

Shawver Well Company, Inc.2700 Stanley Avenue
Fredericksburg, IA 50630

76188

(563) 237-5341
(800) 568-4449

Location of Well On Hay Lane Hiawatha, IA 52233 County Linn Township Monroe Section 19 Quarters NE Customer Information <u>City of Hiawatha</u> 101 Emmons Street Hiawatha, IA 52233 Job Information Area FB Confirmation Start Date 7/16/2013 End Date 7/30/2013 Latitude Longitude PWTS # Warranty Date Permit Number 5735045 Warranty	Well Site Information Actual Size 12.75" Pump Inst -- Liner--ft Depth 500' Sulfide -- Screen-- Elevation SWL RPS Max GPM Made Water 138', 193', 253' Screen Size Slot Size Riser Pipe Set From Perforated From Tail Pipe Air Lift Exploratory -- To Ft Mock Rock -- Acidize -- Well Use Driller Dave Hawleg; Cert #: 2814 Remarks:																																																																																																													
Well Formation Log <table border="1"> <thead> <tr> <th>From-To</th> <th>Color</th> <th>Formation</th> </tr> </thead> <tbody> <tr><td>0 - 6</td><td>Brown</td><td>Topsoil - Clay</td></tr> <tr><td>6 - 21</td><td></td><td>Sand - Clay</td></tr> <tr><td>21 - 24</td><td></td><td>Gravel</td></tr> <tr><td>24 - 38</td><td>Blue</td><td>Clay</td></tr> <tr><td>38 - 41</td><td>Brown</td><td>Limestone</td></tr> <tr><td>41 - 72</td><td>Brown - Gray</td><td>Limestone</td></tr> <tr><td>72 - 89</td><td>Brown</td><td>Limestone</td></tr> <tr><td>89 - 94</td><td>Brown - Gray</td><td>Limestone</td></tr> <tr><td>94 - 112</td><td>Gray</td><td>Shale - Soft</td></tr> <tr><td>112 - 117</td><td>Brown</td><td>Limestone</td></tr> <tr><td>117 - 126</td><td>Dark Brown</td><td>Limestone</td></tr> <tr><td>126 - 138</td><td>Brown</td><td>Limestone - Broken</td></tr> <tr><td>138 - 143</td><td>Gray</td><td>Limestone</td></tr> <tr><td>143 - 172</td><td>Brown - Gray</td><td>Limestone</td></tr> <tr><td>172 - 185</td><td>Gray - Black</td><td>Shale - Soft</td></tr> <tr><td>185 - 202</td><td>Brown - Gray</td><td>Limestone</td></tr> <tr><td>202 - 218</td><td>Crete</td><td>Limestone</td></tr> <tr><td>218 - 224</td><td></td><td>Limestone & Shale</td></tr> <tr><td>224 - 238</td><td>Gray</td><td>Limestone</td></tr> <tr><td>238 - 253</td><td>Gray - Tan</td><td>Limestone</td></tr> <tr><td>253 - 261</td><td>Crete</td><td>Limestone</td></tr> <tr><td>261 - 320</td><td>Crete</td><td>Limestone with Chert</td></tr> <tr><td>320 - 354</td><td>Yellow - Crete</td><td>Limestone</td></tr> <tr><td>354 - 355</td><td>Gray</td><td>Limestone with Chert</td></tr> </tbody> </table>	From-To	Color	Formation	0 - 6	Brown	Topsoil - Clay	6 - 21		Sand - Clay	21 - 24		Gravel	24 - 38	Blue	Clay	38 - 41	Brown	Limestone	41 - 72	Brown - Gray	Limestone	72 - 89	Brown	Limestone	89 - 94	Brown - Gray	Limestone	94 - 112	Gray	Shale - Soft	112 - 117	Brown	Limestone	117 - 126	Dark Brown	Limestone	126 - 138	Brown	Limestone - Broken	138 - 143	Gray	Limestone	143 - 172	Brown - Gray	Limestone	172 - 185	Gray - Black	Shale - Soft	185 - 202	Brown - Gray	Limestone	202 - 218	Crete	Limestone	218 - 224		Limestone & Shale	224 - 238	Gray	Limestone	238 - 253	Gray - Tan	Limestone	253 - 261	Crete	Limestone	261 - 320	Crete	Limestone with Chert	320 - 354	Yellow - Crete	Limestone	354 - 355	Gray	Limestone with Chert	Bore Log <table border="1"> <thead> <tr> <th>From-To</th> <th>Bit Size - Number</th> <th></th> </tr> </thead> <tbody> <tr><td>0 - 41</td><td>22"</td><td>Hole Opener</td></tr> <tr><td>41 - 228</td><td>17 1/2"</td><td></td></tr> <tr><td>228 - 500</td><td>11 7/8"</td><td></td></tr> </tbody> </table> Well Casing Log <table border="1"> <thead> <tr> <th>From-To</th> <th>Casing</th> <th></th> </tr> </thead> <tbody> <tr><td>0 - 41</td><td>18" x Steel</td><td></td></tr> <tr><td>0 - 228</td><td>12 3/4" x .375 Steel</td><td></td></tr> <tr><td>1 - 0</td><td>18" x Steel</td><td></td></tr> <tr><td>2 - 0</td><td>12 3/4" x .375 Steel</td><td></td></tr> <tr><td>2 - 0</td><td>12 3/4" x .375 Steel</td><td></td></tr> </tbody> </table> Screen Size Slot Size Set From Riser Pipe Tail Pipe Well Grout Used <table border="1"> <thead> <tr> <th>Amount</th> <th>Type</th> </tr> </thead> <tbody> <tr><td>302 sacks</td><td>Neat Cement</td></tr> </tbody> </table>	From-To	Bit Size - Number		0 - 41	22"	Hole Opener	41 - 228	17 1/2"		228 - 500	11 7/8"		From-To	Casing		0 - 41	18" x Steel		0 - 228	12 3/4" x .375 Steel		1 - 0	18" x Steel		2 - 0	12 3/4" x .375 Steel		2 - 0	12 3/4" x .375 Steel		Amount	Type	302 sacks	Neat Cement
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