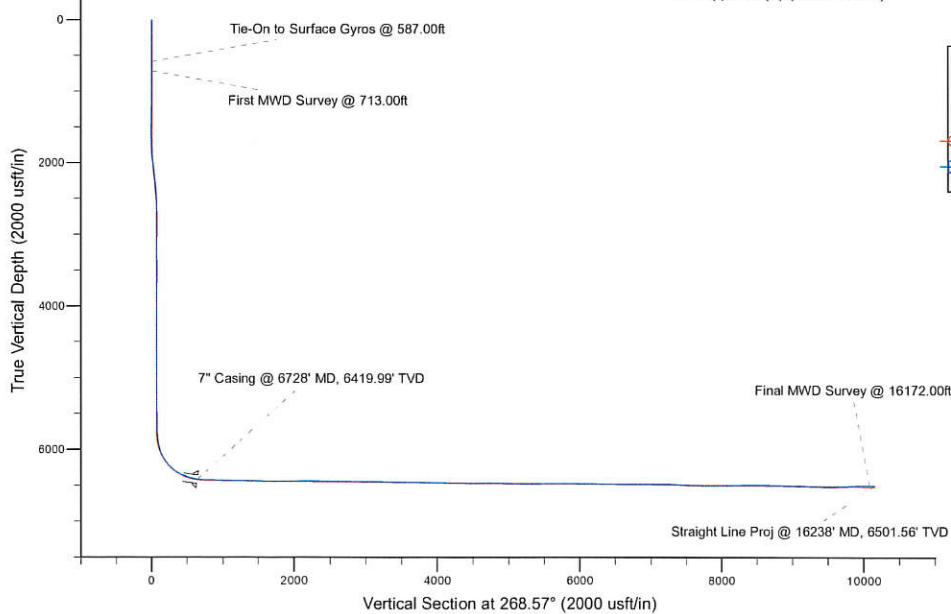
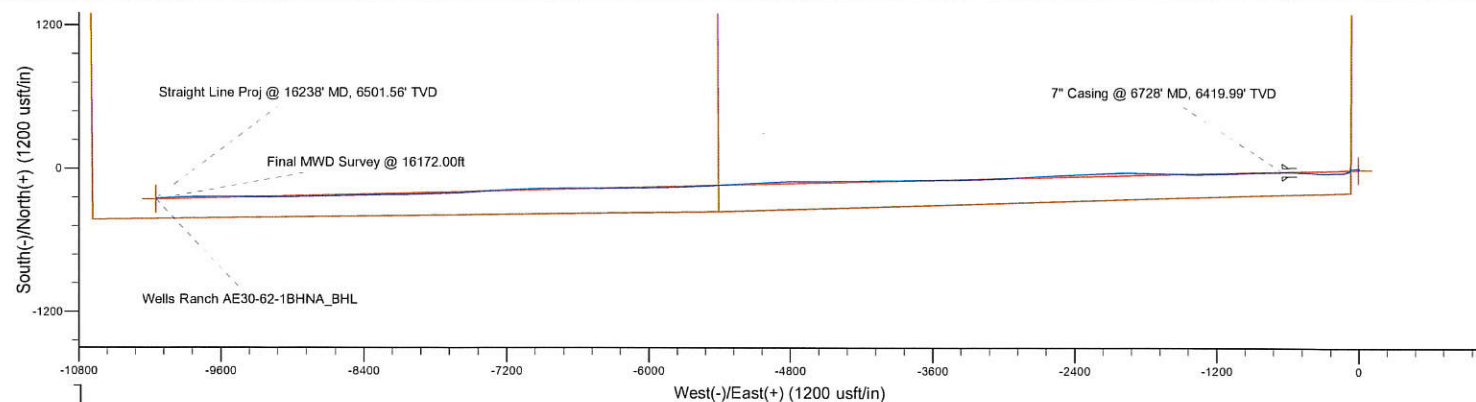


Project: Weld County, CO (NAD 83)  
Site: Sec. 29-T6N-R62W (Wells Ranch AE32-30-A Pad)  
Well: Wells Ranch State AE30-62-1BHNA  
Wellbore: Plan B  
Design: Final Surveys

## Noble Energy

**HALLIBURTON**  
Sperdy Drilling



### LEGEND

- Wells Ranch State AE30-62-1BHNA, Plan B, Rev B0 - PROPOSAL VD
- Final Surveys

Platted SHL: 192' FSL, 65' FWL  
Platted Lat/Long: 40.45094 N, 104.35628 W  
Location: Sec. 29-T6N-R62W

7" Casing: ~189.68' FSL, ~578.07' FEL  
Lat/Long: 40.450903 N, 104.358236 W  
State Planes - CO Northern: 1,409,148.63' N, 3,317,645.47' E  
Location: Sec. 30-T6N-R62W

BHL: ~168.79' FSL, ~534.41' FWL  
Lat/Long: 40.450614 N, 104.392748 W  
State Planes - CO Northern: 1,408,922.68' N, 3,308,143.05' E  
Location: Sec. 25-T6N-R63W

WELL DETAILS: Wells Ranch State AE30-62-1BHNA

Ground Level: 4745.00  
RKB=24 @ 4759.00usft (H&P 343)

Created By: Fred Hartmann  
Created On: 04/28/2014

# Noble Energy

Weld County, CO (NAD 83)

Sec. 29-T6N-R62W (Wells Ranch AE32-30-A Pad)

Wells Ranch State AE30-62-1BHNA

Design: Final Surveys

## Sperry Drilling Services

### Final Survey Report

28 April, 2014

Well Coordinates: 1,409,170.44 N, 3,318,289.69 E (40° 27' 03.38" N, 104° 21' 22.61" W)

Ground Level: 4,745.00 usft

Local Coordinate Origin:

Centered on Well Wells Ranch State AE30-62-1BHNA

Viewing Datum:

RKB=24 @ 4769.00usft (H&P 343)

TVDs to System:

N

North Reference:

Grid

Unit System:

Dec-Deg - API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 5000.1 Build: 70

**HALLIBURTON**

## Design Report for Wells Ranch State AE30-62-1BHNA - Final Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
345.00	0.10	135.57	345.00	-0.21	0.21	-0.21	0.03
587.00	0.20	183.57	587.00	-0.79	0.33	-0.31	0.06
<b>Tie-On to Surface Gyros @ 587.00ft</b>							
713.00	0.21	2.02	713.00	-0.78	0.33	-0.31	0.33
<b>First MWD Survey @ 713.00ft</b>							
898.00	0.68	20.53	897.99	0.59	0.72	-0.74	0.26
1,083.00	0.55	41.14	1,082.98	2.29	1.69	-1.75	0.14
1,177.00	0.81	45.01	1,176.98	3.10	2.46	-2.54	0.28
1,270.00	0.87	37.02	1,269.97	4.13	3.35	-3.45	0.14
1,363.00	0.77	27.28	1,362.96	5.24	4.06	-4.19	0.18
1,457.00	0.83	46.68	1,456.95	6.27	4.85	-5.00	0.29
1,548.00	1.03	38.55	1,547.94	7.36	5.84	-6.02	0.26
1,641.00	0.79	39.97	1,640.92	8.51	6.77	-6.98	0.26
1,735.00	1.64	268.04	1,734.91	8.96	5.84	-6.06	2.39
1,830.00	3.99	274.11	1,829.79	9.15	1.18	-1.41	2.49
1,925.00	5.92	267.42	1,924.43	9.17	-7.01	6.78	2.12
2,020.00	6.68	265.18	2,018.86	8.48	-17.41	17.19	0.84
2,115.00	7.60	265.21	2,113.12	7.49	-29.17	28.98	0.97
2,210.00	6.96	265.26	2,207.35	6.49	-41.17	41.00	0.67
2,305.00	6.13	265.77	2,301.73	5.64	-51.97	51.81	0.88
2,400.00	5.22	266.11	2,396.27	4.98	-61.34	61.19	0.96
2,495.00	2.35	296.19	2,491.06	5.54	-67.40	67.24	3.58
2,590.00	1.53	322.05	2,586.00	7.40	-69.92	69.72	1.24
2,780.00	1.65	314.15	2,775.93	11.31	-73.45	73.14	0.13
2,875.00	0.51	18.68	2,870.92	12.66	-74.29	73.96	1.58
2,969.00	0.50	30.05	2,964.91	13.41	-73.95	73.60	0.11
3,064.00	0.22	32.73	3,059.91	13.93	-73.65	73.28	0.30
3,254.00	0.46	47.38	3,249.91	14.75	-72.89	72.50	0.13
3,349.00	0.43	256.72	3,344.91	14.92	-72.96	72.56	0.91
3,443.00	0.23	225.37	3,438.90	14.71	-73.43	73.04	0.28
3,538.00	1.12	152.61	3,533.90	13.75	-73.14	72.78	1.13
3,633.00	1.08	169.47	3,628.88	12.05	-72.55	72.23	0.34
3,728.00	1.20	150.30	3,723.86	10.30	-71.89	71.62	0.42
3,822.00	1.42	141.46	3,817.84	8.54	-70.68	70.45	0.32
3,917.00	1.35	144.06	3,912.81	6.71	-69.29	69.10	0.10
4,107.00	1.14	157.66	4,102.76	3.15	-67.26	67.16	0.19
4,202.00	1.21	166.24	4,197.74	1.30	-66.66	66.61	0.20
4,297.00	1.05	176.99	4,292.73	-0.54	-66.38	66.37	0.28
4,391.00	0.61	186.55	4,386.72	-1.90	-66.39	66.42	0.49
4,486.00	0.50	186.65	4,481.71	-2.81	-66.49	66.54	0.12
4,581.00	0.14	223.70	4,576.71	-3.31	-66.62	66.68	0.42
4,675.00	0.46	185.88	4,670.71	-3.77	-66.74	66.81	0.38
4,865.00	0.31	275.91	4,860.71	-4.47	-67.33	67.42	0.29
4,959.00	0.68	273.88	4,954.70	-4.41	-68.14	68.23	0.39
5,054.00	0.50	247.18	5,049.70	-4.53	-69.08	69.18	0.34
5,149.00	0.25	236.32	5,144.69	-4.81	-69.64	69.74	0.27
5,339.00	0.63	260.97	5,334.69	-5.20	-71.02	71.12	0.22
5,433.00	0.33	270.56	5,428.69	-5.28	-71.80	71.91	0.33
5,528.00	0.63	192.98	5,523.68	-5.79	-72.19	72.31	0.68

## Design Report for Wells Ranch State AE30-62-1BHNA - Final Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
5,623.00	0.61	184.15	5,618.68	-6.80	-72.34	72.49	0.10
5,672.00	0.54	164.48	5,667.68	-7.28	-72.30	72.46	0.42
5,722.00	0.81	186.55	5,717.67	-7.86	-72.28	72.45	0.74
5,816.00	6.58	239.61	5,811.45	-11.25	-77.00	77.26	6.52
5,913.00	11.31	245.00	5,907.24	-18.08	-90.42	90.85	4.95
6,006.00	14.20	254.99	5,997.95	-24.89	-109.71	110.30	3.90
6,054.00	22.03	260.89	6,043.54	-27.85	-124.31	124.97	16.73
6,101.00	28.88	266.93	6,085.96	-29.85	-144.38	145.07	15.57
6,149.00	31.11	272.22	6,127.53	-29.99	-168.35	169.04	7.20
6,195.00	34.47	271.96	6,166.20	-29.09	-193.24	193.91	7.31
6,243.00	38.17	268.65	6,204.87	-28.97	-221.66	222.31	8.72
6,290.00	43.66	266.85	6,240.37	-30.21	-252.40	253.07	11.95
6,385.00	57.06	269.92	6,300.85	-32.07	-325.35	326.05	14.32
6,480.00	66.19	275.69	6,345.98	-27.81	-408.69	409.25	10.99
6,575.00	69.36	272.18	6,381.92	-21.81	-496.40	496.79	4.78
6,669.00	76.89	269.14	6,409.19	-20.82	-586.27	586.60	8.59
6,728.00	82.01	268.90	6,419.99	-21.81	-644.24	644.58	8.69
7" Casing @ 6728' MD, 6419.99' TVD							
6,804.00	88.61	268.61	6,426.20	-23.45	-719.93	720.29	8.69
6,850.00	89.45	268.35	6,426.98	-24.67	-765.90	766.28	1.91
6,944.00	89.72	268.37	6,427.66	-27.36	-859.86	860.28	0.29
7,039.00	89.44	268.00	6,428.35	-30.37	-954.81	955.27	0.49
7,134.00	88.24	268.07	6,430.28	-33.63	-1,049.74	1,050.25	1.27
7,229.00	89.20	268.02	6,432.40	-36.87	-1,144.65	1,145.22	1.01
7,323.00	87.41	268.97	6,435.18	-39.34	-1,238.58	1,239.17	2.16
7,418.00	87.81	269.27	6,439.14	-40.79	-1,333.48	1,334.08	0.53
7,513.00	88.18	270.52	6,442.47	-40.97	-1,428.42	1,429.00	1.37
7,608.00	88.98	270.46	6,444.82	-40.16	-1,523.39	1,523.92	0.84
7,703.00	90.55	271.61	6,445.21	-38.44	-1,618.37	1,618.82	2.05
7,798.00	90.22	272.61	6,444.57	-34.94	-1,713.30	1,713.64	1.11
7,893.00	90.77	272.31	6,443.75	-30.86	-1,808.21	1,808.42	0.66
7,987.00	89.66	270.11	6,443.40	-28.88	-1,902.18	1,902.31	2.62
8,082.00	89.97	267.98	6,443.70	-30.46	-1,997.16	1,997.30	2.27
8,177.00	90.43	267.99	6,443.37	-33.80	-2,092.10	2,092.29	0.48
8,271.00	90.15	267.84	6,442.90	-37.22	-2,186.04	2,186.29	0.34
8,365.00	89.78	268.15	6,442.95	-40.51	-2,279.98	2,280.28	0.51
8,460.00	89.08	267.09	6,443.90	-44.46	-2,374.89	2,375.26	1.34
8,555.00	89.88	266.92	6,444.76	-49.42	-2,469.76	2,470.22	0.86
8,650.00	89.20	267.20	6,445.52	-54.29	-2,564.63	2,565.18	0.77
8,745.00	90.31	266.89	6,445.93	-59.19	-2,659.50	2,660.15	1.21
8,839.00	89.72	266.55	6,445.91	-64.57	-2,753.34	2,754.10	0.72
8,934.00	89.57	267.36	6,446.49	-69.61	-2,848.21	2,849.06	0.87
9,029.00	88.46	266.66	6,448.13	-74.57	-2,943.06	2,944.01	1.38
9,124.00	88.83	266.61	6,450.37	-80.14	-3,037.87	3,038.92	0.39
9,219.00	89.63	267.89	6,451.65	-84.70	-3,132.75	3,133.89	1.59
9,314.00	89.88	268.66	6,452.06	-87.56	-3,227.71	3,228.89	0.85
9,408.00	89.72	269.26	6,452.39	-89.27	-3,321.69	3,322.88	0.66
9,503.00	89.11	269.17	6,453.36	-90.57	-3,416.68	3,417.87	0.65
9,597.00	88.49	269.35	6,455.32	-91.78	-3,510.65	3,511.84	0.69
9,692.00	89.14	269.47	6,457.29	-92.76	-3,605.62	3,606.81	0.70
9,786.00	89.11	268.89	6,458.72	-94.10	-3,699.60	3,700.80	0.62



## Design Report for Wells Ranch State AE30-62-1BHNA - Final Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
9,880.00	89.48	269.58	6,459.88	-95.36	-3,793.58	3,794.78	0.83
9,975.00	88.98	269.58	6,461.16	-96.06	-3,888.57	3,889.76	0.53
10,069.00	89.57	269.61	6,462.35	-96.72	-3,982.56	3,983.73	0.63
10,164.00	87.87	268.50	6,464.47	-98.29	-4,077.52	4,078.70	2.14
10,258.00	87.90	268.96	6,467.94	-100.37	-4,171.43	4,172.64	0.49
10,353.00	89.88	268.94	6,469.78	-102.11	-4,266.39	4,267.61	2.08
10,450.00	90.49	268.58	6,469.46	-104.21	-4,363.37	4,364.61	0.73
10,545.00	89.97	270.00	6,469.08	-105.38	-4,458.36	4,459.60	1.59
10,638.00	88.86	269.35	6,470.03	-105.91	-4,551.35	4,552.58	1.38
10,730.00	90.37	271.01	6,470.65	-105.62	-4,643.34	4,644.53	2.44
10,821.00	90.52	269.59	6,469.94	-105.15	-4,734.34	4,735.49	1.57
10,914.00	87.93	267.47	6,471.20	-107.53	-4,827.28	4,828.46	3.60
11,007.00	88.46	267.50	6,474.13	-111.61	-4,920.15	4,921.40	0.57
11,099.00	89.14	267.06	6,476.06	-115.98	-5,012.02	5,013.36	0.88
11,192.00	89.69	267.11	6,477.01	-120.70	-5,104.90	5,106.32	0.59
11,284.00	89.41	266.35	6,477.73	-125.95	-5,196.74	5,198.27	0.88
11,377.00	90.18	267.33	6,478.06	-131.08	-5,289.60	5,291.22	1.34
11,469.00	90.37	266.86	6,477.62	-135.74	-5,381.48	5,383.19	0.55
11,561.00	89.69	267.31	6,477.57	-140.42	-5,473.36	5,475.16	0.89
11,654.00	90.49	269.67	6,477.43	-142.87	-5,566.32	5,568.15	2.68
11,747.00	88.83	265.12	6,477.98	-147.10	-5,659.20	5,661.10	5.21
11,840.00	89.48	267.77	6,479.35	-152.86	-5,752.00	5,754.02	2.93
11,933.00	90.71	269.46	6,479.20	-155.11	-5,844.97	5,847.02	2.25
12,027.00	91.11	269.86	6,477.70	-155.67	-5,938.95	5,940.99	0.60
12,120.00	88.92	267.52	6,477.68	-157.79	-6,031.92	6,033.97	3.45
12,215.00	89.69	270.36	6,478.83	-159.55	-6,126.88	6,128.95	3.10
12,310.00	89.45	269.51	6,479.55	-159.66	-6,221.88	6,223.92	0.93
12,405.00	90.25	268.48	6,479.79	-161.32	-6,316.86	6,318.92	1.37
12,500.00	89.35	270.62	6,480.13	-162.07	-6,411.85	6,413.90	2.44
12,595.00	89.60	270.51	6,481.00	-161.13	-6,506.84	6,508.84	0.29
12,690.00	89.69	269.38	6,481.58	-161.22	-6,601.84	6,603.81	1.19
12,785.00	89.82	270.16	6,481.99	-161.60	-6,696.84	6,698.78	0.83
12,880.00	90.28	269.25	6,481.91	-162.09	-6,791.83	6,793.76	1.07
12,974.00	90.43	268.54	6,481.33	-163.91	-6,885.81	6,887.76	0.77
13,069.00	90.09	267.83	6,480.89	-166.92	-6,980.76	6,982.76	0.83
13,164.00	89.48	267.18	6,481.25	-171.05	-7,075.67	7,077.74	0.94
13,259.00	89.20	267.62	6,482.35	-175.36	-7,170.57	7,172.71	0.55
13,354.00	87.72	266.23	6,484.90	-180.45	-7,265.39	7,267.63	2.14
13,449.00	87.66	266.37	6,488.73	-186.58	-7,360.12	7,362.48	0.16
13,544.00	86.70	266.74	6,493.40	-192.28	-7,454.83	7,457.31	1.08
13,639.00	87.68	267.68	6,498.06	-196.90	-7,549.60	7,552.16	1.43
13,734.00	88.27	267.21	6,501.42	-201.13	-7,644.45	7,647.08	0.79
13,828.00	88.89	267.31	6,503.75	-205.62	-7,738.31	7,741.03	0.67
13,923.00	90.00	267.90	6,504.67	-209.59	-7,833.22	7,836.01	1.32
14,018.00	90.65	269.34	6,504.13	-211.88	-7,928.19	7,931.01	1.66
14,113.00	91.82	269.43	6,502.08	-212.90	-8,023.16	8,025.97	1.24
14,207.00	91.14	269.61	6,499.65	-213.69	-8,117.12	8,119.93	0.75
14,302.00	90.68	269.06	6,498.14	-214.79	-8,212.10	8,214.91	0.75
14,397.00	90.03	268.50	6,497.55	-216.81	-8,307.08	8,309.90	0.90
14,492.00	90.96	268.36	6,496.73	-219.42	-8,402.04	8,404.90	0.99
14,587.00	89.78	269.11	6,496.12	-221.51	-8,497.01	8,499.89	1.47

## Design Report for Wells Ranch State AE30-62-1BHNA - Final Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
14,682.00	89.45	268.62	6,496.76	-223.39	-8,591.99	8,594.89	0.62
14,777.00	89.94	268.28	6,497.26	-225.96	-8,686.95	8,689.89	0.63
14,872.00	89.14	268.64	6,498.03	-228.52	-8,781.92	8,784.88	0.92
14,966.00	87.72	268.69	6,500.60	-230.71	-8,875.85	8,878.85	1.51
15,061.00	87.81	268.00	6,504.31	-233.45	-8,970.74	8,973.77	0.73
15,156.00	87.66	270.14	6,508.06	-234.99	-9,065.65	9,068.69	2.26
15,251.00	88.03	269.53	6,511.63	-235.26	-9,160.58	9,163.60	0.75
15,346.00	88.58	269.59	6,514.44	-235.99	-9,255.54	9,258.54	0.58
15,441.00	88.71	269.29	6,516.69	-236.92	-9,350.50	9,353.50	0.34
15,536.00	90.52	271.84	6,517.33	-235.98	-9,445.49	9,448.43	3.29
15,630.00	90.43	269.72	6,516.55	-234.70	-9,539.47	9,542.36	2.26
15,725.00	91.30	270.01	6,515.12	-234.93	-9,634.46	9,637.32	0.97
15,820.00	91.60	269.57	6,512.71	-235.27	-9,729.43	9,732.27	0.56
15,915.00	92.41	269.53	6,509.39	-236.02	-9,824.36	9,827.19	0.85
16,010.00	92.01	268.13	6,505.72	-237.96	-9,919.27	9,922.12	1.53
16,105.00	90.40	267.24	6,503.73	-241.80	-10,014.17	10,017.08	1.94
16,172.00	91.11	267.49	6,502.84	-244.88	-10,081.09	10,084.06	1.12
Final MWD Survey @ 16172.00ft							
16,238.00	91.11	267.49	6,501.56	-247.77	-10,147.01	10,150.04	0.00
Straight Line Proj @ 16238' MD, 6501.56' TVD							

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
587.00	587.00	-0.79	0.33	Tie-On to Surface Gyros @ 587.00ft
713.00	713.00	-0.78	0.33	First MWD Survey @ 713.00ft
16,172.00	6,502.84	-244.88	-10,081.09	Final MWD Survey @ 16172.00ft
16,238.00	6,501.56	-247.77	-10,147.01	Straight Line Proj @ 16238' MD, 6501.56' TVD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/-S (usft)	+E/-W (usft)	
Target	Wells Ranch AE30-62-1BHNA_BHL	268.57	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
345.00	587.00	Surface Gyros	Flexi-Shot
713.00	6,669.00	MWD Surveys - Intermediate	MWD+IFR1+MS_WY
6,804.00	16,172.00	MWD Surveys - Production	MWD+IFR1+MS_WY

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
6,728.00	6,419.99	7" Casing @ 6728' MD, 6419.99' TVD	7	8-3/4

## Design Report for Wells Ranch State AE30-62-1BHNA - Final Surveys

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
Wells Ranch AE30-62- - actual wellpath hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	1,409,170.44	3,318,289.69	40.450940	-104.356280
Point 1				0.00	4,891.92	-10,726.71	1,414,062.18	3,307,563.38	
Point 2				0.00	-423.28	-10,679.92	1,408,747.18	3,307,610.16	
Point 3				0.00	-356.96	-5,406.28	1,408,813.49	3,312,883.61	
Point 4				0.00	-193.97	-67.08	1,408,976.48	3,318,222.61	
Point 5				0.00	5,107.64	-38.05	1,414,277.89	3,318,251.64	
Point 6				0.00	4,947.52	-5,434.58	1,414,117.78	3,312,855.31	
Point 7				0.00	-356.96	-5,406.28	1,408,813.49	3,312,883.61	
Point 8				0.00	4,947.52	-5,434.58	1,414,117.78	3,312,855.31	
Point 9				0.00	4,891.92	-10,726.71	1,414,062.18	3,307,563.38	
Wells Ranch AE30-62- - actual wellpath hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	1,409,170.44	3,318,289.69	40.450940	-104.356280
Point 1				0.00	4,431.90	-10,266.69	1,413,602.18	3,308,023.38	
Point 2				0.00	36.74	-10,219.91	1,409,207.18	3,308,070.16	
Point 3				0.00	103.05	-5,406.28	1,409,273.49	3,312,883.61	
Point 4				0.00	266.05	-527.10	1,409,436.48	3,317,762.61	
Point 5				0.00	4,647.62	-498.07	1,413,817.89	3,317,791.64	
Point 6				0.00	4,487.51	-5,434.58	1,413,657.78	3,312,855.31	
Point 7				0.00	4,431.90	-10,266.69	1,413,602.18	3,308,023.38	
Wells Ranch AE30-62- - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,409,170.44	3,318,289.69	40.450940	-104.356280
Wells Ranch AE30-62- - actual wellpath misses target center by 12.99usft at 16238.00usft MD (6501.56 TVD, -247.77 N, -10147.01 E) - Point	0.00	0.00	6,513.58	-252.67	-10,147.65	1,408,917.77	3,308,142.41	40.450600	-104.392750

Directional Difficulty Index

Average Dogleg over Survey:	1.48 °/100usft	Maximum Dogleg over Survey:	16.73 °/100usft at 6,054.00 usft
Net Tortousity applicable to Plans:	0.86 °/100usft	Directional Difficulty Index:	6.787

Audit Info



## North Reference Sheet for Sec. 29-T6N-R62W (Wells Ranch AE32-30-A Pad) - Wells Ranch State AE30-62-1BHNA

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

Vertical Depths are relative to RKB=24 @ 4769.00usft (H&P 343). Northing and Easting are relative to Wells Ranch State AE30-62-1BHNA

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 -105.500000°, Longitude Origin:0.000000°, Latitude Origin:40.783333°

False Easting: 3,000,000.00usft, False Northing: 1,000,000.00usft, Scale Reduction: 0.99996293

Grid Coordinates of Well: 1,409,170.44 usft N, 3,318,289.69 usft E

Geographical Coordinates of Well: 40° 27' 03.38" N, 104° 21' 22.61" W

Grid Convergence at Surface is: 0.74°

Based upon Minimum Curvature type calculations, at a Measured Depth of 16,238.00usft  
the Bottom Hole Displacement is 10,150.04usft in the Direction of 268.60° (Grid).

Magnetic Convergence at surface is: -7.58° (19 February 2014, , BGGM2013)

