

Municipal Water-Supply Inventory

DATA FOR: DECORAH #1
WNUMBER: 124

PWSID\SEQ#: 9630012- 96
USGS ID: 431753091474811

GENERAL INFORMATION

LOCATION: T 98N R 8W Sec 21NWNE COUNTY: WINNESHIEK
TOPOGRAPHIC MAP: DECORAH
ELEVATION: 877 feet SITE TYPE: Drilled hole TOTAL DEPTH: 1250 feet BEDROCK DEPTH: 38 feet
DRILLER: [107] Varner Well Co. DRILL DATE: 10/01/35 DRILLING METHOD:
WELL TYPE: Municipal WELL DEPTH: 800.00 feet AQUIFER: Cambrian/Ordovician
Cambrian(below St. Lawrence)

STATUS: Plugged ON LINE: / / ABANDONED: 01/01/69 PLUGGED: 01/01/70
LOG TYPE: Strip log LOG QUALITY: Good SAMPLE TYPE: Chips BEDROCK DEPTH: 38 feet STRIP LOG BY: MC
LOG TYPE2: LOG QUALITY2: BASIN: 7060002
STRIP LOG DATE: 01/01/39
SUPPLY PERCENT: 0.00%

COMMENTS:
Originally drilled to 1250'; filled in to 850' by 1956, 800' by 1964
**1989 City via USGS: well was abandoned due to low volume, higenergy cost;
well had filled in by itself to 800' by 1964; welwas abandoned and filled
in 1969**
Capped and filled circa 1970

EDIT DATE: 09/07/99

VULNERABILITY: 2

WELL CONSTRUCTION DATA FOR DECORAH #1

HOLE SCHEDULE: WELL CONSTRUCTION DATE: 10/01/35
(1) Hole diameter: inches Depth to bottom: 201 feet
(2) Hole diameter: inches Depth to bottom: 408 feet
(3) Hole diameter: 12 inches Depth to bottom: 1250 feet

CASING SCHEDULE:
(1) Diameter: 16 inches Type: Depth top: -3 feet Depth bottom: 201 feet Amount:
(2) Diameter: 12 inches Type: Depth top: 199 feet Depth bottom: 408 feet Amount:

GROUT SCHEDULE:
(1) Grout type: CEMNT Grout top: feet Depth bottom: 201 feet

SCREEN OR PERFORATED CASING SCHEDULE:

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

PUMP SCHEDULE:
Pump type: TURB Diameter: inches Depth to intake: 200 feet
Rated capacity: gpm

COMMENTS:
2' lead seal at 199' between 16" and 12" casing.
Dynamite shots at 495', 810', 860', 1145', 1195'

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HYDROGEOLOGIC INFORMATION FOR DECORAH #1

MAIN WATER: 475' & 750'
Main water top: 0 feet Main water bottom: 0 feet Pump rating: 0 gpm Pump yield: 425 gpm

DATE PUMPED: 10/01/35 TIME PUMPED: 0:01
STATIC WATER LEVEL: 41.8 feet PUMPING WATER LEVEL: 0.0 feet YIELD:
115.0 gpm DURATION:
AQUIFER PUMPED: Cambrian/Ordovician PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

DATE PUMPED: 06/30/53 TIME PUMPED:
STATIC WATER LEVEL: 0.0 feet PUMPING WATER LEVEL: 0.0 feet YIELD:
225.0 gpm DURATION:
AQUIFER PUMPED: Cambrian/Ordovician PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Reported to be filled in to about 800'
Pump at 220'

DATE PUMPED: 10/01/35 TIME PUMPED: 0:02
STATIC WATER LEVEL: 0.0 feet PUMPING WATER LEVEL: 0.0 feet YIELD:
500.0 gpm DURATION:
AQUIFER PUMPED: Cambrian/Ordovician PUMP TEST: True PUMP METHOD:
MEASUREMENT:

COMMENTS:

Drawdown 125'
Bowls 300' below curb.
SWL after pumping: 45' below curb.
SWL after resting: 18' below curb.

DATE PUMPED: 10/01/35 TIME PUMPED: 0:03
STATIC WATER LEVEL: 0.0 feet PUMPING WATER LEVEL: 0.0 feet YIELD:
800.0 gpm DURATION:
AQUIFER PUMPED: Cambrian/Ordovician PUMP TEST: True PUMP METHOD:
MEASUREMENT:

COMMENTS:

Drawdown 174'
Bowls 300' below curb.
SWL after pumping: 45' below curb.
SWL after resting: 18' below curb.

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DATE PUMPED: 10/01/35 TIME PUMPED: 0:04
STATIC WATER LEVEL: 0.0 feet PUMPING WATER LEVEL: 0.0 feet YIELD:
1100.0 gpm DURATION:
AQUIFER PUMPED: Cambrian/Ordovician PUMP TEST: True PUMP METHOD:
MEASUREMENT:

COMMENTS:

Drawdown 197'
Bowls at 300' below curb.
SWL after pumping: 45' below curb.
SWL after resting: 18' below curb.

DRILLER'S LOG FOR DECORAH #1

WATER QUALITY DATA FOR DECORAH #1

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 07/06/60 TIME: COLLECTOR: Bern Witzke MINERAL NUMBER: 2272
SOURCE: W. side pump #4. 850'. 1955...
SAMPLING POINT: Hose faucet.
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes 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: 88.000 micromhos pH: 8.900 SILICA (SiO2):
2.400 mg/l
SOLUBLE IRON (Fe): 3.820 mg/l TOTAL IRON (Fe):
3.820 mg/l
FILTERABLE RESIDUE: 62.000 mg/l TOTAL RESIDUE:
62.000 mg/l
HARDNESS as CaCO3: 56.000 mg/l
ALKALINITY mg/l CaCO3 P: 4.000 mg/l T: 43.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 1.100
SODIUM (Na+): 2.600
CALCIUM (Ca++): 11.800
MAGNESIUM (Mg++): 6.500
MANGANESE (Mn++) soluble: <0.050
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

ARSENIC (As): -----

ANIONS (mg/l)

NITRATE (NO3-): 0.200
FLUORIDE (F-): 0.600
CHLORIDE (Cl-): 1.000
SULFATE (SO4--): 9.500
BICARBONATE (HCO3-): 42.700
CARBONATE (CO3--): 4.800

RADIOACTIVITY (pCi/l)

GROSS ALPHA: -----

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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:

Source: W. side pump #4. 850'. 1955. This pump not in use for 3
years and still discontinued.
Was Sample Free Of Turbidity When Collected: Yes Hardness 3
grains.

LABORATORY ANALYSIS:

"Comments": Sample very very turbid with yellow color on receipt
in lab, not filtered from mineral analysis.

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 09/06/56 TIME: COLLECTOR: Selland MINERAL NUMBER: 4844
SOURCE: #1 (South well) 850' 1934-35 Originally...
SAMPLING POINT: tap.
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 10.0 C pH: 7.200 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED:
PUMPING RATED: 320.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 486.000 micromhos pH: 7.650 SILICA (SiO2):
9.400 mg/l
SOLUBLE IRON (Fe): <0.060 mg/l TOTAL IRON (Fe):
<0.060 mg/l
FILTERABLE RESIDUE: 283.000 mg/l TOTAL RESIDUE:
283.000 mg/l
HARDNESS as CaCO3: 276.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 230.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 1.800
SODIUM (Na+): 1.800
CALCIUM (Ca++): 70.000
MAGNESIUM (Mg++): 24.000
MANGANESE (Mn++) soluble: <0.050
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

ARSENIC (As): -----
BARIUM (Ba): -----
CADMIUM (Cd): -----
CHROMIUM (Cr): -----
COPPER (Cu): -----

ANIONS (mg/l)

NITRATE (NO3-): 0.300
FLUORIDE (F-): 0.100
CHLORIDE (Cl-): 8.000
SULFATE (SO4--): 29.000
BICARBONATE (HCO3-): 281.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

GROSS ALPHA: -----
226RADIUM: -----
228RADIUM: -----
GROSS BETA: -----
90STRONTIUM: -----

Municipal Water-Supply Inventory

LEAD (Pb): -----
MERCURY (Hg): -----
SELENIUM (Se): -----
SILVER (Ag): -----
ZINC (Zn): -----

222RADON: -----

COMMENTS:

FROM THE MINERAL ANALYSIS

FIELD DATA:
Source: #1 (South well) 850' 1934-35 Originally was 150' deep.
Has filled in.

LABORATORY ANALYSIS:
"Comments": Clear when received.

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 02/11/49 TIME: COLLECTOR: R.B. McAllister MINERAL NUMBER: 2253
SOURCE: Deep well, south pumping station, drilled...
SAMPLING POINT:
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? No IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 0.0 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 0:30
PUMPING RATED: 300.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 420.000 micromhos pH: 0.000 SILICA (SiO2):
----- mg/l
SOLUBLE IRON (Fe): ----- mg/l TOTAL IRON (Fe):
----- mg/l
FILTERABLE RESIDUE: ----- mg/l TOTAL RESIDUE:
----- mg/l
HARDNESS as CaCO3: ----- mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 232.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): -----
SODIUM (Na+): -----
CALCIUM (Ca++): -----
MAGNESIUM (Mg++): -----
MANGANESE (Mn++) soluble: -----
MANGANESE (Mn++) total: -----

ANIONS (mg/l)

NITRATE (NO3-): -----
FLUORIDE (F-): 0.300
CHLORIDE (Cl-): -----
SULFATE (SO4--): -----
BICARBONATE (HCO3-): -----
CARBONATE (CO3--): -----

TRACE METALS (mg/l)

ARSENIC (As): -----
BARIUM (Ba): -----
CADMIUM (Cd): -----
CHROMIUM (Cr): -----
COPPER (Cu): -----
LEAD (Pb): -----
MERCURY (Hg): -----
SELENIUM (Se): -----
SILVER (Ag): -----
ZINC (Zn): -----

RADIOACTIVITY (pCi/l)

GROSS ALPHA: -----
226RADIUM: -----
228RADIUM: -----
GROSS BETA: -----
90STRONTIUM: -----
222RADON: -----

Municipal Water-Supply Inventory

COMMENTS:

FROM THE MINERAL ANALYSIS

LABORATORY ANALYSIS:

Source: Deep well, south pumping station, drilled, constructed in 1935. 1250' deep.

