

# **BONANZA CREEK ENERGY INC.**

**WELD COUNTY, COLORADO (NAD 83)**

**SE SW SEC. 24 T5N R63W 6th P.M.**

**NORTH PLATTE O-K-24HNB**

**JOB #2009-343 - SIDETRACK**

**16 July, 2014**

**Plan: PROPOSAL #7 - SIDETRACK**





Project: WELD COUNTY, COLORADO (NAD 83)  
 Site: SE SW SEC. 24 T5N R63W 6th P.M.  
 Well: NORTH PLATTE O-K-24HNB  
 Wellbore: JOB #2009-343 - SIDETRACK  
 Design: PROPOSAL #7 - SIDETRACK

ANNOTATIONS

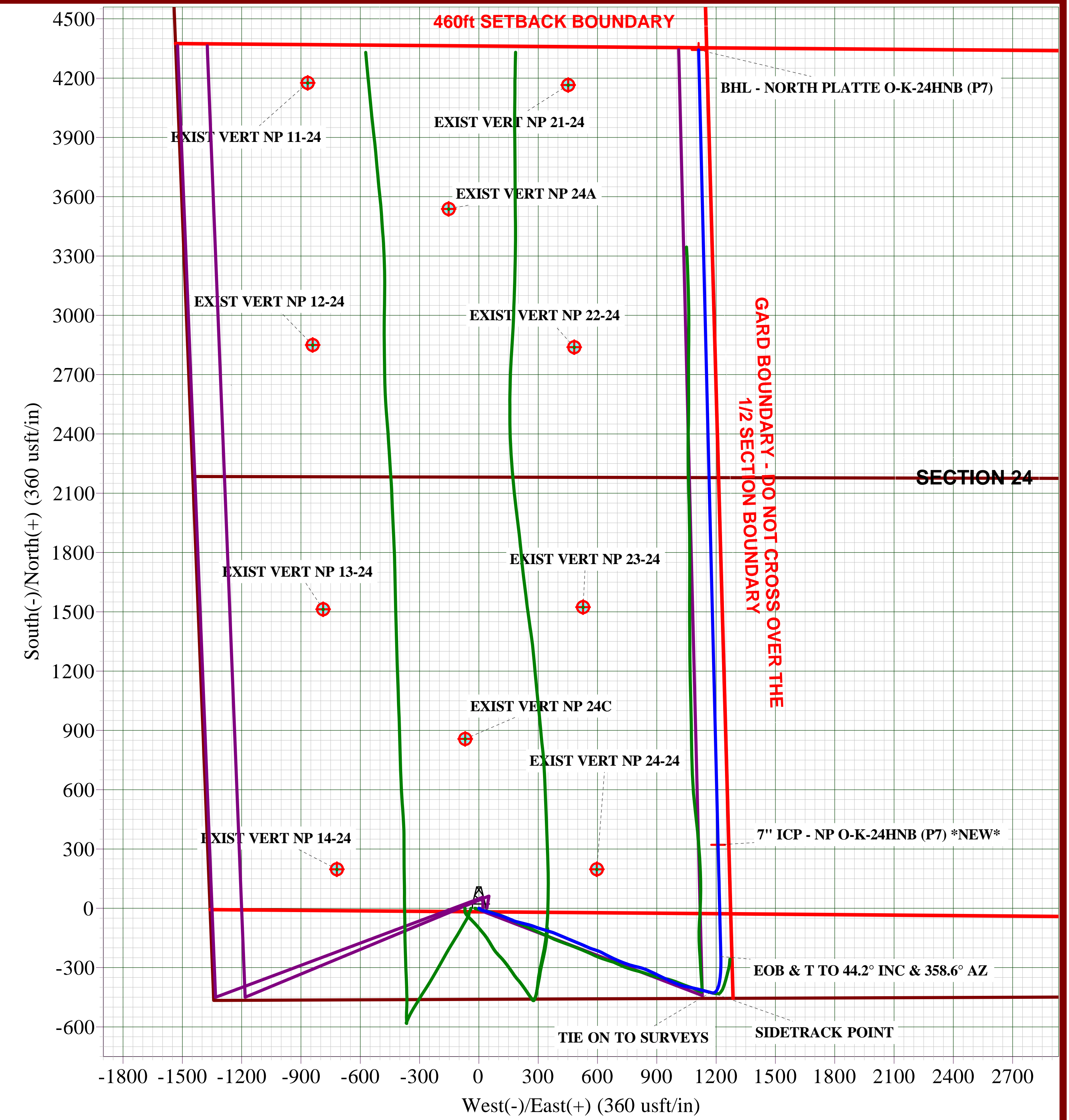
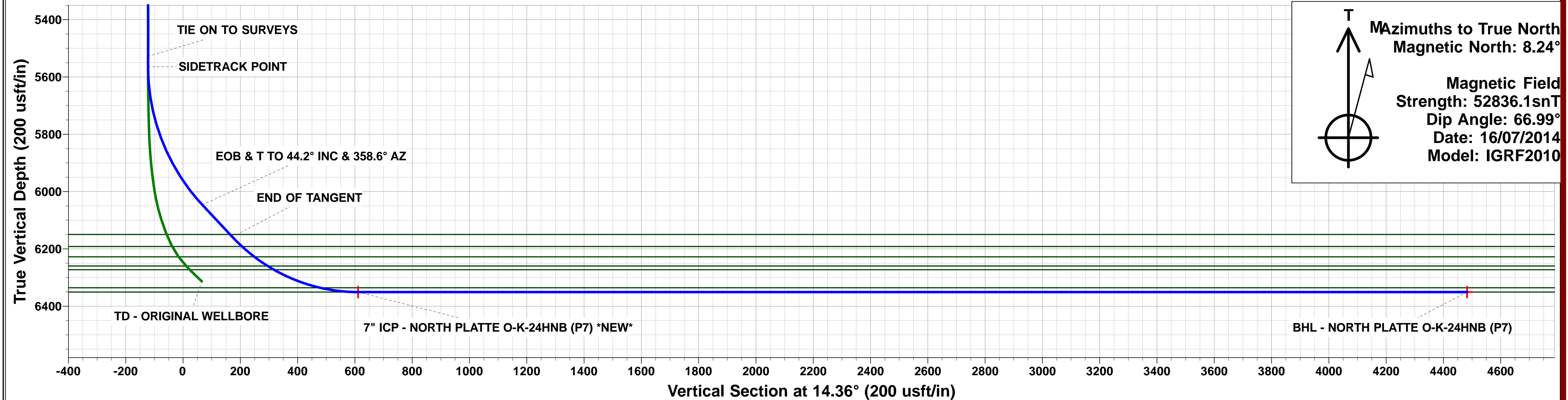
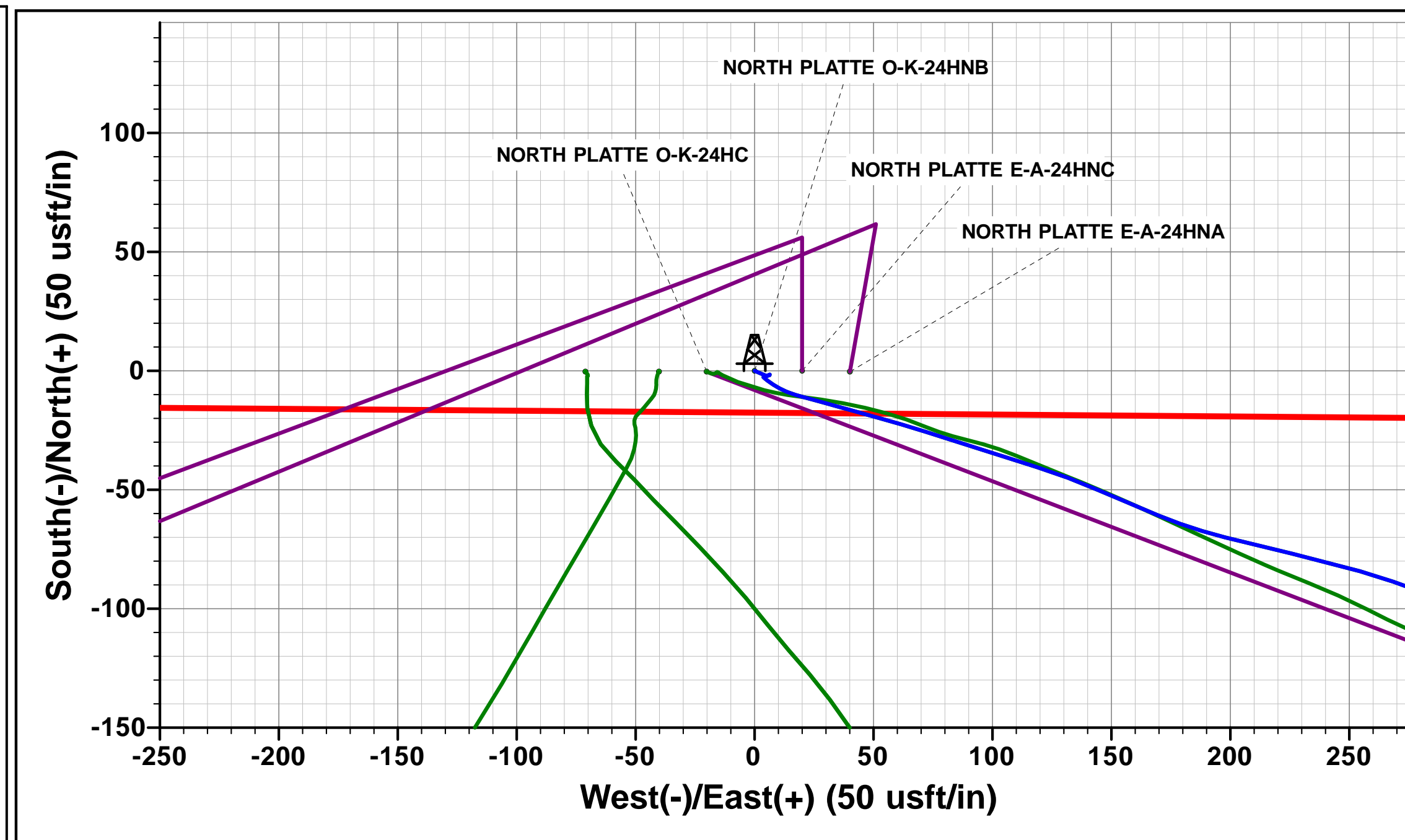
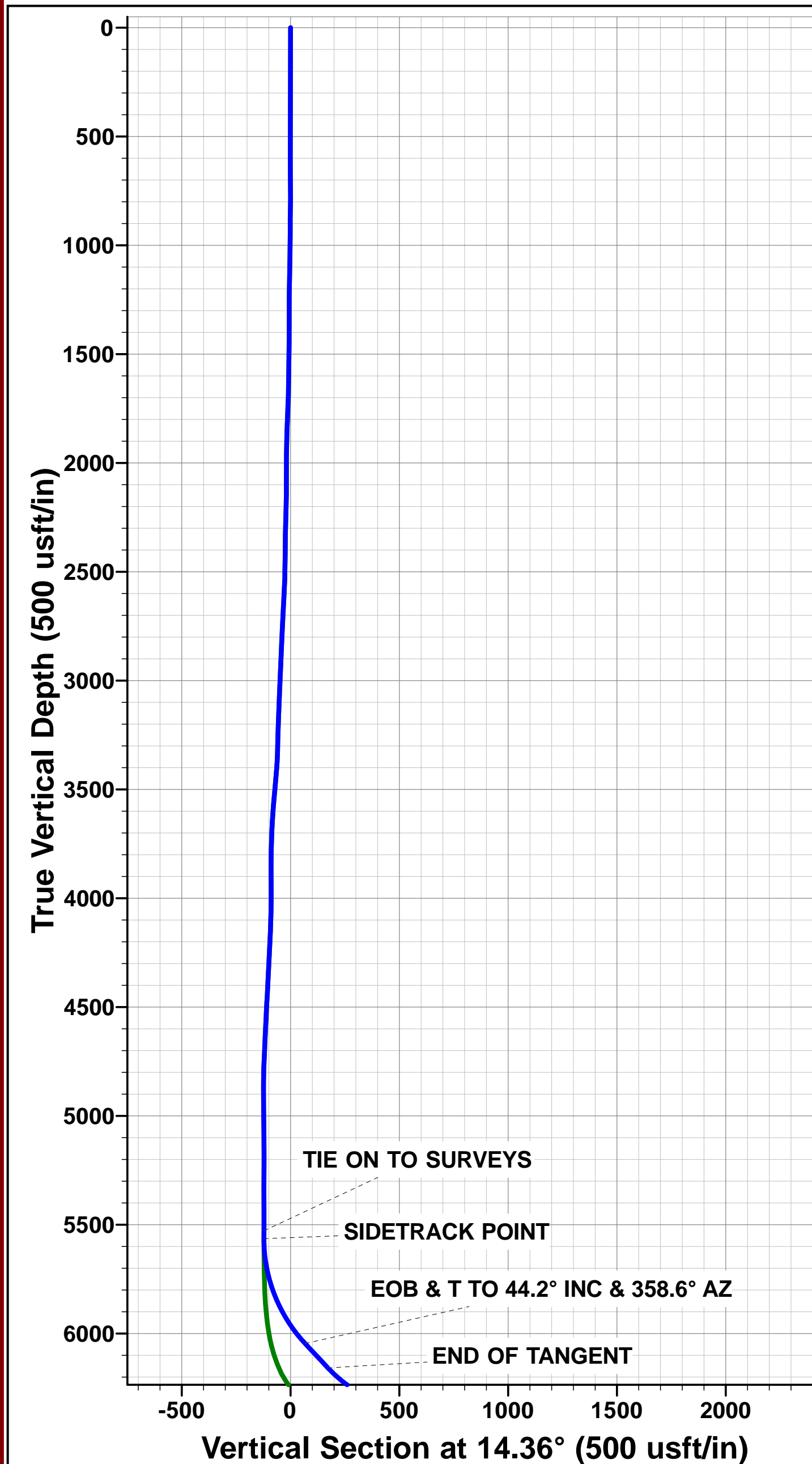
TVD	MD	Inc	Azi	+N-S	+E-W	Vsect	Dep	Annotation
5528.4	5708.0	11.50	106.50	-425.9	1172.2	-121.9	0.0	TIE ON TO SURVEYS
5564.7	5745.0	10.47	104.97	-427.8	1179.0	-122.1	7.0	SIDETRACK POINT
6046.5	6278.2	44.20	358.60	-243.6	1223.9	67.5	211.6	EOB & T TO 44.2° INC & 358.6° AZ
6158.0	6433.8	44.20	358.60	-135.1	1221.3	171.9	320.1	END OF TANGENT
6350.8	6942.7	90.00	358.59	321.1	1210.1	611.1	776.5	7" ICP - NORTH PLATTE O-K-24HNB (P7) *NEW*
6350.8	10965.4	90.00	358.60	4342.7	1111.4	4482.6	4799.3	BHL - NORTH PLATTE O-K-24HNB (P7)

LOCAL COORDINATES:

SHL: 461ft FSL & 1359ft FWL Sec 24  
 7" ICP \*NEW\*: ft 777.1ft FSL & 2578ft FWL Sec 24  
 BHL: 470ft FNL & 2642ft FWL Sec 24

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N-S	+E-W	Latitude	Longitude
7" ICP - NORTH PLATTE O-K-24HNB (P7) *NEW*	6350.8	321.1	1210.1	40.379559	-104.384468
BHL - NORTH PLATTE O-K-24HNB (P7)	6350.8	4342.7	1111.4	40.390598	-104.384822



T: True North  
 M: Magnetic North: 8.24°  
 Magnetic Field Strength: 52836.1snT  
 Dip Angle: 66.99°  
 Date: 16/07/2014  
 Model: IGRF2010

Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NORTH PLATTE O-K-24HNB
<b>Company:</b>	BONANZA CREEK ENERGY INC.	<b>TVD Reference:</b>	KB @ 4584.8usft (CADE 25)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB @ 4584.8usft (CADE 25)
<b>Site:</b>	SE SW SEC. 24 T5N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	NORTH PLATTE O-K-24HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	JOB #2009-343 - SIDETRACK		
<b>Design:</b>	PROPOSAL #7 - SIDETRACK		

<b>Project</b>	WELD COUNTY, COLORADO (NAD 83)		
<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>	SE SW SEC. 24 T5N R63W 6th P.M.				
<b>Site Position:</b>		<b>Northing:</b>	1,382,731.88 usft	<b>Latitude:</b>	40.378677
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,309,546.55 usft	<b>Longitude:</b>	-104.388884
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft	<b>Grid Convergence:</b>	0.72 °

<b>Well</b>	NORTH PLATTE O-K-24HNB					
<b>Well Position</b>	<b>+N-S</b>	0.3 usft	<b>Northing:</b>	1,382,732.45 usft	<b>Latitude:</b>	40.378678
	<b>+E-W</b>	20.1 usft	<b>Easting:</b>	3,309,566.64 usft	<b>Longitude:</b>	-104.388812
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	4,567.8 usft

<b>Wellbore</b>	JOB #2009-343 - SIDETRACK				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	16/07/2014	8.24	66.99	52,836

<b>Design</b>	PROPOSAL #7 - SIDETRACK			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	5,708.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N-S (usft)</b>	<b>+E-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	14.36

<b>Plan Sections</b>											
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
5,708.0	11.50	106.50	5,528.4	943.6	-425.9	1,172.2	0.00	0.00	0.00	0.00	
5,745.0	10.47	104.97	5,564.7	979.9	-427.8	1,179.0	2.90	-2.79	-4.13	-165.00	
6,278.2	44.20	358.60	6,046.5	1,461.7	-243.6	1,223.9	9.00	6.33	-19.95	-115.81	
6,433.8	44.20	358.60	6,158.0	1,573.2	-135.1	1,221.3	0.00	0.00	0.00	0.00	
6,942.7	90.00	358.59	6,350.8	1,766.0	321.1	1,210.1	9.00	9.00	0.00	-0.01	
10,965.4	90.00	358.60	6,350.8	1,766.0	4,342.7	1,111.4	0.00	0.00	0.00	86.24	BHL - NORTH PLA

Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NORTH PLATTE O-K-24HNB
<b>Company:</b>	BONANZA CREEK ENERGY INC.	<b>TVD Reference:</b>	KB @ 4584.8usft (CADE 25)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB @ 4584.8usft (CADE 25)
<b>Site:</b>	SE SW SEC. 24 T5N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	NORTH PLATTE O-K-24HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	JOB #2009-343 - SIDETRACK		
<b>Design:</b>	PROPOSAL #7 - SIDETRACK		

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>TIE ON TO SURVEYS</b>										
5,708.0	11.50	106.50	5,528.4	-943.56	-425.9	1,172.2	-121.9	0.65	0.22	3.07
<b>SIDETRACK POINT</b>										
5,745.0	10.47	104.97	5,564.7	-979.88	-427.8	1,179.0	-122.1	2.90	-2.79	-4.13
5,800.0	9.42	76.64	5,618.9	-1,034.08	-428.0	1,188.2	-120.1	9.00	-1.90	-51.52
5,900.0	13.24	33.59	5,717.1	-1,132.28	-416.6	1,202.6	-105.4	9.00	3.82	-43.05
6,000.0	20.55	15.03	5,812.8	-1,227.97	-390.0	1,213.5	-77.0	9.00	7.31	-18.56
6,100.0	28.81	6.33	5,903.6	-1,318.79	-349.1	1,220.7	-35.5	9.00	8.26	-8.70
6,200.0	37.39	1.31	5,987.3	-1,402.50	-294.6	1,224.0	18.0	9.00	8.58	-5.02
<b>EOB &amp; T TO 44.2° INC &amp; 358.6° AZ</b>										
6,278.2	44.20	358.60	6,046.5	-1,461.68	-243.6	1,223.9	67.5	9.00	8.71	-3.47
6,300.0	44.20	358.60	6,062.1	-1,477.30	-228.4	1,223.5	82.1	0.00	0.00	0.00
6,400.0	44.20	358.60	6,133.8	-1,548.99	-158.7	1,221.8	149.2	0.00	0.00	0.00
<b>SHARON SPRINGS</b>										
6,422.3	44.20	358.60	6,149.8	-1,565.00	-143.1	1,221.5	164.2	0.00	0.00	0.00
<b>END OF TANGENT</b>										
6,433.8	44.20	358.60	6,158.0	-1,573.23	-135.1	1,221.3	171.9	0.00	0.00	0.00
<b>SHARON SPRINGS "A"</b>										
6,482.8	48.61	358.60	6,191.8	-1,607.00	-99.7	1,220.4	206.0	9.00	9.00	0.00
6,500.0	50.16	358.60	6,203.0	-1,618.20	-86.6	1,220.1	218.6	9.00	9.00	0.00
<b>SHARON SPRINGS "B"</b>										
6,540.3	53.78	358.60	6,227.8	-1,643.00	-54.9	1,219.3	249.1	9.00	9.00	0.00
<b>NIOBRARA "A" CHALK</b>										
6,598.1	58.98	358.60	6,259.8	-1,675.00	-6.8	1,218.1	295.4	9.00	9.00	0.00
6,600.0	59.16	358.59	6,260.8	-1,675.99	-5.2	1,218.1	297.0	9.00	9.00	0.00
<b>NIOBRARA "A" MARL</b>										
6,624.2	61.34	358.59	6,272.8	-1,688.00	15.8	1,217.6	317.2	9.00	9.00	0.00
6,700.0	68.16	358.59	6,305.1	-1,720.31	84.3	1,215.9	383.2	9.00	9.00	0.00
6,800.0	77.16	358.59	6,334.9	-1,750.09	179.7	1,213.5	474.9	9.00	9.00	0.00
<b>NIOBRARA "B" CHALK</b>										
6,804.1	77.53	358.59	6,335.8	-1,751.00	183.7	1,213.4	478.8	9.00	9.00	0.00
6,900.0	86.16	358.59	6,349.4	-1,764.59	278.5	1,211.1	570.1	9.00	9.00	0.00
<b>NIOBRARA "B" TARGET</b>										
6,937.9	89.57	358.59	6,350.8	-1,766.00	316.3	1,210.2	606.5	9.00	9.00	0.00
<b>7" ICP - NORTH PLATTE O-K-24HNB (P7) *NEW*</b>										
6,942.7	90.00	358.59	6,350.8	-1,766.02	321.1	1,210.1	611.1	9.00	9.00	0.00
7,000.0	90.00	358.59	6,350.8	-1,766.02	378.4	1,208.7	666.3	0.00	0.00	0.00
7,100.0	90.00	358.59	6,350.8	-1,766.02	478.4	1,206.2	762.5	0.00	0.00	0.00
7,200.0	90.00	358.59	6,350.8	-1,766.02	578.3	1,203.7	858.7	0.00	0.00	0.00
7,300.0	90.00	358.59	6,350.8	-1,766.02	678.3	1,201.3	955.0	0.00	0.00	0.00
7,400.0	90.00	358.59	6,350.8	-1,766.02	778.3	1,198.8	1,051.2	0.00	0.00	0.00
7,500.0	90.00	358.59	6,350.8	-1,766.02	878.3	1,196.4	1,147.5	0.00	0.00	0.00
7,600.0	90.00	358.59	6,350.8	-1,766.02	978.2	1,193.9	1,243.7	0.00	0.00	0.00
7,700.0	90.00	358.59	6,350.8	-1,766.02	1,078.2	1,191.5	1,339.9	0.00	0.00	0.00
7,800.0	90.00	358.59	6,350.8	-1,766.02	1,178.2	1,189.0	1,436.2	0.00	0.00	0.00
7,900.0	90.00	358.59	6,350.8	-1,766.02	1,278.1	1,186.5	1,532.4	0.00	0.00	0.00
8,000.0	90.00	358.59	6,350.8	-1,766.02	1,378.1	1,184.1	1,628.7	0.00	0.00	0.00
8,100.0	90.00	358.59	6,350.8	-1,766.02	1,478.1	1,181.6	1,724.9	0.00	0.00	0.00
8,200.0	90.00	358.59	6,350.8	-1,766.02	1,578.0	1,179.2	1,821.1	0.00	0.00	0.00
8,300.0	90.00	358.59	6,350.8	-1,766.02	1,678.0	1,176.7	1,917.4	0.00	0.00	0.00
8,400.0	90.00	358.59	6,350.8	-1,766.02	1,778.0	1,174.3	2,013.6	0.00	0.00	0.00
8,500.0	90.00	358.59	6,350.8	-1,766.02	1,878.0	1,171.8	2,109.8	0.00	0.00	0.00

Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NORTH PLATTE O-K-24HNB
<b>Company:</b>	BONANZA CREEK ENERGY INC.	<b>TVD Reference:</b>	KB @ 4584.8usft (CADE 25)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB @ 4584.8usft (CADE 25)
<b>Site:</b>	SE SW SEC. 24 T5N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	NORTH PLATTE O-K-24HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	JOB #2009-343 - SIDETRACK		
<b>Design:</b>	PROPOSAL #7 - SIDETRACK		

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)
8,600.0	90.00	358.59	6,350.8	-1,766.02	1,977.9	1,169.4	2,206.1	0.00	0.00	0.00
8,700.0	90.00	358.59	6,350.8	-1,766.01	2,077.9	1,166.9	2,302.3	0.00	0.00	0.00
8,800.0	90.00	358.59	6,350.8	-1,766.01	2,177.9	1,164.4	2,398.6	0.00	0.00	0.00
8,900.0	90.00	358.59	6,350.8	-1,766.01	2,277.8	1,162.0	2,494.8	0.00	0.00	0.00
9,000.0	90.00	358.59	6,350.8	-1,766.01	2,377.8	1,159.5	2,591.1	0.00	0.00	0.00
9,100.0	90.00	358.60	6,350.8	-1,766.01	2,477.8	1,157.1	2,687.3	0.00	0.00	0.00
9,200.0	90.00	358.60	6,350.8	-1,766.01	2,577.7	1,154.6	2,783.5	0.00	0.00	0.00
9,300.0	90.00	358.60	6,350.8	-1,766.01	2,677.7	1,152.2	2,879.8	0.00	0.00	0.00
9,400.0	90.00	358.60	6,350.8	-1,766.01	2,777.7	1,149.7	2,976.0	0.00	0.00	0.00
9,500.0	90.00	358.60	6,350.8	-1,766.01	2,877.6	1,147.3	3,072.3	0.00	0.00	0.00
9,600.0	90.00	358.60	6,350.8	-1,766.01	2,977.6	1,144.8	3,168.5	0.00	0.00	0.00
9,700.0	90.00	358.60	6,350.8	-1,766.01	3,077.6	1,142.4	3,264.7	0.00	0.00	0.00
9,800.0	90.00	358.60	6,350.8	-1,766.01	3,177.6	1,139.9	3,361.0	0.00	0.00	0.00
9,900.0	90.00	358.60	6,350.8	-1,766.01	3,277.5	1,137.5	3,457.2	0.00	0.00	0.00
10,000.0	90.00	358.60	6,350.8	-1,766.01	3,377.5	1,135.0	3,553.5	0.00	0.00	0.00
10,100.0	90.00	358.60	6,350.8	-1,766.01	3,477.5	1,132.6	3,649.7	0.00	0.00	0.00
10,200.0	90.00	358.60	6,350.8	-1,766.01	3,577.4	1,130.1	3,745.9	0.00	0.00	0.00
10,300.0	90.00	358.60	6,350.8	-1,766.01	3,677.4	1,127.7	3,842.2	0.00	0.00	0.00
10,400.0	90.00	358.60	6,350.8	-1,766.00	3,777.4	1,125.2	3,938.4	0.00	0.00	0.00
10,500.0	90.00	358.60	6,350.8	-1,766.00	3,877.3	1,122.8	4,034.7	0.00	0.00	0.00
10,600.0	90.00	358.60	6,350.8	-1,766.00	3,977.3	1,120.4	4,130.9	0.00	0.00	0.00
10,700.0	90.00	358.60	6,350.8	-1,766.00	4,077.3	1,117.9	4,227.2	0.00	0.00	0.00
10,800.0	90.00	358.60	6,350.8	-1,766.00	4,177.3	1,115.5	4,323.4	0.00	0.00	0.00
10,900.0	90.00	358.60	6,350.8	-1,766.00	4,277.2	1,113.0	4,419.6	0.00	0.00	0.00
<b>BHL - NORTH PLATTE O-K-24HNB (P7)</b>										
<b>10,965.4</b>	<b>90.00</b>	<b>358.60</b>	<b>6,350.8</b>	<b>-1,766.00</b>	<b>4,342.7</b>	<b>1,111.4</b>	<b>4,482.6</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,422.3	6,149.8	SHARON SPRINGS				
6,482.8	6,191.8	SHARON SPRINGS "A"				
6,540.3	6,227.8	SHARON SPRINGS "B"				
6,598.1	6,259.8	NIOBRARA "A" CHALK				
6,624.2	6,272.8	NIOBRARA "A" MARL				
6,804.1	6,335.8	NIOBRARA "B" CHALK				
6,937.9	6,350.8	NIOBRARA "B" TARGET				

Plan Annotations				
MD (usft)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Comment
5,708.0	5,528.4	-425.9	1,172.2	TIE ON TO SURVEYS
5,745.0	5,564.7	-427.8	1,179.0	SIDETRACK POINT
6,278.2	6,046.5	-243.6	1,223.9	EOB & T TO 44.2° INC & 358.6° AZ
6,433.8	6,158.0	-135.1	1,221.3	END OF TANGENT
6,942.7	6,350.8	321.1	1,210.1	7" ICP - NORTH PLATTE O-K-24HNB (P7) *NEW*
10,965.4	6,350.8	4,342.7	1,111.4	BHL - NORTH PLATTE O-K-24HNB (P7)