



## **Enseco Planning Report**

28 October, 2013

### **Bonanza Creek Energy, Inc**

Weld County, Colorado

NW NW, Sec 3, T4N, R62W, 6 PM

State Seventy Holes A-E-3HNB

API #: TBD

Design: Proposal #1 (13347-241)



Design Target Details							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
WC SSH A-E-3HNB (13347-241)	0.00	0.00	0.00	1371700.63	3328956.23	40.347710°N	104.319748°W
KOP (1) (13347-241)	5638.99	481.43	-654.06	1372173.28	3328295.85	40.349031°N	104.322095°W
BH SSH A-E-3HNB (13347-241)	6183.80	-4489.36	-357.13	1367207.10	3328658.90	40.335387°N	104.321029°W
Tgt SSH A-E-3HNB (13347-241)	6183.80	-104.18	-619.08	1371588.22	3328338.62	40.347424°N	104.321969°W

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Azimuths to True North  
Magnetic North: 8.30°  
  
Magnetic Field  
Strength: 52902.9snT  
Dip Angle: 67.00°  
Date: 28-Oct-2013  
Model: IGRF2010

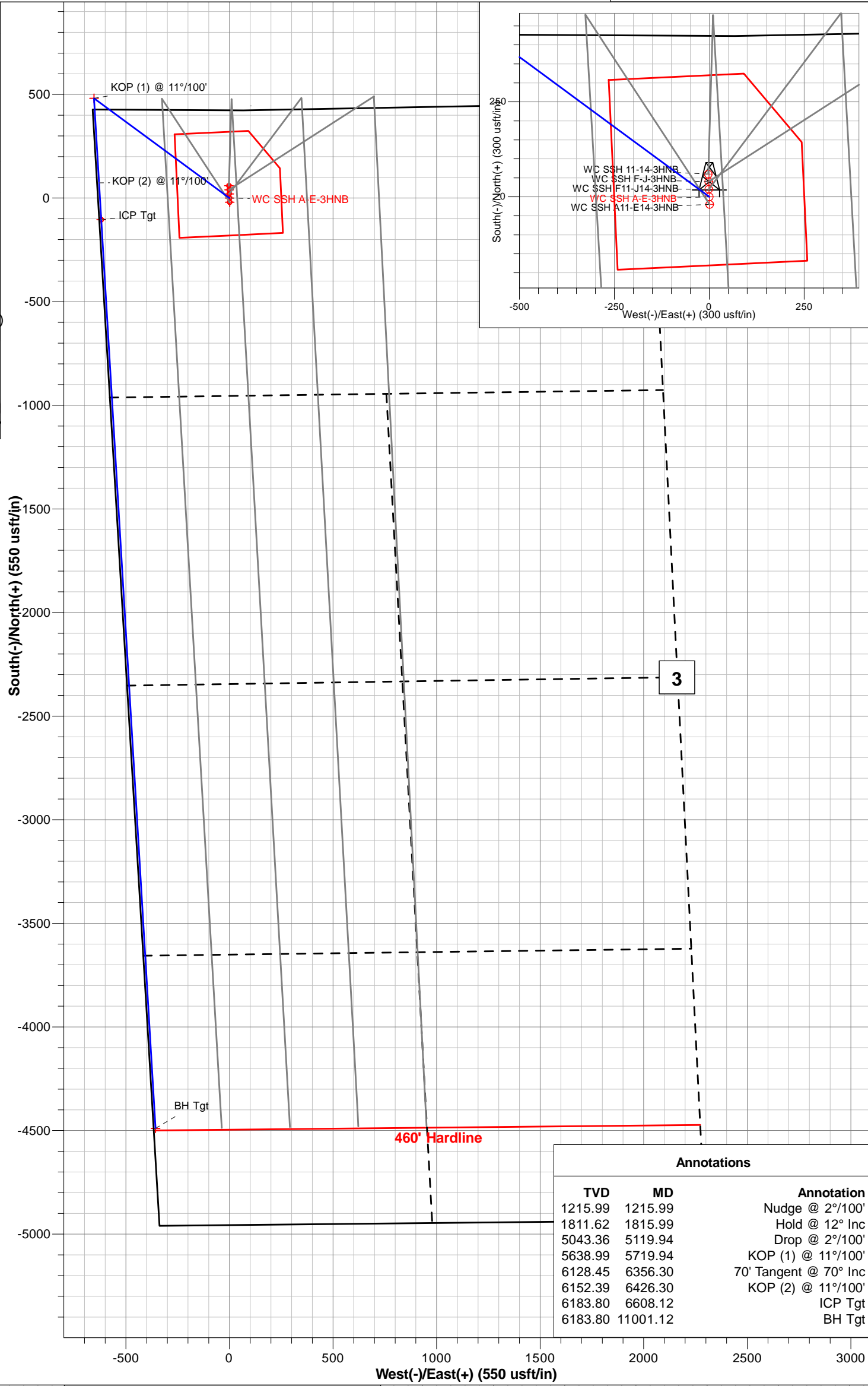
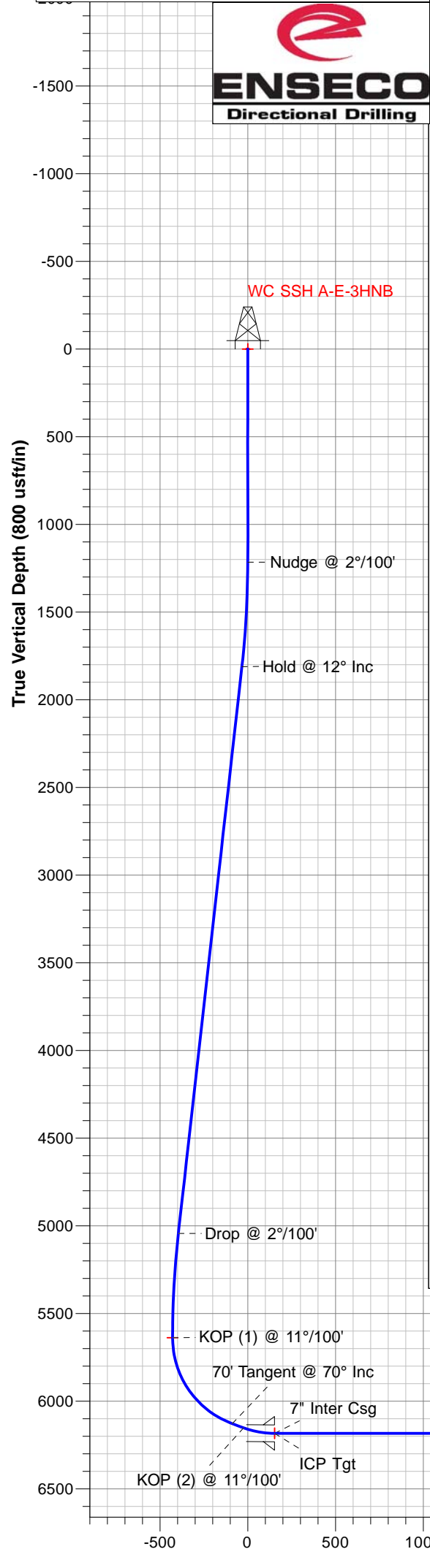
NW NW, Sec 3, T4N, R62W, 6 PM

North American Datum 1983  
WC Northing: 1371700.63  
WC Easting: 3328956.23  
WC Latitude: 40.347710°N  
WC Longitude: 104.319748°W  
Convergence: 0.763  
Local North: True

Project Details: Weld County, Colorado

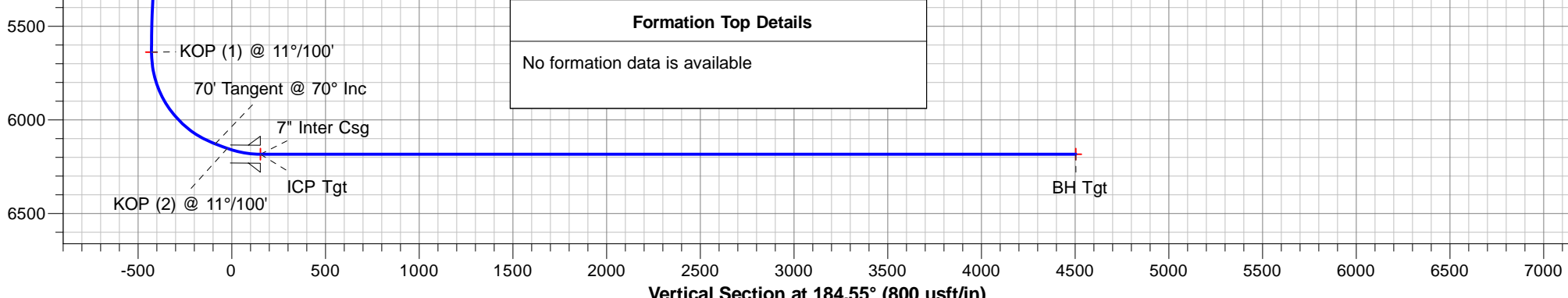
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone

System Datum: Mean Sea Level  
GL Elev: 4533.80  
Kb Elev: Est. Kb @ 4546.80usft (Proposed)



Formation Top Details

No formation data is available



<b>Company:</b>	Bonanza Creek Energy, Inc	<b>Local Co-ordinate Ref:</b>	State Seventy Holes A-E-3HNB
<b>Project:</b>	Weld County, Colorado	<b>Ground Level Elevation:</b>	4,533.8usft
<b>Site:</b>	NW NW, Sec 3, T4N, R62W, 6 PM	<b>Wellhead Elevation:</b>	Est. Kb @ 4546.80usft (Proposed)
<b>Well:</b>	State Seventy Holes A-E-3HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	API #: TBD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Proposal #1 (13347-241)	<b>Database:</b>	EDM5000

<b>Project</b>	Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	NW NW, Sec 3, T4N, R62W, 6 PM   Site Position: WC State Seventy Holes 11-14-3HNB		
<b>Site Position:</b>		<b>Northing:</b>	1,371,760.33 usft
<b>From:</b>	Map	<b>Easting:</b>	3,328,952.65 usft
<b>Position Uncertainty:</b>	0.00usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	40.347874°N
		<b>Longitude:</b>	104.319758°W
		<b>Grid Convergence:</b>	0.763°

Well	State Seventy Holes A-E-3HNB					
Well Position	+N/-S	-59.75 usft	Northing:	1,371,700.63 usft	Latitude:	40.347710°N
	+E/-W	2.79 usft	Easting:	3,328,956.23 usft	Longitude:	104.319748°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	4,546.80 usft	Ground Level:	4,533.80 usft

<b>Wellbore</b>	API #: TBD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	28-Oct-13	8.299	66.998	52,903

Design	Proposal #1 (13347-241)			
Audit Notes:				
Version:	P1.0	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	184.55

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	4,546.80	0.00	0.00	0.00	0.00	0.00	0.000	KOP (1) (13347-241)
1,215.99	0.00	0.00	1,215.99	3,330.81	0.00	0.00	0.00	0.00	0.00	0.000	
1,815.99	12.00	306.36	1,811.62	2,735.18	37.11	-50.42	2.00	2.00	0.00	306.355	
5,119.94	12.00	306.36	5,043.36	-496.56	444.31	-603.64	0.00	0.00	0.00	0.000	
5,719.94	0.00	0.00	5,638.99	-1,092.19	481.43	-654.06	2.00	-2.00	0.00	180.000	
6,356.31	70.00	176.58	6,128.45	-1,581.65	139.31	-633.62	11.00	11.00	0.00	176.581	
6,426.31	70.00	176.58	6,152.39	-1,605.59	73.65	-629.70	0.00	0.00	0.00	0.000	
6,608.12	90.00	176.58	6,183.80	-1,637.00	-104.18	-619.08	11.00	11.00	0.00	0.000	
11,001.12	90.00	176.58	6,183.80	-1,637.00	-4,489.36	-357.13	0.00	0.00	0.00	0.000	BH SSH A-E-3HNB (13347-241)

<b>Company:</b>	Bonanza Creek Energy, Inc	<b>Local Co-ordinate Ref:</b>	State Seventy Holes A-E-3HNB
<b>Project:</b>	Weld County, Colorado	<b>Ground Level Elevation:</b>	4,533.8usft
<b>Site:</b>	NW NW, Sec 3, T4N, R62W, 6 PM	<b>Wellhead Elevation:</b>	Est. Kb @ 4546.80usft (Proposed)
<b>Well:</b>	State Seventy Holes A-E-3HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	API #: TBD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Proposal #1 (13347-241)	<b>Database:</b>	EDM5000

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Nudge @ 2°/100'</b>										
1,215.99	0.00	0.00	1,215.99	3,330.81	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	1.68	306.36	1,299.99	3,246.81	0.73	-0.99	-0.65	2.00	2.00	0.00
1,400.00	3.68	306.36	1,399.87	3,146.93	3.50	-4.76	-3.11	2.00	2.00	0.00
1,500.00	5.68	306.36	1,499.54	3,047.26	8.34	-11.33	-7.41	2.00	2.00	0.00
1,600.00	7.68	306.36	1,598.85	2,947.95	15.23	-20.70	-13.54	2.00	2.00	0.00
1,700.00	9.68	306.36	1,697.70	2,849.10	24.18	-32.85	-21.50	2.00	2.00	0.00
1,800.00	11.68	306.36	1,795.96	2,750.84	35.17	-47.77	-31.27	2.00	2.00	0.00
<b>Hold @ 12° Inc</b>										
1,815.99	12.00	306.36	1,811.62	2,735.18	37.11	-50.42	-33.00	2.00	2.00	0.00
1,900.00	12.00	306.36	1,893.79	2,653.01	47.46	-64.48	-42.20	0.00	0.00	0.00
2,000.00	12.00	306.36	1,991.60	2,555.20	59.79	-81.23	-53.16	0.00	0.00	0.00
2,100.00	12.00	306.36	2,089.42	2,457.38	72.11	-97.97	-64.12	0.00	0.00	0.00
2,200.00	12.00	306.36	2,187.23	2,359.57	84.44	-114.72	-75.08	0.00	0.00	0.00
2,300.00	12.00	306.36	2,285.05	2,261.75	96.76	-131.46	-86.03	0.00	0.00	0.00
2,400.00	12.00	306.36	2,382.86	2,163.94	109.09	-148.21	-96.99	0.00	0.00	0.00
2,500.00	12.00	306.36	2,480.68	2,066.12	121.41	-164.95	-107.95	0.00	0.00	0.00
2,600.00	12.00	306.36	2,578.49	1,968.31	133.74	-181.69	-118.91	0.00	0.00	0.00
2,700.00	12.00	306.36	2,676.31	1,870.49	146.06	-198.44	-129.87	0.00	0.00	0.00
2,800.00	12.00	306.36	2,774.12	1,772.68	158.39	-215.18	-140.82	0.00	0.00	0.00
2,900.00	12.00	306.36	2,871.93	1,674.87	170.71	-231.93	-151.78	0.00	0.00	0.00
3,000.00	12.00	306.36	2,969.75	1,577.05	183.04	-248.67	-162.74	0.00	0.00	0.00
3,100.00	12.00	306.36	3,067.56	1,479.24	195.36	-265.42	-173.70	0.00	0.00	0.00
3,200.00	12.00	306.36	3,165.38	1,381.42	207.69	-282.16	-184.66	0.00	0.00	0.00
3,300.00	12.00	306.36	3,263.19	1,283.61	220.01	-298.90	-195.62	0.00	0.00	0.00
3,400.00	12.00	306.36	3,361.01	1,185.79	232.34	-315.65	-206.57	0.00	0.00	0.00
3,500.00	12.00	306.36	3,458.82	1,087.98	244.66	-332.39	-217.53	0.00	0.00	0.00
3,600.00	12.00	306.36	3,556.64	990.16	256.99	-349.14	-228.49	0.00	0.00	0.00
3,700.00	12.00	306.36	3,654.45	892.35	269.31	-365.88	-239.45	0.00	0.00	0.00
3,800.00	12.00	306.36	3,752.27	794.53	281.63	-382.63	-250.41	0.00	0.00	0.00
3,900.00	12.00	306.36	3,850.08	696.72	293.96	-399.37	-261.36	0.00	0.00	0.00
4,000.00	12.00	306.36	3,947.90	598.90	306.28	-416.11	-272.32	0.00	0.00	0.00
4,100.00	12.00	306.36	4,045.71	501.09	318.61	-432.86	-283.28	0.00	0.00	0.00
4,200.00	12.00	306.36	4,143.53	403.27	330.93	-449.60	-294.24	0.00	0.00	0.00
4,300.00	12.00	306.36	4,241.34	305.46	343.26	-466.35	-305.20	0.00	0.00	0.00
4,400.00	12.00	306.36	4,339.16	207.64	355.58	-483.09	-316.16	0.00	0.00	0.00
4,500.00	12.00	306.36	4,436.97	109.83	367.91	-499.84	-327.11	0.00	0.00	0.00
4,600.00	12.00	306.36	4,534.79	12.01	380.23	-516.58	-338.07	0.00	0.00	0.00
4,700.00	12.00	306.36	4,632.60	-85.80	392.56	-533.32	-349.03	0.00	0.00	0.00
4,800.00	12.00	306.36	4,730.42	-183.62	404.88	-550.07	-359.99	0.00	0.00	0.00
4,900.00	12.00	306.36	4,828.23	-281.43	417.21	-566.81	-370.95	0.00	0.00	0.00
5,000.00	12.00	306.36	4,926.04	-379.24	429.53	-583.56	-381.90	0.00	0.00	0.00
5,100.00	12.00	306.36	5,023.86	-477.06	441.86	-600.30	-392.86	0.00	0.00	0.00
<b>Drop @ 2°/100'</b>										
5,119.94	12.00	306.36	5,043.36	-496.56	444.31	-603.64	-395.05	0.00	0.00	0.00
5,200.00	10.40	306.36	5,121.90	-575.10	453.53	-616.16	-403.24	2.00	-2.00	0.00
5,300.00	8.40	306.36	5,220.55	-673.75	463.21	-629.31	-411.85	2.00	-2.00	0.00
5,400.00	6.40	306.36	5,319.71	-772.91	470.85	-639.69	-418.64	2.00	-2.00	0.00
5,500.00	4.40	306.36	5,419.26	-872.46	476.42	-647.26	-423.60	2.00	-2.00	0.00
5,600.00	2.40	306.36	5,519.08	-972.28	479.94	-652.04	-426.72	2.00	-2.00	0.00
5,700.00	0.40	306.36	5,619.05	-1,072.25	481.38	-654.00	-428.01	2.00	-2.00	0.00
<b>KOP (1) @ 11°/100'</b>										
5,719.94	0.00	0.00	5,638.99	-1,092.19	481.43	-654.06	-428.04	2.00	-2.00	0.00

<b>Company:</b>	Bonanza Creek Energy, Inc	<b>Local Co-ordinate Ref:</b>	State Seventy Holes A-E-3HNB
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<b>Site:</b>	NW NW, Sec 3, T4N, R62W, 6 PM	<b>Wellhead Elevation:</b>	Est. Kb @ 4546.80usft (Proposed)
<b>Well:</b>	State Seventy Holes A-E-3HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	API #: TBD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Proposal #1 (13347-241)	<b>Database:</b>	EDM5000

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,800.00	8.81	176.58	5,718.73	-1,171.93	475.30	-653.69	-421.96	11.00	11.00	0.00
5,900.00	19.81	176.58	5,815.48	-1,268.68	450.67	-652.22	-397.53	11.00	11.00	0.00
6,000.00	30.81	176.58	5,905.75	-1,358.95	408.06	-649.68	-355.26	11.00	11.00	0.00
6,100.00	41.81	176.58	5,986.21	-1,439.41	349.05	-646.15	-296.71	11.00	11.00	0.00
6,200.00	52.81	176.58	6,053.91	-1,507.11	275.79	-641.77	-224.03	11.00	11.00	0.00
6,300.00	63.81	176.58	6,106.37	-1,559.57	190.99	-636.71	-139.89	11.00	11.00	0.00
<b>70' Tangent @ 70° Inc</b>										
6,356.30	70.00	176.58	6,128.45	-1,581.65	139.31	-633.62	-88.63	11.00	11.00	0.00
6,400.00	70.00	176.58	6,143.39	-1,596.59	98.33	-631.17	-47.96	0.00	0.00	0.00
<b>KOP (2) @ 11°/100'</b>										
6,426.30	70.00	176.58	6,152.39	-1,605.59	73.65	-629.70	-23.48	0.00	0.00	0.00
6,500.00	78.11	176.58	6,172.62	-1,625.82	2.98	-625.48	46.63	11.00	11.00	0.00
6,600.00	89.11	176.58	6,183.74	-1,636.94	-96.07	-619.56	144.90	11.00	11.00	0.00
<b>ICP Tgt - 7" Inter Csg</b>										
6,608.12	90.00	176.58	6,183.80	-1,637.00	-104.18	-619.08	152.94	11.00	11.00	0.00
6,700.00	90.00	176.58	6,183.80	-1,637.00	-195.89	-613.60	243.93	0.00	0.00	0.00
6,800.00	90.00	176.58	6,183.80	-1,637.00	-295.72	-607.64	342.97	0.00	0.00	0.00
6,900.00	90.00	176.58	6,183.80	-1,637.00	-395.54	-601.67	442.00	0.00	0.00	0.00
7,000.00	90.00	176.58	6,183.80	-1,637.00	-495.36	-595.71	541.04	0.00	0.00	0.00
7,100.00	90.00	176.58	6,183.80	-1,637.00	-595.18	-589.75	640.07	0.00	0.00	0.00
7,200.00	90.00	176.58	6,183.80	-1,637.00	-695.00	-583.78	739.11	0.00	0.00	0.00
7,300.00	90.00	176.58	6,183.80	-1,637.00	-794.83	-577.82	838.14	0.00	0.00	0.00
7,400.00	90.00	176.58	6,183.80	-1,637.00	-894.65	-571.86	937.18	0.00	0.00	0.00
7,500.00	90.00	176.58	6,183.80	-1,637.00	-994.47	-565.90	1,036.21	0.00	0.00	0.00
7,600.00	90.00	176.58	6,183.80	-1,637.00	-1,094.29	-559.93	1,135.25	0.00	0.00	0.00
7,700.00	90.00	176.58	6,183.80	-1,637.00	-1,194.11	-553.97	1,234.28	0.00	0.00	0.00
7,800.00	90.00	176.58	6,183.80	-1,637.00	-1,293.94	-548.01	1,333.32	0.00	0.00	0.00
7,900.00	90.00	176.58	6,183.80	-1,637.00	-1,393.76	-542.04	1,432.35	0.00	0.00	0.00
8,000.00	90.00	176.58	6,183.80	-1,637.00	-1,493.58	-536.08	1,531.39	0.00	0.00	0.00
8,100.00	90.00	176.58	6,183.80	-1,637.00	-1,593.40	-530.12	1,630.42	0.00	0.00	0.00
8,200.00	90.00	176.58	6,183.80	-1,637.00	-1,693.22	-524.15	1,729.46	0.00	0.00	0.00
8,300.00	90.00	176.58	6,183.80	-1,637.00	-1,793.05	-518.19	1,828.49	0.00	0.00	0.00
8,400.00	90.00	176.58	6,183.80	-1,637.00	-1,892.87	-512.23	1,927.53	0.00	0.00	0.00
8,500.00	90.00	176.58	6,183.80	-1,637.00	-1,992.69	-506.27	2,026.56	0.00	0.00	0.00
8,600.00	90.00	176.58	6,183.80	-1,637.00	-2,092.51	-500.30	2,125.60	0.00	0.00	0.00
8,700.00	90.00	176.58	6,183.80	-1,637.00	-2,192.34	-494.34	2,224.63	0.00	0.00	0.00
8,800.00	90.00	176.58	6,183.80	-1,637.00	-2,292.16	-488.38	2,323.67	0.00	0.00	0.00
8,900.00	90.00	176.58	6,183.80	-1,637.00	-2,391.98	-482.41	2,422.70	0.00	0.00	0.00
9,000.00	90.00	176.58	6,183.80	-1,637.00	-2,491.80	-476.45	2,521.74	0.00	0.00	0.00
9,100.00	90.00	176.58	6,183.80	-1,637.00	-2,591.62	-470.49	2,620.77	0.00	0.00	0.00
9,200.00	90.00	176.58	6,183.80	-1,637.00	-2,691.45	-464.53	2,719.81	0.00	0.00	0.00
9,300.00	90.00	176.58	6,183.80	-1,637.00	-2,791.27	-458.56	2,818.84	0.00	0.00	0.00
9,400.00	90.00	176.58	6,183.80	-1,637.00	-2,891.09	-452.60	2,917.88	0.00	0.00	0.00
9,500.00	90.00	176.58	6,183.80	-1,637.00	-2,990.91	-446.64	3,016.91	0.00	0.00	0.00
9,600.00	90.00	176.58	6,183.80	-1,637.00	-3,090.73	-440.67	3,115.95	0.00	0.00	0.00
9,700.00	90.00	176.58	6,183.80	-1,637.00	-3,190.56	-434.71	3,214.98	0.00	0.00	0.00
9,800.00	90.00	176.58	6,183.80	-1,637.00	-3,290.38	-428.75	3,314.02	0.00	0.00	0.00
9,900.00	90.00	176.58	6,183.80	-1,637.00	-3,390.20	-422.79	3,413.05	0.00	0.00	0.00
10,000.00	90.00	176.58	6,183.80	-1,637.00	-3,490.02	-416.82	3,512.09	0.00	0.00	0.00
10,100.00	90.00	176.58	6,183.80	-1,637.00	-3,589.84	-410.86	3,611.12	0.00	0.00	0.00
10,200.00	90.00	176.58	6,183.80	-1,637.00	-3,689.67	-404.90	3,710.15	0.00	0.00	0.00
10,300.00	90.00	176.58	6,183.80	-1,637.00	-3,789.49	-398.93	3,809.19	0.00	0.00	0.00
10,400.00	90.00	176.58	6,183.80	-1,637.00	-3,889.31	-392.97	3,908.22	0.00	0.00	0.00

<b>Company:</b>	Bonanza Creek Energy, Inc	<b>Local Co-ordinate Ref:</b>	State Seventy Holes A-E-3HNB
<b>Project:</b>	Weld County, Colorado	<b>Ground Level Elevation:</b>	4,533.8usft
<b>Site:</b>	NW NW, Sec 3, T4N, R62W, 6 PM	<b>Wellhead Elevation:</b>	Est. Kb @ 4546.80usft (Proposed)
<b>Well:</b>	State Seventy Holes A-E-3HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	API #: TBD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Proposal #1 (13347-241)	<b>Database:</b>	EDM5000

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.00	90.00	176.58	6,183.80	-1,637.00	-3,989.13	-387.01	4,007.26	0.00	0.00	0.00
10,600.00	90.00	176.58	6,183.80	-1,637.00	-4,088.95	-381.04	4,106.29	0.00	0.00	0.00
10,700.00	90.00	176.58	6,183.80	-1,637.00	-4,188.78	-375.08	4,205.33	0.00	0.00	0.00
10,800.00	90.00	176.58	6,183.80	-1,637.00	-4,288.60	-369.12	4,304.36	0.00	0.00	0.00
10,900.00	90.00	176.58	6,183.80	-1,637.00	-4,388.42	-363.16	4,403.40	0.00	0.00	0.00
11,000.00	90.00	176.58	6,183.80	-1,637.00	-4,488.24	-357.19	4,502.43	0.00	0.00	0.00
<b>BH Tgt</b>										
<b>11,001.12</b>	<b>90.00</b>	<b>176.58</b>	<b>6,183.80</b>	<b>-1,637.00</b>	<b>-4,489.36</b>	<b>-357.13</b>	<b>4,503.54</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Targets										
Target Name - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
WC SSH A11-E14-3HNB (13347-24) - Circle (radius 10.00)	0.00	0.00	0.10	-20.04	0.84	1,371,680.60	3,328,957.33	40.347655°N	104.319745°W	
WC SSH 11-14-3HNB (13344-24) - Circle (radius 10.00)	0.00	0.00	-0.10	59.75	-2.79	1,371,760.33	3,328,952.65	40.347874°N	104.319758°W	
BH SSH A-E-3HNB (13347-24) - Point	0.00	0.00	6,183.80	-4,489.36	-357.13	1,367,207.10	3,328,658.90	40.335387°N	104.321029°W	
WC SSH F-J-3HNB (13345-24) - Circle (radius 10.00)	0.00	0.00	-0.10	40.07	-1.67	1,371,740.67	3,328,954.03	40.347820°N	104.319754°W	
WC SSH F11-J14-3HNB (13347-24) - Circle (radius 10.00)	0.00	0.00	0.00	20.04	-1.39	1,371,720.64	3,328,954.57	40.347765°N	104.319753°W	
WC SSH A-E-3HNB (13347-24) - Circle (radius 10.00)	0.00	0.00	0.00	0.00	0.00	1,371,700.63	3,328,956.23	40.347710°N	104.319748°W	
Tgt SSH A-E-3HNB (13347-24) - Circle (radius 10.00)	0.00	0.00	6,183.80	-104.18	-619.08	1,371,588.22	3,328,338.62	40.347424°N	104.321969°W	
KOP (1) (13347-241) - Point	0.00	0.00	5,638.99	481.43	-654.06	1,372,173.28	3,328,295.85	40.349031°N	104.322095°W	

Casing Points					
MD (usft)	TVD (usft)	Name	Casing Diameter (")	Hole Diameter (")	
6,608.12	6,183.80	7" Inter Csg	7	8-3/4	

<b>Company:</b>	Bonanza Creek Energy, Inc	<b>Local Co-ordinate Ref:</b>	State Seventy Holes A-E-3HNB
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<b>Site:</b>	NW NW, Sec 3, T4N, R62W, 6 PM	<b>Wellhead Elevation:</b>	Est. Kb @ 4546.80usft (Proposed)
<b>Well:</b>	State Seventy Holes A-E-3HNB	<b>North Reference:</b>	True
<b>Wellbore:</b>	API #: TBD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Proposal #1 (13347-241)	<b>Database:</b>	EDM5000

Plan Annotations				
Local Coordinates				
MD (usft)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,215.99	1,215.99	0.00	0.00	Nudge @ 2°/100'
1,815.99	1,811.62	37.11	-50.42	Hold @ 12° Inc
5,119.94	5,043.36	444.31	-603.64	Drop @ 2°/100'
5,719.94	5,638.99	481.43	-654.06	KOP (1) @ 11°/100'
6,356.30	6,128.45	139.31	-633.62	70' Tangent @ 70° Inc
6,426.30	6,152.39	73.65	-629.70	KOP (2) @ 11°/100'
6,608.12	6,183.80	-104.18	-619.08	ICP Tgt
11,001.12	6,183.80	-4,489.36	-357.13	BH Tgt