

PWSID # A1233301

Iowa Department of Natural Resources Geological Survey Bureau  
109 Trowbridge Hall, Iowa City, IA 52242-1319 PH (319) 335-1575

# WELL RECORD

6 17 12

Permit No. 2006-2270

| <b>Site identification</b> <span style="float: right;">North well</span><br>Property Owner <u>R.S. Billups Development Inc.</u><br>Address <u>24XX Hwy 22, Kalona, IA 52247</u><br>Tenant _____<br>Well Depth <u>234</u> ft Date completed <u>3/14/06</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |              |                 | <b>Drill method</b> <input checked="" type="checkbox"/> rotary <input type="checkbox"/> auger <input type="checkbox"/> cable <input type="checkbox"/> other _____<br><b>Hole size</b><br><u>10</u> inch from <u>0</u> ft to <u>220</u> ft<br><u>4</u> inch from <u>220</u> ft to <u>234</u> ft                                                                                                                                                                                                                                                                                                                                         |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|--------------|-----------------------|-----------|-----------|--------------|-----------------|--------|--------|------|------|-------|-----------|------|-----|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|--|--|------|-----|-----|------|--|------|-----|-----|--|--|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------|-----------|--------------|-----------------|---------|---|-----|----------|
| <b>Location</b> County <u>WASHINGTON</u><br>mi. <sup>N</sup> and mi. <sup>E</sup> of intersection of _____ and _____<br><u>NE</u> 1/4 of the <u>SW</u> 1/4 of the <u>NW</u> 1/4 of Sec <u>9</u> TWP <u>77</u> RNG <u>7</u> E<br>Show exact location of well in section grid with a dot (•). Sketch map of well location on property.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |              |                 | Record all depth measurements from ground level (GL). Use (+) for above GL measurements.<br><b>Casing</b> Drive shoe <input checked="" type="checkbox"/> (yes/no) Pitless adapter <input checked="" type="checkbox"/> (yes/no)<br><table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Size (ID/OD)</th> <th>Type / Wt</th> <th>Depth top</th> <th>Depth bottom</th> <th>Amount (length)</th> </tr> </thead> <tbody> <tr> <td>6" SDR</td> <td>17 DVL</td> <td>+1</td> <td>220</td> <td>221</td> </tr> <tr> <td>5" SCH 40</td> <td>S.S.</td> <td>217</td> <td>224</td> <td>7</td> </tr> </tbody> </table> |           |           |              | Size (ID/OD)          | Type / Wt | Depth top | Depth bottom | Amount (length) | 6" SDR | 17 DVL | +1   | 220  | 221   | 5" SCH 40 | S.S. | 217 | 224  | 7                                                                                                                                                                                                                                                                                                |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| Size (ID/OD)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Type / Wt | Depth top    | Depth bottom    | Amount (length)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 6" SDR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 17 DVL    | +1           | 220             | 221                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 5" SCH 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | S.S.      | 217          | 224             | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |              |                 | <b>Perforated or slotted casing?</b> (yes/no) <input checked="" type="checkbox"/><br>Perforated / slotted from _____ ft to _____ ft<br>Perforated / slotted from _____ ft to _____ ft                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| <input type="checkbox"/> upland <input checked="" type="checkbox"/> hillside <input type="checkbox"/> valley Elevation (if known) _____<br><b>Formation log</b> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>From</th> <th>To</th> <th>Color</th> <th>Hardness</th> <th>Formation description</th> </tr> </thead> <tbody> <tr><td>0</td><td>28</td><td>Yellow</td><td></td><td>Clay</td></tr> <tr><td>28</td><td>36</td><td>SAND</td><td></td><td></td></tr> <tr><td>36</td><td>142</td><td>Blue</td><td></td><td>Clay</td></tr> <tr><td>142</td><td>146</td><td></td><td></td><td>SAND</td></tr> <tr><td>146</td><td>194</td><td>Blue</td><td></td><td>Clay</td></tr> <tr><td>194</td><td>234</td><td></td><td></td><td>SAND</td></tr> </tbody> </table>                                                         |           |              |                 | From                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | To        | Color     | Hardness     | Formation description | 0         | 28        | Yellow       |                 | Clay   | 28     | 36   | SAND |       |           | 36   | 142 | Blue |                                                                                                                                                                                                                                                                                                  | Clay | 142 | 146 |  |  | SAND | 146 | 194 | Blue |  | Clay | 194 | 234 |  |  | SAND | <b>Casing grouted?</b> <input checked="" type="checkbox"/> (yes/no) Placement method <u>Halliburton</u><br><table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Type</th> <th>Depth Top</th> <th>Depth bottom</th> <th>Amount (vol/wt)</th> </tr> </thead> <tbody> <tr> <td>Benseal</td> <td>0</td> <td>220</td> <td>19 sacks</td> </tr> </tbody> </table> |  |  |  | Type | Depth Top | Depth bottom | Amount (vol/wt) | Benseal | 0 | 220 | 19 sacks |
| From                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | To        | Color        | Hardness        | Formation description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 28        | Yellow       |                 | Clay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 36        | SAND         |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 142       | Blue         |                 | Clay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 142                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 146       |              |                 | SAND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 146                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 194       | Blue         |                 | Clay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 194                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 234       |              |                 | SAND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Depth Top | Depth bottom | Amount (vol/wt) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| Benseal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0         | 220          | 19 sacks        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| <b>Well screen?</b> <input checked="" type="checkbox"/> (yes/no)<br><table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot size</th> <th>Depth Top</th> <th>Depth Bottom</th> <th>Length</th> <th>Material</th> </tr> </thead> <tbody> <tr> <td>5"</td> <td>0.015</td> <td>224</td> <td>229</td> <td>5'</td> <td>S.S.</td> </tr> <tr> <td>5"</td> <td>0.025</td> <td>229</td> <td>234</td> <td>5'</td> <td>S.S.</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                         |           |              |                 | Diameter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Slot size | Depth Top | Depth Bottom | Length                | Material  | 5"        | 0.015        | 224             | 229    | 5'     | S.S. | 5"   | 0.025 | 229       | 234  | 5'  | S.S. | Bottom capped <input checked="" type="checkbox"/> (yes/no) with <u>S.S.</u><br>Seals / Packers <input checked="" type="checkbox"/> (yes/no) kind <u>K</u> depth <u>217</u> ft<br>Gravel packed (yes/no) <input checked="" type="checkbox"/> from _____ ft to _____ ft<br>type _____ amount _____ |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| Diameter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Slot size | Depth Top    | Depth Bottom    | Length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Material  |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 5"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.015     | 224          | 229             | 5'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | S.S.      |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| 5"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.025     | 229          | 234             | 5'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | S.S.      |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| <b>Well developed?</b> <input checked="" type="checkbox"/> (yes/no)<br>Explain <u>Air</u><br>(pumped, aerated, bailed) for <u>2</u> hrs at <u>80</u> GPM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |              |                 | <b>Pump installed?</b> <input checked="" type="checkbox"/> (yes/no) Date ____/____/____<br>Installer's name _____<br>Type of pump _____ Depth to intake _____ ft<br>Pump diameter _____ Rated capacity _____ GPM                                                                                                                                                                                                                                                                                                                                                                                                                       |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| <b>Water information</b> Aquifer: <input checked="" type="checkbox"/> sand / gravel <input type="checkbox"/> limestone <input type="checkbox"/> sandstone<br>Main water-supply zone from <u>224</u> ft to <u>234</u> ft <input type="checkbox"/> seepage well<br>Static water level <u>79</u> ft (below / above) GL; <input checked="" type="checkbox"/> tape <input type="checkbox"/> airline <input type="checkbox"/> E-line <input type="checkbox"/> estimate<br>Pumping water level <u>140</u> ft below GL; <input type="checkbox"/> tape <input type="checkbox"/> airline <input type="checkbox"/> E-line <input type="checkbox"/> estimate<br>At yield of <u>75+</u> GPM; <input type="checkbox"/> orifice <input type="checkbox"/> volumetric <input type="checkbox"/> estimate<br>Measurements taken at <u>3:00</u> (AM/PM) Date <u>3/14/06</u> |           |              |                 | <b>Water quality test?</b> <input checked="" type="checkbox"/> (yes/no) Date tested ____/____/____<br>Tested by <u>Hygenic Lab</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| <b>Remarks</b> (including depth of lost drilling fluids, materials, or tools)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |              |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |
| <b>Well use</b><br><input type="checkbox"/> Domestic <input type="checkbox"/> Municipal <input type="checkbox"/> Commercial<br><input type="checkbox"/> Livestock <input checked="" type="checkbox"/> Public supply <input type="checkbox"/> Monitoring<br><input type="checkbox"/> Test well <input type="checkbox"/> Irrigation <input type="checkbox"/> Other _____ (explain)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |              |                 | Contractor <u>Gingerich Well</u><br>Address <u>1331 Hwy 1, Kalona IA 52247</u><br>Driller <u>Alvin Gingerich</u> Certification no. <u>2639</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |           |              |                       |           |           |              |                 |        |        |      |      |       |           |      |     |      |                                                                                                                                                                                                                                                                                                  |      |     |     |  |  |      |     |     |      |  |      |     |     |  |  |      |                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |      |           |              |                 |         |   |     |          |