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-18994 SP

WELL RECORD

In Town

Well is located ..... N or S miles and ..... E or W miles from

Decorah (Nearest Town) in Winneshiek (County),

in the ..... ¼ ..... ¼ Sec. ..... T. ..... R. .....

Owner City of Decorah Well No. .....

Postoffice address Decorah Iowa

Contractor Hoge & Hamel

Address Lincoln Iowa

Driller .....

Well begun March 25, 1953;

completed June 25, 1953

Rig used—Cable, Rotary, Jet, or Cable tool

Depth of well 934' (Feet)

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

10" bottom (See last page of book)

Main water supply at ? (Feet below surface)

Final water head ..... (Feet above or below surface)

Is well pumped? Yes

Yield 155 gpm (Gallons per minute)

Water level when pumping 205 ?

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

Date and Time	Water Level	SOURCE OF WATER		Production in Gallons per Minute	Pumping Level
		Depth	Type of Rock		

NOTE: Water levels should be recorded at time of change AND at regular intervals; for example each morning before drilling starts or at the end of each 100 feet of drilling.

RECORD OF PERMANENT CASING

Size Pipe	Amount of Pipe	Depth to Bottom of Pipe	Depth to Top of Pipe	Type* and Weight of Pipe	DIAGRAM OF WELL
16"	69'				
10"	33'6"				
12"	200'				

***As cast, wrought iron, steel, concrete, etc.**

Is screen used?..... Diameter.....
(Inches)

Length..... Depth to bottom.....
(Feet)

Depth to top.....Slot size.....

Are packers or seals used?.....

Kind .....

Where used.....

Kind of pump.....Dia.....
(Inches)

Capacity of pump.....
(g.p.m.)

Power used.....
(Kind and amount)

Depth to bottom of pump line.....feet,

including .....feet tailpiece.

Remarks on construction of well.....

.....

Sample No.	DEPTH From	DEPTH To	THICKNESS	DESCRIPTION OF BEDS KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC.
	0	4		Black Dirt
	4	58		Sand & Gravel
	58	85		St Peter ss yellow
	85	117		St. Peter ss white
	117	170		Shale
	170	183		Rock. brown soft
	183	195		Rock Gray
	195	360		Rock
	360	365		Trace of Green shale in Rock
	365	420		Rock
	420	431		Jordan SS
	431	475		Rock
	475	485		Shale Green
	485	815		Rock
	815	820		Sandstone
	820	845		Rock
	845	900		Sandstone

Rock from 825' to 845'
Very hard - 12 feet per day average

Sample No.	DEPTH From	DEPTH To	THICKNESS	DESCRIPTION OF BEDS KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC.
	900	910		Rock
	910	930		Sandstone
	930	934		Rock

FOR FIGURING, CASING TALLY, ETC.

FOR FIGURING, CASING TALLY, ETC.

195' of Cementing
195' of 16" hole
305' of 12" hole
434' of 10" hole

Municipal Water-Supply Inventory

DATA FOR: DECORAH #3 PWSID\SEQ#: 9630012- 95
WNUMBER: 5885 USGS ID: 431823091475101

GENERAL INFORMATION

LOCATION: T 98N R 8W Sec 16SWNENWNW COUNTY:WINNESHIEK
TOPOGRAPHIC MAP: DECORAH
ELEVATION: 865 feet SITE TYPE: Drilled hole TOTAL DEPTH: 934 feet BEDROCK DEPTH: 40 feet
DRILLER: [36] Hoeg & Ames (H.M. White) DRILL DATE: 06/25/53 DRILLING METHOD: Cable
WELL TYPE: Municipal WELL DEPTH: 934.00 feet AQUIFER: Cambrian/Ordovician

STATUS: Plugged ON LINE: / / ABANDONED: 01/01/61 PLUGGED: 01/01/72
LOG TYPE: Strip log LOG QUALITY: Good SAMPLE TYPE: Chips BEDROCK DEPTH: 40 feet STRIP LOG BY: RCN
LOG TYPE2: Drillers log LOG QUALITY2: Fair BASIN: 7060002
STRIP LOG DATE: 04/06/53
COMMENTS: SUPPLY PERCENT: 0.00%
1/31/2000 from Bob McKay: well located with 2 quarters more resolution
1989 City via USGS: well was capped and filled in 1972 due to low volume
Abandoned and filled circa-1961
Strip log notes abnormally thick Prairie du Chien section which suggests faulting

EDIT DATE: 01/31/00

VULNERABILITY: 3

LOCATION: 5TH AVE. LOT: 1 OF 3 OF 11; NEAR RESTROOMS IN CARL SELLAND PARK

WELL CONSTRUCTION DATA FOR DECORAH #3

HOLE SCHEDULE: WELL CONSTRUCTION DATE: 06/25/53

(1) Hole diameter:	16 inches	Depth to bottom:	195 feet
(2) Hole diameter:	12 inches	Depth to bottom:	305 feet
(3) Hole diameter:	10 inches	Depth to bottom:	934 feet

CASING SCHEDULE:

(1) Diameter:	16 inches	Type:	Depth top:	feet	Depth bottom:	69 feet	Amount:	69
(2) Diameter:	12 inches	Type:	Depth top:	feet	Depth bottom:	feet	Amount:	200
(3) Diameter:	10 inches	Type:	Depth top:	feet	Depth bottom:	feet	Amount:	34

GROUT SCHEDULE:

SCREEN OR PERFORATED CASING SCHEDULE:

GRAVEL-PACKED: False Gravel-packed top: feet Gravel-packed bottom: feet

PUMP SCHEDULE:
Pump type: Diameter: inches Depth to intake: feet
Rated capacity: gpm

COMMENTS:

HYDROGEOLOGIC INFORMATION FOR DECORAH #3

MAIN WATER:
Main water top: 0 feet Main water bottom: 0 feet Pump rating: 0 gpm Pump yield: 0 gpm

DATE PUMPED: 06/30/53 TIME PUMPED:
STATIC WATER LEVEL: 27.0 feet PUMPING WATER LEVEL: 205.0 feet YIELD:
155.0 gpm DURATION:
AQUIFER PUMPED: Cambrian/Ordovician PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
From GSB strip log: After 50 min. well was drawing air.

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DRILLER's LOG FOR DECORAH #3

0'-4' black dirt
4'-58' sand & gravel
58'-85' St. Peter ss. yellow
85'-117' St. Peter ss. white
117'-170' shale
170'-183' rock brown soft
183'-195' rock gray
195'-360' rock
360'-365' trace of green shale in rock
365'-420' rock
420'-431' Jordan ss
431'-475' rock
475'-485' shale green
485'-815' rock
815'-820' sandstone
820'-845' rock
845'-900' sandstone
900'-910' rock
910'-930' sandstone
930'-934' rock

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WATER QUALITY DATA FOR DECORAH #3

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 07/06/60 TIME: COLLECTOR: Bern Witzke MINERAL NUMBER: 2271
SOURCE: South pump #3. 900'. 1935.
SAMPLING POINT: Hose faucet
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? No IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 11.0 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l

SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED:
PUMPING RATED: 0.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 467.000 micromhos pH: 7.550 SILICA (SiO2):
10.800 mg/l
SOLUABLE IRON (Fe): 0.120 mg/l TOTAL IRON (Fe):
0.120 mg/l
FILTERABLE RESIDUE: 304.000 mg/l TOTAL RESIDUE:
304.000 mg/l
HARDNESS as CaCO3: 280.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 258.000 mg/l

CATIONS (mg/l):		ANIONS (mg/l)	
POTASSIUM (K+):	1.800	NITRATE (NO3-):	0.800
SODIUM (Na+):	2.700	FLUORIDE (F-):	0.150
CALCIUM (Ca++):	74.000	CHLORIDE (Cl-):	5.000
MAGNESIUM (Mg++):	23.100	SULFATE (SO4--):	23.000
MANGANESE (Mn++) soluble:	<0.050	BICARBONATE (HCO3-):	315.000
MANGANESE (Mn++) total:	-----	CARBONATE (CO3--):	0.000

TRACE METALS (mg/l)		RADIOACTIVITY (pCi/l)	
ARSENIC (As):	-----	GROSS ALPHA:	-----
BARIUM (Ba):	-----	226RADIUM:	-----
CADMIUM (Cd):	-----	228RADIUM:	-----
CHROMIUM (Cr):	-----	GROSS BETA:	-----
COPPER (Cu):	-----	90STRONTIUM:	-----
LEAD (Pb):	-----		
MERCURY (Hg):	-----	222RADON:	-----
SELENIUM (Se):	-----		
SILVER (Ag):	-----		
ZINC (Zn):	-----		

COMMENTS:
FROM THE MINERAL ANALYSIS

FIELD DATA:
Was Sample Free Of Turbidity When Collected: No Hardness 22
grains.

LABORATORY ANALYSIS:
"Comments": Sample appeared clear on receipt in lab, not filtere
for mineral analysis.

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 02/02/54 TIME: COLLECTOR: A. J. Feulner MINERAL NUMBER: 3962
SOURCE: Decorah city well # depth 934, drilled 1953.
SAMPLING POINT: collected 3 feet from pump
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 11.1 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 0:10
PUMPING RATED: 175.000 gpm

LABORATORY ANALYSIS

Municipal Water-Supply Inventory

SPECIFIC CONDUCTANCE: 417.000 micromhos pH: 7.800 SILICA (SiO2):
----- mg/l
SOLUABLE IRON (Fe): ----- mg/l TOTAL IRON (Fe):
0.400 mg/l
FILTERABLE RESIDUE: 222.000 mg/l TOTAL RESIDUE:
229.000 mg/l
HARDNESS as CaCO3: 272.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 232.000 mg/l

CATIONS (mg/l):		ANIONS (mg/l)	
POTASSIUM (K+):	2.300	NITRATE (NO3-):	0.000
SODIUM (Na+):	1.200	FLUORIDE (F-):	0.200
CALCIUM (Ca++):	70.400	CHLORIDE (Cl-):	2.000
MAGNESIUM (Mg++):	23.300	SULFATE (SO4--):	30.900
MANGANESE (Mn++) soluble:	0.000	BICARBONATE (HCO3-):	283.000
MANGANESE (Mn++) total:	-----	CARBONATE (CO3--):	0.000

TRACE METALS (mg/l)		RADIOACTIVITY (pCi/l)	
ARSENIC (As):	-----	GROSS ALPHA:	-----
BARIUM (Ba):	-----	226RADIUM:	-----
CADMIUM (Cd):	-----	228RADIUM:	-----
CHROMIUM (Cr):	-----	GROSS BETA:	-----
COPPER (Cu):	-----	90STRONTIUM:	-----
LEAD (Pb):	-----		
MERCURY (Hg):	-----	222RADON:	-----
SELENIUM (Se):	-----		
SILVER (Ag):	-----		
ZINC (Zn):	-----		

COMMENTS:

FROM THE MINERAL ANALYSIS

LABORATORY ANALYSIS:
Total Solids: 229
Insoluble Matter: 7.5
Fe2O3+Al2O3+Mn2O3(R2O3): 4.5
Hardness as CaCO3: 272.4