

# BONANZA CREEK ENERGY OPERATING

Well Name: **State North Platte P41-T44-26HNB**

Surface Location: State North Platte 41-26 Pad Sec.26-T5N-R63W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

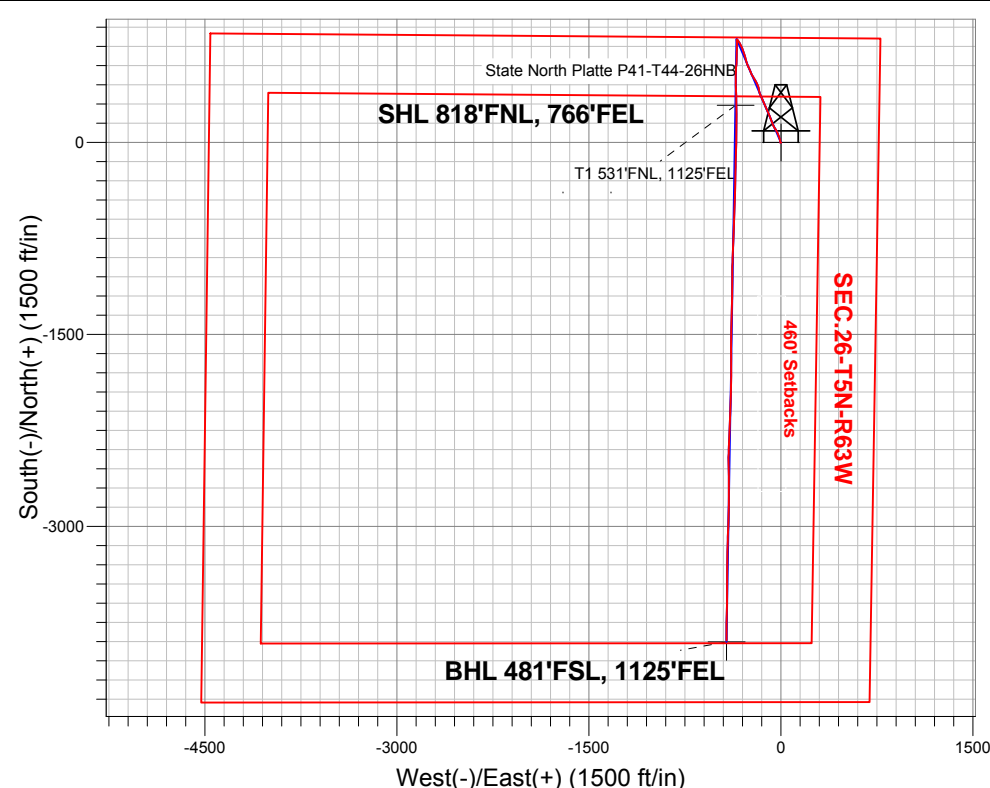
Ground Elevation: 4562.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1381428.14	3307463.10	40.375170	-104.396420	

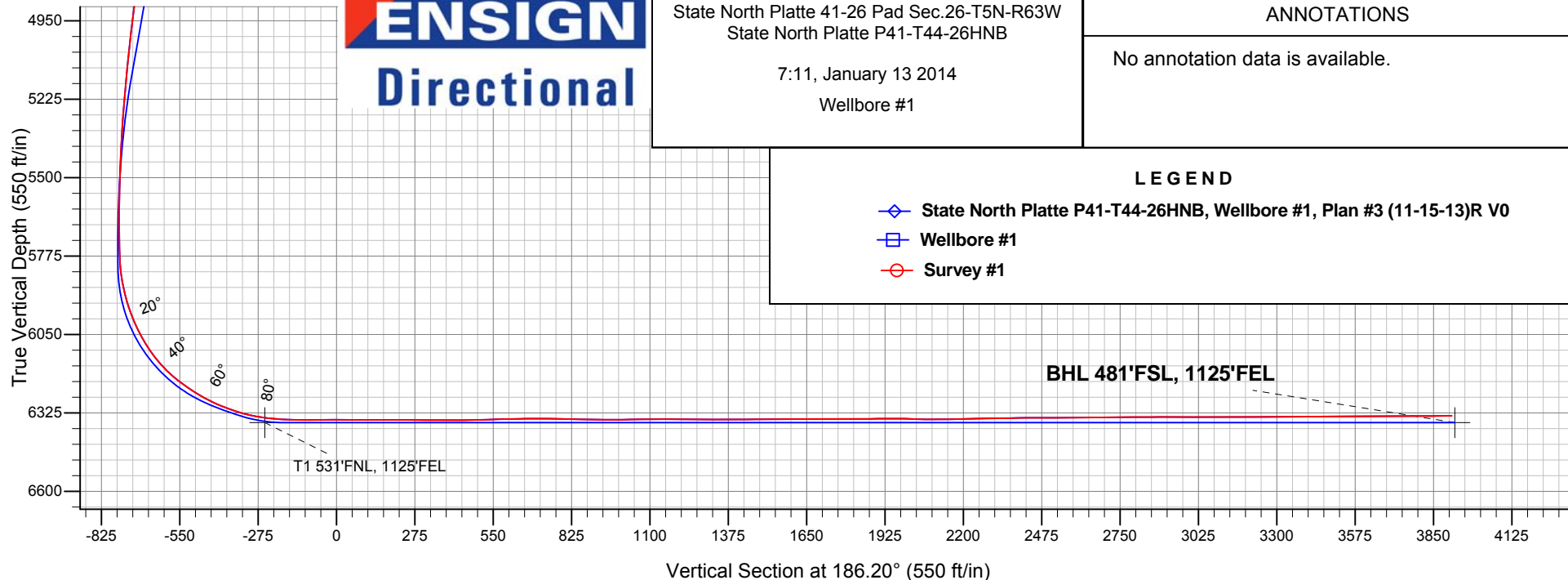
RKB - 15' WELL @ 4577.0ft (RKB - 15')

## FINAL SURVEY

Projected Bottom Hole Location  
10880'MD 6335'TVD 3891'S & 424'W of  
SHL 90.9 degree Incl @ 179.7 degree AZM



**ENSIGN**  
Directional



State North Platte 41-26 Pad Sec.26-T5N-R63W  
State North Platte P41-T44-26HNB

7:11, January 13 2014

Wellbore #1

### ANNOTATIONS

No annotation data is available.

### LEGEND

- ◆ State North Platte P41-T44-26HNB, Wellbore #1, Plan #3 (11-15-13)R V0
- Wellbore #1
- Survey #1



# **BONANZA CREEK ENERGY OPERATING**

**SEC.26-T5N-R63W**

**State North Platte 41-26 Pad Sec.26-T5N-R63W**

**State North Platte P41-T44-26HNB**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**10 January, 2014**

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well State North Platte P41-T44-26HNB
<b>Project:</b>	SEC.26-T5N-R63W	<b>TVD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Site:</b>	State North Platte 41-26 Pad Sec.26-T5N-R63W	<b>MD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Well:</b>	State North Platte P41-T44-26HNB	<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-T5N-R63W, 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	State North Platte 41-26 Pad Sec.26-T5N-R63W				
Site Position:		Northing:	1,381,410.00 ft	Latitude:	40.375120
From:	Lat/Long	Easting:	3,307,466.11 ft	Longitude:	-104.396410
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.71 °

Well	State North Platte P41-T44-26HNB					
Well Position	+N/-S	0.0 ft	Northing:	1,381,428.14 ft	Latitude:	40.375170
	+E/-W	0.0 ft	Easting:	3,307,463.10 ft	Longitude:	-104.396420
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,562.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/15/2013	8.34	67.01	52,904

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	186.20	

<b>Survey Program</b>	<b>Date</b>	1/10/2014			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
85.0	10,880.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	320.70	1.0	0.0	0.0	0.0	0.35	0.35	0.00	
<b>SHL 818'FNL, 763'FEL</b>										
85.0	0.30	320.70	85.0	0.2	-0.1	-0.2	0.35	0.35	0.00	
209.0	0.30	275.50	209.0	0.5	-0.7	-0.4	0.19	0.00	-36.45	
331.0	0.30	178.00	331.0	0.2	-1.0	-0.1	0.37	0.00	-79.92	
440.0	0.70	192.00	440.0	-0.8	-1.1	0.9	0.38	0.37	12.84	
484.0	0.50	206.80	484.0	-1.2	-1.2	1.3	0.57	-0.45	33.64	
608.0	0.50	214.40	608.0	-2.1	-1.8	2.3	0.05	0.00	6.13	
732.0	0.50	222.50	732.0	-3.0	-2.5	3.2	0.06	0.00	6.53	
857.0	2.90	349.40	856.9	-0.3	-3.4	0.6	2.58	1.92	101.52	
981.0	6.50	351.70	980.5	9.8	-5.0	-9.2	2.91	2.90	1.85	
1,105.0	8.40	344.40	1,103.4	25.4	-8.5	-24.4	1.71	1.53	-5.89	

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well State North Platte P41-T44-26HNB
<b>Project:</b>	SEC.26-T5N-R63W	<b>TVD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Site:</b>	State North Platte 41-26 Pad Sec.26-T5N-R63W	<b>MD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Well:</b>	State North Platte P41-T44-26HNB	<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)	
1,230.0	10.80	342.30	1,226.7	45.4	-14.5	-43.6	1.94	1.92	-1.68	
1,353.0	12.30	337.40	1,347.2	68.5	-23.0	-65.6	1.46	1.22	-3.98	
1,475.0	11.30	329.30	1,466.6	90.7	-34.1	-86.5	1.58	-0.82	-6.64	
1,598.0	10.10	325.10	1,587.5	109.9	-46.4	-104.3	1.16	-0.98	-3.41	
1,721.0	11.00	336.00	1,708.4	129.5	-57.4	-122.6	1.78	0.73	8.86	
1,844.0	11.70	339.00	1,829.0	151.9	-66.6	-143.8	0.74	0.57	2.44	
1,967.0	12.90	342.00	1,949.2	176.6	-75.3	-167.4	1.11	0.98	2.44	
2,089.0	12.00	333.70	2,068.3	200.9	-85.2	-190.5	1.64	-0.74	-6.80	
2,212.0	10.20	334.60	2,189.0	222.2	-95.5	-210.6	1.47	-1.46	0.73	
2,334.0	11.30	339.30	2,308.9	243.1	-104.4	-230.5	1.15	0.90	3.85	
2,457.0	13.10	339.00	2,429.1	267.4	-113.6	-253.6	1.46	1.46	-0.24	
2,579.0	12.60	335.50	2,548.0	292.4	-124.1	-277.3	0.76	-0.41	-2.87	
2,702.0	15.60	334.40	2,667.3	319.6	-136.8	-302.9	2.45	2.44	-0.89	
2,827.0	14.90	335.00	2,787.9	349.3	-150.9	-331.0	0.57	-0.56	0.48	
2,952.0	14.90	341.60	2,908.7	379.1	-162.7	-359.3	1.36	0.00	5.28	
3,077.0	11.50	347.10	3,030.4	406.5	-170.6	-385.7	2.90	-2.72	4.40	
3,202.0	10.60	349.00	3,153.1	430.0	-175.6	-408.5	0.78	-0.72	1.52	
3,327.0	9.50	334.10	3,276.2	450.5	-182.3	-428.2	2.25	-0.88	-11.92	
3,450.0	9.60	332.80	3,397.5	468.8	-191.4	-445.4	0.19	0.08	-1.06	
3,576.0	11.30	330.60	3,521.4	488.9	-202.2	-464.2	1.39	1.35	-1.75	
3,701.0	13.10	328.30	3,643.6	511.6	-215.7	-485.3	1.49	1.44	-1.84	
3,825.0	11.70	333.00	3,764.7	534.8	-228.8	-506.9	1.39	-1.13	3.79	
3,950.0	12.70	340.00	3,886.9	559.0	-239.2	-529.9	1.43	0.80	5.60	
4,075.0	11.60	332.30	4,009.1	583.0	-249.8	-552.6	1.57	-0.88	-6.16	
4,198.0	12.30	339.50	4,129.4	606.2	-260.1	-574.6	1.34	0.57	5.85	
4,324.0	12.80	343.20	4,252.4	632.2	-268.9	-599.5	0.75	0.40	2.94	
4,449.0	10.20	346.40	4,374.9	656.2	-275.5	-622.6	2.14	-2.08	2.56	
4,573.0	10.90	341.80	4,496.8	678.0	-281.7	-643.6	0.88	0.56	-3.71	
4,698.0	11.10	344.30	4,619.5	700.8	-288.7	-665.6	0.41	0.16	2.00	
4,824.0	11.20	339.50	4,743.1	723.9	-296.2	-687.7	0.74	0.08	-3.81	
4,947.0	8.60	332.70	4,864.3	743.3	-304.6	-706.1	2.31	-2.11	-5.53	
5,072.0	7.70	335.80	4,988.0	759.3	-312.3	-721.1	0.80	-0.72	2.48	
5,197.0	6.90	327.90	5,112.0	773.2	-319.8	-734.2	1.03	-0.64	-6.32	
5,322.0	6.20	326.90	5,236.2	785.3	-327.4	-745.3	0.57	-0.56	-0.80	
5,446.0	4.30	325.00	5,359.7	794.7	-333.8	-754.0	1.54	-1.53	-1.53	
5,568.0	3.10	320.70	5,481.4	801.0	-338.5	-759.8	1.01	-0.98	-3.52	
5,693.0	1.10	293.40	5,606.3	804.1	-341.7	-762.5	1.75	-1.60	-21.84	
5,787.0	1.10	268.00	5,700.3	804.4	-343.5	-762.6	0.51	0.00	-27.02	
5,819.0	1.40	212.20	5,732.3	804.1	-344.0	-762.2	3.75	0.94	-174.38	
5,850.0	1.50	207.50	5,763.3	803.4	-344.4	-761.5	0.50	0.32	-15.16	
5,881.0	3.60	185.50	5,794.2	802.1	-344.6	-760.2	7.35	6.77	-70.97	
5,911.0	6.40	178.80	5,824.1	799.4	-344.7	-757.6	9.52	9.33	-22.33	
5,943.0	9.40	172.90	5,855.8	795.1	-344.3	-753.3	9.70	9.38	-18.44	
5,974.0	12.20	173.40	5,886.3	789.3	-343.6	-747.6	9.04	9.03	1.61	
6,005.0	14.90	174.80	5,916.4	782.1	-342.9	-740.5	8.77	8.71	4.52	
6,037.0	17.80	177.30	5,947.1	773.1	-342.3	-731.6	9.32	9.06	7.81	
6,068.0	20.80	179.60	5,976.4	762.8	-342.0	-721.5	9.98	9.68	7.42	
6,099.0	23.70	181.70	6,005.1	751.1	-342.2	-709.8	9.70	9.35	6.77	
6,130.0	25.90	182.70	6,033.2	738.1	-342.7	-696.8	7.22	7.10	3.23	
6,161.0	29.00	182.70	6,060.7	723.8	-343.4	-682.6	10.00	10.00	0.00	
6,191.0	32.40	181.30	6,086.5	708.5	-343.9	-667.3	11.58	11.33	-4.67	
6,223.0	35.80	181.00	6,113.0	690.6	-344.2	-649.4	10.64	10.63	-0.94	
6,254.0	39.10	181.50	6,137.6	671.8	-344.7	-630.6	10.69	10.65	1.61	
6,285.0	42.80	182.40	6,161.0	651.5	-345.4	-610.4	12.09	11.94	2.90	

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well State North Platte P41-T44-26HNB
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<b>Site:</b>	State North Platte 41-26 Pad Sec.26-T5N-R63W	<b>MD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Well:</b>	State North Platte P41-T44-26HNB	<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)
6,316.0	46.50	183.20	6,183.1	629.7	-346.4	-588.6	12.07	11.94	2.58
6,347.0	50.50	184.10	6,203.6	606.5	-347.9	-565.5	13.08	12.90	2.90
6,378.0	54.10	183.80	6,222.5	582.1	-349.6	-540.9	11.64	11.61	-0.97
6,409.0	56.40	182.50	6,240.2	556.7	-351.0	-515.5	8.18	7.42	-4.19
6,440.0	58.20	181.50	6,257.0	530.6	-351.9	-489.5	6.41	5.81	-3.23
6,472.0	61.10	180.60	6,273.1	503.0	-352.4	-462.0	9.38	9.06	-2.81
6,503.0	65.00	179.40	6,287.2	475.3	-352.4	-434.5	13.04	12.58	-3.87
6,534.0	68.80	178.30	6,299.3	446.8	-351.8	-406.3	12.68	12.26	-3.55
6,565.0	69.90	177.40	6,310.3	417.9	-350.7	-377.6	4.47	3.55	-2.90
6,597.0	72.10	177.80	6,320.7	387.6	-349.5	-347.6	6.98	6.88	1.25
6,628.0	75.60	178.30	6,329.3	357.9	-348.5	-318.2	11.40	11.29	1.61
6,659.0	79.60	178.80	6,336.0	327.6	-347.7	-288.2	13.00	12.90	1.61
6,690.0	82.90	179.70	6,340.7	297.0	-347.3	-257.8	11.03	10.65	2.90
6,697.5	83.17	179.85	6,341.6	289.5	-347.3	-250.3	4.04	3.55	1.94
<b>T1 531°FNL, 1125°FEL</b>									
6,721.0	84.00	180.30	6,344.2	266.2	-347.3	-227.1	4.04	3.55	1.93
6,739.0	84.90	180.40	6,346.0	248.3	-347.4	-209.3	5.03	5.00	0.56
6,807.0	89.60	180.10	6,349.2	180.4	-347.7	-141.8	6.93	6.91	-0.44
6,838.0	89.80	179.90	6,349.4	149.4	-347.7	-111.0	0.91	0.65	-0.65
6,869.0	90.10	179.70	6,349.4	118.4	-347.6	-80.2	1.16	0.97	-0.65
6,900.0	90.50	179.60	6,349.2	87.4	-347.4	-49.4	1.33	1.29	-0.32
6,929.0	89.90	180.60	6,349.1	58.4	-347.5	-20.5	4.02	-2.07	3.45
6,961.0	90.30	181.30	6,349.1	26.4	-348.0	11.3	2.52	1.25	2.19
6,992.0	90.20	181.30	6,349.0	-4.6	-348.7	42.2	0.32	-0.32	0.00
7,022.0	89.50	181.30	6,349.0	-34.6	-349.4	72.1	2.33	-2.33	0.00
7,053.0	90.40	181.80	6,349.1	-65.6	-350.2	103.0	3.32	2.90	1.61
7,084.0	90.40	181.80	6,348.8	-96.6	-351.2	133.9	0.00	0.00	0.00
7,115.0	89.30	181.30	6,348.9	-127.6	-352.0	164.8	3.90	-3.55	-1.61
7,146.0	90.00	181.70	6,349.1	-158.6	-352.8	195.7	2.60	2.26	1.29
7,177.0	90.80	181.80	6,348.9	-189.5	-353.8	226.6	2.60	2.58	0.32
7,209.0	89.40	181.30	6,348.8	-221.5	-354.6	258.5	4.65	-4.38	-1.56
7,240.0	88.80	181.70	6,349.3	-252.5	-355.5	289.4	2.33	-1.94	1.29
7,271.0	88.90	181.70	6,349.9	-283.5	-356.4	320.3	0.32	0.32	0.00
7,302.0	89.30	181.50	6,350.4	-314.5	-357.2	351.2	1.44	1.29	-0.65
7,334.0	89.70	181.10	6,350.7	-346.5	-358.0	383.1	1.77	1.25	-1.25
7,365.0	90.20	181.00	6,350.7	-377.5	-358.5	414.0	1.64	1.61	-0.32
7,396.0	91.00	180.80	6,350.4	-408.5	-359.0	444.8	2.66	2.58	-0.65
7,428.0	91.50	180.40	6,349.7	-440.4	-359.4	476.7	2.00	1.56	-1.25
7,459.0	91.90	181.30	6,348.8	-471.4	-359.8	507.5	3.18	1.29	2.90
7,491.0	91.80	181.10	6,347.8	-503.4	-360.5	539.4	0.70	-0.31	-0.63
7,522.0	91.50	181.50	6,346.9	-534.4	-361.2	570.2	1.61	-0.97	1.29
7,552.0	90.90	182.40	6,346.2	-564.4	-362.2	600.2	3.60	-2.00	3.00
7,583.0	90.20	182.90	6,345.9	-595.3	-363.6	631.1	2.77	-2.26	1.61
7,614.0	90.70	183.10	6,345.7	-626.3	-365.3	662.0	1.74	1.61	0.65
7,645.0	90.80	182.70	6,345.3	-657.2	-366.8	693.0	1.33	0.32	-1.29
7,676.0	90.60	182.70	6,344.9	-688.2	-368.3	723.9	0.65	-0.65	0.00
7,708.0	89.60	182.40	6,344.9	-720.2	-369.7	755.9	3.26	-3.13	-0.94
7,738.0	88.30	182.70	6,345.4	-750.1	-371.0	785.8	4.45	-4.33	1.00
7,769.0	88.40	182.70	6,346.3	-781.1	-372.5	816.7	0.32	0.32	0.00
7,800.0	88.70	182.40	6,347.1	-812.0	-373.9	847.7	1.37	0.97	-0.97
7,832.0	89.00	182.20	6,347.7	-844.0	-375.2	879.6	1.13	0.94	-0.63
7,863.0	89.30	181.80	6,348.2	-875.0	-376.3	910.5	1.61	0.97	-1.29
7,894.0	89.80	181.50	6,348.4	-906.0	-377.1	941.4	1.88	1.61	-0.97
7,925.0	90.00	181.00	6,348.5	-937.0	-377.8	972.3	1.74	0.65	-1.61

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well State North Platte P41-T44-26HNB
<b>Project:</b>	SEC.26-T5N-R63W	<b>TVD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Site:</b>	State North Platte 41-26 Pad Sec.26-T5N-R63W	<b>MD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Well:</b>	State North Platte P41-T44-26HNB	<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)
7,956.0	90.30	180.40	6,348.4	-968.0	-378.2	1,003.1	2.16	0.97	-1.94
7,987.0	90.70	180.10	6,348.1	-999.0	-378.3	1,034.0	1.61	1.29	-0.97
8,019.0	91.40	179.90	6,347.6	-1,031.0	-378.3	1,065.8	2.28	2.19	-0.63
8,050.0	90.70	179.60	6,347.0	-1,062.0	-378.2	1,096.6	2.46	-2.26	-0.97
8,081.0	89.70	180.40	6,346.9	-1,093.0	-378.2	1,127.4	4.13	-3.23	2.58
8,112.0	89.80	180.40	6,347.0	-1,124.0	-378.4	1,158.2	0.32	0.32	0.00
8,144.0	89.60	181.30	6,347.2	-1,156.0	-378.9	1,190.1	2.88	-0.63	2.81
8,174.0	89.80	181.80	6,347.3	-1,185.9	-379.7	1,220.0	1.80	0.67	1.67
8,205.0	90.10	181.50	6,347.4	-1,216.9	-380.6	1,250.9	1.37	0.97	-0.97
8,237.0	89.30	182.00	6,347.5	-1,248.9	-381.6	1,282.8	2.95	-2.50	1.56
8,268.0	89.50	181.80	6,347.9	-1,279.9	-382.6	1,313.7	0.91	0.65	-0.65
8,299.0	89.60	181.70	6,348.1	-1,310.9	-383.5	1,344.6	0.46	0.32	-0.32
8,330.0	90.00	181.50	6,348.2	-1,341.9	-384.4	1,375.5	1.44	1.29	-0.65
8,361.0	90.50	181.50	6,348.1	-1,372.9	-385.2	1,406.4	1.61	1.61	0.00
8,393.0	90.80	181.30	6,347.7	-1,404.8	-386.0	1,438.3	1.13	0.94	-0.63
8,423.0	90.30	181.10	6,347.4	-1,434.8	-386.6	1,468.2	1.80	-1.67	-0.67
8,454.0	90.60	181.30	6,347.2	-1,465.8	-387.3	1,499.1	1.16	0.97	0.65
8,485.0	90.50	180.80	6,346.9	-1,496.8	-387.9	1,529.9	1.64	-0.32	-1.61
8,517.0	90.60	180.60	6,346.6	-1,528.8	-388.2	1,561.8	0.70	0.31	-0.63
8,548.0	90.70	180.30	6,346.2	-1,559.8	-388.5	1,592.6	1.02	0.32	-0.97
8,578.0	90.20	179.40	6,346.0	-1,589.8	-388.4	1,622.4	3.43	-1.67	-3.00
8,609.0	89.90	179.00	6,346.0	-1,620.8	-388.0	1,653.2	1.61	-0.97	-1.29
8,640.0	90.00	179.70	6,346.0	-1,651.8	-387.6	1,684.0	2.28	0.32	2.26
8,672.0	89.90	180.30	6,346.0	-1,683.8	-387.6	1,715.8	1.90	-0.31	1.88
8,703.0	90.40	180.30	6,345.9	-1,714.8	-387.8	1,746.6	1.61	1.61	0.00
8,735.0	90.70	179.90	6,345.6	-1,746.8	-387.8	1,778.5	1.56	0.94	-1.25
8,766.0	90.00	180.80	6,345.4	-1,777.8	-388.0	1,809.3	3.68	-2.26	2.90
8,797.0	89.90	180.60	6,345.5	-1,808.8	-388.4	1,840.2	0.72	-0.32	-0.65
8,828.0	90.00	180.40	6,345.5	-1,839.8	-388.7	1,871.0	0.72	0.32	-0.65
8,859.0	90.40	180.30	6,345.4	-1,870.8	-388.9	1,901.8	1.33	1.29	-0.32
8,889.0	90.70	179.70	6,345.1	-1,900.8	-388.9	1,931.7	2.24	1.00	-2.00
8,921.0	89.80	180.30	6,345.0	-1,932.8	-388.9	1,963.5	3.38	-2.81	1.88
8,952.0	88.70	181.80	6,345.4	-1,963.8	-389.4	1,994.3	6.00	-3.55	4.84
8,983.0	88.60	182.40	6,346.1	-1,994.8	-390.6	2,025.3	1.96	-0.32	1.94
9,014.0	89.20	182.40	6,346.7	-2,025.7	-391.9	2,056.2	1.94	1.94	0.00
9,046.0	89.30	181.80	6,347.1	-2,057.7	-393.0	2,088.1	1.90	0.31	-1.88
9,077.0	89.70	181.70	6,347.4	-2,088.7	-394.0	2,119.0	1.33	1.29	-0.32
9,108.0	90.70	182.40	6,347.3	-2,119.7	-395.1	2,149.9	3.94	3.23	2.26
9,139.0	91.50	182.70	6,346.7	-2,150.6	-396.5	2,180.9	2.76	2.58	0.97
9,170.0	91.90	182.70	6,345.7	-2,181.6	-397.9	2,211.8	1.29	1.29	0.00
9,200.0	91.30	182.50	6,344.9	-2,211.5	-399.3	2,241.7	2.11	-2.00	-0.67
9,231.0	91.20	182.40	6,344.2	-2,242.5	-400.6	2,272.6	0.46	-0.32	-0.32
9,263.0	90.80	182.90	6,343.7	-2,274.5	-402.1	2,304.6	2.00	-1.25	1.56
9,293.0	90.80	182.50	6,343.3	-2,304.4	-403.5	2,334.5	1.33	0.00	-1.33
9,325.0	91.20	182.40	6,342.7	-2,336.4	-404.9	2,366.4	1.29	1.25	-0.31
9,356.0	90.60	182.20	6,342.2	-2,367.4	-406.1	2,397.4	2.04	-1.94	-0.65
9,387.0	90.50	181.70	6,341.9	-2,398.3	-407.2	2,428.3	1.64	-0.32	-1.61
9,418.0	90.00	181.10	6,341.8	-2,429.3	-407.9	2,459.2	2.52	-1.61	-1.94
9,449.0	90.00	180.30	6,341.8	-2,460.3	-408.3	2,490.0	2.58	0.00	-2.58
9,480.0	90.50	179.90	6,341.6	-2,491.3	-408.4	2,520.9	2.07	1.61	-1.29
9,512.0	90.70	179.60	6,341.3	-2,523.3	-408.2	2,552.6	1.13	0.63	-0.94
9,543.0	90.00	179.20	6,341.1	-2,554.3	-407.9	2,583.4	2.60	-2.26	-1.29
9,574.0	90.00	179.20	6,341.1	-2,585.3	-407.5	2,614.2	0.00	0.00	0.00
9,605.0	90.40	178.80	6,341.0	-2,616.3	-406.9	2,645.0	1.82	1.29	-1.29

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well State North Platte P41-T44-26HNB
<b>Project:</b>	SEC.26-T5N-R63W	<b>TVD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Site:</b>	State North Platte 41-26 Pad Sec.26-T5N-R63W	<b>MD Reference:</b>	WELL @ 4577.0ft (RKB - 15')
<b>Well:</b>	State North Platte P41-T44-26HNB	<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)
9,636.0	90.80	178.80	6,340.7	-2,647.3	-406.3	2,675.7	1.29	1.29	0.00
9,668.0	90.70	179.60	6,340.3	-2,679.3	-405.8	2,707.5	2.52	-0.31	2.50
9,699.0	90.80	179.70	6,339.9	-2,710.3	-405.6	2,738.2	0.46	0.32	0.32
9,730.0	90.10	179.90	6,339.6	-2,741.3	-405.5	2,769.1	2.35	-2.26	0.65
9,760.0	89.60	180.80	6,339.7	-2,771.3	-405.7	2,798.9	3.43	-1.67	3.00
9,791.0	90.00	181.00	6,339.8	-2,802.3	-406.2	2,829.8	1.44	1.29	0.65
9,823.0	90.50	180.80	6,339.7	-2,834.3	-406.7	2,861.6	1.68	1.56	-0.63
9,853.0	91.10	180.60	6,339.2	-2,864.3	-407.1	2,891.5	2.11	2.00	-0.67
9,884.0	90.80	181.10	6,338.7	-2,895.3	-407.5	2,922.3	1.88	-0.97	1.61
9,915.0	90.00	182.20	6,338.5	-2,926.3	-408.4	2,953.2	4.39	-2.58	3.55
9,947.0	89.90	182.20	6,338.5	-2,958.2	-409.7	2,985.2	0.31	-0.31	0.00
9,978.0	89.30	182.40	6,338.8	-2,989.2	-410.9	3,016.1	2.04	-1.94	0.65
10,010.0	89.30	182.40	6,339.2	-3,021.2	-412.2	3,048.0	0.00	0.00	0.00
10,041.0	89.50	182.20	6,339.5	-3,052.2	-413.5	3,079.0	0.91	0.65	-0.65
10,070.0	89.90	182.00	6,339.6	-3,081.1	-414.5	3,107.9	1.54	1.38	-0.69
10,101.0	90.30	181.50	6,339.6	-3,112.1	-415.5	3,138.8	2.07	1.29	-1.61
10,132.0	90.10	181.10	6,339.5	-3,143.1	-416.2	3,169.7	1.44	-0.65	-1.29
10,164.0	90.10	181.00	6,339.4	-3,175.1	-416.8	3,201.5	0.31	0.00	-0.31
10,194.0	90.30	180.60	6,339.3	-3,205.1	-417.2	3,231.4	1.49	0.67	-1.33
10,224.0	90.00	180.80	6,339.2	-3,235.1	-417.6	3,261.3	1.20	-1.00	0.67
10,255.0	90.30	181.00	6,339.1	-3,266.1	-418.1	3,292.1	1.16	0.97	0.65
10,287.0	90.90	181.00	6,338.8	-3,298.1	-418.6	3,324.0	1.88	1.88	0.00
10,318.0	91.30	180.80	6,338.2	-3,329.1	-419.1	3,354.9	1.44	1.29	-0.65
10,349.0	90.70	179.90	6,337.7	-3,360.1	-419.3	3,385.7	3.49	-1.94	-2.90
10,379.0	90.00	179.90	6,337.5	-3,390.1	-419.2	3,415.5	2.33	-2.33	0.00
10,410.0	90.00	180.40	6,337.5	-3,421.1	-419.3	3,446.3	1.61	0.00	1.61
10,442.0	90.00	180.40	6,337.5	-3,453.1	-419.5	3,478.2	0.00	0.00	0.00
10,473.0	90.30	180.40	6,337.4	-3,484.1	-419.8	3,509.0	0.97	0.97	0.00
10,503.0	90.70	180.40	6,337.1	-3,514.1	-420.0	3,538.9	1.33	1.33	0.00
10,534.0	90.70	180.30	6,336.8	-3,545.1	-420.2	3,569.7	0.32	0.00	-0.32
10,566.0	90.20	181.30	6,336.5	-3,577.1	-420.6	3,601.6	3.49	-1.56	3.13
10,595.0	90.10	181.70	6,336.4	-3,606.1	-421.4	3,630.5	1.42	-0.34	1.38
10,627.0	89.90	181.30	6,336.4	-3,638.0	-422.2	3,662.4	1.40	-0.63	-1.25
10,658.0	89.80	181.00	6,336.5	-3,669.0	-422.8	3,693.2	1.02	-0.32	-0.97
10,688.0	90.50	180.80	6,336.4	-3,699.0	-423.3	3,723.1	2.43	2.33	-0.67
10,719.0	90.90	180.40	6,336.1	-3,730.0	-423.6	3,754.0	1.82	1.29	-1.29
10,750.0	90.40	180.60	6,335.7	-3,761.0	-423.9	3,784.8	1.74	-1.61	0.65
10,781.0	90.00	180.10	6,335.6	-3,792.0	-424.1	3,815.6	2.07	-1.29	-1.61
10,813.0	90.30	179.90	6,335.5	-3,824.0	-424.1	3,847.5	1.13	0.94	-0.63
10,828.0	90.90	179.70	6,335.4	-3,839.0	-424.0	3,862.4	4.22	4.00	-1.33
10,880.0	90.90	179.70	6,334.5	-3,891.0	-423.8	3,914.0	0.00	0.00	0.00

BHL 470'FSL, 1125'FEL

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