

Conoco Phillips Company

Adams County, Colorado

Sec. 35-T3S-R65W

Reserve 3-65 34-35 1H

Plan B (Lateral)

Design: ST1_Actual Field Surveys

Sperry Drilling Services

Standard Report

02 August, 2014

Well Coordinates: 1,153,905.53 N, 3,246,521.45 E (39° 45' 08.97" N, 104° 37' 23.58" W)

Ground Level: 5,506.00 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 Reserve 3-65 34-35 1H

KB 24 ft @ 5530.00usft (H&P 280)

N

True

API - US Survey Feet - Custom

HALLIBURTON

Design Report for Reserve 3-65 34-35 1H - ST1_Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
1,981.00	0.15	272.94	1,980.98	-1.81	-2.24	2.23	0.07
Tie-On to Gyro Surveys @ 1981.00 ft							
2,133.00	0.41	242.67	2,132.97	-2.05	-2.92	2.91	0.19
First Sperry MWD Survey @ 2133.00 ft							
2,227.00	0.50	241.49	2,226.97	-2.40	-3.58	3.57	0.10
2,322.00	0.41	251.57	2,321.97	-2.70	-4.27	4.25	0.13
2,416.00	0.45	248.49	2,415.97	-2.94	-4.93	4.91	0.05
2,511.00	0.45	250.15	2,510.96	-3.21	-5.63	5.61	0.01
2,605.00	0.45	64.92	2,604.96	-3.18	-5.64	5.62	0.96
2,700.00	0.70	74.32	2,699.96	-2.86	-4.74	4.73	0.28
2,794.00	0.63	82.26	2,793.95	-2.64	-3.68	3.66	0.12
2,889.00	0.64	82.46	2,888.95	-2.50	-2.64	2.62	0.01
2,983.00	0.67	75.92	2,982.94	-2.29	-1.58	1.57	0.09
3,078.00	0.57	67.90	3,077.93	-1.98	-0.61	0.59	0.14
3,172.00	0.61	46.92	3,171.93	-1.46	0.19	-0.20	0.23
3,266.00	0.72	26.50	3,265.92	-0.59	0.82	-0.83	0.28
3,361.00	0.72	7.86	3,360.92	0.53	1.17	-1.17	0.25
3,455.00	0.50	336.18	3,454.91	1.49	1.08	-1.08	0.42
3,550.00	0.49	298.91	3,549.91	2.07	0.56	-0.55	0.33
3,644.00	0.58	294.39	3,643.90	2.46	-0.22	0.24	0.11
3,739.00	0.80	303.93	3,738.90	3.03	-1.21	1.23	0.26
3,833.00	0.70	328.30	3,832.89	3.88	-2.06	2.08	0.35
3,928.00	0.70	10.43	3,927.88	4.95	-2.26	2.29	0.53
4,022.00	0.87	26.49	4,021.87	6.15	-1.84	1.87	0.29
4,117.00	0.33	259.61	4,116.87	6.75	-1.78	1.83	1.16
4,211.00	0.64	241.07	4,210.87	6.44	-2.51	2.55	0.37
4,306.00	0.55	245.79	4,305.86	6.00	-3.39	3.43	0.11
4,401.00	0.48	245.36	4,400.86	5.65	-4.17	4.20	0.07
4,495.00	0.53	239.09	4,494.85	5.26	-4.90	4.93	0.08
4,589.00	0.41	150.39	4,588.85	4.75	-5.10	5.13	0.70
4,684.00	0.41	162.88	4,683.85	4.12	-4.84	4.86	0.09
4,779.00	0.44	207.25	4,778.85	3.48	-4.90	4.93	0.34
4,873.00	0.90	147.88	4,872.84	2.53	-4.68	4.69	0.82
4,967.00	1.30	137.54	4,966.82	1.12	-3.56	3.57	0.47
5,061.00	1.05	137.04	5,060.80	-0.30	-2.26	2.25	0.27
5,156.00	0.36	171.31	5,155.80	-1.23	-1.62	1.61	0.82
5,251.00	0.31	213.15	5,250.79	-1.74	-1.71	1.70	0.26
5,345.00	0.45	233.28	5,344.79	-2.18	-2.15	2.13	0.20
5,440.00	0.51	236.72	5,439.79	-2.63	-2.80	2.78	0.07
5,534.00	0.49	243.88	5,533.79	-3.04	-3.51	3.49	0.07
5,629.00	0.51	348.92	5,628.78	-2.80	-3.96	3.94	0.84
5,723.00	0.62	347.21	5,722.78	-1.89	-4.15	4.14	0.12
5,817.00	0.44	306.38	5,816.77	-1.18	-4.55	4.55	0.43
5,912.00	0.48	30.67	5,911.77	-0.63	-4.64	4.64	0.65
6,006.00	1.17	56.57	6,005.76	0.24	-3.64	3.64	0.82
6,101.00	1.16	59.25	6,100.74	1.27	-2.01	2.02	0.06
6,195.00	1.26	59.88	6,194.72	2.27	-0.30	0.31	0.11
6,290.00	0.59	83.78	6,289.71	2.85	1.09	-1.08	0.80
6,384.00	0.51	92.88	6,383.71	2.88	1.99	-1.97	0.13
6,479.00	0.79	89.23	6,478.70	2.87	3.07	-3.05	0.30

Design Report for Reserve 3-65 34-35 1H - ST1_Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
6,573.00	1.02	91.91	6,572.69	2.85	4.55	-4.54	0.25
6,667.00	0.37	134.38	6,666.68	2.61	5.61	-5.59	0.84
6,762.00	0.47	142.51	6,761.68	2.09	6.06	-6.05	0.12
6,856.00	0.70	140.36	6,855.67	1.34	6.67	-6.66	0.25
6,951.00	0.67	199.73	6,950.67	0.37	6.85	-6.85	0.71
7,045.00	0.92	196.23	7,044.66	-0.87	6.45	-6.46	0.27
Tie-On to Original Wellbore Surveys @ 7045.00 ft							
7,132.00	7.79	271.79	7,131.38	-1.36	0.35	-0.36	8.75
First Sidetrack Sperry MWD Survey @ 7132.00 ft							
7,139.00	8.31	275.95	7,138.31	-1.29	-0.62	0.62	11.15
7,171.00	11.00	276.75	7,169.85	-0.69	-5.96	5.95	8.42
7,202.00	13.94	275.06	7,200.12	-0.02	-12.61	12.61	9.56
7,234.00	16.08	272.44	7,231.03	0.51	-20.88	20.89	7.01
7,265.00	19.43	270.43	7,260.55	0.73	-30.33	30.33	10.98
7,297.00	22.19	269.59	7,290.45	0.73	-41.70	41.70	8.68
7,328.00	24.50	268.38	7,318.92	0.51	-53.98	53.98	7.61
7,360.00	27.96	268.18	7,347.62	0.08	-68.11	68.11	10.82
7,391.00	30.46	268.66	7,374.67	-0.34	-83.23	83.23	8.10
7,423.00	33.16	269.24	7,401.86	-0.64	-100.10	100.09	8.49
7,454.00	35.13	270.53	7,427.52	-0.67	-117.50	117.49	6.77
7,486.00	37.04	271.62	7,453.38	-0.31	-136.34	136.33	6.30
7,517.00	39.39	272.28	7,477.73	0.34	-155.50	155.50	7.69
7,549.00	42.11	272.07	7,501.97	1.13	-176.37	176.38	8.51
7,581.00	44.66	271.02	7,525.23	1.72	-198.34	198.35	8.28
7,612.00	47.59	269.22	7,546.71	1.76	-220.69	220.69	10.34
7,644.00	50.76	268.57	7,567.63	1.29	-244.89	244.90	10.02
7,675.00	53.16	268.72	7,586.73	0.71	-269.30	269.30	7.75
7,707.00	55.30	268.98	7,605.43	0.19	-295.26	295.25	6.72
7,738.00	58.24	269.39	7,622.42	-0.17	-321.18	321.17	9.55
7,770.00	61.81	270.15	7,638.41	-0.28	-348.90	348.89	11.34
7,801.00	65.88	270.93	7,652.07	-0.02	-376.72	376.71	13.32
7,833.00	69.76	271.03	7,664.15	0.49	-406.34	406.33	12.13
7,865.00	73.82	270.59	7,674.14	0.92	-436.73	436.72	12.75
7,896.00	76.80	271.17	7,682.00	1.38	-466.70	466.70	9.78
7,928.00	79.52	271.70	7,688.57	2.16	-498.01	498.01	8.65
7,959.00	82.39	272.18	7,693.44	3.20	-528.60	528.61	9.38
7,990.00	85.19	272.32	7,696.80	4.41	-559.40	559.41	9.04
8,022.00	87.28	272.60	7,698.90	5.78	-591.30	591.32	6.59
8,054.00	87.90	272.68	7,700.24	7.25	-623.23	623.27	1.95
8,116.00	89.01	271.74	7,701.91	9.64	-685.16	685.21	2.35
8,211.00	88.89	271.26	7,703.65	12.13	-780.11	780.18	0.52
8,305.00	89.63	270.54	7,704.87	13.61	-874.09	874.16	1.10
8,400.00	89.69	270.05	7,705.43	14.10	-969.09	969.16	0.52
8,494.00	89.75	270.51	7,705.89	14.56	-1,063.09	1,063.16	0.49
8,589.00	90.12	270.73	7,706.00	15.58	-1,158.08	1,158.16	0.45
8,683.00	88.95	270.63	7,706.76	16.70	-1,252.07	1,252.15	1.25
8,778.00	89.32	269.28	7,708.20	16.62	-1,347.06	1,347.14	1.47
8,872.00	89.63	269.66	7,709.06	15.75	-1,441.05	1,441.12	0.52
8,966.00	89.75	269.98	7,709.57	15.46	-1,535.05	1,535.11	0.36
9,061.00	90.56	271.16	7,709.31	16.40	-1,630.04	1,630.11	1.51
9,155.00	89.51	270.67	7,709.25	17.91	-1,724.03	1,724.10	1.23

Design Report for Reserve 3-65 34-35 1H - ST1_Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
9,250.00	89.57	270.06	7,710.02	18.51	-1,819.02	1,819.10	0.65
9,344.00	89.51	269.98	7,710.77	18.54	-1,913.02	1,913.10	0.11
9,439.00	89.94	270.60	7,711.23	19.02	-2,008.01	2,008.09	0.79
9,533.00	89.75	269.60	7,711.48	19.19	-2,102.01	2,102.09	1.08
9,627.00	90.25	269.55	7,711.48	18.49	-2,196.01	2,196.08	0.53
9,722.00	90.49	269.68	7,710.87	17.85	-2,291.01	2,291.07	0.29
9,816.00	89.63	268.60	7,710.77	16.44	-2,384.99	2,385.05	1.47
9,911.00	89.32	268.76	7,711.64	14.25	-2,479.96	2,480.00	0.37
10,005.00	90.49	268.83	7,711.79	12.28	-2,573.94	2,573.97	1.25
10,100.00	89.14	269.20	7,712.10	10.64	-2,668.92	2,668.94	1.47
10,194.00	89.13	269.71	7,713.52	9.75	-2,762.91	2,762.91	0.54
10,288.00	89.01	269.65	7,715.05	9.23	-2,856.89	2,856.90	0.14
10,383.00	89.38	269.63	7,716.38	8.63	-2,951.88	2,951.88	0.39
10,477.00	89.57	270.06	7,717.24	8.37	-3,045.88	3,045.87	0.50
10,572.00	89.51	270.67	7,718.00	8.98	-3,140.87	3,140.87	0.65
10,666.00	89.38	270.90	7,718.92	10.27	-3,234.86	3,234.86	0.28
10,761.00	89.44	271.30	7,719.89	12.09	-3,329.84	3,329.85	0.43
10,855.00	90.12	270.98	7,720.25	13.96	-3,423.82	3,423.84	0.80
10,950.00	90.00	271.36	7,720.15	15.90	-3,518.80	3,518.83	0.42
11,044.00	89.63	271.64	7,720.46	18.36	-3,612.76	3,612.81	0.49
11,139.00	89.51	271.93	7,721.17	21.32	-3,707.72	3,707.78	0.33
11,233.00	90.06	271.04	7,721.52	23.76	-3,801.68	3,801.76	1.11
11,328.00	89.38	271.06	7,721.99	25.50	-3,896.66	3,896.75	0.72
11,422.00	89.63	271.68	7,722.80	27.74	-3,990.63	3,990.73	0.71
11,517.00	88.70	271.24	7,724.18	30.16	-4,085.59	4,085.70	1.08
11,611.00	88.33	271.82	7,726.62	32.67	-4,179.53	4,179.65	0.73
11,706.00	88.27	271.07	7,729.44	35.07	-4,274.45	4,274.59	0.79
11,800.00	88.64	270.21	7,731.97	36.12	-4,368.41	4,368.55	1.00
11,895.00	89.26	270.10	7,733.71	36.37	-4,463.39	4,463.54	0.66
11,989.00	88.89	268.28	7,735.23	35.05	-4,557.37	4,557.50	1.98
12,084.00	89.51	269.19	7,736.56	32.95	-4,652.34	4,652.45	1.16
12,178.00	89.94	269.77	7,737.01	32.10	-4,746.33	4,746.44	0.77
12,272.00	88.70	270.17	7,738.13	32.05	-4,840.32	4,840.43	1.39
12,367.00	89.07	270.68	7,739.97	32.75	-4,935.30	4,935.41	0.66
12,462.00	89.01	270.76	7,741.57	33.94	-5,030.28	5,030.39	0.11
12,556.00	89.01	271.36	7,743.19	35.68	-5,124.25	5,124.37	0.64
12,651.00	88.95	270.82	7,744.88	37.49	-5,219.22	5,219.35	0.57
12,745.00	89.01	271.05	7,746.55	39.02	-5,313.19	5,313.33	0.25
12,840.00	90.12	272.07	7,747.28	41.61	-5,408.15	5,408.30	1.59
12,934.00	89.01	272.40	7,747.99	45.28	-5,502.07	5,502.25	1.23
13,029.00	89.20	271.79	7,749.47	48.75	-5,597.00	5,597.19	0.67
13,124.00	89.07	270.45	7,750.91	50.60	-5,691.97	5,692.17	1.42
13,218.00	88.15	268.24	7,753.19	49.53	-5,785.92	5,786.12	2.55
13,313.00	89.94	268.59	7,754.77	46.90	-5,880.87	5,881.05	1.92
13,408.00	90.74	269.00	7,754.21	44.91	-5,975.85	5,976.01	0.95
13,502.00	90.06	269.42	7,753.55	43.61	-6,069.84	6,069.99	0.85
13,597.00	90.43	269.67	7,753.14	42.86	-6,164.83	6,164.98	0.47
13,692.00	89.51	270.25	7,753.19	42.79	-6,259.83	6,259.98	1.14
13,786.00	89.69	270.56	7,753.85	43.45	-6,353.82	6,353.97	0.38
13,881.00	90.19	270.90	7,753.95	44.66	-6,448.82	6,448.97	0.64
13,975.00	89.63	269.69	7,754.10	45.15	-6,542.81	6,542.97	1.42

Design Report for Reserve 3-65 34-35 1H - ST1_Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
14,070.00	89.20	268.65	7,755.07	43.77	-6,637.80	6,637.94	1.18
14,164.00	88.89	268.67	7,756.63	41.57	-6,731.76	6,731.89	0.33
14,259.00	89.57	270.03	7,757.91	40.50	-6,826.74	6,826.86	1.60
14,354.00	90.25	270.51	7,758.06	40.94	-6,921.74	6,921.86	0.88
14,448.00	90.49	270.71	7,757.45	41.95	-7,015.73	7,015.86	0.33
14,543.00	90.31	270.92	7,756.79	43.30	-7,110.72	7,110.85	0.29
14,637.00	90.43	271.37	7,756.18	45.17	-7,204.70	7,204.84	0.50
14,732.00	90.37	271.58	7,755.52	47.62	-7,299.66	7,299.82	0.23
14,827.00	90.43	271.81	7,754.86	50.43	-7,394.62	7,394.79	0.25
14,922.00	89.81	270.85	7,754.66	52.64	-7,489.59	7,489.78	1.20
15,017.00	89.63	270.71	7,755.12	53.93	-7,584.58	7,584.77	0.24
15,112.00	89.57	270.68	7,755.79	55.08	-7,679.57	7,679.77	0.07
15,206.00	89.32	271.00	7,756.70	56.46	-7,773.56	7,773.76	0.43
15,301.00	89.38	271.31	7,757.77	58.37	-7,868.53	7,868.75	0.33
15,396.00	88.83	270.34	7,759.26	59.74	-7,963.51	7,963.73	1.17
15,491.00	88.89	270.74	7,761.15	60.64	-8,058.49	8,058.71	0.43
15,586.00	89.32	269.57	7,762.63	60.89	-8,153.47	8,153.70	1.31
15,680.00	90.00	269.58	7,763.19	60.20	-8,247.47	8,247.68	0.72
15,775.00	89.75	269.08	7,763.40	59.09	-8,342.46	8,342.67	0.59
15,869.00	90.31	268.92	7,763.35	57.44	-8,436.45	8,436.64	0.62
15,964.00	89.57	269.69	7,763.45	56.29	-8,531.44	8,531.62	1.12
16,059.00	89.38	269.69	7,764.32	55.78	-8,626.43	8,626.61	0.20
16,153.00	89.69	269.85	7,765.08	55.40	-8,720.43	8,720.60	0.37
16,248.00	88.95	270.62	7,766.21	55.79	-8,815.42	8,815.60	1.12
16,287.00	89.01	270.54	7,766.90	56.19	-8,854.41	8,854.59	0.26
Final Sperry MWD Survey @ 16287.00 ft							
16,359.00	89.01	270.54	7,768.15	56.86	-8,926.40	8,926.58	0.00
Straight Line Projection to TD @ 16359.00 ft - Straight Line rejection to TD							

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,981.00	1,980.98	-1.81	-2.24	Tie-On to Gyro Surveys @ 1981.00 ft
2,133.00	2,132.97	-2.05	-2.92	First Sperry MWD Survey @ 2133.00 ft
7,045.00	7,044.66	-0.87	6.45	Tie-On to Original Wellbore Surveys @ 7045.00 ft
7,132.00	7,131.38	-1.36	0.35	First Sidetrack Sperry MWD Survey @ 7132.00 ft
16,287.00	7,766.90	56.19	-8,854.41	Final Sperry MWD Survey @ 16287.00 ft
16,359.00	7,768.15	56.86	-8,926.40	Straight Line Projection to TD @ 16359.00 ft
16,359.00	7,768.15	56.86	-8,926.40	Straight Line rejection to TD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/_S (usft)	+E/-W (usft)	
TD	No Target (Freehand)	270.36	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
75.00	1,981.00	Surface_Gyro	NS-GYRO-MS

Design Report for Reserve 3-65 34-35 1H - ST1_Actual Field Surveys

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
2,133.00	7,045.00	Vertical (Pilot)_Sperry MWD Surveys	MWD
7,132.00	16,359.00	ST Build and Lateral_Sperry MWD Surveys	MWD

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
2,014.00	2,013.98	9 5/8" Casing Pt.	9-5/8	13-1/2

Wellbore Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Flader Industries INI	0.00	0.00	0.00	75.23	-9,567.22	1,153,886.16	3,236,954.01	39° 45' 9.695 N	104° 39' 26.075 W
- actual wellpath misses target center by 7794.55usft at 16359.00usft MD (7768.15 TVD, 56.86 N, -8926.40 E)									
- Circle (radius 500.00)									
Reserve 3-65 34-35	0.00	0.00	0.00	0.00	0.00	1,153,905.53	3,246,521.45	39° 45' 8.969 N	104° 37' 23.580 W
- actual wellpath misses target center by 1980.98usft at 1981.00usft MD (1980.98 TVD, -1.81 N, -2.24 E)									
- Polygon									
Point 1			0.00	-4,132.48	-4,911.38	1,149,724.71	3,241,651.20		
Point 2			0.00	-4,147.06	-2,268.45	1,149,736.26	3,244,294.13		
Point 3			0.00	-4,161.01	-84.94	1,149,743.90	3,246,477.66		
Point 4			0.00	-1,982.23	-70.92	1,151,922.70	3,246,470.13		
Point 5			0.00	197.64	-56.34	1,154,102.60	3,246,463.16		
Point 6			0.00	226.53	-4,881.38	1,154,083.78	3,241,638.10		
Point 7			0.00	270.75	-9,722.16	1,154,080.13	3,236,797.14		
Point 8			0.00	-1,915.31	-9,730.27	1,151,894.11	3,236,810.65		
Point 9			0.00	-4,101.37	-9,736.69	1,149,708.11	3,236,825.84		
Point 10			0.00	-4,132.48	-4,911.38	1,149,724.71	3,241,651.20		
Reserve 3-64 34-35	0.00	0.00	0.00	0.00	0.00	1,153,905.53	3,246,521.45	39° 45' 8.969 N	104° 37' 23.580 W
- actual wellpath misses target center by 1980.98usft at 1981.00usft MD (1980.98 TVD, -1.81 N, -2.24 E)									
- Polygon									
Point 1			0.00	686.53	-4,881.38	1,154,543.75	3,241,633.55		
Point 2			0.00	-1,940.23	-4,898.21	1,151,916.97	3,241,642.69		
Point 3			0.00	-4,592.48	-4,911.38	1,149,264.74	3,241,655.75		
Point 4			0.00	-4,607.06	-2,268.45	1,149,276.29	3,244,298.68		
Point 5			0.00	-4,621.01	375.06	1,149,288.48	3,246,942.18		
Point 6			0.00	-1,982.23	389.08	1,151,927.25	3,246,930.11		
Point 7			0.00	657.64	403.66	1,154,567.12	3,246,918.59		
Point 8			0.00	686.53	-4,881.38	1,154,543.75	3,241,633.55		
Point 9			0.00	730.75	-10,182.16	1,154,535.56	3,236,332.62		
Point 10			0.00	-1,915.31	-10,190.27	1,151,889.57	3,236,350.67		
Point 11			0.00	-4,561.37	-10,196.69	1,149,243.59	3,236,370.42		
Point 12			0.00	-4,592.48	-4,911.38	1,149,264.74	3,241,655.75		
Reserve 3-65 34-35	0.00	0.00	7,775.00	60.34	-8,926.41	1,153,877.61	3,237,594.94	39° 45' 9.550 N	104° 39' 17.870 W
- actual wellpath misses target center by 7.69usft at 16359.00usft MD (7768.15 TVD, 56.86 N, -8926.40 E)									
- Point									

Directional Difficulty Index

Average Dogleg over Survey:	1.06 °/100usft	Maximum Dogleg over Survey:	13.32 °/100usft at 7,801.00 usft
Net Tortousity applicable to Plans:	0.40 °/100usft	Directional Difficulty Index:	6.517

Design Report for Reserve 3-65 34-35 1H - ST1_Actual Field Surveys

Audit Info

North Reference Sheet for Sec. 35-T3S-R65W - Reserve 3-65 34-35 1H - Plan B (Lateral)

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to KB 24 ft @ 5530.00usft (H&P 280). Northing and Easting are relative to Reserve 3-65 34-35 1H

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° 30' 0.000 W°, 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: 0.99999441

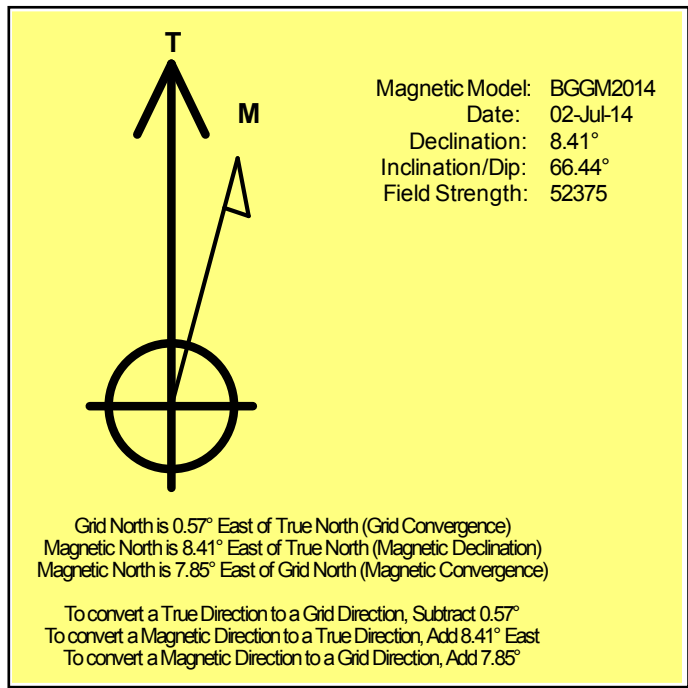
Grid Coordinates of Well: 1,153,905.53 usft N, 3,246,521.45 usft E

Geographical Coordinates of Well: 39° 45' 08.97" N, 104° 37' 23.58" W

Grid Convergence at Surface is: 0.57°

Based upon Minimum Curvature type calculations, at a Measured Depth of 16,359.00usft
the Bottom Hole Displacement is 8,926.58usft in the Direction of 270.36° (True).

Magnetic Convergence at surface is: -7.85° (2 July 2014, , BGGM2014)



Project: Adams County, Colorado

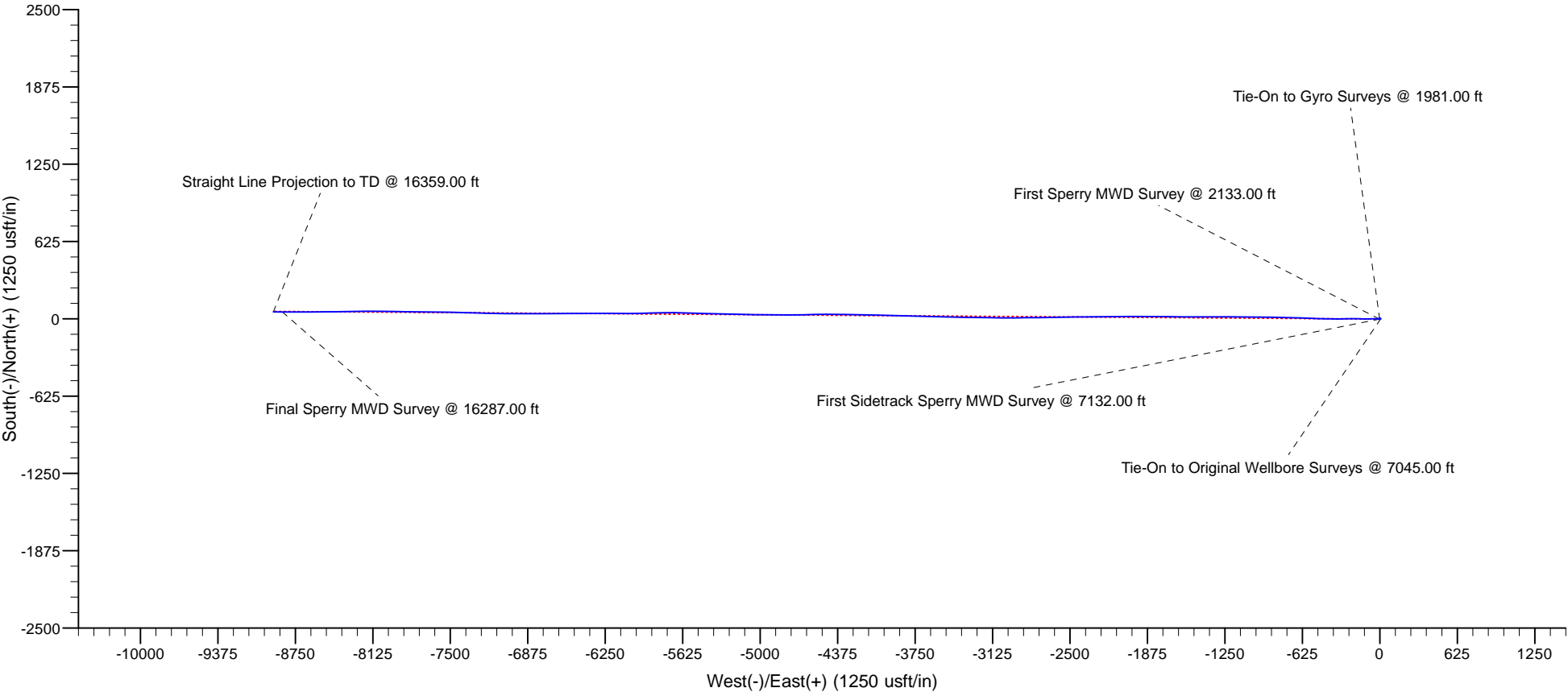
Site: Sec. 35-T3S-R65W
Well: Reserve 3-65 34-35 1H

Conoco Phillips Company



LEGEND

- Reserve 3-65 34-35 1H, Plan B (Lateral), Rev B0
- Reserve 3-65 34-35 1H, Plan B (Lateral), Surface_Gyro
- Reserve 3-65 34-35 1H, Plan B (Lateral), Sperry MWD Surveys



Project: Adams County, Colorado

Site: Sec. 35-T3S-R65W

Well: Reserve 3-65 34-35 1H

Conoco Phillips Company

HALLIBURTON

Sperry Drilling

