

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

Milk 4-21HZ Pad

Milk State 3N-21HZ

Plan B

Plan: Permit Rev-2

Sperry Drilling Services

Proposal Report

22 October, 2014

Well Coordinates: 14,601,551.88 N, 1,732,242.22 E (40° 12' 17.98" N, 104° 40' 16.05" W)

Ground Level: 4,837.00 usft

Local Coordinate Origin:

Centered on Well Milk State 3N-21HZ

Viewing Datum:

RKB = 17' @ 4854.00usft (D Rig)

TVDs to System:

N

North Reference:

True

Unit System:

API - US Survey Feet - Custom

Version: 5000.1 Build: 70

HALLIBURTON

Project: WELD-NAD83-UTMFT13N
 Site: Milk 4-21HZ Pad
 Well: Milk State 3N-21HZ
 Wellbore: Plan B
 Design: Permit Rev-2

US ROCKIES WATTENBERG PLANNING

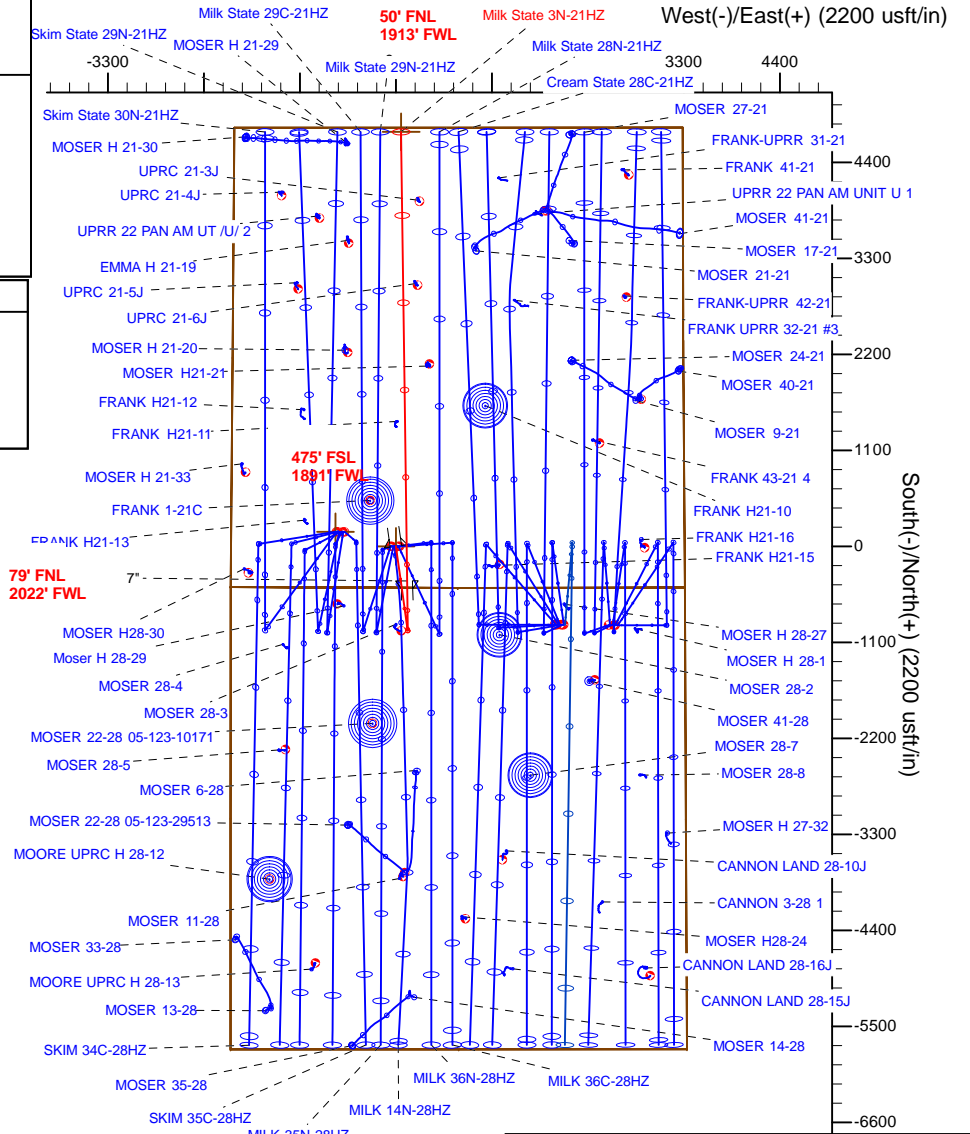
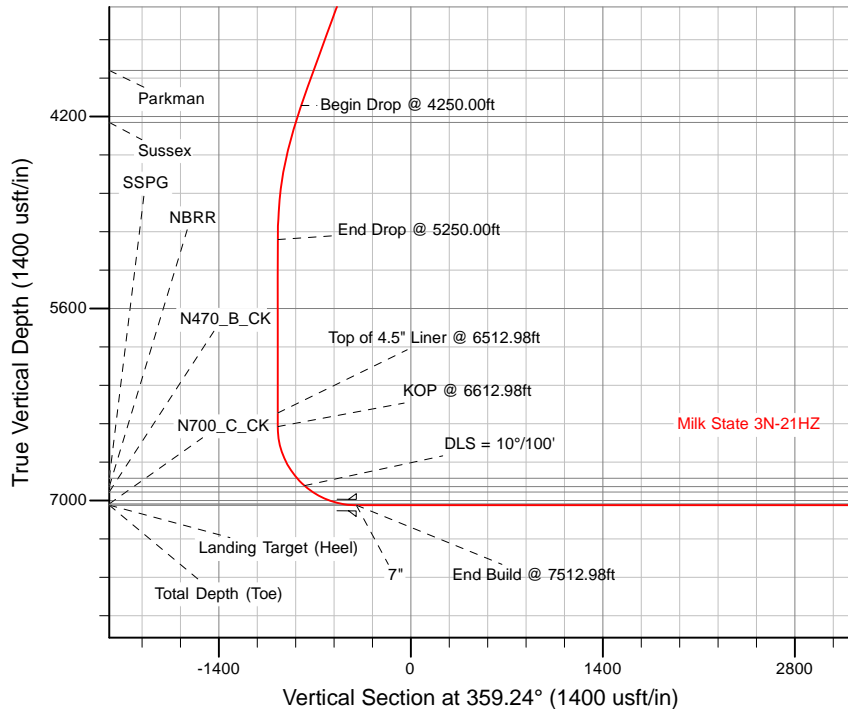


SECTION DETAILS

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	1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	
3	2400.00	20.00	172.00	2379.82	-171.09	24.04	2.00	172.00	-171.39	
4	4250.00	20.00	172.00	4118.25	-797.67	112.10	0.00	0.00	-799.08	
5	5250.00	0.00	0.00	5098.06	-968.75	136.15	2.00	180.00	-970.47	
6	6612.98	0.00	0.00	6461.04	-968.75	136.15	0.00	0.00	-970.47	
7	7512.98	90.00	359.24	7034.00	-395.85	128.53	10.00	359.24	-397.52	
8	12657.53	90.00	359.24	7034.00	4748.25	60.11	0.00	0.00	4747.03	Milk State 3N-21HZ_Toe

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Polygon
Sec. 28 and 21-T3N-R65W	-10-00'	166.43	-693.28	40.205452	-104.673609	
Milk State 3N-21HZ_SHL	0.00	0.00	0.00	40.204995	-104.671126	
Milk State 3N-21HZ_Toe	7034.00	4748.25	60.11	40.218034	-104.670911	



TVD		MD	Notes
6361.04	6512.98	Top of 4.5" Liner @ 6512.98ft	
6461.04	6612.98	KOP @ 6612.98ft	

WELL DETAILS: Milk State 3N-21HZ	
Ground Level:	4837.00
RKB = 17' @ 4854.00usft (D Rig)	
Plan: Permit Rev-2 (Milk State 3N-21HZ/Plan B)	
Created By: Clint Eshelman	Date: 10/13/2014
Reviewed:	Date:



Plan Report for Milk State 3N-21HZ - 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
Milk State 3N-21HZ_SHL - Sec. 28 and 21-T3N-R65W										
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
613.00	0.00	0.00	613.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Fox Hills										
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
1,100.00	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
Surface Csg Setting Depth - 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
Begin Nudge @ 1400.00ft										
1,500.00	2.00	172.00	1,499.98	-1.73	0.24	-1.73	2.00	2.00	0.00	172.00
1,600.00	4.00	172.00	1,599.84	-6.91	0.97	-6.92	2.00	2.00	0.00	0.00
1,700.00	6.00	172.00	1,699.45	-15.54	2.18	-15.57	2.00	2.00	0.00	0.00
1,800.00	8.00	172.00	1,798.70	-27.61	3.88	-27.66	2.00	2.00	0.00	0.00
1,900.00	10.00	172.00	1,897.47	-43.10	6.06	-43.18	2.00	2.00	0.00	0.00
2,000.00	12.00	172.00	1,995.62	-61.99	8.71	-62.10	2.00	2.00	0.00	0.00
2,100.00	14.00	172.00	2,093.06	-84.27	11.84	-84.42	2.00	2.00	0.00	0.00
2,200.00	16.00	172.00	2,189.64	-109.90	15.45	-110.09	2.00	2.00	0.00	0.00
2,300.00	18.00	172.00	2,285.27	-138.85	19.51	-139.09	2.00	2.00	0.00	0.00
2,400.00	20.00	172.00	2,379.82	-171.09	24.04	-171.39	2.00	2.00	0.00	0.00
End Nudge @ 2400.00ft										
2,500.00	20.00	172.00	2,473.78	-204.96	28.80	-205.32	0.00	0.00	0.00	0.00
2,600.00	20.00	172.00	2,567.75	-238.82	33.56	-239.25	0.00	0.00	0.00	0.00
2,700.00	20.00	172.00	2,661.72	-272.69	38.32	-273.18	0.00	0.00	0.00	0.00
2,800.00	20.00	172.00	2,755.69	-306.56	43.08	-307.11	0.00	0.00	0.00	0.00
2,900.00	20.00	172.00	2,849.66	-340.43	47.84	-341.04	0.00	0.00	0.00	0.00
3,000.00	20.00	172.00	2,943.63	-374.30	52.60	-374.97	0.00	0.00	0.00	0.00
3,100.00	20.00	172.00	3,037.60	-408.17	57.36	-408.90	0.00	0.00	0.00	0.00
3,200.00	20.00	172.00	3,131.57	-442.04	62.12	-442.82	0.00	0.00	0.00	0.00
3,300.00	20.00	172.00	3,225.54	-475.91	66.88	-476.75	0.00	0.00	0.00	0.00
3,400.00	20.00	172.00	3,319.51	-509.78	71.64	-510.68	0.00	0.00	0.00	0.00
3,500.00	20.00	172.00	3,413.48	-543.65	76.40	-544.61	0.00	0.00	0.00	0.00
3,600.00	20.00	172.00	3,507.45	-577.52	81.16	-578.54	0.00	0.00	0.00	0.00
3,700.00	20.00	172.00	3,601.42	-611.39	85.92	-612.47	0.00	0.00	0.00	0.00
3,800.00	20.00	172.00	3,695.39	-645.25	90.68	-646.40	0.00	0.00	0.00	0.00
3,900.00	20.00	172.00	3,789.35	-679.12	95.44	-680.33	0.00	0.00	0.00	0.00
3,979.44	20.00	172.00	3,864.00	-706.03	99.23	-707.28	0.00	0.00	0.00	0.00
Parkman										
4,000.00	20.00	172.00	3,883.32	-712.99	100.20	-714.26	0.00	0.00	0.00	0.00
4,100.00	20.00	172.00	3,977.29	-746.86	104.96	-748.19	0.00	0.00	0.00	0.00
4,200.00	20.00	172.00	4,071.26	-780.73	109.72	-782.12	0.00	0.00	0.00	0.00
4,250.00	20.00	172.00	4,118.25	-797.67	112.10	-799.08	0.00	0.00	0.00	0.00
Begin Drop @ 4250.00ft										
4,300.00	19.00	172.00	4,165.38	-814.19	114.43	-815.64	2.00	-2.00	0.00	180.00
4,382.75	17.34	172.00	4,244.00	-839.75	118.02	-841.24	2.00	-2.00	0.00	180.00
Sussex										
4,400.00	17.00	172.00	4,260.48	-844.79	118.73	-846.29	2.00	-2.00	0.00	-180.00



Plan Report for Milk State 3N-21HZ - 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 (°)
4,500.00	15.00	172.00	4,356.60	-872.09	122.56	-873.64	2.00	-2.00	0.00	180.00
4,600.00	13.00	172.00	4,453.63	-896.04	125.93	-897.63	2.00	-2.00	0.00	180.00
4,700.00	11.00	172.00	4,551.43	-916.63	128.82	-918.26	2.00	-2.00	0.00	180.00
4,800.00	9.00	172.00	4,649.91	-933.83	131.24	-935.48	2.00	-2.00	0.00	180.00
4,900.00	7.00	172.00	4,748.93	-947.61	133.18	-949.29	2.00	-2.00	0.00	180.00
5,000.00	5.00	172.00	4,848.38	-957.96	134.63	-959.66	2.00	-2.00	0.00	180.00
5,100.00	3.00	172.00	4,948.13	-964.86	135.60	-966.58	2.00	-2.00	0.00	180.00
5,200.00	1.00	172.00	5,048.06	-968.32	136.09	-970.04	2.00	-2.00	0.00	180.00
5,250.00	0.00	0.00	5,098.06	-968.75	136.15	-970.47	2.00	-2.00	0.00	-180.00
End Drop @ 5250.00ft										
5,300.00	0.00	0.00	5,148.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,248.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,348.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,448.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,548.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,648.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,748.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,848.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	5,948.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,048.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,148.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,248.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,348.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,512.98	0.00	0.00	6,361.04	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
Top of 4.5" Liner @ 6512.98ft										
6,600.00	0.00	0.00	6,448.06	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
6,612.98	0.00	0.00	6,461.04	-968.75	136.15	-970.47	0.00	0.00	0.00	0.00
KOP @ 6612.98ft										
6,700.00	8.70	359.24	6,547.73	-962.16	136.06	-963.88	10.00	10.00	0.00	359.24
6,800.00	18.70	359.24	6,644.76	-938.50	135.75	-940.22	10.00	10.00	0.00	0.00
6,900.00	28.70	359.24	6,736.21	-898.36	135.21	-900.07	10.00	10.00	0.00	0.00
7,000.00	38.70	359.24	6,819.30	-842.95	134.48	-844.66	10.00	10.00	0.00	0.00
7,024.39	41.14	359.24	6,838.00	-827.30	134.27	-829.01	10.00	10.00	0.00	0.00
SSPG										
7,100.00	48.70	359.24	6,891.50	-773.95	133.56	-775.65	10.00	10.00	0.00	0.00
DLS = 10°/100'										
7,109.95	49.70	359.24	6,898.00	-766.42	133.46	-768.12	10.00	10.00	0.00	0.00
NBRR										
7,176.49	56.35	359.24	6,938.00	-713.30	132.75	-714.99	10.00	10.00	0.00	0.00
N470_B_CK										
7,200.00	58.70	359.24	6,950.62	-693.46	132.49	-695.16	10.00	10.00	0.00	0.00
7,300.00	68.70	359.24	6,994.87	-603.94	131.30	-605.62	10.00	10.00	0.00	0.00
7,400.00	78.70	359.24	7,022.90	-508.08	130.02	-509.76	10.00	10.00	0.00	0.00
7,405.77	79.28	359.24	7,024.00	-502.42	129.95	-504.10	10.00	10.00	0.00	0.00
N700_C_CK										
7,500.00	88.70	359.24	7,033.85	-408.82	128.70	-410.49	10.00	10.00	0.00	0.00
7,512.98	90.00	359.24	7,034.00	-395.85	128.53	-397.52	10.00	10.00	0.00	0.00
End Build @ 7512.98ft - Landing Target (Heel) - 7"										
7,600.00	90.00	359.24	7,034.00	-308.83	127.37	-310.50	0.00	0.00	0.00	0.00
7,700.00	90.00	359.24	7,034.00	-208.84	126.04	-210.50	0.00	0.00	0.00	0.00
7,800.00	90.00	359.24	7,034.00	-108.85	124.71	-110.50	0.00	0.00	0.00	0.00
7,900.00	90.00	359.24	7,034.00	-8.86	123.38	-10.50	0.00	0.00	0.00	0.00
8,000.00	90.00	359.24	7,034.00	91.13	122.05	89.50	0.00	0.00	0.00	0.00
8,100.00	90.00	359.24	7,034.00	191.12	120.72	189.50	0.00	0.00	0.00	0.00
8,200.00	90.00	359.24	7,034.00	291.11	119.39	289.50	0.00	0.00	0.00	0.00
8,300.00	90.00	359.24	7,034.00	391.10	118.06	389.50	0.00	0.00	0.00	0.00
8,400.00	90.00	359.24	7,034.00	491.10	116.73	489.50	0.00	0.00	0.00	0.00
8,500.00	90.00	359.24	7,034.00	591.09	115.40	589.50	0.00	0.00	0.00	0.00



Plan Report for Milk State 3N-21HZ - 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 (°)
8,600.00	90.00	359.24	7,034.00	691.08	114.07	689.50	0.00	0.00	0.00	0.00
8,700.00	90.00	359.24	7,034.00	791.07	112.74	789.50	0.00	0.00	0.00	0.00
8,800.00	90.00	359.24	7,034.00	891.06	111.41	889.50	0.00	0.00	0.00	0.00
8,900.00	90.00	359.24	7,034.00	991.05	110.08	989.50	0.00	0.00	0.00	0.00
9,000.00	90.00	359.24	7,034.00	1,091.04	108.75	1,089.50	0.00	0.00	0.00	0.00
9,100.00	90.00	359.24	7,034.00	1,191.03	107.42	1,189.50	0.00	0.00	0.00	0.00
9,200.00	90.00	359.24	7,034.00	1,291.03	106.09	1,289.50	0.00	0.00	0.00	0.00
9,300.00	90.00	359.24	7,034.00	1,391.02	104.76	1,389.50	0.00	0.00	0.00	0.00
9,400.00	90.00	359.24	7,034.00	1,491.01	103.43	1,489.50	0.00	0.00	0.00	0.00
9,500.00	90.00	359.24	7,034.00	1,591.00	102.10	1,589.50	0.00	0.00	0.00	0.00
9,600.00	90.00	359.24	7,034.00	1,690.99	100.77	1,689.50	0.00	0.00	0.00	0.00
9,700.00	90.00	359.24	7,034.00	1,790.98	99.44	1,789.50	0.00	0.00	0.00	0.00
9,800.00	90.00	359.24	7,034.00	1,890.97	98.11	1,889.50	0.00	0.00	0.00	0.00
9,900.00	90.00	359.24	7,034.00	1,990.96	96.78	1,989.50	0.00	0.00	0.00	0.00
10,000.00	90.00	359.24	7,034.00	2,090.95	95.45	2,089.50	0.00	0.00	0.00	0.00
10,100.00	90.00	359.24	7,034.00	2,190.95	94.12	2,189.50	0.00	0.00	0.00	0.00
10,200.00	90.00	359.24	7,034.00	2,290.94	92.79	2,289.50	0.00	0.00	0.00	0.00
10,300.00	90.00	359.24	7,034.00	2,390.93	91.46	2,389.50	0.00	0.00	0.00	0.00
10,400.00	90.00	359.24	7,034.00	2,490.92	90.13	2,489.50	0.00	0.00	0.00	0.00
10,500.00	90.00	359.24	7,034.00	2,590.91	88.80	2,589.50	0.00	0.00	0.00	0.00
10,600.00	90.00	359.24	7,034.00	2,690.90	87.47	2,689.50	0.00	0.00	0.00	0.00
10,700.00	90.00	359.24	7,034.00	2,790.89	86.14	2,789.50	0.00	0.00	0.00	0.00
10,800.00	90.00	359.24	7,034.00	2,890.88	84.81	2,889.50	0.00	0.00	0.00	0.00
10,900.00	90.00	359.24	7,034.00	2,990.87	83.48	2,989.50	0.00	0.00	0.00	0.00
11,000.00	90.00	359.24	7,034.00	3,090.87	82.15	3,089.50	0.00	0.00	0.00	0.00
11,100.00	90.00	359.24	7,034.00	3,190.86	80.82	3,189.50	0.00	0.00	0.00	0.00
11,200.00	90.00	359.24	7,034.00	3,290.85	79.49	3,289.50	0.00	0.00	0.00	0.00
11,300.00	90.00	359.24	7,034.00	3,390.84	78.16	3,389.50	0.00	0.00	0.00	0.00
11,400.00	90.00	359.24	7,034.00	3,490.83	76.83	3,489.50	0.00	0.00	0.00	0.00
11,500.00	90.00	359.24	7,034.00	3,590.82	75.50	3,589.50	0.00	0.00	0.00	0.00
11,600.00	90.00	359.24	7,034.00	3,690.81	74.17	3,689.50	0.00	0.00	0.00	0.00
11,700.00	90.00	359.24	7,034.00	3,790.80	72.84	3,789.50	0.00	0.00	0.00	0.00
11,800.00	90.00	359.24	7,034.00	3,890.80	71.51	3,889.50	0.00	0.00	0.00	0.00
11,900.00	90.00	359.24	7,034.00	3,990.79	70.18	3,989.50	0.00	0.00	0.00	0.00
12,000.00	90.00	359.24	7,034.00	4,090.78	68.85	4,089.50	0.00	0.00	0.00	0.00
12,100.00	90.00	359.24	7,034.00	4,190.77	67.52	4,189.50	0.00	0.00	0.00	0.00
12,200.00	90.00	359.24	7,034.00	4,290.76	66.19	4,289.50	0.00	0.00	0.00	0.00
12,300.00	90.00	359.24	7,034.00	4,390.75	64.86	4,389.50	0.00	0.00	0.00	0.00
12,400.00	90.00	359.24	7,034.00	4,490.74	63.53	4,489.50	0.00	0.00	0.00	0.00
12,500.00	90.00	359.24	7,034.00	4,590.73	62.21	4,589.50	0.00	0.00	0.00	0.00
12,600.00	90.00	359.24	7,034.00	4,690.72	60.88	4,689.50	0.00	0.00	0.00	0.00
12,657.53	90.00	359.24	7,034.00	4,748.25	60.11	4,747.03	0.00	0.00	0.00	0.00

TD Well @ 12657.53ft - Total Depth (Toe) - Milk State 3N-21HZ_Toe

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,400.00	1,400.00	0.00	0.00	Begin Nudge @ 1400.00ft
2,400.00	2,379.82	-171.09	24.04	End Nudge @ 2400.00ft
4,250.00	4,118.25	-797.67	112.10	Begin Drop @ 4250.00ft
5,250.00	5,098.06	-968.75	136.15	End Drop @ 5250.00ft
6,512.98	6,361.04	-968.75	136.15	Top of 4.5" Liner @ 6512.98ft
6,612.98	6,461.04	-968.75	136.15	KOP @ 6612.98ft
7,100.00	6,891.50	-773.95	133.56	DLS = 10°/100'
7,512.98	7,034.00	-395.85	128.53	End Build @ 7512.98ft
12,657.53	7,034.00	4,748.25	60.11	TD Well @ 12657.53ft



Plan Report for Milk State 3N-21HZ - Permit Rev-2

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.24	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	7,512.98	Permit Rev-2	MWD+IFR1
7,512.98	12,657.53	Permit Rev-2	MWD+IFR1

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
7,512.98	7,034.00	7"	7	8-3/4

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
613.00	613.00	Base Fox Hills		0.00	
1,126.00	1,126.00	Surface Csg Setting Depth		0.00	
3,979.44	3,864.00	Parkman		0.00	
4,382.75	4,244.00	Sussex		0.00	
7,024.39	6,838.00	SSPG		0.00	
7,109.95	6,898.00	NBRR		0.00	
7,176.49	6,938.00	N470_B_CK		0.00	
7,405.77	7,024.00	N700_C_CK		0.00	
7,512.98	7,034.00	Landing Target (Heel)		0.00	
12,657.53	7,034.00	Total Depth (Toe)		0.00	

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Milk State 3N-21HZ_SHL	0.00	0.00	0.00	Point
Sec. 28 and 21-T3N-R65W	-10.00	166.43	-693.28	Polygon
Milk State 3N-21HZ_Toe	7,034.00	4,748.25	60.11	Point

North Reference Sheet for Milk 4-21HZ Pad - Milk State 3N-21HZ - Plan B

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' @ 4854.00usft (D Rig). Northing and Easting are relative to Milk State 3N-21HZ
 Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N (108 W to 102 W) using datum North American Datum 1983, ellipsoid
 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: 0.99960964

Grid Coordinates of Well: 14,601,551.88 usft N, 1,732,242.22 usft E
 Geographical Coordinates of Well: 40° 12' 17.98" N, 104° 40' 16.05" W
 Grid Convergence at Surface is: 0.21°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,657.53usft
 the Bottom Hole Displacement is 4,748.63usft in the Direction of 0.73° (True).

Magnetic Convergence at surface is: -8.14° (11 October 2014, , IGRF2010)

