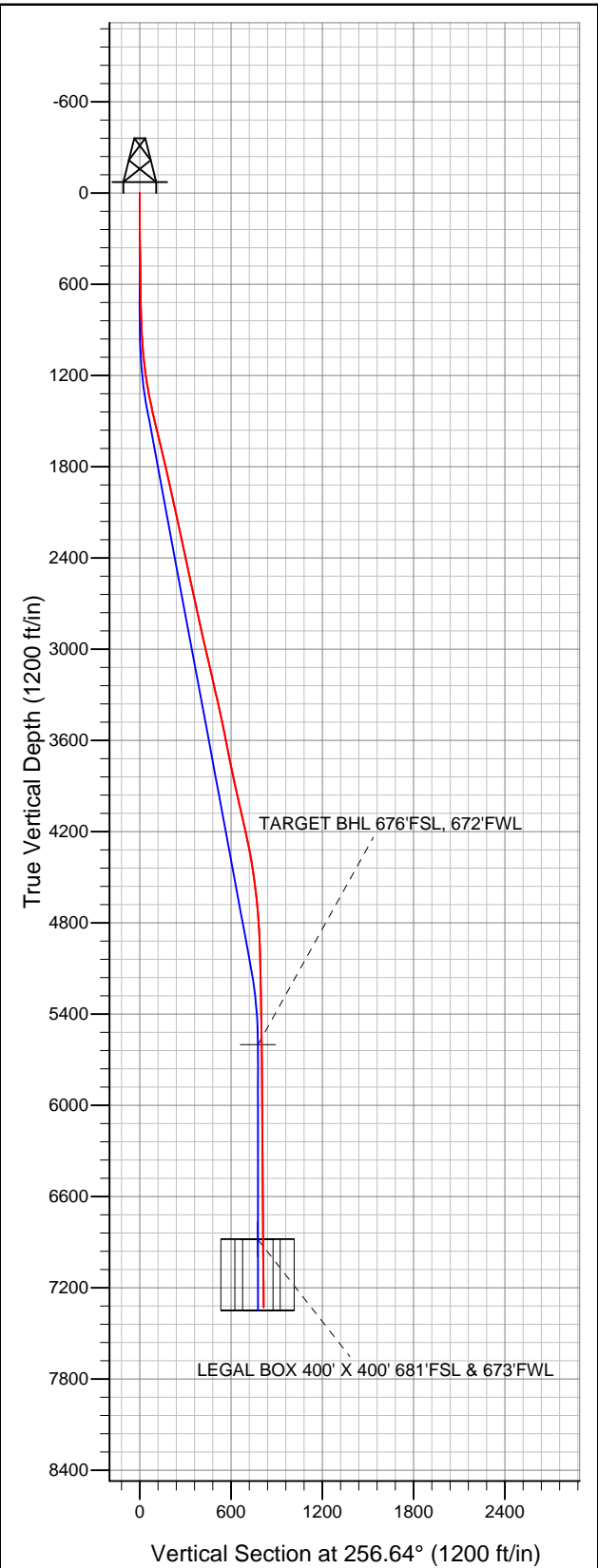
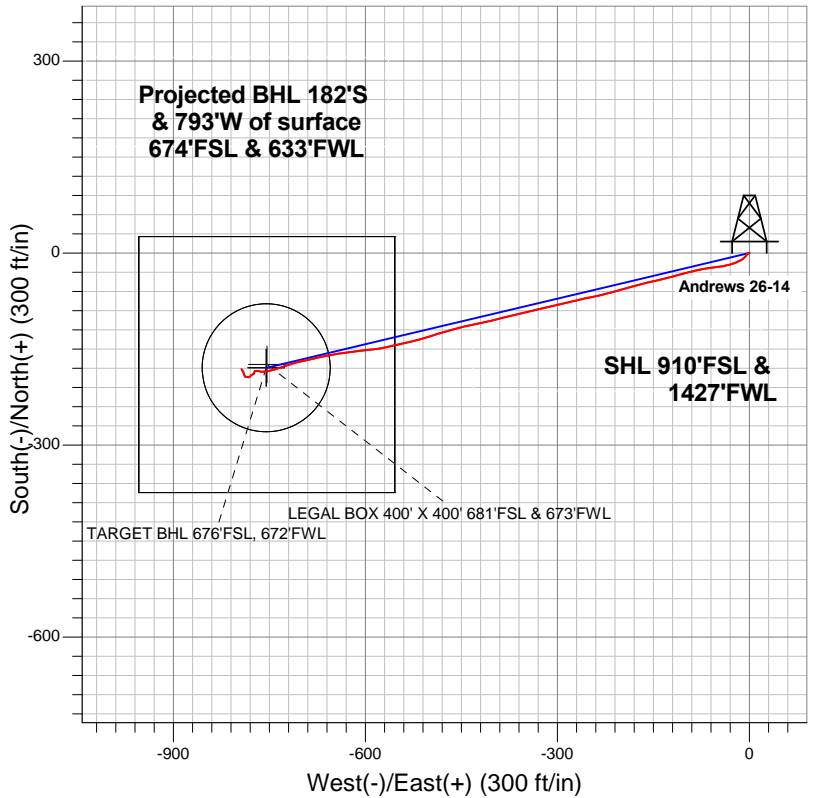


**Well Name: Andrews 26-14**

Surface Location: Andrews 26-23 Pad Sec.26-T7N-R65W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
Ground Elevation: 4871.0  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1441073.20 3240496.33 40.540925 -104.634678  
Original Well Elev WELL @ 4885.0ft (Original Well Elev)



**Great Western**



**LEGEND**

- Andrews 26-14, Wellbore #1, Plan #3 (10-08-12) R V0
- Wellbore #1
- Survey #1

**Final Survey Plot**

**Projected Final Survey -**  
**7409'MD & 7329'TVD @ 814'VS**  
**1.80 deg Inc 326.00 deg AZ**

Project: SEC.26-T7N-R65W  
Site: Andrews 26-23 Pad Sec.26-T7N-R65W  
Well: Andrews 26-14  
Plan: Wellbore #1



## **Great Western**

**SEC.26-T7N-R65W**

**Andrews 26-23 Pad Sec.26-T7N-R65W**

**Andrews 26-14**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**15 October, 2012**

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Andrews 26-14
<b>Project:</b>	SEC.26-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Site:</b>	Andrews 26-23 Pad Sec.26-T7N-R65W	<b>MD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Well:</b>	Andrews 26-14	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.26-T7N-R65W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Andrews 26-23 Pad Sec.26-T7N-R65W			
Site Position:		Northing:	1,441,120.20 ft	Latitude:	40.541053
From:	Lat/Long	Easting:	3,240,533.12 ft	Longitude:	-104.634544
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.56 °

Well	Andrews 26-14					
Well Position	+N/-S	0.0 ft	Northing:	1,441,073.20 ft	Latitude:	40.540925
	+E/-W	0.0 ft	Easting:	3,240,496.33 ft	Longitude:	-104.634678
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,871.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/8/2012	8.63	67.14	53,080

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	256.64	

Survey Program		Date	10/15/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
89.0	7,409.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey	Wellbore Data									
	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)
Main Survey	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	89.0	0.10	295.30	89.0	0.0	-0.1	0.1	0.11	0.11	0.00
	211.0	0.10	228.40	211.0	0.0	-0.2	0.2	0.09	0.00	-54.84
	333.0	0.40	256.70	333.0	-0.2	-0.7	0.8	0.26	0.25	23.20
	454.0	0.90	241.00	454.0	-0.7	-2.0	2.1	0.43	0.41	-12.98
	575.0	1.00	224.70	575.0	-1.9	-3.6	3.9	0.24	0.08	-13.47
	687.0	1.20	219.00	687.0	-3.5	-5.0	5.7	0.20	0.18	-5.09
	789.0	2.10	217.30	788.9	-5.9	-6.8	8.0	0.88	0.88	-1.67
	884.0	2.80	230.50	883.8	-8.7	-9.6	11.4	0.94	0.74	13.89
	979.0	3.30	241.20	978.7	-11.5	-13.8	16.1	0.80	0.53	11.26
	1,073.0	5.50	248.60	1,072.4	-14.5	-20.4	23.2	2.41	2.34	7.87
	1,168.0	7.70	252.60	1,166.8	-18.0	-30.7	34.0	2.36	2.32	4.21
	1,263.0	9.80	262.80	1,260.7	-20.9	-44.8	48.4	2.74	2.21	10.74

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Andrews 26-14
<b>Project:</b>	SEC.26-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Site:</b>	Andrews 26-23 Pad Sec.26-T7N-R65W	<b>MD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Well:</b>	Andrews 26-14	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey										
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)	
1,357.0	11.50	262.30	1,353.0	-23.2	-62.0	65.7	1.81	1.81	-0.53	
1,452.0	12.50	256.50	1,446.0	-26.9	-81.4	85.4	1.65	1.05	-6.11	
1,547.0	13.30	255.60	1,538.6	-32.0	-102.0	106.6	0.87	0.84	-0.95	
1,642.0	13.20	254.90	1,631.0	-37.5	-123.0	128.4	0.20	-0.11	-0.74	
1,737.0	13.00	257.20	1,723.6	-42.7	-143.9	149.9	0.59	-0.21	2.42	
1,833.0	13.40	256.80	1,817.0	-47.6	-165.3	171.8	0.43	0.42	-0.42	
1,929.0	13.50	254.40	1,910.4	-53.2	-186.9	194.1	0.59	0.10	-2.50	
2,025.0	12.10	252.60	2,004.0	-59.2	-207.3	215.4	1.52	-1.46	-1.88	
2,121.0	12.40	256.30	2,097.8	-64.7	-226.9	235.7	0.88	0.31	3.85	
2,216.0	12.60	259.50	2,190.6	-69.0	-247.0	256.3	0.76	0.21	3.37	
2,311.0	11.70	256.10	2,283.5	-73.2	-266.6	276.3	1.21	-0.95	-3.58	
2,406.0	11.80	257.20	2,376.5	-77.6	-285.4	295.6	0.26	0.11	1.16	
2,500.0	12.30	256.80	2,468.4	-82.1	-304.5	315.2	0.54	0.53	-0.43	
2,595.0	12.00	257.40	2,561.3	-86.5	-324.0	335.2	0.34	-0.32	0.63	
2,690.0	11.90	256.10	2,654.2	-91.0	-343.1	354.9	0.30	-0.11	-1.37	
2,784.0	12.90	257.40	2,746.0	-95.7	-362.8	375.1	1.10	1.06	1.38	
2,879.0	12.30	255.60	2,838.7	-100.5	-382.9	395.8	0.75	-0.63	-1.89	
2,974.0	13.10	256.30	2,931.4	-105.5	-403.2	416.7	0.86	0.84	0.74	
3,068.0	13.40	259.10	3,022.9	-110.1	-424.2	438.2	0.75	0.32	2.98	
3,163.0	12.90	256.10	3,115.4	-114.8	-445.3	459.8	0.89	-0.53	-3.16	
3,258.0	12.20	254.00	3,208.1	-120.1	-465.3	480.4	0.88	-0.74	-2.21	
3,354.0	13.60	253.20	3,301.7	-126.1	-485.8	501.8	1.47	1.46	-0.83	
3,448.0	12.40	253.30	3,393.3	-132.2	-506.1	523.0	1.28	-1.28	0.11	
3,543.0	11.30	255.60	3,486.3	-137.5	-524.9	542.4	1.26	-1.16	2.42	
3,637.0	11.70	258.80	3,578.4	-141.6	-543.2	561.2	0.80	0.43	3.40	
3,732.0	10.60	255.10	3,671.6	-145.7	-561.0	579.5	1.38	-1.16	-3.89	
3,827.0	12.20	262.30	3,764.7	-149.3	-579.4	598.3	2.25	1.68	7.58	
3,921.0	11.90	262.80	3,856.7	-151.9	-598.9	617.8	0.34	-0.32	0.53	
4,016.0	12.90	265.30	3,949.4	-154.0	-619.2	638.0	1.19	1.05	2.63	
4,111.0	12.80	259.30	4,042.1	-156.8	-640.1	659.0	1.41	-0.11	-6.32	
4,205.0	13.10	258.20	4,133.7	-160.9	-660.8	680.0	0.41	0.32	-1.17	
4,300.0	12.30	258.40	4,226.3	-165.1	-681.2	700.9	0.84	-0.84	0.21	
4,395.0	11.30	257.70	4,319.3	-169.2	-700.2	720.3	1.06	-1.05	-0.74	
4,489.0	9.00	252.10	4,411.9	-173.4	-716.2	736.9	2.66	-2.45	-5.96	
4,584.0	8.20	250.50	4,505.8	-177.9	-729.7	751.0	0.88	-0.84	-1.68	
4,679.0	6.60	253.00	4,600.0	-181.8	-741.3	763.2	1.72	-1.68	2.63	
4,773.0	5.30	258.30	4,693.5	-184.2	-750.7	772.9	1.50	-1.38	5.64	
4,867.0	3.70	267.20	4,787.2	-185.3	-758.0	780.3	1.85	-1.70	9.47	
4,962.0	2.50	278.80	4,882.1	-185.1	-763.1	785.2	1.42	-1.26	12.21	
5,057.0	2.40	272.80	4,977.0	-184.7	-767.1	789.0	0.29	-0.11	-6.32	
5,151.0	1.90	277.80	5,070.9	-184.4	-770.6	792.4	0.57	-0.53	5.32	
5,340.0	1.50	174.60	5,259.9	-186.4	-773.5	795.6	1.42	-0.21	-54.60	
5,530.0	1.10	257.00	5,449.8	-189.3	-775.0	797.8	0.92	-0.21	43.37	
5,679.8	0.93	238.14	5,599.6	-190.3	-777.5	800.4	0.25	-0.12	-12.59	
TARGET BHL 676'FSL, 672'FWL										
5,719.0	0.90	232.20	5,638.8	-190.6	-778.0	801.0	0.25	-0.06	-15.14	
5,908.0	0.80	218.00	5,827.8	-192.6	-780.0	803.4	0.12	-0.05	-7.51	
6,098.0	0.50	253.00	6,017.8	-193.9	-781.6	805.2	0.25	-0.16	18.42	
6,288.0	0.10	255.00	6,207.8	-194.1	-782.5	806.2	0.21	-0.21	1.05	
6,477.0	0.30	308.00	6,396.8	-193.9	-783.1	806.7	0.13	0.11	28.04	
6,666.0	0.40	267.40	6,585.8	-193.6	-784.1	807.6	0.14	0.05	-21.48	
6,855.0	0.90	257.20	6,774.7	-194.0	-786.2	809.8	0.27	0.26	-5.40	
6,960.1	1.00	319.30	6,879.8	-193.5	-787.6	811.0	0.94	0.09	59.11	
TARGET CIRCLE 676'FSL & 672'FWL										

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Andrews 26-14
<b>Project:</b>	SEC.26-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Site:</b>	Andrews 26-23 Pad Sec.26-T7N-R65W	<b>MD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Well:</b>	Andrews 26-14	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey										
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)	
6,960.3	1.00	319.42	6,880.1	-193.5	-787.6	811.0	0.94	0.55	43.39	
LEGAL BOX 400' X 400' 681'FSL & 673'FWL										
7,045.0	1.60	343.00	6,964.7	-191.8	-788.5	811.4	0.94	0.71	27.85	
7,234.0	1.90	334.00	7,153.6	-186.4	-790.6	812.3	0.21	0.16	-4.76	
7,359.0	1.80	328.00	7,278.6	-182.9	-792.6	813.4	0.17	-0.08	-4.80	
7,409.0	1.80	326.00	7,328.5	-181.6	-793.4	813.9	0.13	0.00	-4.00	

Wellbore Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude		
- hit/miss target										
- Shape										
TARGET BHL 676'FS	0.00	0.00	5,600.0	-179.2	-754.9	1,440,886.62	3,239,743.25	40.540433 -104.637394		
- survey misses target center by 25.1ft at 5679.8ft MD (5599.6 TVD, -190.3 N, -777.5 E)										
- Point										
TARGET CIRCLE 676'FS	0.00	0.00	6,880.0	-179.2	-754.9	1,440,886.62	3,239,743.25	40.540433 -104.637394		
- survey misses target center by 35.7ft at 6959.9ft MD (6879.6 TVD, -193.5 N, -787.6 E)										
- Circle (radius 100.0)										
LEGAL BOX 400' X 400'	0.00	0.00	6,880.0	-174.2	-753.9	1,440,891.66	3,239,744.19	40.540447 -104.637390		
- survey misses target center by 38.8ft at 6959.9ft MD (6879.6 TVD, -193.5 N, -787.6 E)										
- Rectangle (sides W400.0 H400.0 D469.0)										

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_