

Great Western Oil & Gas

Weld County, Colorado

Sec. 16-T6N-R67W

Greenspire FD 22-23H

Plan A

Plan: Plan A Rev 0

Sperry Drilling Services

Proposal Report

30 July, 2012

Well Coordinates: 1,423,018.88 N, 3,167,754.79 E (40° 29' 34.88" N, 104° 53' 48.62" W)

Ground Level: 4,807.00 ft

Local Coordinate Origin: Centered on Well Greenspire FD 22-23H

Viewing Datum: RKB 14 ft @ 4821.00ft (Cade 25)

TVDs to System: N

North Reference: True

Unit System: API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

HALLIBURTON

Project: Weld County, Colorado
Site: Sec. 16-T6N-R67W
Well: Greenspire FD 22-23H
Wellbore: Plan A
Design: Plan A Rev 0

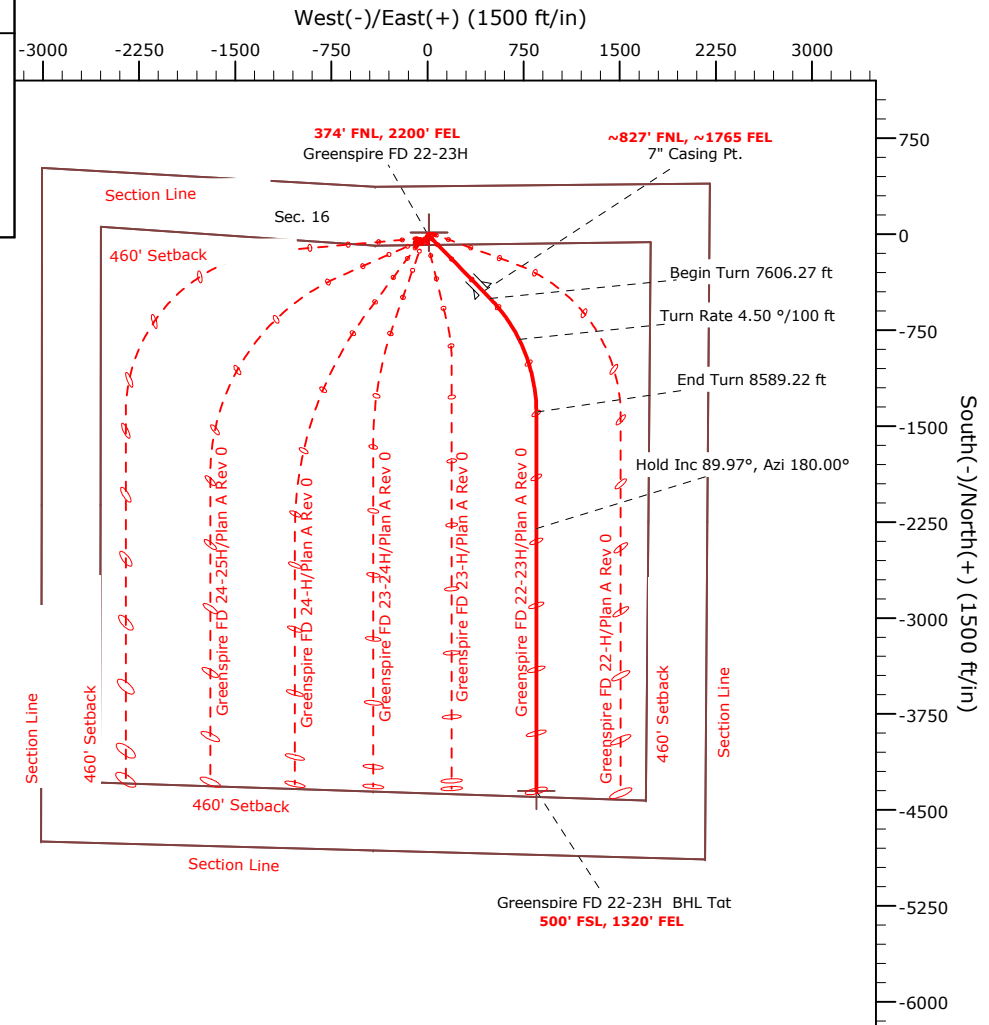
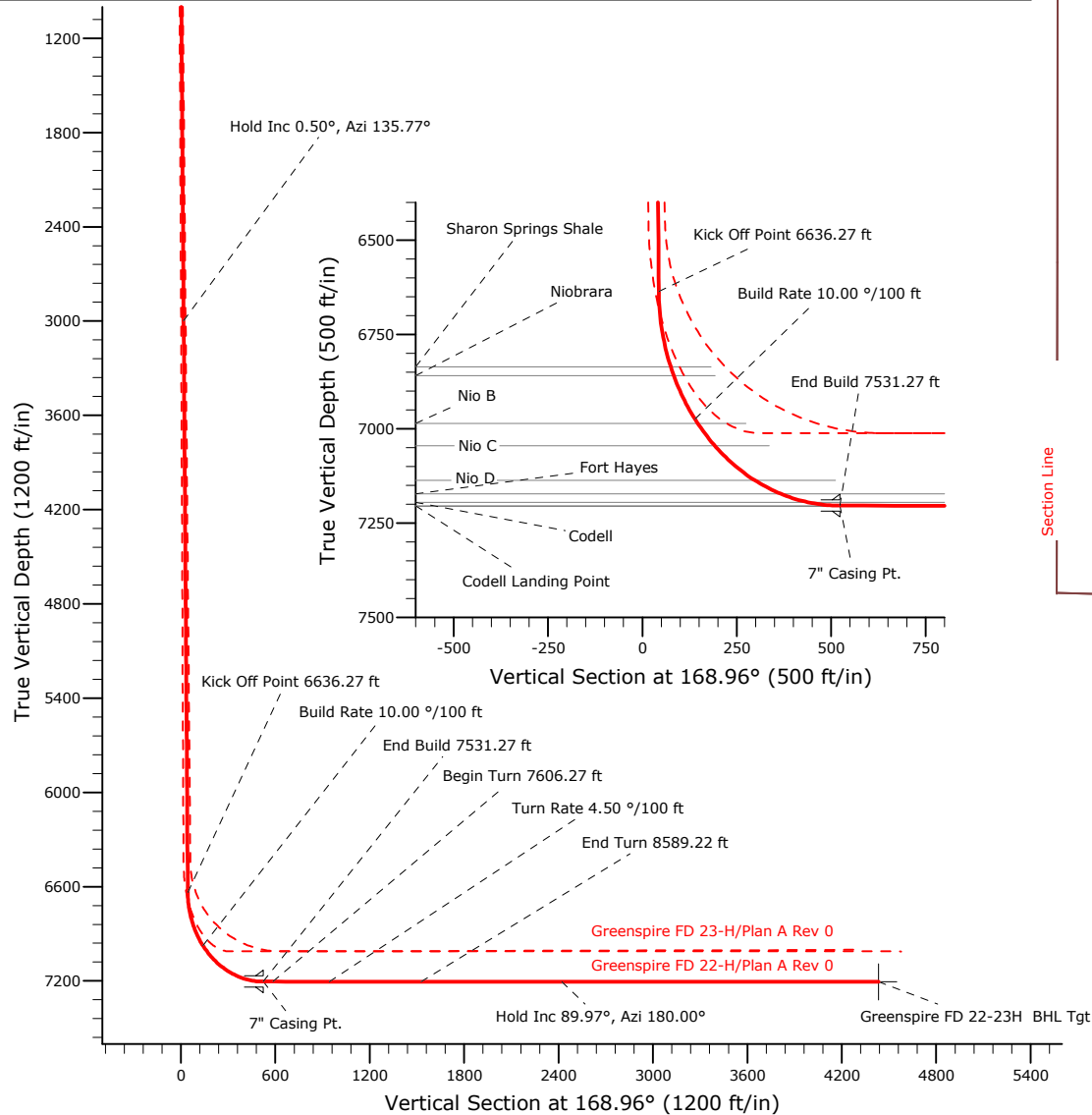
Great Western Oil & Gas

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	650.00	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	
3	675.00	0.50	135.77	675.00	-0.08	0.08	2.00	135.77	0.09	
4	6636.27	0.50	135.77	6636.04	-37.35	36.36	0.00	0.00	43.63	
5	7531.27	90.00	135.77	7204.00	-447.87	436.03	10.00	0.00	523.10	
6	7606.27	90.00	135.77	7204.00	-501.60	488.35	0.00	0.00	585.87	
7	8589.22	89.97	180.00	7204.30	-1389.79	849.30	4.50	90.05	1526.75	
8	11550.79	89.97	180.00	7206.00	-4351.36	849.30	0.00	0.00	4433.47	Greenspire FD 22-23H BHL Tgt



WELL DETAILS: Greenspire FD 22-23H

Ground Level: 4807.00 Northing: 1423018.88 Latitude: 40° 29' 34.879 N
Easting: 3167754.79 Longitude: 104° 53' 48.620 W

Plan: Plan A Rev 0 (Greenspire FD 22-23H/Plan A)

Created By: Matthew R. Epp Date: 7-30-2012
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____

Project: Weld County, Colorado
Site: Sec. 16-T6N-R67W
Well: Greenspire FD 22-23H
Wellbore: Plan A
Design: Plan A Rev 0

Great Western Oil & Gas

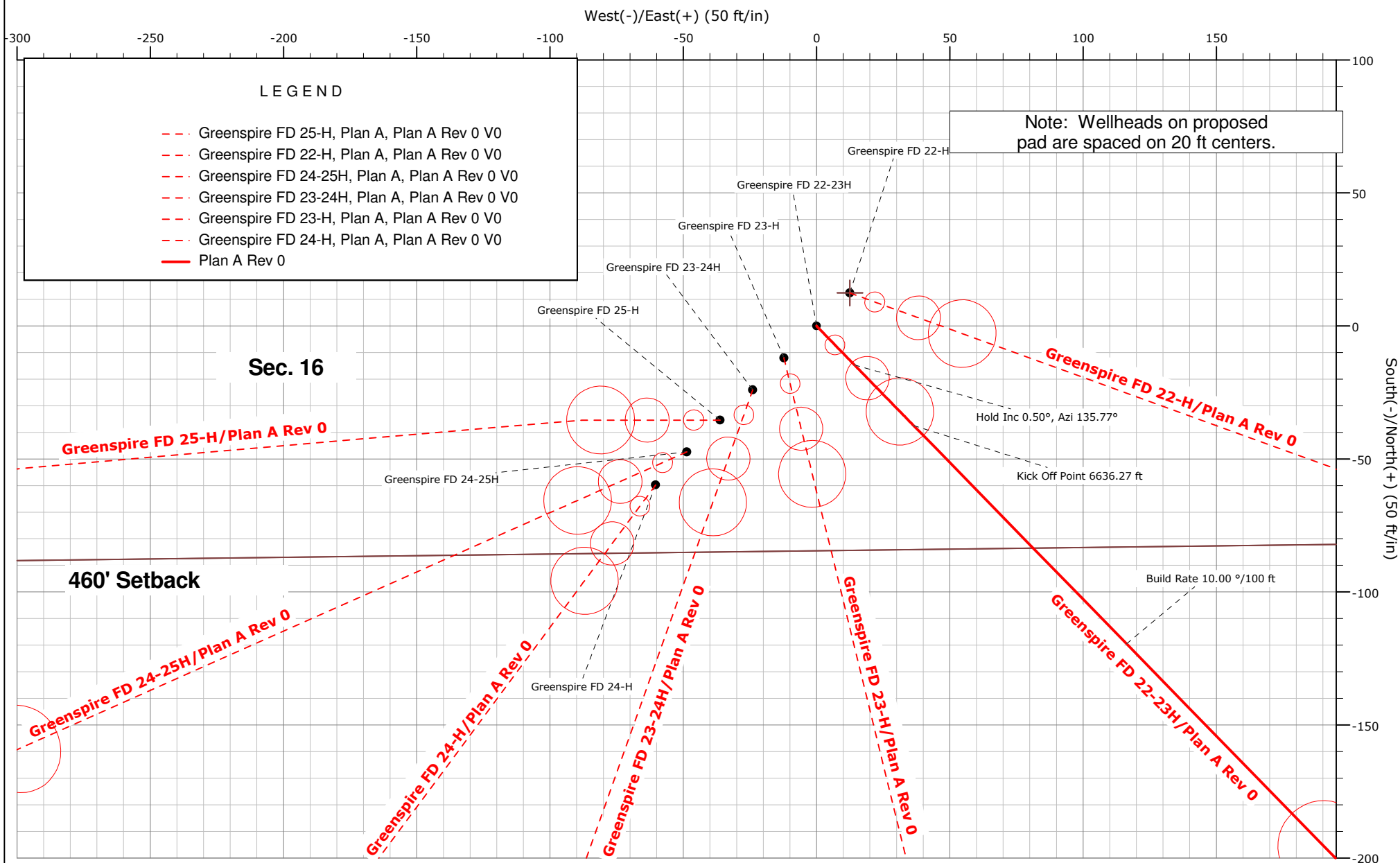
HALLIBURTON
Sperry Drilling

WELL DETAILS: Greenspire FD 22-23H

Ground Level: 4807.00 Northing: 1423018.88 Easting: 3167754.79 Latitude: 40° 29' 34.879 N Longitude: 104° 53' 48.620 W

Plan: Plan A Rev 0 (Greenspire FD 22-23H/Plan A)

Created By: Matthew R. Epp Date: 7/30/2012



Plan Report for Greenspire FD 22-23H - Plan A Rev 0

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
Surface Casing Depth										
650.00	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge 650.00 ft										
675.00	0.50	135.77	675.00	-0.08	0.08	0.09	2.00	2.00	0.00	135.77
End Nudge 675.00 ft										
700.00	0.50	135.77	700.00	-0.23	0.23	0.27	0.00	0.00	0.00	0.00
800.00	0.50	135.77	799.99	-0.86	0.84	1.00	0.00	0.00	0.00	0.00
900.00	0.50	135.77	899.99	-1.49	1.45	1.73	0.00	0.00	0.00	0.00
1,000.00	0.50	135.77	999.99	-2.11	2.05	2.46	0.00	0.00	0.00	0.00
1,100.00	0.50	135.77	1,099.98	-2.74	2.66	3.20	0.00	0.00	0.00	0.00
1,200.00	0.50	135.77	1,199.98	-3.36	3.27	3.93	0.00	0.00	0.00	0.00
1,300.00	0.50	135.77	1,299.98	-3.99	3.88	4.66	0.00	0.00	0.00	0.00
1,400.00	0.50	135.77	1,399.97	-4.61	4.49	5.39	0.00	0.00	0.00	0.00
1,500.00	0.50	135.77	1,499.97	-5.24	5.10	6.12	0.00	0.00	0.00	0.00
1,600.00	0.50	135.77	1,599.96	-5.86	5.71	6.85	0.00	0.00	0.00	0.00
1,700.00	0.50	135.77	1,699.96	-6.49	6.32	7.58	0.00	0.00	0.00	0.00
1,800.00	0.50	135.77	1,799.96	-7.11	6.92	8.31	0.00	0.00	0.00	0.00
1,900.00	0.50	135.77	1,899.95	-7.74	7.53	9.04	0.00	0.00	0.00	0.00
2,000.00	0.50	135.77	1,999.95	-8.36	8.14	9.77	0.00	0.00	0.00	0.00
2,100.00	0.50	135.77	2,099.95	-8.99	8.75	10.50	0.00	0.00	0.00	0.00
2,200.00	0.50	135.77	2,199.94	-9.61	9.36	11.23	0.00	0.00	0.00	0.00
2,300.00	0.50	135.77	2,299.94	-10.24	9.97	11.96	0.00	0.00	0.00	0.00
2,396.07	0.50	135.77	2,396.00	-10.84	10.55	12.66	0.00	0.00	0.00	0.00
Greeley Sand										
2,400.00	0.50	135.77	2,399.93	-10.86	10.58	12.69	0.00	0.00	0.00	0.00
2,500.00	0.50	135.77	2,499.93	-11.49	11.19	13.42	0.00	0.00	0.00	0.00
2,600.00	0.50	135.77	2,599.93	-12.11	11.79	14.15	0.00	0.00	0.00	0.00
2,700.00	0.50	135.77	2,699.92	-12.74	12.40	14.88	0.00	0.00	0.00	0.00
2,800.00	0.50	135.77	2,799.92	-13.37	13.01	15.61	0.00	0.00	0.00	0.00
2,900.00	0.50	135.77	2,899.91	-13.99	13.62	16.34	0.00	0.00	0.00	0.00
3,000.00	0.50	135.77	2,999.91	-14.62	14.23	17.07	0.00	0.00	0.00	0.00
Hold Inc 0.50°, Azi 135.77°										
3,100.00	0.50	135.77	3,099.91	-15.24	14.84	17.80	0.00	0.00	0.00	0.00
3,200.00	0.50	135.77	3,199.90	-15.87	15.45	18.53	0.00	0.00	0.00	0.00
3,300.00	0.50	135.77	3,299.90	-16.49	16.06	19.26	0.00	0.00	0.00	0.00
3,400.00	0.50	135.77	3,399.90	-17.12	16.66	19.99	0.00	0.00	0.00	0.00
3,494.11	0.50	135.77	3,494.00	-17.71	17.24	20.68	0.00	0.00	0.00	0.00
Parkman										
3,500.00	0.50	135.77	3,499.89	-17.74	17.27	20.72	0.00	0.00	0.00	0.00
3,600.00	0.50	135.77	3,599.89	-18.37	17.88	21.45	0.00	0.00	0.00	0.00
3,700.00	0.50	135.77	3,699.88	-18.99	18.49	22.18	0.00	0.00	0.00	0.00
3,800.00	0.50	135.77	3,799.88	-19.62	19.10	22.91	0.00	0.00	0.00	0.00
3,900.00	0.50	135.77	3,899.88	-20.24	19.71	23.64	0.00	0.00	0.00	0.00
4,000.00	0.50	135.77	3,999.87	-20.87	20.32	24.37	0.00	0.00	0.00	0.00
4,019.13	0.50	135.77	4,019.00	-20.99	20.43	24.51	0.00	0.00	0.00	0.00
Sussex										
4,100.00	0.50	135.77	4,099.87	-21.49	20.93	25.10	0.00	0.00	0.00	0.00
4,200.00	0.50	135.77	4,199.87	-22.12	21.53	25.83	0.00	0.00	0.00	0.00
4,300.00	0.50	135.77	4,299.86	-22.74	22.14	26.56	0.00	0.00	0.00	0.00
4,400.00	0.50	135.77	4,399.86	-23.37	22.75	27.29	0.00	0.00	0.00	0.00

Plan Report for Greenspire FD 22-23H - Plan A Rev 0

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
4,500.00	0.50	135.77	4,499.85	-23.99	23.36	28.03	0.00	0.00	0.00	0.00
4,589.15	0.50	135.77	4,589.00	-24.55	23.90	28.68	0.00	0.00	0.00	0.00
Shannon										
4,600.00	0.50	135.77	4,599.85	-24.62	23.97	28.76	0.00	0.00	0.00	0.00
4,700.00	0.50	135.77	4,699.85	-25.25	24.58	29.49	0.00	0.00	0.00	0.00
4,800.00	0.50	135.77	4,799.84	-25.87	25.19	30.22	0.00	0.00	0.00	0.00
4,900.00	0.50	135.77	4,899.84	-26.50	25.80	30.95	0.00	0.00	0.00	0.00
5,000.00	0.50	135.77	4,999.83	-27.12	26.40	31.68	0.00	0.00	0.00	0.00
5,100.00	0.50	135.77	5,099.83	-27.75	27.01	32.41	0.00	0.00	0.00	0.00
5,200.00	0.50	135.77	5,199.83	-28.37	27.62	33.14	0.00	0.00	0.00	0.00
5,300.00	0.50	135.77	5,299.82	-29.00	28.23	33.87	0.00	0.00	0.00	0.00
5,400.00	0.50	135.77	5,399.82	-29.62	28.84	34.60	0.00	0.00	0.00	0.00
5,500.00	0.50	135.77	5,499.82	-30.25	29.45	35.33	0.00	0.00	0.00	0.00
5,600.00	0.50	135.77	5,599.81	-30.87	30.06	36.06	0.00	0.00	0.00	0.00
5,700.00	0.50	135.77	5,699.81	-31.50	30.67	36.79	0.00	0.00	0.00	0.00
5,800.00	0.50	135.77	5,799.80	-32.12	31.27	37.52	0.00	0.00	0.00	0.00
5,900.00	0.50	135.77	5,899.80	-32.75	31.88	38.25	0.00	0.00	0.00	0.00
6,000.00	0.50	135.77	5,999.80	-33.37	32.49	38.98	0.00	0.00	0.00	0.00
6,100.00	0.50	135.77	6,099.79	-34.00	33.10	39.71	0.00	0.00	0.00	0.00
6,200.00	0.50	135.77	6,199.79	-34.62	33.71	40.44	0.00	0.00	0.00	0.00
6,300.00	0.50	135.77	6,299.79	-35.25	34.32	41.17	0.00	0.00	0.00	0.00
6,400.00	0.50	135.77	6,399.78	-35.87	34.93	41.90	0.00	0.00	0.00	0.00
6,500.00	0.50	135.77	6,499.78	-36.50	35.54	42.63	0.00	0.00	0.00	0.00
6,600.00	0.50	135.77	6,599.77	-37.13	36.14	43.36	0.00	0.00	0.00	0.00
6,636.27	0.50	135.77	6,636.04	-37.35	36.36	43.63	0.00	0.00	0.00	0.00
Kick Off Point 6636.27 ft										
6,700.00	6.87	135.77	6,699.61	-40.29	39.22	47.05	10.00	10.00	0.00	0.00
6,800.00	16.87	135.77	6,797.34	-55.01	53.56	64.25	10.00	10.00	0.00	0.00
6,840.87	20.96	135.77	6,836.00	-64.50	62.80	75.34	10.00	10.00	0.00	0.00
Sharon Springs Shale										
6,866.81	23.55	135.77	6,860.00	-71.54	69.65	83.56	10.00	10.00	0.00	0.00
Niobrara										
6,900.00	26.87	135.77	6,890.03	-81.67	79.51	95.39	10.00	10.00	0.00	0.00
7,000.00	36.87	135.77	6,974.84	-119.46	116.30	139.52	10.00	10.00	0.00	0.00
Build Rate 10.00 °/100 ft										
7,014.08	38.28	135.77	6,986.00	-125.61	122.29	146.71	10.00	10.00	0.00	0.00
Nio B										
7,093.88	46.26	135.77	7,045.00	-164.04	159.70	191.59	10.00	10.00	0.00	0.00
Nio C										
7,100.00	46.87	135.77	7,049.21	-167.22	162.80	195.31	10.00	10.00	0.00	0.00
7,200.00	56.87	135.77	7,110.87	-223.51	217.61	261.06	10.00	10.00	0.00	0.00
7,251.41	62.01	135.77	7,137.00	-255.23	248.48	298.10	10.00	10.00	0.00	0.00
Nio D										
7,300.00	66.87	135.77	7,157.95	-286.62	279.05	334.77	10.00	10.00	0.00	0.00
7,341.94	71.07	135.77	7,173.00	-314.66	306.35	367.52	10.00	10.00	0.00	0.00
Fort Hayes										
7,400.00	76.87	135.77	7,189.03	-354.63	345.26	414.20	10.00	10.00	0.00	0.00
7,429.59	79.83	135.77	7,195.00	-375.40	365.48	438.46	10.00	10.00	0.00	0.00
Codell										
7,500.00	86.87	135.77	7,203.14	-425.47	414.23	496.95	10.00	10.00	0.00	0.00
7,531.27	90.00	135.77	7,204.00	-447.87	436.03	523.10	10.00	10.00	0.00	0.00
End Build 7531.27 ft - Codell Landing Point - 7" Casing Pt.										
7,600.00	90.00	135.77	7,204.00	-497.11	483.98	580.62	0.00	0.00	0.00	0.00
7,606.27	90.00	135.77	7,204.00	-501.60	488.35	585.87	0.00	0.00	0.00	0.00
Begin Turn 7606.27 ft										
7,700.00	90.00	139.98	7,204.00	-571.11	551.21	666.12	4.50	0.00	4.50	90.05
7,800.00	89.99	144.48	7,204.01	-650.14	612.43	755.42	4.50	0.00	4.50	90.05
7,900.00	89.99	148.98	7,204.03	-733.73	667.27	847.97	4.50	0.00	4.50	90.05

Plan Report for Greenspire FD 22-23H - Plan A Rev 0

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
8,000.00	89.99	153.48	7,204.05	-821.37	715.38	943.20	4.50	0.00	4.50	90.05
Turn Rate 4.50 °/100 ft										
8,100.00	89.98	157.98	7,204.08	-912.51	756.47	1,040.53	4.50	0.00	4.50	90.05
8,200.00	89.98	162.48	7,204.11	-1,006.60	790.27	1,139.35	4.50	0.00	4.50	90.04
8,300.00	89.98	166.98	7,204.15	-1,103.05	816.59	1,239.05	4.50	0.00	4.50	90.04
8,400.00	89.97	171.48	7,204.20	-1,201.26	835.27	1,339.02	4.50	0.00	4.50	90.04
8,500.00	89.97	175.98	7,204.25	-1,300.64	846.18	1,438.65	4.50	0.00	4.50	90.04
8,589.22	89.97	180.00	7,204.30	-1,389.78	849.30	1,526.74	4.50	0.00	4.50	90.04
End Turn 8589.22 ft										
8,600.00	89.97	180.00	7,204.30	-1,400.56	849.30	1,537.32	0.00	0.00	0.00	90.03
8,700.00	89.97	180.00	7,204.36	-1,500.56	849.30	1,635.47	0.00	0.00	0.00	0.00
8,800.00	89.97	180.00	7,204.42	-1,600.56	849.30	1,733.62	0.00	0.00	0.00	0.00
8,900.00	89.97	180.00	7,204.47	-1,700.56	849.30	1,831.77	0.00	0.00	0.00	0.00
9,000.00	89.97	180.00	7,204.53	-1,800.56	849.30	1,929.92	0.00	0.00	0.00	0.00
9,100.00	89.97	180.00	7,204.59	-1,900.56	849.30	2,028.06	0.00	0.00	0.00	0.00
9,200.00	89.97	180.00	7,204.65	-2,000.56	849.30	2,126.21	0.00	0.00	0.00	0.00
9,300.00	89.97	180.00	7,204.70	-2,100.56	849.30	2,224.36	0.00	0.00	0.00	0.00
9,400.00	89.97	180.00	7,204.76	-2,200.56	849.30	2,322.51	0.00	0.00	0.00	0.00
9,500.00	89.97	180.00	7,204.82	-2,300.56	849.30	2,420.66	0.00	0.00	0.00	0.00
Hold Inc 89.97°, Azi 180.00°										
9,600.00	89.97	180.00	7,204.88	-2,400.56	849.30	2,518.80	0.00	0.00	0.00	0.00
9,700.00	89.97	180.00	7,204.93	-2,500.56	849.30	2,616.95	0.00	0.00	0.00	0.00
9,800.00	89.97	180.00	7,204.99	-2,600.56	849.30	2,715.10	0.00	0.00	0.00	0.00
9,900.00	89.97	180.00	7,205.05	-2,700.56	849.30	2,813.25	0.00	0.00	0.00	0.00
10,000.00	89.97	180.00	7,205.11	-2,800.56	849.30	2,911.40	0.00	0.00	0.00	0.00
10,100.00	89.97	180.00	7,205.17	-2,900.56	849.30	3,009.54	0.00	0.00	0.00	0.00
10,200.00	89.97	180.00	7,205.22	-3,000.56	849.30	3,107.69	0.00	0.00	0.00	0.00
10,300.00	89.97	180.00	7,205.28	-3,100.56	849.30	3,205.84	0.00	0.00	0.00	0.00
10,400.00	89.97	180.00	7,205.34	-3,200.56	849.30	3,303.99	0.00	0.00	0.00	0.00
10,500.00	89.97	180.00	7,205.40	-3,300.56	849.30	3,402.13	0.00	0.00	0.00	0.00
10,600.00	89.97	180.00	7,205.45	-3,400.56	849.30	3,500.28	0.00	0.00	0.00	0.00
10,700.00	89.97	180.00	7,205.51	-3,500.56	849.30	3,598.43	0.00	0.00	0.00	0.00
10,800.00	89.97	180.00	7,205.57	-3,600.56	849.30	3,696.58	0.00	0.00	0.00	0.00
10,900.00	89.97	180.00	7,205.63	-3,700.56	849.30	3,794.73	0.00	0.00	0.00	0.00
11,000.00	89.97	180.00	7,205.68	-3,800.56	849.30	3,892.87	0.00	0.00	0.00	0.00
11,100.00	89.97	180.00	7,205.74	-3,900.56	849.30	3,991.02	0.00	0.00	0.00	0.00
11,200.00	89.97	180.00	7,205.80	-4,000.56	849.30	4,089.17	0.00	0.00	0.00	0.00
11,300.00	89.97	180.00	7,205.86	-4,100.56	849.30	4,187.32	0.00	0.00	0.00	0.00
11,400.00	89.97	180.00	7,205.91	-4,200.56	849.30	4,285.47	0.00	0.00	0.00	0.00
11,500.00	89.97	180.00	7,205.97	-4,300.56	849.30	4,383.61	0.00	0.00	0.00	0.00
11,550.79	89.97	180.00	7,206.00	-4,351.35	849.30	4,433.46	0.00	0.00	0.00	0.00
Total Depth 11550.79 ft - Greenspire FD 22-23H BHL Tgt										

Plan Report for Greenspire FD 22-23H - Plan A Rev 0**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
650.00	650.00	0.00	0.00	Begin Nudge 650.00 ft
675.00	675.00	-0.08	0.08	End Nudge 675.00 ft
3,000.00	2,999.91	-14.62	14.23	Hold Inc 0.50°, Azi 135.77°
6,636.27	6,636.04	-37.35	36.36	Kick Off Point 6636.27 ft
7,000.00	6,974.84	-119.46	116.30	Build Rate 10.00 °/100 ft
7,531.27	7,204.00	-447.87	436.03	End Build 7531.27 ft
7,606.27	7,204.00	-501.60	488.35	Begin Turn 7606.27 ft
8,000.00	7,204.05	-821.37	715.38	Turn Rate 4.50 °/100 ft
8,589.22	7,204.30	-1,389.78	849.30	End Turn 8589.22 ft
9,500.00	7,204.82	-2,300.56	849.30	Hold Inc 89.97°, Azi 180.00°
11,550.79	7,206.00	-4,351.35	849.30	Total Depth 11550.79 ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/_S (ft)	+E/-W (ft)	
Target	Greenspire FD 22-23H Tgt	168.96	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	11,550.31	Plan A Rev 0	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,531.27	7,204.00	7" Casing Pt.	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
600.00	600.00	Surface Casing Depth			
2,396.07	2,396.00	Greeley Sand			
3,494.11	3,494.00	Parkman			
4,019.13	4,019.00	Sussex			
4,589.15	4,589.00	Shannon			
6,840.87	6,836.00	Sharon Springs Shale			
6,866.81	6,860.00	Niobrara			
7,014.08	6,986.00	Nio B			
7,093.88	7,045.00	Nio C			
7,251.41	7,137.00	Nio D			
7,341.94	7,173.00	Fort Hayes			
7,429.59	7,195.00	Codell			
7,531.27	7,204.00	Codell Landing Point			
11,550.79	7,206.00	TD according to directional plan			

Plan Report for Greenspire FD 22-23H - Plan A Rev 0

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Greenspire FD Pad SB	1.00	12.41	12.52	Polygon
Greenspire FD 22-23H BHL Tgt	7,206.00	-4,351.36	849.30	Point
Greenspire FD Pad SL	1.00	12.41	12.52	Polygon

North Reference Sheet for Sec. 16-T6N-R67W - Greenspire FD 22-23H - 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 14 ft @ 4821.00ft (Cade 25). Northing and Easting are relative to Greenspire FD 22-23H
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: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 0.99996576

Grid Coordinates of Well: 1,423,018.88 ft N, 3,167,754.79 ft E
Geographical Coordinates of Well: 40° 29' 34.88" N, 104° 53' 48.62" W
Grid Convergence at Surface is: 0.39°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,550.79ft
the Bottom Hole Displacement is 4,433.46ft in the Direction of 168.96° (True).
Magnetic Convergence at surface is: -8.44° (24 July 2012, , BGGM2012)

