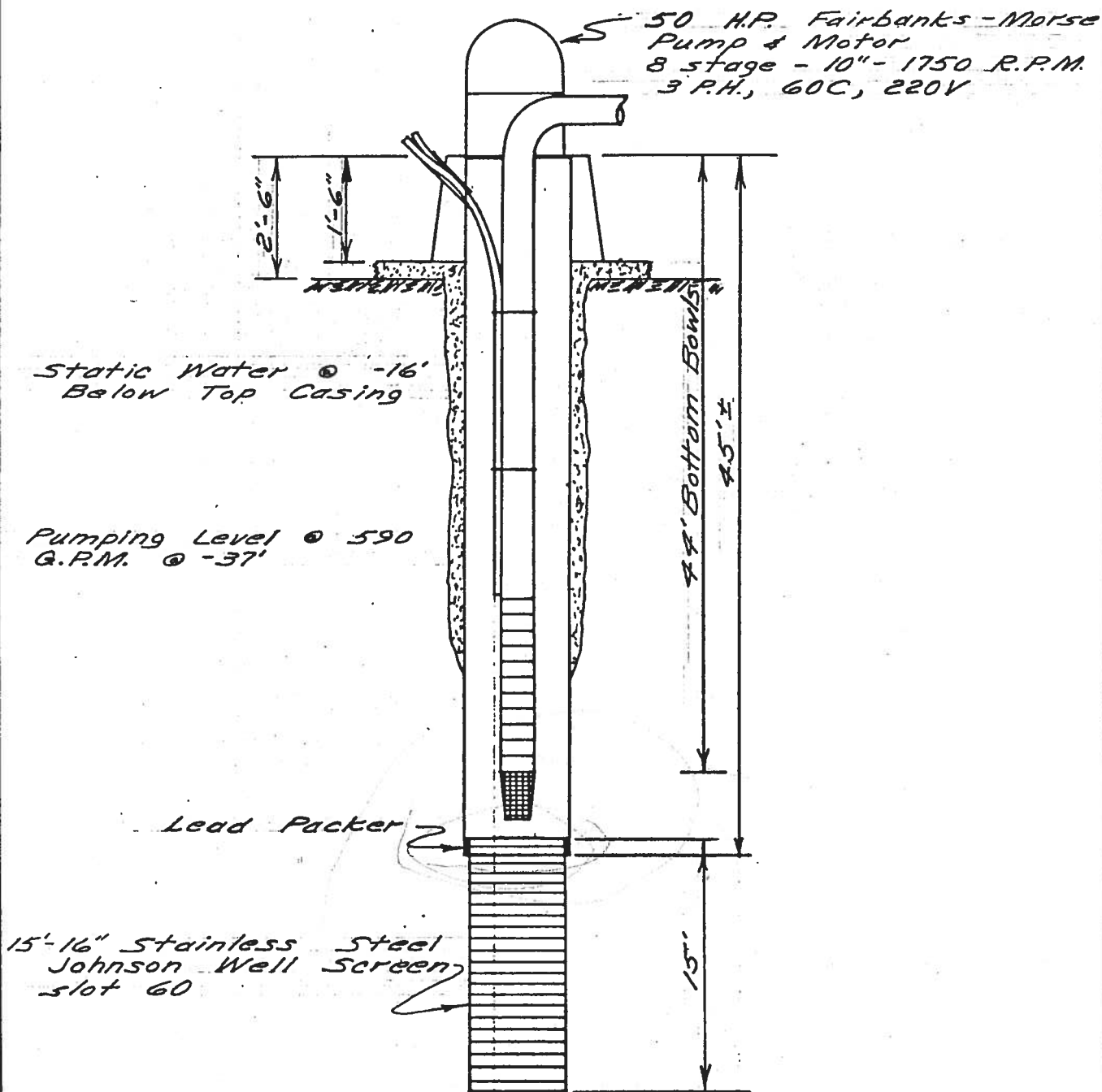
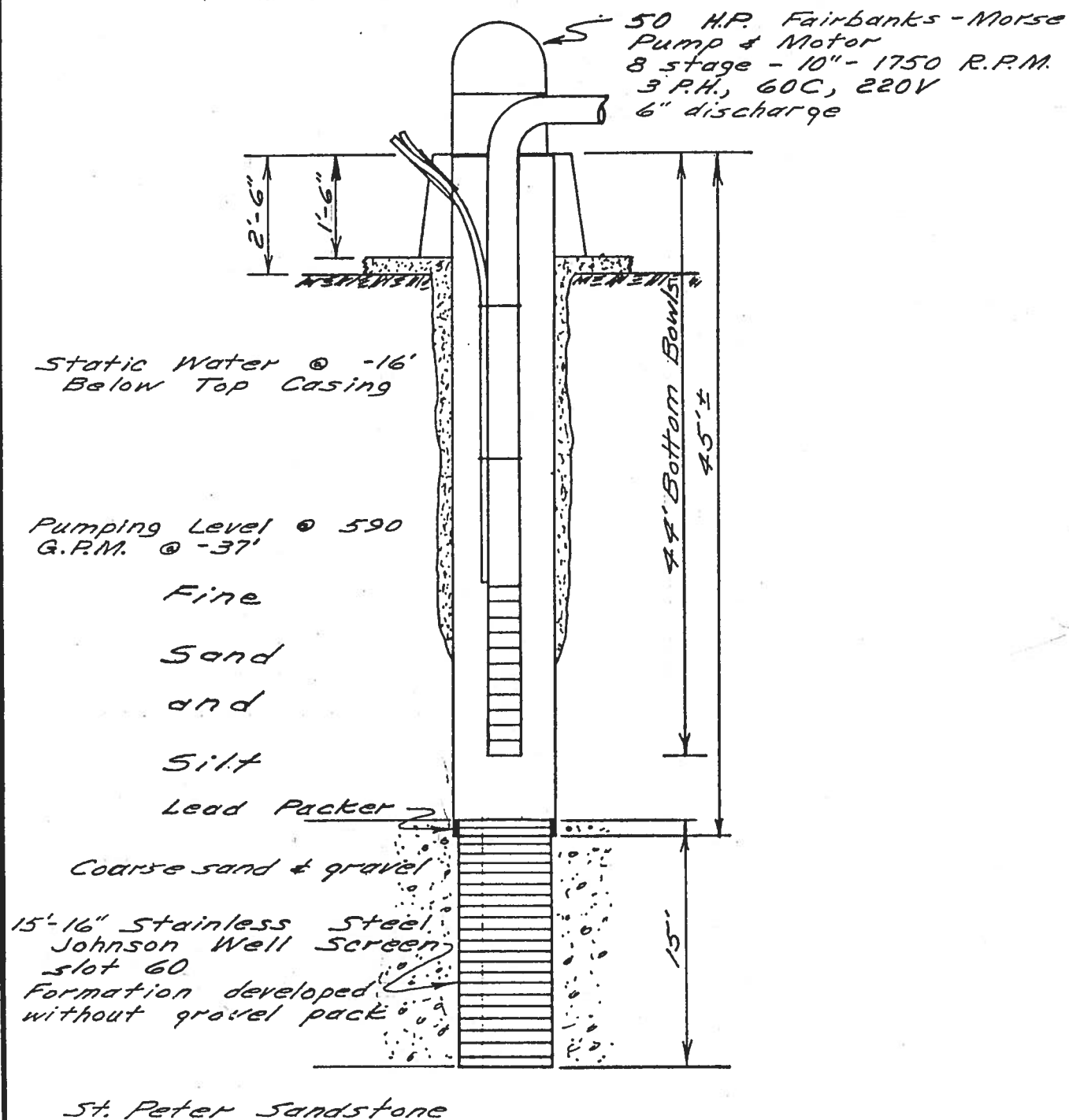




(L. F. Whitney)
Built 1958

ERDMAN ENGINEERING SERVICE DECORAH, IOWA		WELL NO. 2 DECORAH, IOWA Middle Well - West Water St.	
DRAWN BY: T.L.E.	SCALE: None		
REVISED:	DATE: 4-5-83		



Built 1958 by Thorpe
Well Co. using cable
tool

ERDMAN ENGINEERING SERVICE
DECORAH, IOWA

DRAWN BY: T.L.R. SCALE: None

REVISED: DATE: 4-5-83

WELL NO. 2
DECORAH, IOWA

Middle Well - West Water St.

Municipal Water-Supply Inventory

DATA FOR: DECORAH #2
WNUMBER: 39054

PWSID\SEQ#: 9630012- 2
USGS ID: 431816091474401

GENERAL INFORMATION

LOCATION: T 98N R 8W Sec 16SWNWSE COUNTY: WINNESHIEK
TOPOGRAPHIC MAP: DECORAH
ELEVATION: 865 feet SITE TYPE: Drilled hole TOTAL DEPTH: 67 feet BEDROCK DEPTH: 59 feet
DRILLER: [103] Thorpe Well Co. DRILL DATE: 01/01/57 DRILLING METHOD: Cable
WELL TYPE: Municipal WELL DEPTH: 67.00 feet AQUIFER: Alluvium
Cambrian/Ordovician

STATUS: Primary ON LINE: / / ABANDONED: / / PLUGGED: / /
LOG TYPE: Drillers log LOG QUALITY: Fair SAMPLE TYPE: BEDROCK DEPTH: 59 feet STRIP LOG BY:
LOG TYPE2: LOG QUALITY2: BASIN: 7060002
STRIP LOG DATE: / /
SUPPLY PERCENT: 22.50%

COMMENTS:
DEPTH ALSO REPORTED 60'
DATE ALSO REPORTED 1958

EDIT DATE: 10/30/01

VULNERABILITY: 1

LOCATION: ~150' NORTH OF MAIN PUMP STATION ON WEST END OF WATER STREET

WELL CONSTRUCTION DATA FOR DECORAH #2

HOLE SCHEDULE: WELL CONSTRUCTION DATE: 01/01/57
(1) Hole diameter: 16 inches Depth to bottom: feet

CASING SCHEDULE:
(1) Diameter: 16 inches Type: Depth top: feet Depth bottom: 43 feet Amount:

GROUT SCHEDULE:

SCREEN OR PERFORATED CASING SCHEDULE:
(1) Diameter: 16 inches Slot: inches Depth top:
feet Depth bottom: feet Amount: 15 feet

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

PUMP SCHEDULE:
Pump type: TURB Diameter: inches Depth to intake: 44 feet
Rated capacity: gpm

COMMENTS:
Reportedly not gravel-packed.

Municipal Water-Supply Inventory

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HYDROGEOLOGIC INFORMATION FOR DECORAH #2

MAIN WATER:
Main water top: 0 feet Main water bottom: 0 feet Pump rating: 395 gpm Pump yield: 0 gpm

DATE PUMPED: 01/01/83 TIME PUMPED:
STATIC WATER LEVEL: 13.5 feet PUMPING WATER LEVEL: 34.5 feet YIELD:
590.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

DATE PUMPED: 10/28/97 TIME PUMPED: 10:20
STATIC WATER LEVEL: 17.4 feet PUMPING WATER LEVEL: 25.9 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DATE PUMPED: 08/19/98 TIME PUMPED: 11:15
STATIC WATER LEVEL: 16.8 feet PUMPING WATER LEVEL: 26.2 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DATE PUMPED: 09/23/98 TIME PUMPED: 10:50
STATIC WATER LEVEL: 18.8 feet PUMPING WATER LEVEL: 26.7 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DATE PUMPED: 02/01/99 TIME PUMPED:
STATIC WATER LEVEL: 18.2 feet PUMPING WATER LEVEL: 27.9 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

Municipal Water-Supply Inventory

DATE PUMPED: 09/01/99 TIME PUMPED: 10:45
STATIC WATER LEVEL: 16.7 feet PUMPING WATER LEVEL: 24.7 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 10/13/99 TIME PUMPED:
STATIC WATER LEVEL: 17.4 feet PUMPING WATER LEVEL: 25.7 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 11/23/99 TIME PUMPED: 10:20
STATIC WATER LEVEL: 17.6 feet PUMPING WATER LEVEL: 26.9 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 05/05/00 TIME PUMPED: 8:45
STATIC WATER LEVEL: 17.9 feet PUMPING WATER LEVEL: 28.4 feet YIELD:
0.0 gpm DURATION: 0:25
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 05/17/00 TIME PUMPED:
STATIC WATER LEVEL: 18.5 feet PUMPING WATER LEVEL: 28.1 feet YIELD:
0.0 gpm DURATION:

Municipal Water-Supply Inventory

AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 06/28/00 TIME PUMPED:
STATIC WATER LEVEL: 16.0 feet PUMPING WATER LEVEL: 24.9 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 08/09/00 TIME PUMPED:
STATIC WATER LEVEL: 16.8 feet PUMPING WATER LEVEL: 25.5 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 09/21/00 TIME PUMPED:
STATIC WATER LEVEL: 18.0 feet PUMPING WATER LEVEL: 25.9 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 12/13/00 TIME PUMPED:
STATIC WATER LEVEL: 19.5 feet PUMPING WATER LEVEL: 28.5 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 01/24/01 TIME PUMPED:

Municipal Water-Supply Inventory

STATIC WATER LEVEL: 19.5 feet PUMPING WATER LEVEL: 28.5 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DATE PUMPED: 01/01/00 TIME PUMPED:
STATIC WATER LEVEL: 0.0 feet PUMPING WATER LEVEL: 0.0 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

=====

DRILLER'S LOG FOR DECORAH #2

0'--44' fine sand and silt
~44'-59' coarse sand & gravel
-59'- St. Peter Sanstone

=====

WATER QUALITY DATA FOR DECORAH #2

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 11/13/85 TIME: 8:20 COLLECTOR: MINERAL NUMBER: 0
SOURCE: 1958DECORAH IOWA NO 2
SAMPLING POINT:
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? No IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 13.0 C pH: 7.350 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: 590.000 micromhos HOURS PUMPED: 0:30
PUMPING RATED: 400.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 600.000 micromhos pH: 7.400 SILICA (SiO2):
12.000 mg/l
SOLUBLE IRON (Fe): 0.020 mg/l TOTAL IRON (Fe):
0.020 mg/l
FILTERABLE RESIDUE: 337.000 mg/l TOTAL RESIDUE:
339.000 mg/l
HARDNESS as CaCO3: 300.000 mg/l
ALKALINITY mg/l CaCO3 P: ----- mg/l T: 255.000 mg/l

Municipal Water-Supply Inventory

CATIONS (mg/l):

POTASSIUM (K+): 2.400
SODIUM (Na+): 6.900
CALCIUM (Ca++): 82.000
MAGNESIUM (Mg++): 24.000
MANGANESE (Mn++) soluble: 0.010
MANGANESE (Mn++) total: 0.010

TRACE METALS (mg/l)

ARSENIC (As): <0.010
BARIUM (Ba): 0.200
CADMIUM (Cd): <0.001
CHROMIUM (Cr): <0.010
COPPER (Cu): <0.010
LEAD (Pb): <0.010
MERCURY (Hg): <0.001
SELENIUM (Se): <0.010
SILVER (Ag): <0.010
ZINC (Zn): <0.010

COMMENTS:

ANIONS (mg/l)

NITRATE (NO3-): 13.050
FLUORIDE (F-): 0.200
CHLORIDE (Cl-): 14.000
SULFATE (SO4--): 24.000
BICARBONATE (HCO3-): 310.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

GROSS ALPHA: 2.800
226RADIUM: -----
228RADIUM: -----
GROSS BETA: 4.000
90STRONTIUM: -----
222RADON: -----

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 05/11/82 TIME: COLLECTOR: Hotka MINERAL NUMBER: 0
SOURCE: St. Peter Sandstone
SAMPLING POINT: tap 2' from well head
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? No IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 9.0 C pH: 7.500 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: 565.000 micromhos HOURS PUMPED: 6:00
PUMPING RATED: 425.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 550.000 micromhos pH: 7.600 SILICA (SiO2):
4.800 mg/l
SOLUBLE IRON (Fe): <0.010 mg/l TOTAL IRON (Fe):
<0.010 mg/l
FILTERABLE RESIDUE: 317.000 mg/l TOTAL RESIDUE:
317.000 mg/l
HARDNESS as CaCO3: 289.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 239.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 1.300
SODIUM (Na+): 6.300
CALCIUM (Ca++): 78.000
MAGNESIUM (Mg++): 23.000
MANGANESE (Mn++) soluble: <0.010
MANGANESE (Mn++) total: <0.010

TRACE METALS (mg/l)

ARSENIC (As): <0.010
BARIUM (Ba): <0.100
CADMIUM (Cd): <0.001
CHROMIUM (Cr): <0.010
COPPER (Cu): <0.010
LEAD (Pb): <0.010
MERCURY (Hg): <0.001
SELENIUM (Se): <0.010
SILVER (Ag): <0.010
ZINC (Zn): <0.010

ANIONS (mg/l)

NITRATE (NO3-): 16.000
FLUORIDE (F-): 0.200
CHLORIDE (Cl-): 13.000
SULFATE (SO4--): 26.000
BICARBONATE (HCO3-): 292.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

GROSS ALPHA: <0.100
226RADIUM: -----
228RADIUM: -----
GROSS BETA: <0.500
90STRONTIUM: -----
222RADON: 15.000

Municipal Water-Supply Inventory

COMMENTS:

FROM THE MINERAL ANALYSIS

WELL DATA:
Well Number: 2
Date of Construction: 1958
Depth: 60 ft.

LABORATORY ANALYSIS:
222Radon: 15, 19
COMMENTS: Metals bottle was filtered in the field.

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 07/22/80 TIME: COLLECTOR: David Pahlas MINERAL NUMBER: 16417
SOURCE: raw
SAMPLING POINT: well #2
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: 2:45
PUMPING RATED: 410.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 530.000 micromhos pH: 7.550 SILICA (SiO2):
12.000 mg/l
SOLUBLE IRON (Fe): 0.070 mg/l TOTAL IRON (Fe):
0.070 mg/l
FILTERABLE RESIDUE: 348.000 mg/l TOTAL RESIDUE:
348.000 mg/l
HARDNESS as CaCO3: 283.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 230.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 1.200
SODIUM (Na+): 7.300
CALCIUM (Ca++): 77.000
MAGNESIUM (Mg++): 22.000
MANGANESE (Mn++) soluble: <0.010
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

ARSENIC (As): <0.010
BARIUM (Ba): 0.100
CADMIUM (Cd): <0.001
CHROMIUM (Cr): <0.010
COPPER (Cu): 0.170
LEAD (Pb): <0.010
MERCURY (Hg): <0.001
SELENIUM (Se): <0.010
SILVER (Ag): <0.010
ZINC (Zn): 0.060

ANIONS (mg/l)

NITRATE (NO3-): 8.400
FLUORIDE (F-): 1.600
CHLORIDE (Cl-): 12.000
SULFATE (SO4--): 30.000
BICARBONATE (HCO3-): 281.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

GROSS ALPHA: 1.400
226RADIUM: -----
228RADIUM: -----
GROSS BETA: 1.000
90STRONTIUM: -----
222RADON: -----

COMMENTS:

FROM THE MINERAL ANALYSIS

Municipal Water-Supply Inventory

WELL DATA:
Well Number: 2
Date of Construction: 1958
Depth: 60 ft.

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 08/12/74 TIME: COLLECTOR: Ron Stellick MINERAL NUMBER: 10895
SOURCE: Decorah
SAMPLING POINT: Well #2
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 14.0 C pH: 7.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 1:00
PUMPING RATED: 310.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 540.000 micromhos pH: 7.100 SILICA (SiO2):
11.000 mg/l
SOLUBLE IRON (Fe): <0.010 mg/l TOTAL IRON (Fe):
<0.010 mg/l
FILTERABLE RESIDUE: 361.000 mg/l TOTAL RESIDUE:
361.000 mg/l
HARDNESS as CaCO3: 306.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 248.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 2.400
SODIUM (Na+): 3.800
CALCIUM (Ca++): 79.000
MAGNESIUM (Mg++): 24.000
MANGANESE (Mn++) soluble: <0.010
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

ARSENIC (As): <0.010
BARIUM (Ba): <0.100
CADMIUM (Cd): <0.010
CHROMIUM (Cr): <0.010
COPPER (Cu): 0.130
LEAD (Pb): <0.010
MERCURY (Hg): <0.001
SELENIUM (Se): -----
SILVER (Ag): <0.010
ZINC (Zn): 0.130

ANIONS (mg/l)

NITRATE (NO3-): 8.500
FLUORIDE (F-): 0.200
CHLORIDE (Cl-): 9.000
SULFATE (SO4--): 39.000
BICARBONATE (HCO3-): 303.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

GROSS ALPHA: -----
226RADIUM: -----
228RADIUM: -----
GROSS BETA: 2.000
90STRONTIUM: -----
222RADON: -----

COMMENTS:

FROM THE MINERAL ANALYSIS

WELL DATA:
Name or Number: Well #2
Construction Date: 1957
Depth: 67'

LABORATORY ANALYSIS:

Municipal Water-Supply Inventory

Gross Alpha: NIL
226Radium: -
90Strontium: -

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 10/05/70 TIME: COLLECTOR: Don McCormick MINERAL NUMBER: 8247
SOURCE: Well #2 60' 1957
SAMPLING POINT: At the well
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 17.0 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 4:00
PUMPING RATED: 350.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 540.000 micromhos pH: 7.000 SILICA (SiO2):
12.000 mg/l
SOLUBLE IRON (Fe): <0.020 mg/l TOTAL IRON (Fe):
<0.020 mg/l
FILTERABLE RESIDUE: 310.000 mg/l TOTAL RESIDUE:
310.000 mg/l
HARDNESS as CaCO3: 280.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 244.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 2.300
SODIUM (Na+): 3.700
CALCIUM (Ca++): 78.400
MAGNESIUM (Mg++): 20.400
MANGANESE (Mn++) soluble: <0.050
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

ARSENIC (As): <0.010
BARIUM (Ba): <0.100
CADMIUM (Cd): <0.010
CHROMIUM (Cr): <0.010
COPPER (Cu): 0.010
LEAD (Pb): <0.010
MERCURY (Hg): -----
SELENIUM (Se): -----
SILVER (Ag): -----
ZINC (Zn): 0.020

ANIONS (mg/l)

NITRATE (NO3-): 2.500
FLUORIDE (F-): 1.200
CHLORIDE (Cl-): 6.000
SULFATE (SO4--): 39.000
BICARBONATE (HCO3-): 298.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

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

COMMENTS:

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 12/23/65 TIME: COLLECTOR: Don McCormick MINERAL NUMBER: 5209
SOURCE: Well #2 60' depth Construction date 1958
SAMPLING POINT: collected at well
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? No IS A POLYPHOSPHATE BEING USED?

Municipal Water-Supply Inventory

No
TEMPERATURE: 11.0 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 8:00
PUMPING RATED: 350.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 523.000 micromhos pH: 7.550 SILICA (SiO2):
10.800 mg/l
SOLUBLE IRON (Fe): 0.040 mg/l TOTAL IRON (Fe):
0.040 mg/l
FILTERABLE RESIDUE: 312.000 mg/l TOTAL RESIDUE:
312.000 mg/l
HARDNESS as CaCO3: 278.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 236.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 2.200
SODIUM (Na+): 3.400
CALCIUM (Ca++): 77.600
MAGNESIUM (Mg++): 20.400
MANGANESE (Mn++) soluble: <0.050
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

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

ANIONS (mg/l)

NITRATE (NO3-): 9.200
FLUORIDE (F-): 1.100
CHLORIDE (Cl-): 6.000
SULFATE (SO4--): 31.700
BICARBONATE (HCO3-): 288.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

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

COMMENTS:

FROM THE MINERAL ANALYSIS

LABORATORY ANALYSIS:
"Comments": Clear on receipt in lab.