

WELL LOCATION PLAT

Page 4 Cross Section

Applicant/Well Operator Name Range Resources - Appalachia, LLC	DEP ID# 141142	Well (Farm) Name Sasso, Leonard Unit	Well # 11H
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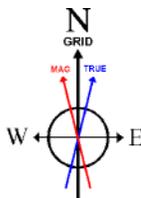
WELL PLAN

Operator Name: Range Resources - Appalachia, LLC
 Well/Farm Name: Sasso, Leonard Unit

DEP Use Only	Permit #
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	Latitude	Longitude	
KOP:	TVD: <u>5306.91</u> TMD: <u>5306.91</u>	<u>40°22'04.80"N</u>	<u>80°21'28.48"W</u>
Landing Point:	TVD: <u>6240.00</u> TMD: <u>7262.86</u>	<u>40°22'15.71"N</u>	<u>80°21'18.75"W</u>

Notes:



BGGM (1900.0 to 2019.0) Dip: 67.36° Field: 52472.6 nT
 Magnetic North is 9.02 degrees West of True North (at 29/Aug/2017)
 Grid North is 1.69 degrees West of True North
 To correct azimuth from True to Grid add 1.69 degrees
 To correct azimuth from Magnetic to Grid subtract 7.33 degrees

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	62.202	0.00	0.00	0.00	0.00	0.00
KOP 1	5306.91	0.000	62.202	5306.91	0.00	0.00	0.00	0.00
End of Build	5956.91	65.000	62.202	5826.19	154.28	292.64	10.00	-10.80
KOP 2	6345.93	65.000	62.202	5990.59	318.71	604.52	0.00	-22.32
LP	7262.86	90.000	330.333	6240.00	1080.93	785.55	10.00	550.36
PBHL	20035.86	90.000	330.333	6240.00	12179.61	-5536.54	0.00	13323.36

