

# Southwinds Energy, LLC Drillers Log

**Operator:** Raygary Oil Co.

**Address:** 3435 CR1900

Havana, KS 67347

<b>Lease</b>	Defenbaugh
<b>Well No.</b>	24
<b>Footage Location</b>	Section 34 T33S R14E
	860 FSL & 3523 FEL
<b>Contractor</b>	Southwinds Energy, LLC
<b>Spud Date</b>	9/18/2013
<b>Date Completed</b>	9/20/2013
<b>Total Depth</b>	765'

Casing Record	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Cement
Surface	12.25"	8.625"	20 lbs./ft	21.7'	Portland - 6sx
Production	6.75"	4.5"	9.5 lbs./ft	760.75'	-

## Well Log

Formation	Top	Bottom	Formation	Top	Bottom
Topsoil	0	3	Lime	748	761
Clay	3	13	Shale	761	765
Shale	13	29			
Lime	29	31			
Shale	31	58			
Sand	58	74			
Shale	74	80			
Sand	80	84			
Shale	84	211			
Lime	211	219			
Sand	219	320			
Shale	320	353			
Sand	353	378			
Shale	378	499			
Lime	499	512			
Sand	512	522			
Shale	522	664			
Lime	664	675			
Sand	675	710	Core	681	701
Sandy Shale	710	715			
Shale	715	748			