| PWTS No. or PWS No PWTS Permit No   |               |                |                   |   |  | GEOSAM Well No. (DNR use only)  |   |         |                 |             |            |                 |           |                   |  |
|---|---------------|----------------|-------------------|---|--|---|---|---------|-----------------|-------------|------------|-----------------|-----------|-------------------|--|
| Site Identification   |               |                |                   |   |  |   |   | Rotar   | y 🗆 Au          | ger 🔲 0     | Cable      |                 | Other     |                   |  |
| Property owner Rural Water System #1 Other ID S1R2  |               |                |                   |   |  |   |   |         | ***             |             |            | -               |           |                   |  |
| Address 4438 380th St. City Hospers   |               |                |                   |   |  |   | size                                    |         |                 | hole size   | conti      | nued            |           |                   |  |
| Tenant  |               |                |                   |   |  |   | inch from                               | 0_ ft t | o <u>352</u> ft | in          | ich        | from            |           | ft to ft          |  |
| Well depth  | 352           | ft             | D                 | inch from ft to ft inch from ft to ft   |  |   |   |         |                 |             |            |                 |           |                   |  |
| Location  | 1             |                | Cour              | Casing or Loop Pipe                     |  |   |   |         |                 |             |            |                 |           |                   |  |
|   |               |                |                   |   |  |   | all depth measur                        | ements  | from ground     | level (GL). | Use +      | for al          | bove GI   | L measurements.   |  |
| 43.0703110 Latitude 96.1921610 Longitude  |               |                |                   |   |  |   | Material                                | Depth   |                 | Depth       | perforated | Slotted         |           | Screen            |  |
| Decimal Degrees Degrees, Decimal Minutes Degrees, Minutes, Seconds  |               |                |                   |   |  |   | 200000000000000000000000000000000000000 |         | Тор             | Bottom      | ated       |                 |           | odeen             |  |
| SW 1/4 of the SW 1/4 of the SW 1/4 of Sec 5 TWP 96 RNG 45 W   |               |                |                   |   |  |   | Steel                                   |         |                 |             |            | □ □ slot size _ |           |                   |  |
| Show exact  | location of w | ell in section | grid with a dot ( | ). Sketch                               | n map of well location on property.                  | 20 Stainless V-wire 328 349   |   |         | Ø               |             |            |                 |           |                   |  |
| _   | N             |                |                   |   |  | 20  | Stainless V-w                           | /ire    | 349             | 352         |            |                 | ✓ slo     | ot size000        |  |
| L .   | <u>.</u>      |                |                   |   | Ž  |   |   |         |                 |             |            |                 | slo       | ot size           |  |
| w _   |               | E all          |                   |   |  |   |   |         |                 |             |            |                 | ☐ slo     | ot size           |  |
|   | <u>.</u>      |                |                   |   | 0.0  | Casing Grout Placement method   |   |         |                 |             |            |                 |           |                   |  |
| X   | <u> </u>      |                | -                 |   | 200.4  | Туре  |   |         |                 |             | Depth top  |                 |           | Depth bottom      |  |
|   | S             |                | 13)               |   | 200 ft   | Neat Cement   |   |         |                 |             |            | 0               |           | 265               |  |
| Formati   | on Log        |                |                   | i                                       |  | Bentonite Seal  |   |         |                 |             |            | 265             | 5         | 280               |  |
| From  | То            | Color          | Hardness          |   | Formation description                                |   |   |         |                 |             |            |                 |           |                   |  |
| 0   | 20            | brown          | loose             | top soi                                 | I & clay   | ☑ Gravel packed variety Chlorinated 280 352   |   |         |                 |             |            |                 |           | 352               |  |
| 20  | 57            | tan            | dense             |   | th ledges  | □ Seals/packers   |   |         |                 |             |            |                 |           |                   |  |
| 57  | 60            | tan            | dense             | 200200000000000000000000000000000000000 | ith clay layers                                      | Pump Installation Date/   |   |         |                 |             |            |                 |           |                   |  |
| 60  | 80            | blue           | dense             |   | clay with cobbles                                    |   |   |         |                 |             |            |                 |           | ft                |  |
| 80  | 100           | blue           | dense             | -                                       | clay with hard ledges                                | Pump diameter in Rated capacity GPN   |   |         |                 |             |            |                 |           | GPM               |  |
| 100   | 120           | blue           | dense             |   | clay with cobbles                                    | 10. 90. 30. 30. 30. 30. 30. 30. 30. 30. 30. 3   |   |         |                 |             |            |                 |           |                   |  |
| 120   | 125           | gray           | dense             | sandy                                   |  | Water Information Date 4 / 9 / 2014   |   |         |                 |             |            |                 |           | 9 / 2014          |  |
| 125   | 140           | tan            | dense             | sandy                                   |  | Use + for above GL measurements.  Static Water Level   Pumping Water Level   Yield   Duration |   |         |                 |             |            |                 |           |                   |  |
| 140   | 156           | tan            | dense             |   | clay with cobbles                                    | 3.000   |   |         |                 |             |            |                 |           |                   |  |
| 156   | 220           | gray           | dense             | sandy                                   |  |   |   |         |                 |             |            |                 | 24.00 hrs |                   |  |
| 220   | 240           | gray           | dense             |   | clay w/hard ledges                                   | Water level measurement:  |   |         |                 |             |            |                 |           | Estimate          |  |
| 240   | 260           | gray           | dense             |   | clay w/sand streaks                                  | Water yield measurement:  |   |         |                 |             |            |                 | stimate   |                   |  |
| 260   | 262           | tan            | dense             | sandy                                   |  | Main water-supply zone from 328 ft to 349 ft below GL   |   |         |                 |             |            |                 |           |                   |  |
| 262   | 300           | tan            | loose             |   | parse sand, clay streaks                             | Well Development  |   |         |                 |             |            |                 |           |                   |  |
| 300   | 302           | tan            | loose             | Hard                                    | n, coarse sand                                       | Well Development  |   |         |                 |             |            |                 |           |                   |  |
| 32  | 304           | ton            | dones             | 2000000                                 | (tional sheets as needed) Lo                         | ☑ Ph  | 3.001403 (0.001404000)                  |         |                 |             |            |                 |           |                   |  |
| 304 320 tan dense (ise additional seeds as needed)  Remarks (including depth of lost drilling fluids, materials-or tools) |               |                |                   |   |  | ☑ Ch  | emical explair                          | n: Aqu  | a Clear PF      | D           |            |                 |           |                   |  |
|   |               |                |                   |   |  |   |   |         |                 |             |            |                 |           |                   |  |
| MAY 0 1 2014 U  |               |                |                   |   |  | Contractor  |   |         |                 |             |            |                 |           |                   |  |
| Well Use  |               |                |                   |   |  | Company Charles Sargent Irrigation Company, Inc.  |   |         |                 |             |            |                 |           |                   |  |
| □ Domestic □ Public supply □ Livestock  |               |                |                   |   | Address 2016 Industrial Park Road, Carroll, IA 51401 |   |   |         |                 |             |            |                 |           |                   |  |
| Heat pump Commercial Irrigation # of borehole(s) Description  |               |                |                   |   |  | Driller Derek Schweitzer Certification no. 8338   |   |         |                 |             |            |                 |           |                   |  |
| # of borenole(s)   Monitoring   Other   |               |                |                   |   |  |   |   |         |                 |             |            |                 | Revisi    | ion Date: 10/2011 |  |

## WELL RECORD FORM

| PWTS N   | a. or PWS     | No.                                   |                 | GEOSAM Wed No. (DNR use only)                    |   |   |           |        |        |            |         |          |              |  |
|--|---------------|---------------------------------------|-----------------|--|---|---|-----------|--------|--------|------------|---------|----------|--------------|--|
|  | entificat     |                                       | <u> </u>        | PWTS Permit No                                   | Drill Method  |   |           |        |        |            |         |          |              |  |
| 1  | owner Ru      |                                       | System #1       | ווחט   | Method  | ∐ Rota  | any ∐iAu  | iger 🔲 | Cable  |            | Other   |          |              |  |
| Address  | 4438 380      | th St                                 |                 | Hole size hole size continued                    |   |   |           |        |        |            |         |          |              |  |
| Tenant   |               |                                       | -               | ٠١   |   | 0 a   | to 352 ft |        |        |            |         | ft to ft |              |  |
|  | 352           | n t                                   |                 | Date completed 3 / 26 / 2014                     | 1   |   |           |        |        |            |         |          |              |  |
| Locatio  |               |                                       |                 | nty Sioux  | inch_fromft toftinch_fromft toft Casing or Loop Pipe                                  |   |           |        |        |            |         |          |              |  |
| i  | dinates (NAI  | 083 datum)                            | -               |  | Record all depth measurements from ground level (GL). Use + for above GL measurements |   |           |        |        |            |         |          |              |  |
|  |               |                                       | atitude         | Longitude  | i   | 1   |           | Depth  | Depth  |            |         |          |              |  |
| ☐ Decim  | al Degrees    | Degree                                | es, Decimal M   | linutes Degrees, Minutes, Seconds                | 6-1   | Mater   | iai       | Тор    | Bottom | Perforated | Some    |          | Screen       |  |
| 1/4  | of the        | _ 1/4 of the                          | 1/4 of          | SecTWPRNGW                                       |   |   |           |        |        |            |         | □ s≭     | ot size      |  |
| Show exact   | location of w | rell in section                       | grid with a dot | (+). Sketch map of well location on property.    |   |   |           |        |        |            |         | ☐ sk     | ot size      |  |
|  | N             | <u> </u>                              |                 |  |   |   |           |        |        |            |         | ☐ sk     | ot size      |  |
|  | <u> </u>      | _                                     |                 | N<br>T   | <u> </u>  |   |           |        |        |            |         | ☐ sk     | ot size      |  |
| w _  | <u> </u>      | E                                     |                 |  |   |   |           |        |        |            |         | sk       | x size       |  |
| "L   | <u>,</u>      | ֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓ |                 | ı  | Casing Grout Placement method   |   |           |        |        |            |         |          |              |  |
| x  | <u>'</u>      |                                       | <b> </b>        |  | Type Depth top  |   |           |        |        |            |         |          | Depth bottom |  |
|  | \$            |                                       | <b>,</b>        | 200 ft   |   |   |           |        |        |            |         |          |              |  |
| Formati  | on Log        |                                       |                 |  |   |   |           |        |        |            |         |          |              |  |
| From   | То            | Color                                 | Hardness        | Formation description                            |   |   |           |        |        |            |         |          |              |  |
| 320  | 340           | tan                                   | dense           | sand/gravel and clay streaks                     | ☐ Gravel packed variety   |   |           |        |        |            |         |          |              |  |
| 340  | 349           | tan                                   | dense           | sand & clay streaks                              | ☐ Seats/packers   |   |           |        |        |            |         |          |              |  |
| 349  | 360           | gray                                  | hard            | shale  | Pump Installation Date / /  |   |           |        |        |            |         |          |              |  |
| 360  | 380           | gray                                  | hard            | shale w/sandstone streaks                        | - Type of pump Depth to intake  |   |           |        |        |            |         |          | ft           |  |
| 380  | 386           | gray                                  | hard            | shale  | Pump diameter in Rated capacity GPI   |   |           |        |        |            |         |          |              |  |
| 386  | 400           | tan                                   | dense           | sand w/ fine gravel                              | reace capacityG   |   |           |        |        |            |         |          |              |  |
| 400  | 416           | tan                                   | dense           | sand w/clay streaks                              | Water Information Date/   |   |           |        |        |            |         |          |              |  |
| 416  | 420           | gray                                  | hard            | shale  | Use + for above GL measurements.  |   |           |        |        |            |         |          |              |  |
| 420  | 440           | gray                                  | hard            | shale w/sandstone streaks                        |   |   |           |        |        |            |         | Duration |              |  |
| 440  | 516           | gray                                  | hard            | shale  | ftftGPM   |   |           |        |        |            | hrs     |          |              |  |
| 516  | 517           |                                       | HARD            | Very hard  | Water level measurement: ☐Sonic ☐Tape ☐Airline ☐E-fine ☐Estimate                      |   |           |        |        |            |         |          |              |  |
|  |               |                                       |                 |  | Water yield measurement: ☐Orifice ☐Volumetric ☐Estimate                               |   |           |        |        |            |         | timate   |              |  |
|  |               |                                       |                 |  | Main w  | ater-supply zo  | ne from   | ·      | ft to  |            | ft belo | w GL     |              |  |
|  | ,             |                                       |                 |  | Weil  | Developmo   | ent       |        |        |            |         |          |              |  |
|  |               |                                       |                 |  | 1   | •   |           |        |        |            |         |          |              |  |
|  |               |                                       |                 | Physical explain:                                |   |   |           |        |        |            |         |          |              |  |
| Remarks (including depth of lost drilling fluids, materials, or tools)       |               |                                       |                 |  |   | Chemical explain:   |           |        |        |            |         |          |              |  |
|  |               |                                       |                 |  |   | Contractor  |           |        |        |            |         |          |              |  |
|  |               |                                       |                 | Company Charles Sargent Irrigation Company, Inc. |   |   |           |        |        |            |         |          |              |  |
| Well Use   |               |                                       |                 |  | Address 2016 Industrial Park Road, Carroll, IA 51401                                  |   |           |        |        |            |         |          |              |  |
| ☐ Domestic ☐ Public supply ☐ Livestock ☐ Heat pump ☐ Commercial ☐ Irrigation |               |                                       |                 |  |   |   |           |        |        |            |         |          |              |  |
| # of borehole(s)   Monitoring   Other  |               |                                       |                 |  |   | Driller Derek Schweitzer Certification no. 8338  Revision Date: 10/2011 |           |        |        |            |         |          |              |  |