36.25	62.79	-36.24	0.00	0.00	0.00	0.00
1,100.00	10.00	120.00	1,093.84	-44.93	77.83	-44.92	0.00	0.00	0.00	0.00
1,200.00	10.00	120.00	1,192.32	-53.62	92.86	-53.60	0.00	0.00	0.00	0.00
1,280.91	10.00	120.00	1,272.00	-60.64	105.03	-60.62	0.00	0.00	0.00	0.00
Fox Hills Marker										
1,300.00	10.00	120.00	1,290.80	-62.30	107.90	-62.28	0.00	0.00	0.00	0.00
1,400.00	10.00	120.00	1,389.28	-70.98	122.94	-70.96	0.00	0.00	0.00	0.00
1,500.00	10.00	120.00	1,487.76	-79.66	137.98	-79.64	0.00	0.00	0.00	0.00
1,600.00	10.00	120.00	1,586.24	-88.34	153.02	-88.32	0.00	0.00	0.00	0.00
1,700.00	10.00	120.00	1,684.72	-97.03	168.06	-97.00	0.00	0.00	0.00	0.00
1,800.00	10.00	120.00	1,783.20	-105.71	183.09	-105.68	0.00	0.00	0.00	0.00
1,817.06	10.00	120.00	1,800.00	-107.19	185.66	-107.16	0.00	0.00	0.00	0.00
9 5/8"										
1,900.00	10.00	120.00	1,881.68	-114.39	198.13	-114.36	0.00	0.00	0.00	0.00
2,000.00	10.00	120.00	1,980.16	-123.07	213.17	-123.04	0.00	0.00	0.00	0.00
2,100.00	10.00	120.00	2,078.64	-131.76	228.21	-131.72	0.00	0.00	0.00	0.00
2,200.00	10.00	120.00	2,177.12	-140.44	243.25	-140.40	0.00	0.00	0.00	0.00
2,300.00	10.00	120.00	2,275.60	-149.12	258.29	-149.08	0.00	0.00	0.00	0.00
2,400.00	10.00	120.00	2,374.09	-157.80	273.32	-157.76	0.00	0.00	0.00	0.00
2,500.00	10.00	120.00	2,472.57	-166.49	288.36	-166.44	0.00	0.00	0.00	0.00
2,600.00	10.00	120.00	2,571.05	-175.17	303.40	-175.12	0.00	0.00	0.00	0.00
2,700.00	10.00	120.00	2,669.53	-183.85	318.44	-183.80	0.00	0.00	0.00	0.00
2,800.00	10.00	120.00	2,768.01	-192.53	333.48	-192.48	0.00	0.00	0.00	0.00
2,861.67	10.00	120.00	2,828.74	-197.89	342.75	-197.83	0.00	0.00	0.00	0.00
Begin Drop @ 2861.67ft										
2,900.00	9.23	120.00	2,866.53	-201.09	348.30	-201.03	2.00	-2.00	0.00	180.00
3,000.00	7.23	120.00	2,965.50	-208.25	360.70	-208.19	2.00	-2.00	0.00	180.00
3,100.00	5.23	120.00	3,064.90	-213.68	370.10	-213.61	2.00	-2.00	0.00	180.00
3,200.00	3.23	120.00	3,164.62	-217.37	376.49	-217.30	2.00	-2.00	0.00	180.00
3,300.00	1.23	120.00	3,264.54	-219.32	379.87	-219.25	2.00	-2.00	0.00	180.00
3,361.67	0.00	0.00	3,326.21	-219.65	380.44	-219.58	2.00	-2.00	0.00	-180.00
End Drop @ 3361.67ft										
3,400.00	0.00	0.00	3,364.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,464.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,564.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,664.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,764.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,864.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,964.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,064.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,164.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,264.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00



Plan Report for GUEST 3N-12HZ - Permit Rev-3

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 (°)
4,400.00	0.00	0.00	4,364.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,415.45	0.00	0.00	4,379.99	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
Sussex										
4,500.00	0.00	0.00	4,464.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,564.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,664.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,764.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,864.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,964.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,064.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,164.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,264.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,364.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,464.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,564.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,664.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,764.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,864.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,964.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,064.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,164.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,264.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,364.54	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
6,400.51	0.00	0.00	6,365.05	-219.65	380.44	-219.58	0.00	0.00	0.00	0.00
KOP @ 6400.51ft										
6,500.00	9.95	0.01	6,464.04	-211.03	380.45	-210.97	10.00	10.00	0.00	0.01
6,600.00	19.95	0.01	6,560.53	-185.27	380.45	-185.20	10.00	10.00	0.00	0.00
6,700.00	29.95	0.01	6,651.08	-143.14	380.46	-143.07	10.00	10.00	0.00	0.00
6,800.00	39.95	0.01	6,732.95	-85.93	380.48	-85.86	10.00	10.00	0.00	0.00
6,900.00	49.95	0.01	6,803.63	-15.37	380.50	-15.30	10.00	10.00	0.00	0.00
DLS = 10°/100'										
6,958.61	55.81	0.01	6,838.99	31.35	380.51	31.41	10.00	10.00	0.00	0.00
CWP Top Nio Target										
7,000.00	59.95	0.01	6,860.99	66.39	380.52	66.46	10.00	10.00	0.00	0.00
7,087.84	68.73	0.01	6,898.99	145.50	380.54	145.56	10.00	10.00	0.00	0.00
N470_B_CK										
7,100.00	69.95	0.01	6,903.27	156.87	380.54	156.94	10.00	10.00	0.00	0.00
7,200.00	79.95	0.01	6,929.21	253.32	380.56	253.38	10.00	10.00	0.00	0.00
7,300.00	89.95	0.01	6,938.00	352.80	380.59	352.87	10.00	10.00	0.00	0.00
7,302.61	90.21	0.01	6,938.00	355.41	380.59	355.48	10.00	10.00	0.00	0.00
End Build @ 7302.61ft - Heel - Top of Production										
7,400.00	90.21	0.01	6,937.64	452.80	380.61	452.87	0.00	0.00	0.00	0.00
7,500.00	90.21	0.01	6,937.27	552.80	380.64	552.87	0.00	0.00	0.00	0.00
7,600.00	90.21	0.01	6,936.90	652.80	380.66	652.87	0.00	0.00	0.00	0.00
7,700.00	90.21	0.01	6,936.54	752.80	380.69	752.87	0.00	0.00	0.00	0.00
7,800.00	90.21	0.01	6,936.17	852.80	380.71	852.86	0.00	0.00	0.00	0.00
7,900.00	90.21	0.01	6,935.80	952.80	380.74	952.86	0.00	0.00	0.00	0.00
8,000.00	90.21	0.01	6,935.43	1,052.80	380.76	1,052.86	0.00	0.00	0.00	0.00
8,100.00	90.21	0.01	6,935.06	1,152.80	380.79	1,152.86	0.00	0.00	0.00	0.00
8,200.00	90.21	0.01	6,934.70	1,252.80	380.82	1,252.86	0.00	0.00	0.00	0.00
8,300.00	90.21	0.01	6,934.33	1,352.80	380.84	1,352.86	0.00	0.00	0.00	0.00
8,400.00	90.21	0.01	6,933.96	1,452.79	380.87	1,452.86	0.00	0.00	0.00	0.00
8,500.00	90.21	0.01	6,933.59	1,552.79	380.89	1,552.86	0.00	0.00	0.00	0.00
8,600.00	90.21	0.01	6,933.23	1,652.79	380.92	1,652.86	0.00	0.00	0.00	0.00
8,700.00	90.21	0.01	6,932.86	1,752.79	380.94	1,752.86	0.00	0.00	0.00	0.00
8,800.00	90.21	0.01	6,932.49	1,852.79	380.97	1,852.86	0.00	0.00	0.00	0.00
8,900.00	90.21	0.01	6,932.12	1,952.79	380.99	1,952.86	0.00	0.00	0.00	0.00
9,000.00	90.21	0.01	6,931.76	2,052.79	381.02	2,052.86	0.00	0.00	0.00	0.00
9,100.00	90.21	0.01	6,931.39	2,152.79	381.04	2,152.86	0.00	0.00	0.00	0.00



Plan Report for GUEST 3N-12HZ - Permit Rev-3

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 (°)
9,200.00	90.21	0.01	6,931.02	2,252.79	381.07	2,252.86	0.00	0.00	0.00	0.00
9,300.00	90.21	0.01	6,930.65	2,352.79	381.09	2,352.85	0.00	0.00	0.00	0.00
9,400.00	90.21	0.01	6,930.28	2,452.79	381.12	2,452.85	0.00	0.00	0.00	0.00
9,500.00	90.21	0.01	6,929.92	2,552.79	381.14	2,552.85	0.00	0.00	0.00	0.00
9,600.00	90.21	0.01	6,929.55	2,652.79	381.17	2,652.85	0.00	0.00	0.00	0.00
9,700.00	90.21	0.01	6,929.18	2,752.79	381.19	2,752.85	0.00	0.00	0.00	0.00
9,800.00	90.21	0.01	6,928.81	2,852.78	381.22	2,852.85	0.00	0.00	0.00	0.00
9,900.00	90.21	0.01	6,928.45	2,952.78	381.24	2,952.85	0.00	0.00	0.00	0.00
10,000.00	90.21	0.01	6,928.08	3,052.78	381.27	3,052.85	0.00	0.00	0.00	0.00
10,100.00	90.21	0.01	6,927.71	3,152.78	381.29	3,152.85	0.00	0.00	0.00	0.00
10,200.00	90.21	0.01	6,927.34	3,252.78	381.32	3,252.85	0.00	0.00	0.00	0.00
10,300.00	90.21	0.01	6,926.97	3,352.78	381.35	3,352.85	0.00	0.00	0.00	0.00
10,400.00	90.21	0.01	6,926.61	3,452.78	381.37	3,452.85	0.00	0.00	0.00	0.00
10,500.00	90.21	0.01	6,926.24	3,552.78	381.40	3,552.85	0.00	0.00	0.00	0.00
10,600.00	90.21	0.01	6,925.87	3,652.78	381.42	3,652.85	0.00	0.00	0.00	0.00
10,700.00	90.21	0.01	6,925.50	3,752.78	381.45	3,752.85	0.00	0.00	0.00	0.00
10,800.00	90.21	0.01	6,925.14	3,852.78	381.47	3,852.84	0.00	0.00	0.00	0.00
10,900.00	90.21	0.01	6,924.77	3,952.78	381.50	3,952.84	0.00	0.00	0.00	0.00
11,000.00	90.21	0.01	6,924.40	4,052.78	381.52	4,052.84	0.00	0.00	0.00	0.00
11,100.00	90.21	0.01	6,924.03	4,152.78	381.55	4,152.84	0.00	0.00	0.00	0.00
11,200.00	90.21	0.01	6,923.66	4,252.78	381.57	4,252.84	0.00	0.00	0.00	0.00
11,300.00	90.21	0.01	6,923.30	4,352.77	381.60	4,352.84	0.00	0.00	0.00	0.00
11,400.00	90.21	0.01	6,922.93	4,452.77	381.62	4,452.84	0.00	0.00	0.00	0.00
11,500.00	90.21	0.01	6,922.56	4,552.77	381.65	4,552.84	0.00	0.00	0.00	0.00
11,600.00	90.21	0.01	6,922.19	4,652.77	381.67	4,652.84	0.00	0.00	0.00	0.00
11,700.00	90.21	0.01	6,921.83	4,752.77	381.70	4,752.84	0.00	0.00	0.00	0.00
11,800.00	90.21	0.01	6,921.46	4,852.77	381.72	4,852.84	0.00	0.00	0.00	0.00
11,900.00	90.21	0.01	6,921.09	4,952.77	381.75	4,952.84	0.00	0.00	0.00	0.00
12,000.00	90.21	0.01	6,920.72	5,052.77	381.77	5,052.84	0.00	0.00	0.00	0.00
12,100.00	90.21	0.01	6,920.35	5,152.77	381.80	5,152.84	0.00	0.00	0.00	0.00
12,200.00	90.21	0.01	6,919.99	5,252.77	381.82	5,252.84	0.00	0.00	0.00	0.00
12,300.00	90.21	0.01	6,919.62	5,352.77	381.85	5,352.83	0.00	0.00	0.00	0.00
12,400.00	90.21	0.01	6,919.25	5,452.77	381.88	5,452.83	0.00	0.00	0.00	0.00
12,500.00	90.21	0.01	6,918.88	5,552.77	381.90	5,552.83	0.00	0.00	0.00	0.00
12,600.00	90.21	0.01	6,918.52	5,652.77	381.93	5,652.83	0.00	0.00	0.00	0.00
12,700.00	90.21	0.01	6,918.15	5,752.77	381.95	5,752.83	0.00	0.00	0.00	0.00
12,800.00	90.21	0.01	6,917.78	5,852.76	381.98	5,852.83	0.00	0.00	0.00	0.00
12,900.00	90.21	0.01	6,917.41	5,952.76	382.00	5,952.83	0.00	0.00	0.00	0.00
13,000.00	90.21	0.01	6,917.04	6,052.76	382.03	6,052.83	0.00	0.00	0.00	0.00
13,100.00	90.21	0.01	6,916.68	6,152.76	382.05	6,152.83	0.00	0.00	0.00	0.00
13,200.00	90.21	0.01	6,916.31	6,252.76	382.08	6,252.83	0.00	0.00	0.00	0.00
13,300.00	90.21	0.01	6,915.94	6,352.76	382.10	6,352.83	0.00	0.00	0.00	0.00
13,400.00	90.21	0.01	6,915.57	6,452.76	382.13	6,452.83	0.00	0.00	0.00	0.00
13,500.00	90.21	0.01	6,915.21	6,552.76	382.15	6,552.83	0.00	0.00	0.00	0.00
13,600.00	90.21	0.01	6,914.84	6,652.76	382.18	6,652.83	0.00	0.00	0.00	0.00
13,700.00	90.21	0.01	6,914.47	6,752.76	382.20	6,752.83	0.00	0.00	0.00	0.00
13,800.00	90.21	0.01	6,914.10	6,852.76	382.23	6,852.82	0.00	0.00	0.00	0.00
13,900.00	90.21	0.01	6,913.73	6,952.76	382.25	6,952.82	0.00	0.00	0.00	0.00
14,000.00	90.21	0.01	6,913.37	7,052.76	382.28	7,052.82	0.00	0.00	0.00	0.00
14,100.00	90.21	0.01	6,913.00	7,152.76	382.30	7,152.82	0.00	0.00	0.00	0.00
14,200.00	90.21	0.01	6,912.63	7,252.76	382.33	7,252.82	0.00	0.00	0.00	0.00
14,300.00	90.21	0.01	6,912.26	7,352.75	382.35	7,352.82	0.00	0.00	0.00	0.00
14,400.00	90.21	0.01	6,911.90	7,452.75	382.38	7,452.82	0.00	0.00	0.00	0.00
14,500.00	90.21	0.01	6,911.53	7,552.75	382.41	7,552.82	0.00	0.00	0.00	0.00
14,600.00	90.21	0.01	6,911.16	7,652.75	382.43	7,652.82	0.00	0.00	0.00	0.00
14,700.00	90.21	0.01	6,910.79	7,752.75	382.46	7,752.82	0.00	0.00	0.00	0.00
14,800.00	90.21	0.01	6,910.42	7,852.75	382.48	7,852.82	0.00	0.00	0.00	0.00
14,900.00	90.21	0.01	6,910.06	7,952.75	382.51	7,952.82	0.00	0.00	0.00	0.00
14,915.32	90.21	0.01	6,910.00	7,968.07	382.51	7,968.13	0.00	0.00	0.00	0.00



Plan Report for GUEST 3N-12HZ - Permit Rev-3

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 (°)
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TD Well @ 14915.32ft - GUEST 3N-12HZ_BHL

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
250.00	250.00	0.00	0.00	Begin Nudge @ 250.00ft
916.67	913.29	-29.02	50.26	End Nudge @ 916.67ft
2,861.67	2,828.74	-197.89	342.75	Begin Drop @ 2861.67ft
3,361.67	3,326.21	-219.65	380.44	End Drop @ 3361.67ft
6,400.51	6,365.05	-219.65	380.44	KOP @ 6400.51ft
6,900.00	6,803.63	-15.37	380.50	DLS = 10°/100'
7,302.61	6,938.00	355.41	380.59	End Build @ 7302.61ft
14,915.32	6,910.00	7,968.07	382.51	TD Well @ 14915.32ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	0.01	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	7,302.61	Permit Rev-3	APC_ISCWSA REV 2 MWD+IFR1+MSA
7,302.61	14,915.32	Permit Rev-3	APC_ISCWSA REV 2 MWD+IFR1+MSA

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,817.06	1,800.00	9 5/8"	9-5/8	13-1/2
7,302.61	6,938.00	Top of Production	5-1/2	7-7/8

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,280.91	1,272.00	Fox Hills Marker		0.00	
4,415.45	4,379.99	Sussex		0.00	
6,958.61	6,838.99	CWP Top Nio Target		0.00	
7,087.84	6,898.99	N470_B_CK		0.00	
7,302.61	6,938.00	Heel		0.00	
14,915.32	6,910.00	Toe		0.00	

Plan Report for GUEST 3N-12HZ - Permit Rev-3***Targets associated with this wellbore***

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
GUEST 3N-12HZ_SHL	0.00	0.00	0.00	Point
GUEST 3N-12HZ_BHL	6,910.00	7,968.07	382.51	Point

Directional Difficulty Index

Average Dogleg over Survey:	0.74 °/100usft	Maximum Dogleg over Survey:	10.00 °/100usft at 7,302.61 usft
Net Tortousity applicable to Plans:	0.74 °/100usft	Directional Difficulty Index:	6.510

Audit Info

North Reference Sheet for 2N-65W-13 Guest East Pad - GUEST 3N-12HZ - 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 GL 4872 & KB 17 @ 4889.00usft (ASSUMED). Northing and Easting are relative to GUEST 3N-12HZ

Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N (108 W to 102 W) using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -105.00°, Longitude Origin:0.000000°, Latitude Origin:0.000000°

False Easting: 1,640,416.67usft, False Northing: 0.00usft, Scale Reduction: 0.99961327

Grid Coordinates of Well: 14,577,131.17 usft N, 1,748,119.50 usft E

Geographical Coordinates of Well: 40° 08' 15.93" N, 104° 36' 52.71" W

Grid Convergence at Surface is: 0.25°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,915.32usft the Bottom Hole Displacement is 7,977.24usft in the Direction of 2.75° (True).

Magnetic Convergence at surface is: -8.05° (12 November 2014, , IGRF2010)

