

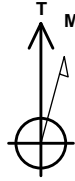


Well Name: WAAG 20
Surface Location: WAAG SOUTH
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4868.0

WELL @ 4884.0ft (Original Well Elev)
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1445800.88 3220291.56 40° 33' 15.912 N 104° 42' 25.992 W WAAG 20

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1394.7	9.89	25.37	1392.2	38.5	18.3	2.00	25.37	-10.9	
4	6115.4	9.89	25.37	6042.8	771.4	365.7	0.00	0.00	-218.0	
5	6610.1	0.00	0.00	6535.0	809.9	384.0	2.00	180.00	-228.9	
6	6640.1	0.00	0.00	6565.0	809.9	384.0	0.00	0.00	-228.9	
7	7540.1	90.00	270.62	7138.0	816.1	-188.9	10.00	270.62	335.4	
8	1980.7	90.00	270.61	7138.0	863.9	-4629.3	0.00	0.00	4709.2	TD / PBHL WAAG SOUTH 20



Azimuths to True North
Magnetic North: 8.42°
Magnetic Field
Strength: 52887.3snT
Dip Angle: 67.07°
Date: 8/3/2014
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
LP WAAG SOUTH 20	7138.0	816.1	-188.9	40° 33' 23.976 N	104° 42' 28.440 W	Point
TD / PBHL WAAG SOUTH 20	7138.0	863.9	-4629.3	40° 33' 24.444 N	104° 43' 25.968 W	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3610.0	3645.9	PARKMAN
4337.0	4383.9	SUSSEX
4730.0	4782.8	SHANNON
7008.0	7146.5	NIOBRARA

