

**Little Sioux Ethanol – Well #3****4808 F Avenue****Marcus, Iowa****Started 11/8/06, Completed 11/28/06****Log of Well**

0'	To	4'	Brown Clay & Topsoil
4'	To	7'	Sandy Brown Clay
7'	To	21'	Gray Clay
21'	To	32'	Tan Clay
32'	To	46'	Boulders & Clay
46'	To	61'	Brown Clay
61'	To	62'	Medium Sand
62'	To	104'	Brown Clay
104'	To	130'	Blue & Gray Clay
130'	To	141'	Brown Sand
141'	To	151'	Blue Clay
151'	To	152'	Pink & Black Boulder
152'	To	230'	Blue & Gray Clay
230'	To	351'	Boulder
351'	To	351'	Boulder
351'	To	380'	Blue Clay
380'	To	448'	Blue Clay
448'	To	456'	Sand
456'	To	538'	Blue Clay & Sandstone
538'	To	592'	Light Blue Clay & Sandstone
592'	To	612'	Red Shale
612'	To	619'	Light Brown Limerock
619'	To	628'	Light Brown & Blue Shale Mix
628'	To	629'	Blue Shale & Broken Limerock
629'	To	631'	Light Brown Limerock
631'	To	635'	Light Brown Broken Limerock
635'	To	642'	Brown Limerock
642'	To	645'	Open Gap – Water 1000+ GPM
645'	To	674'	Brown Limerock
674'	To	691'	Gray Limerock
691'	To	735'	Brown Limerock
735'	To	848'	Brown Limerock
848'	To	901'	Gray & Brown Limerock
901'	To	912'	Blue Shaleroack

**Construction Record**

The well is cased to 624' below ground with 14" OD X .375 wall, A53B, steel casing. A 17.5" hole was drilled to 624' and the casing installed and the annular space grouted with neat cement grout. A 12.625" hole was then drilled from 624' to 648' and 29' of 11.75" OD X .330 wall steel, perforated (to admit water) was installed from 619' to 648'. A 10" hole was then drilled from 648' to 912'. The static water level was 265'. The well was test pumped at a rate of 1,600 gallons per minute for 12 hours and the well drew down to 278'.

Little Sioux - GPS readings

