



Project: WELD COUNTY, CO  
Site: WINDER SOUTH PAD  
Well: WINDER SOUTH 8  
Wellbore: WINDER SOUTH 8  
Design: WINDER SOUTH 8  
Latitude: 40° 30' 9.619 N  
Longitude: 104° 53' 24.965 W  
GL: 4855.00  
KB: WELL @ 4880.00ft (Original Well Elev)



#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP WINDER SOUTH 8	7285.00	-1983.27	-223.88	1424562.10	3169347.92	40° 29' 50.021 N	104° 53' 27.863 W
PBHL WINDER SOUTH 8	7285.00	-1958.44	-9630.70	1424522.25	3159941.17	40° 29' 50.248 N	104° 55' 29.629 W

#### WELL DETAILS: WINDER SOUTH 8

+N/-S	+E/-W	Northing	Ground Level:	4855.00	Longitude	Slot
0.00	0.00	1426546.86	Easting	3169558.15	40° 30' 9.619 N	104° 53' 24.965 W

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct	Annotation
1565.00	4.60	172.90	1552.82	-106.46	25.85	0.00	0.00	-4.11	Start 280.00 hold at 1565.00 MD
1845.00	4.60	172.90	1831.92	-128.74	28.62	0.00	0.00	-2.39	Start DLS 2.50 TFO -0.60
2453.77	19.82	172.44	2425.17	-256.02	45.33	2.50	-0.60	6.60	Start 4500.00 hold at 2453.77 MD
6953.77	19.82	172.44	6658.63	-1768.47	246.18	0.00	0.00	111.17	Start DLS 9.01 TFO -171.54
6960.72	19.20	172.16	6665.18	-1770.77	246.49	9.01	-171.54	111.33	Start 156.50 hold at 6960.72 MD
7117.22	19.20	172.16	6812.97	-1821.75	253.51	0.00	0.00	114.60	Start DLS 12.00 TFO 97.56
7889.07	90.00	270.15	7285.00	-1983.27	-223.88	12.00	97.56	614.61	Start 9406.85 hold at 7889.07 MD
17295.92	90.00	270.15	7285.00	-1958.44	-9630.70	0.00	0.00	9827.81	TD at 17295.92



Azimuths to True North  
Magnetic North: 8.37°

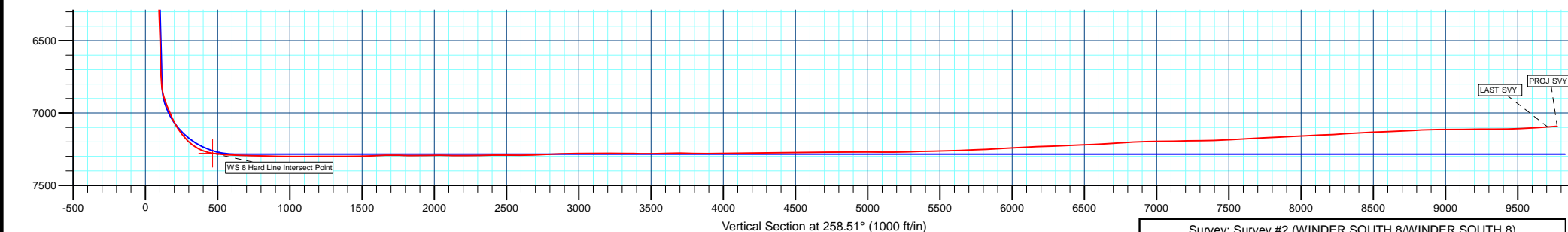
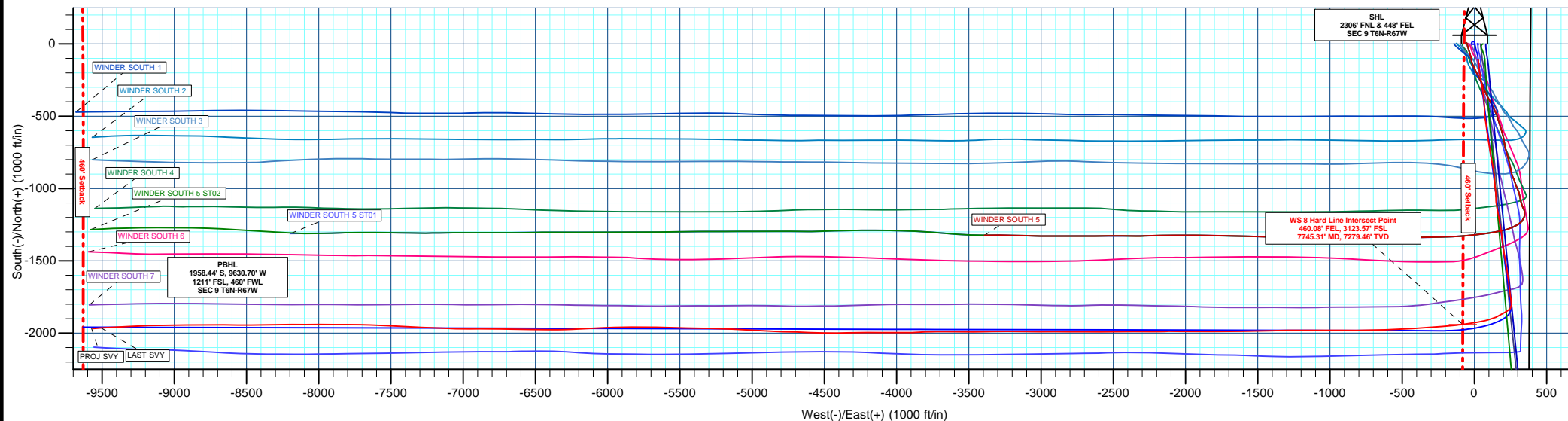
Magnetic Field  
Strength: 52516.4snT  
Dip Angle: 66.94°  
Date: 09/20/2016  
Model: IGRF2015

#### PROJECT DETAILS: WELD COUNTY, CO

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

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3580.00	3681.31	PARKMAN
4140.00	4276.57	SUSSEX
4700.00	4871.82	SHANNON
6905.00	7214.89	SHARON SPRINGS
6951.00	7264.67	NIORARA
7058.00	7387.47	NIO B TARGET
7240.00	7674.05	FORT HAYS
7275.00	7788.37	CODELL



Survey: Survey #2 (WINDER SOUTH 8/WINDER SOUTH 8)

Created By: TRACY WILLIAMS Date: 13:21, December 12 2016