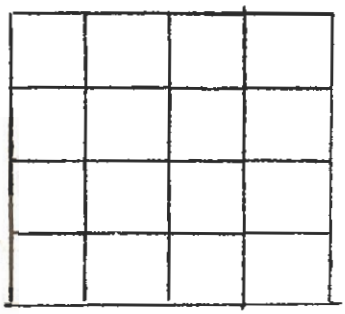
CJ = 10'

#16228

IOWA GEOLOGICAL SURVEY
In Cooperation with U.S. Geological Survey
RECORD OF WELL



Location:

Town: ARCADIA (NE) (SW) County CARROLL

SW¼ NW¼ Sec. 15, T. 84, N. ___, R. 36 (E) (W) ___ Twp.

Well name and number ARCADIA TOWN WELL

Owner ARCADIA Address ARCADIA, IOWA

Tenant ___ Address ___

Contractor RASMUSSEN WELL Co. Address IDA GROVE, IOWA

Drillers ___

Drilling dates 1961

Well data:

Altitudes: Drilling curb ___ feet; Land surface ___ feet ___

Determined by ___

Topographic position ___

Total depth: Reported 782 feet; Measured ___ feet ___

___

Drilling method ___

Hole and casing data ___

___

___

Original depth to water ___ ft. above below ___ Date ___

Source of data ___

Sources of water: Principal _____

Others _____

PRODUCTION DATA

Date

Static water level _____

Pumping water level _____

Yield (g.p.m.) 13 - PUMP SET @ 522

Measuring point _____

Duration of pumping _____

Specific capacity _____

LABORATORY DATA PLS-737-738

Well No. #16228 Sample range 1 - 782 No. of samples 148

No. of dupls. and cond. / / Washed range 304 - 782

Samples prepared by Bud Date 10-19-65

Logged by NORTHUP Date 6/22/64

Correlations by _____ Date 6/22/64

# DRILLER'S NOTEBOOK

WELL RECORD

Driller Rasmusson Well Co.

Address Ida Grove

#16228

Town of Arcadia
Owner

Address Arcadia

RETURN TO
**IOWA GEOLOGICAL SURVEY**
IOWA CITY, IOWA

WHEN RECORD IS COMPLETED PUT IN ENVELOPE AND MAIL TO

THE DIRECTOR
IOWA GEOLOGICAL SURVEY
IOWA CITY, IOWA

## DRILLER'S NOTE

It is important that a driller's notebook, filled out as completely as possible, be sent to the Iowa Geological Survey at the completion of each hole. A number of drillers have found it convenient to string samples from a single well on a heavy wire and attach the log book to them. A hole has been punched in the log book for this purpose.

Sample sacks and log books will be furnished by the Geological Survey. A copy of the log book will be made and returned if desired by the driller.

## SUGGESTIONS TO DRILLERS

1. Samples should be taken from each bed passed through, and never more than 5 feet apart, even in the same bed.

2. Samples should not be washed, except to remove excess drilling mud, as washed samples may give a wrong idea of the character of the bed.

3. Fill out the label on each sample bag with the name of the well and the depth interval which the sample represents.

4. Make frequent use of the "Description" column to explain the material being drilled.

5. Note depth and thickness of all water-bearing layers.

6. Note the quality of the water from each layer: as hard, soft, salty, alkaline, or sulphur bearing.

7. Note height to which water from each layer rises in well, and give flow or capacity in gallons per minute.

8. Fossils, such as oyster, clam, and other shells, are important and should be placed in bags with the material with which they are found and carefully labeled as to the depth from which they were obtained.

9. If you do not understand what is wanted, or desire information on any point, write to the Iowa Geological Survey, Iowa City, Iowa.

10. Samples may be boxed and sent to IOWA GEOLOGICAL SURVEY, IOWA CITY, IOWA, EXPRESS COLLECT.

The Iowa Geological Survey desires to assist and cooperate with owners and drillers in every way possible, and will be glad to answer questions and assist in the solution of problems at any time.

PB-11733

Continued

## WELL RECORD

Well is located [illegible] miles N/S and [illegible] miles E/W from [illegible] Town

[illegible] (Nearest Town) in Carroll (County),

in the SW ¼ SW ¼ NW ¼ Sec. 15 T. 89N R. 36W

Owner Arcadian Nitrogen Well No. ____

Postoffice address ____

Contractor Rasmussen Well Co.

Address ____

Driller ____

Well begun ____, 19__;

completed ____, 1964

Rig used—Cable, Rotary, Jet, or ____

Depth of well 782 (Feet)

Size of hole (note total amount of each size) ____

Main water supply at ____ (Feet below surface)

Final water head ____ (Feet above or below surface)

Is well pumped? ____

Yield 13 (Gallons per minute)

Water level when pumping ____

Position of well ____ (Upland, valley, side hill, etc.)

| SAMPLE NO. | DEPTH From | DEPTH To | THICKNESS | DESCRIPTION OF BEDS — KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC. |
|---|---|---|---|---|
| | 0 | 1 | | Black soil |
| | 1 | 20 | | yellow clay |
| | 20 | 30 | | sandy yellow clay |
| | 30 | 40 | | Gray clay |
| | 40 | 45 | | Blue clay |
| | 45 | 58 | | Gray clay |
| | 58 | 80 | | yellow clay |
| | 80 | 185 | | blue clay |
| | 185 | 233 | 200-201 sand | sand & blue clay |
| | 233 | 240 | | Gray clay |
| | 240 | 245 | | Tan |
| | 245 | 249 | | Dark Brown clay |
| | 249 | 258 | | sand |
| | 258 | 280 | | blue clay |
| | 280 | 284 | | brownish tan clay |
| | 284 | 295 | | blue clay |
| | 295 | 298 | | brownish tan clay |

| SAMPLE NO. | DEPTH From | DEPTH To | THICKNESS | DESCRIPTION OF BEDS — KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC. |
|---|---|---|---|---|
| | 298 | 299 | | white clay |
| | 299 | 300 | | tan clay |
| | 300 | 301 | | Rusty tan clay |
| | 301 | 302 | | pink clay |
| | 302 | 304 | | yellowish tan clay & tuff |
| | 304 | 305 | | pink clay |
| | 305 | 307 | | Rusty red |
| | 307 | 308 | | white shale |
| | 308 | 310 | | rusty tan shale |
| | 310 | 311 | | white shale |
| | 311 | 315 | | blue shale |
| | 315 | 320 | | pink shale |
| | 320 | 325 | | pink & white sha |
| | 325 | 330 | | red shale |
| | 330 | 335 | | tan shale |
| | 335 | 345 | | tan & little white shale |
| | 345 | 350 | | rusty pink shal |

| SAMPLE NO. | DEPTH From | DEPTH To | THICKNESS | DESCRIPTION OF BEDS — KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC. |
|---|---|---|---|---|
| | 350 | 352 | | red shale |
| | 352 | 358 | | rusty pink shale |
| | 358 | 368 | | purple shale |
| | 368 | 383 | | lt. shale |
| | 383 | 395½ | fine | white sandstone |
| | 395½ | 405 | | Brown shale |
| | 405 | 410 | | light Brown shale |
| | 410 | 411 | | Gravel Gray shale |
| | 411 | 411⅓ | | limestone |
| | 411⅓ | 413 | | black shale |
| | 413 | 420 | | streak Blue Gravel Gray shale |
| | 420 | 428 | | brown shale |
| | 428 | 433 | | Gravel Gray shale |
| | 433 | 440 | | Gravel Gray shale & Limestone |
| | 440 | 455 | | Gravel Gray shale |
| | 455 | 465 | | " dark shale |
| | 465 | 469 | | Brown shale |

| SAMPLE NO. | DEPTH From | DEPTH To | THICKNESS | DESCRIPTION OF BEDS — KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC. |
|---|---|---|---|---|
| | 469 | 480 | | white shale |
| | 480 | 485 | | Grey shale |
| | 485 | 492 | | Blue shale |
| | 492 | 501 | | Black shale |
| | 501 | 509 | | White Grey shale |
| | 509 | 514 | | Brown shale |
| | 514 | 520 | | light Grey shale |
| | 520 | 522 | | Dark Grey shale |
| | 522 | 529 | | light Grey shale |
| | 529 | 536 | | Drillers like sandstone but couldn't get sample |
| | 536 | 545 | | Blue shale |
| | 545 | 560 | | Grey shale |
| | 560 | 573 | | white Grey shale |
| | 573 | 599 | | Brown shale |
| | 599 | 610 | | Grey shale |
| | 610 | 615 | | Grey & Black shale & coal |
| | 615 | 620 | | Light Grey shale |

| SAMPLE NO. | DEPTH From | DEPTH To | THICKNESS | DESCRIPTION OF BEDS<br>KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC. |
|---|---|---|---|---|
| | 620 | 635 | | Dark Blue shale |
| | 635 | 639 | | light Grey shale |
| | 639 | 645 | | fine sdstone |
| | 645 | 680 | | Black shale |
| | 680 | 691 | | Grey shale |
| | 691 | 695 | | fine white sandstone |
| | 695 | 700 | | limestone |
| | 700 | 717 | | LIMESTONE |
| | 717 | 722 | | LIGHT SHALE |
| | 722 | 732 | | WHITE SHALE |
| | 732 | 737 | | " " & LIMESTONE |
| | 737 | 753 | | LIGHT SHALE & LIMESTONE |
| | 753 | 758 | | LIMESTONE |
| | 758 | 764 | | SHALE |
| | 764 | 774 | | SHALE & SOME LIMESTONE |
| | 774 | 782 | | SHALE & A LITTLE LIMESTONE |
| | | | | |