

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N
2N-65W-13 Guest East Pad
GUEST 29N-12HZ

Plan A

Plan: Permit Rev-2

Sperry Drilling Services

Proposal Report

04 June, 2015

Well Coordinates: 14,577,130.91 N, 1,748,059.97 E (40° 08' 15.93" N, 104° 36' 53.48" W)

Ground Level: 4,872.00 usft

Local Coordinate Origin:

Centered on Well GUEST 29N-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 29N-12HZ

Wellbore: Plan A

Design: Permit Rev-2

US ROCKIES WATTENBERG PLANNING

HALLIBURTON

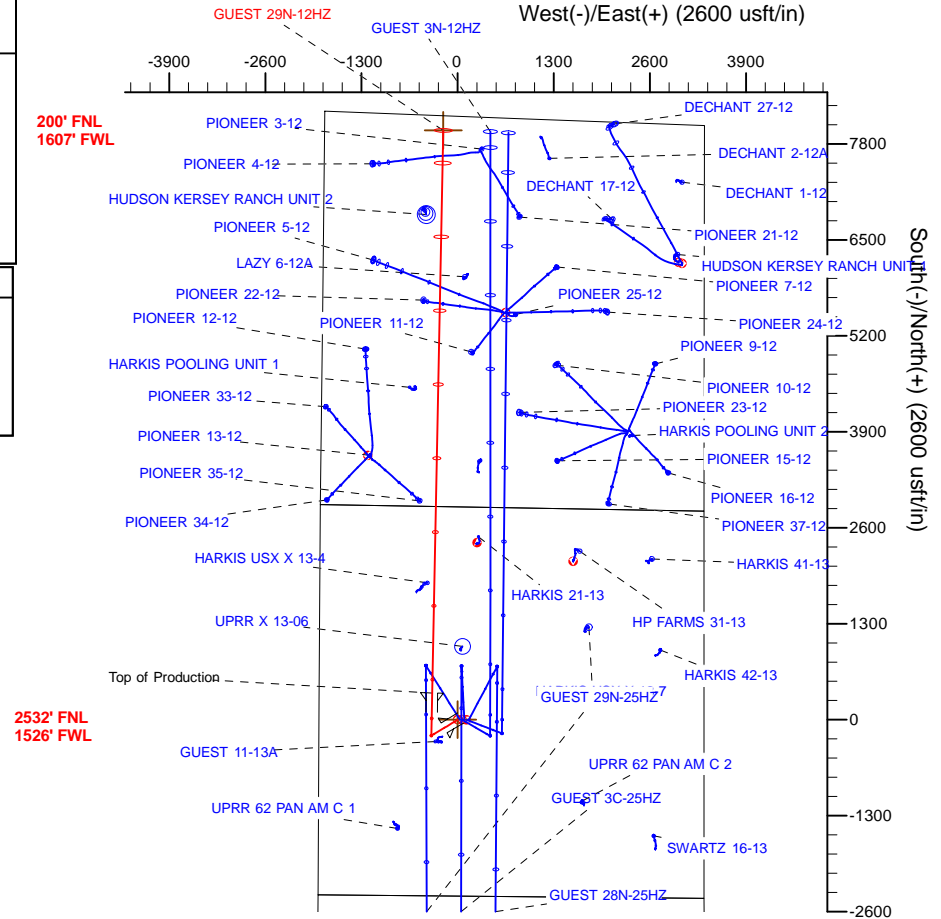
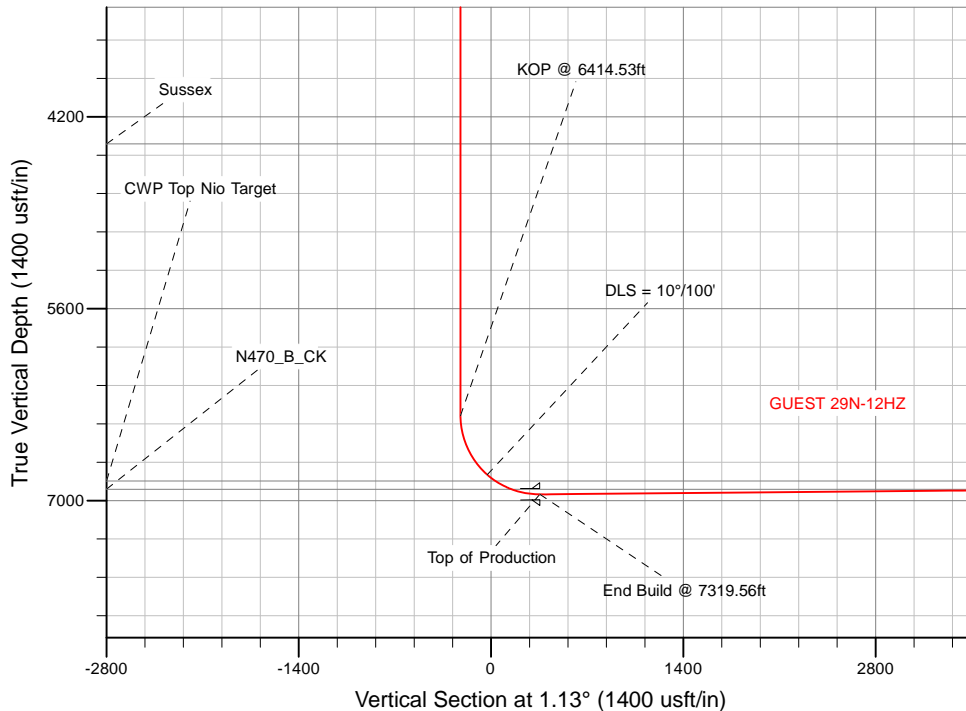
Sperry Drilling

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	239.00	913.29	-29.89	-49.74	1.50	239.00	-30.86	
4	2729.67	10.00	239.00	2698.74	-192.03	-319.60	0.00	0.00	-198.30	
5	3229.67	0.00	0.00	3196.21	-214.45	-356.90	2.00	180.00	-221.45	
6	6414.53	0.00	0.00	6381.07	-214.45	-356.90	0.00	0.00	-221.45	
7	7319.56	90.50	1.13	6954.00	363.43	-345.46	10.00	1.13	356.55	
8	14942.74	90.50	1.13	6887.00	7984.82	-194.47	0.00	0.00	7979.43	GUEST 29N-12HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
GUEST 29N-12HZ_SHL	0.00	0.00	0.00	40.137759	-104.614855	Point
GUEST 29N-12HZ_BHL	6887.00	7984.82	-194.47	40.159686	-104.615551	Point



ANNOTATIONS

TVD	MD	Annotation
250.00	250.00	Begin Nudge @ 250.00ft
913.29	916.67	End Nudge @ 916.67ft
2698.75	2729.67	Begin Drop @ 2729.67ft
3196.21	3229.67	End Drop @ 3229.67ft
6381.07	6414.53	KOP @ 6414.53ft
6810.50	6900.00	DLS = 10°/100'
6954.00	7319.56	End Build @ 7319.56ft
6887.00	14942.74	TD Well @ 14942.74ft

WELL DETAILS: GUEST 29N-12HZ

Ground Level: 4872.00

GL 4872 & KB 17 @ 4889.00usft (ASSUMED)

Plan: Permit Rev-2 (GUEST 29N-12HZ/Plan A)

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



Plan Report for GUEST 29N-12HZ - Permit Rev-2

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 29N-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	239.00	300.00	-0.17	-0.28	-0.17	1.50	1.50	0.00	239.00
400.00	2.25	239.00	399.96	-1.52	-2.52	-1.57	1.50	1.50	0.00	0.00
500.00	3.75	239.00	499.82	-4.21	-7.01	-4.35	1.50	1.50	0.00	0.00
600.00	5.25	239.00	599.51	-8.25	-13.74	-8.52	1.50	1.50	0.00	0.00
700.00	6.75	239.00	698.96	-13.64	-22.69	-14.08	1.50	1.50	0.00	0.00
800.00	8.25	239.00	798.10	-20.36	-33.88	-21.02	1.50	1.50	0.00	0.00
900.00	9.75	239.00	896.87	-28.42	-47.29	-29.34	1.50	1.50	0.00	0.00
916.67	10.00	239.00	913.29	-29.89	-49.74	-30.86	1.50	1.50	0.00	0.00
End Nudge @ 916.67ft										
1,000.00	10.00	239.00	995.35	-37.34	-62.15	-38.56	0.00	0.00	0.00	0.00
1,100.00	10.00	239.00	1,093.84	-46.28	-77.03	-47.79	0.00	0.00	0.00	0.00
1,200.00	10.00	239.00	1,192.32	-55.23	-91.91	-57.03	0.00	0.00	0.00	0.00
1,280.91	10.00	239.00	1,272.00	-62.46	-103.96	-64.50	0.00	0.00	0.00	0.00
Fox Hills Marker										
1,300.00	10.00	239.00	1,290.80	-64.17	-106.80	-66.26	0.00	0.00	0.00	0.00
1,400.00	10.00	239.00	1,389.28	-73.11	-121.68	-75.50	0.00	0.00	0.00	0.00
1,500.00	10.00	239.00	1,487.76	-82.06	-136.57	-84.74	0.00	0.00	0.00	0.00
1,600.00	10.00	239.00	1,586.24	-91.00	-151.45	-93.97	0.00	0.00	0.00	0.00
1,700.00	10.00	239.00	1,684.72	-99.95	-166.34	-103.21	0.00	0.00	0.00	0.00
1,800.00	10.00	239.00	1,783.20	-108.89	-181.22	-112.44	0.00	0.00	0.00	0.00
1,817.06	10.00	239.00	1,800.00	-110.41	-183.76	-114.02	0.00	0.00	0.00	0.00
9 5/8"										
1,900.00	10.00	239.00	1,881.68	-117.83	-196.11	-121.68	0.00	0.00	0.00	0.00
2,000.00	10.00	239.00	1,980.16	-126.78	-210.99	-130.91	0.00	0.00	0.00	0.00
2,100.00	10.00	239.00	2,078.64	-135.72	-225.88	-140.15	0.00	0.00	0.00	0.00
2,200.00	10.00	239.00	2,177.12	-144.66	-240.76	-149.38	0.00	0.00	0.00	0.00
2,300.00	10.00	239.00	2,275.60	-153.61	-255.64	-158.62	0.00	0.00	0.00	0.00
2,400.00	10.00	239.00	2,374.09	-162.55	-270.53	-167.85	0.00	0.00	0.00	0.00
2,500.00	10.00	239.00	2,472.57	-171.49	-285.41	-177.09	0.00	0.00	0.00	0.00
2,600.00	10.00	239.00	2,571.05	-180.44	-300.30	-186.32	0.00	0.00	0.00	0.00
2,700.00	10.00	239.00	2,669.53	-189.38	-315.18	-195.56	0.00	0.00	0.00	0.00
2,729.67	10.00	239.00	2,698.75	-192.03	-319.60	-198.30	0.00	0.00	0.00	0.00
Begin Drop @ 2729.67ft										
2,800.00	8.59	239.00	2,768.15	-197.89	-329.34	-204.34	2.00	-2.00	0.00	180.00
2,900.00	6.59	239.00	2,867.27	-204.69	-340.66	-211.37	2.00	-2.00	0.00	180.00
3,000.00	4.59	239.00	2,966.79	-209.71	-349.02	-216.55	2.00	-2.00	0.00	180.00
3,100.00	2.59	239.00	3,066.59	-212.94	-354.39	-219.89	2.00	-2.00	0.00	180.00
3,200.00	0.59	239.00	3,166.54	-214.37	-356.77	-221.37	2.00	-2.00	0.00	180.00
3,229.67	0.00	0.00	3,196.21	-214.45	-356.90	-221.45	2.00	-2.00	0.00	180.00
End Drop @ 3229.67ft										
3,300.00	0.00	0.00	3,266.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,366.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,466.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,566.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,666.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,766.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,866.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,966.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,066.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,166.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,266.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00

Plan Report for GUEST 29N-12HZ - Permit Rev-2

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	4,366.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,431.46	0.00	0.00	4,398.00	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
Sussex										
4,500.00	0.00	0.00	4,466.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,566.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,666.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,766.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,866.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,966.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,066.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,166.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,266.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,366.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,466.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,566.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,666.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,766.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,866.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,966.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,066.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,166.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,266.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,366.54	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
6,414.53	0.00	0.00	6,381.07	-214.45	-356.90	-221.45	0.00	0.00	0.00	0.00
KOP @ 6414.53ft										
6,500.00	8.55	1.13	6,466.23	-208.09	-356.78	-215.08	10.00	10.00	0.00	1.13
6,600.00	18.55	1.13	6,563.32	-184.70	-356.32	-191.69	10.00	10.00	0.00	0.00
6,700.00	28.55	1.13	6,654.88	-144.80	-355.52	-151.79	10.00	10.00	0.00	0.00
6,800.00	38.55	1.13	6,738.11	-89.62	-354.43	-96.60	10.00	10.00	0.00	0.00
6,900.00	48.55	1.13	6,810.50	-20.83	-353.07	-27.79	10.00	10.00	0.00	0.00
DLS = 10°/100'										
6,976.19	56.17	1.13	6,857.00	39.44	-351.87	32.50	10.00	10.00	0.00	0.00
CWP Top Nio Target										
7,000.00	58.55	1.13	6,869.84	59.49	-351.48	52.55	10.00	10.00	0.00	0.00
7,100.00	68.55	1.13	6,914.33	148.89	-349.71	141.96	10.00	10.00	0.00	0.00
7,107.42	69.29	1.13	6,917.00	155.81	-349.57	148.88	10.00	10.00	0.00	0.00
N470_B_CK										
7,200.00	78.55	1.13	6,942.62	244.65	-347.81	237.75	10.00	10.00	0.00	0.00
7,300.00	88.55	1.13	6,953.84	343.87	-345.84	336.99	10.00	10.00	0.00	0.00
7,319.56	90.50	1.13	6,954.00	363.43	-345.46	356.54	10.00	10.00	0.00	0.00
End Build @ 7319.56ft - Top of Production										
7,400.00	90.50	1.13	6,953.30	443.85	-343.86	436.98	0.00	0.00	0.00	0.00
7,500.00	90.50	1.13	6,952.42	543.83	-341.88	536.98	0.00	0.00	0.00	0.00
7,600.00	90.50	1.13	6,951.54	643.80	-339.90	636.97	0.00	0.00	0.00	0.00
7,700.00	90.50	1.13	6,950.66	743.78	-337.92	736.97	0.00	0.00	0.00	0.00
7,800.00	90.50	1.13	6,949.78	843.75	-335.94	836.97	0.00	0.00	0.00	0.00
7,900.00	90.50	1.13	6,948.90	943.73	-333.96	936.96	0.00	0.00	0.00	0.00
8,000.00	90.50	1.13	6,948.02	1,043.71	-331.98	1,036.96	0.00	0.00	0.00	0.00
8,100.00	90.50	1.13	6,947.14	1,143.68	-330.00	1,136.95	0.00	0.00	0.00	0.00
8,200.00	90.50	1.13	6,946.27	1,243.66	-328.02	1,236.95	0.00	0.00	0.00	0.00
8,300.00	90.50	1.13	6,945.39	1,343.64	-326.04	1,336.95	0.00	0.00	0.00	0.00
8,400.00	90.50	1.13	6,944.51	1,443.61	-324.06	1,436.94	0.00	0.00	0.00	0.00
8,500.00	90.50	1.13	6,943.63	1,543.59	-322.08	1,536.94	0.00	0.00	0.00	0.00
8,600.00	90.50	1.13	6,942.75	1,643.57	-320.10	1,636.93	0.00	0.00	0.00	0.00
8,700.00	90.50	1.13	6,941.87	1,743.54	-318.11	1,736.93	0.00	0.00	0.00	0.00
8,800.00	90.50	1.13	6,940.99	1,843.52	-316.13	1,836.93	0.00	0.00	0.00	0.00
8,900.00	90.50	1.13	6,940.11	1,943.50	-314.15	1,936.92	0.00	0.00	0.00	0.00
9,000.00	90.50	1.13	6,939.23	2,043.47	-312.17	2,036.92	0.00	0.00	0.00	0.00
9,100.00	90.50	1.13	6,938.36	2,143.45	-310.19	2,136.92	0.00	0.00	0.00	0.00

Plan Report for GUEST 29N-12HZ - Permit Rev-2

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	90.50	1.13	6,937.48	2,243.43	-308.21	2,236.91	0.00	0.00	0.00	0.00
9,300.00	90.50	1.13	6,936.60	2,343.40	-306.23	2,336.91	0.00	0.00	0.00	0.00
9,400.00	90.50	1.13	6,935.72	2,443.38	-304.25	2,436.90	0.00	0.00	0.00	0.00
9,500.00	90.50	1.13	6,934.84	2,543.36	-302.27	2,536.90	0.00	0.00	0.00	0.00
9,600.00	90.50	1.13	6,933.96	2,643.33	-300.29	2,636.90	0.00	0.00	0.00	0.00
9,700.00	90.50	1.13	6,933.08	2,743.31	-298.31	2,736.89	0.00	0.00	0.00	0.00
9,800.00	90.50	1.13	6,932.20	2,843.29	-296.33	2,836.89	0.00	0.00	0.00	0.00
9,900.00	90.50	1.13	6,931.32	2,943.26	-294.35	2,936.88	0.00	0.00	0.00	0.00
10,000.00	90.50	1.13	6,930.44	3,043.24	-292.37	3,036.88	0.00	0.00	0.00	0.00
10,100.00	90.50	1.13	6,929.57	3,143.21	-290.39	3,136.88	0.00	0.00	0.00	0.00
10,200.00	90.50	1.13	6,928.69	3,243.19	-288.41	3,236.87	0.00	0.00	0.00	0.00
10,300.00	90.50	1.13	6,927.81	3,343.17	-286.42	3,336.87	0.00	0.00	0.00	0.00
10,400.00	90.50	1.13	6,926.93	3,443.14	-284.44	3,436.87	0.00	0.00	0.00	0.00
10,500.00	90.50	1.13	6,926.05	3,543.12	-282.46	3,536.86	0.00	0.00	0.00	0.00
10,600.00	90.50	1.13	6,925.17	3,643.10	-280.48	3,636.86	0.00	0.00	0.00	0.00
10,700.00	90.50	1.13	6,924.29	3,743.07	-278.50	3,736.85	0.00	0.00	0.00	0.00
10,800.00	90.50	1.13	6,923.41	3,843.05	-276.52	3,836.85	0.00	0.00	0.00	0.00
10,900.00	90.50	1.13	6,922.53	3,943.03	-274.54	3,936.85	0.00	0.00	0.00	0.00
11,000.00	90.50	1.13	6,921.66	4,043.00	-272.56	4,036.84	0.00	0.00	0.00	0.00
11,100.00	90.50	1.13	6,920.78	4,142.98	-270.58	4,136.84	0.00	0.00	0.00	0.00
11,200.00	90.50	1.13	6,919.90	4,242.96	-268.60	4,236.83	0.00	0.00	0.00	0.00
11,300.00	90.50	1.13	6,919.02	4,342.93	-266.62	4,336.83	0.00	0.00	0.00	0.00
11,400.00	90.50	1.13	6,918.14	4,442.91	-264.64	4,436.83	0.00	0.00	0.00	0.00
11,500.00	90.50	1.13	6,917.26	4,542.89	-262.66	4,536.82	0.00	0.00	0.00	0.00
11,600.00	90.50	1.13	6,916.38	4,642.86	-260.68	4,636.82	0.00	0.00	0.00	0.00
11,700.00	90.50	1.13	6,915.50	4,742.84	-258.70	4,736.82	0.00	0.00	0.00	0.00
11,800.00	90.50	1.13	6,914.62	4,842.82	-256.72	4,836.81	0.00	0.00	0.00	0.00
11,900.00	90.50	1.13	6,913.74	4,942.79	-254.73	4,936.81	0.00	0.00	0.00	0.00
12,000.00	90.50	1.13	6,912.87	5,042.77	-252.75	5,036.80	0.00	0.00	0.00	0.00
12,100.00	90.50	1.13	6,911.99	5,142.75	-250.77	5,136.80	0.00	0.00	0.00	0.00
12,200.00	90.50	1.13	6,911.11	5,242.72	-248.79	5,236.80	0.00	0.00	0.00	0.00
12,300.00	90.50	1.13	6,910.23	5,342.70	-246.81	5,336.79	0.00	0.00	0.00	0.00
12,400.00	90.50	1.13	6,909.35	5,442.67	-244.83	5,436.79	0.00	0.00	0.00	0.00
12,500.00	90.50	1.13	6,908.47	5,542.65	-242.85	5,536.78	0.00	0.00	0.00	0.00
12,600.00	90.50	1.13	6,907.59	5,642.63	-240.87	5,636.78	0.00	0.00	0.00	0.00
12,700.00	90.50	1.13	6,906.71	5,742.60	-238.89	5,736.78	0.00	0.00	0.00	0.00
12,800.00	90.50	1.13	6,905.83	5,842.58	-236.91	5,836.77	0.00	0.00	0.00	0.00
12,900.00	90.50	1.13	6,904.95	5,942.56	-234.93	5,936.77	0.00	0.00	0.00	0.00
13,000.00	90.50	1.13	6,904.08	6,042.53	-232.95	6,036.76	0.00	0.00	0.00	0.00
13,100.00	90.50	1.13	6,903.20	6,142.51	-230.97	6,136.76	0.00	0.00	0.00	0.00
13,200.00	90.50	1.13	6,902.32	6,242.49	-228.99	6,236.76	0.00	0.00	0.00	0.00
13,300.00	90.50	1.13	6,901.44	6,342.46	-227.01	6,336.75	0.00	0.00	0.00	0.00
13,400.00	90.50	1.13	6,900.56	6,442.44	-225.03	6,436.75	0.00	0.00	0.00	0.00
13,500.00	90.50	1.13	6,899.68	6,542.42	-223.04	6,536.75	0.00	0.00	0.00	0.00
13,600.00	90.50	1.13	6,898.80	6,642.39	-221.06	6,636.74	0.00	0.00	0.00	0.00
13,700.00	90.50	1.13	6,897.92	6,742.37	-219.08	6,736.74	0.00	0.00	0.00	0.00
13,800.00	90.50	1.13	6,897.04	6,842.35	-217.10	6,836.73	0.00	0.00	0.00	0.00
13,900.00	90.50	1.13	6,896.17	6,942.32	-215.12	6,936.73	0.00	0.00	0.00	0.00
14,000.00	90.50	1.13	6,895.29	7,042.30	-213.14	7,036.73	0.00	0.00	0.00	0.00
14,100.00	90.50	1.13	6,894.41	7,142.28	-211.16	7,136.72	0.00	0.00	0.00	0.00
14,200.00	90.50	1.13	6,893.53	7,242.25	-209.18	7,236.72	0.00	0.00	0.00	0.00
14,300.00	90.50	1.13	6,892.65	7,342.23	-207.20	7,336.71	0.00	0.00	0.00	0.00
14,400.00	90.50	1.13	6,891.77	7,442.21	-205.22	7,436.71	0.00	0.00	0.00	0.00
14,500.00	90.50	1.13	6,890.89	7,542.18	-203.24	7,536.71	0.00	0.00	0.00	0.00
14,600.00	90.50	1.13	6,890.01	7,642.16	-201.26	7,636.70	0.00	0.00	0.00	0.00
14,700.00	90.50	1.13	6,889.13	7,742.13	-199.28	7,736.70	0.00	0.00	0.00	0.00
14,800.00	90.50	1.13	6,888.25	7,842.11	-197.30	7,836.70	0.00	0.00	0.00	0.00
14,900.00	90.50	1.13	6,887.38	7,942.09	-195.32	7,936.69	0.00	0.00	0.00	0.00
14,942.74	90.50	1.13	6,887.00	7,984.82	-194.47	7,979.43	0.00	0.00	0.00	0.00



Plan Report for GUEST 29N-12HZ - Permit Rev-2

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 @ 14942.74ft - GUEST 29N-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	-29.89	-49.74	End Nudge @ 916.67ft
2,729.67	2,698.75	-192.03	-319.60	Begin Drop @ 2729.67ft
3,229.67	3,196.21	-214.45	-356.90	End Drop @ 3229.67ft
6,414.53	6,381.07	-214.45	-356.90	KOP @ 6414.53ft
6,900.00	6,810.50	-20.83	-353.07	DLS = 10°/100'
7,319.56	6,954.00	363.43	-345.46	End Build @ 7319.56ft
14,942.74	6,887.00	7,984.82	-194.47	TD Well @ 14942.74ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	1.13	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	7,319.56	Permit Rev-2	APC_ISCWSA REV 2 MWD+IFR1
7,319.56	14,942.74	Permit Rev-2	APC_ISCWSA REV 2 MWD+IFR1

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
7,319.56	6,954.00	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			
4,431.46	4,398.00	Sussex			
6,976.19	6,857.00	CWP Top Nio Target			
7,107.42	6,917.00	N470_B_CK			

Plan Report for GUEST 29N-12HZ - Permit Rev-2*Targets associated with this wellbore*

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
GUEST 29N-12HZ_SHL	0.00	0.00	0.00	Point
GUEST 29N-12HZ_BHL	6,887.00	7,984.82	-194.47	Point

Directional Difficulty Index

Average Dogleg over Survey:	0.74 °/100usft	Maximum Dogleg over Survey:	10.00 °/100usft at 7,319.56 usft
Net Tortosity applicable to Plans:	0.74 °/100usft	Directional Difficulty Index:	6.403

Audit Info

North Reference Sheet for 2N-65W-13 Guest East Pad - GUEST 29N-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 29N-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: 0.99961325

Grid Coordinates of Well: 14,577,130.91 usft N, 1,748,059.97 usft E

Geographical Coordinates of Well: 40° 08' 15.93" N, 104° 36' 53.48" W

Grid Convergence at Surface is: 0.25°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,942.74usft the Bottom Hole Displacement is 7,987.19usft in the Direction of 358.60° (True).

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

