

# Southwinds Energy, LLC Drillers Log

Operator: G & J Oil Co.  
 Address: PO Box 188  
 Caney, KS 67333

License #34133

Lease	Brant
Well No.	13-02 API: 15-019-27364
Footage Location	Section 15 T34S R13E 390 FSL & 1325 FEL
Contractor	Southwinds Energy, LLC
Spud Date	11/15/2013 ✓
Date Completed	11/22/2013 ✓
Total Depth	2060'

Casing Record	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Cement	Sacks
Surface	12.75"	8.625"	20lbs/ft	43'	Portland	10
Production	6.75"	4.5"	9.5lbs/ft	2048.49'		200

## Well Log

Formation	Top	Bottom	Formation	Top	Bottom
Topsoil	0	2	Sand (show)	830	845
Clay	2	15	Shale	845	940
Shale	15	43	Lime	940	965
Sand	43	57	Shale	965	1056
Sand (hard)	57	61	Lime	1056	1087
Shale	61	95	Shale	1087	1097
Sand	95	136	Lime	1097	1116
Shale	136	315	Shale	1116	1124
Sand	315	378	Lime	1124	1136
Shale	378	390	Shale	1136	1203
Sand	390	464	Lime	1203	1207
Lime	464	470	Sand (odor)	1207	1215
Shale	470	535	Shale	1215	1379
Lime	535	540	Sandy Shale	1379	1396
Sandy Shale	540	550	Shale	1396	1475
Shale	550	575	Sand (gas odor)	1475	1485
Sand	575	580	Shale	1485	1535
Shale	580	718	Sandy Shale	1535	1540
Lime	718	733	Chat	1540	1595
Sand (show)	733	768	Lime	1595	1673
Shale	768	793	Sand	1673	1737
Lime	793	803	Lime	1737	1765
Shale	803	815	Shale	1765	1848
Lime	815	830	Lime	1848	1917
			Sand (odor)	1917	1918
			Lime	1918	2060