

**IOWA STATE DEPARTMENT OF HEALTH
DIVISION OF PUBLIC HEALTH ENGINEERING AND INDUSTRIAL HYGIENE**

GROUND WATER

Town Earle Grove County Wright Date August 6 19 52

WELL NO. 3 Active Standby Abandoned Replaced by No. _____

LOCATION: Street at treatment plant Sec. _____ T. _____ N.R. _____ East: West _____

Lot _____ Block _____ Township _____

OWNERSHIP Municipal Drilling started June 4, 1952
Date Installed July 10, 1952

CONTRACTOR Layne-Western Address Ames

DATE RECONDITIONED None 19 _____ Contractor -- Address _____

CONSTRUCTION EMPLOYED: 20' of 42" temporary casing + 50' of 40" temporary casing + 70' of 38" temporary casing. -- Permanent casing 18" steel with 15' of 18" stainless steel screen on bottom. Gravel packed from 70 to 52'. Before 40" casing was pulled, black dirt placed between 40" and 42" casing and concrete placed between 40" and 38" casing -- all temporary casing then pulled. Well not sterilized.

CURB ELEVATION _____ REFERENCE _____

TYPE OF CONSTRUCTION Drilled gravel packed Depth 70 ft. Diameter 18 in.

CASING: Material Steel Condition New

SCREEN: Material Stainless steel Length 15 ft. Diameter 18 in. Slot Opening ? in.

WELL SEALED Yes How 22" sq. concrete pedestal 20" high Approved Yes

WELL VENTED Yes How 1" screened turned breather Approved Yes

TYPE OF PUMP V.T. Make Peerless Operated at 250 g/m.
2 1/2" - 10 1/4" motor Capacity 300 GPM Lubricated water

DEPTH TO TOP OF BOWLS 44 60 at 20-13 ft. staves - 4 1/2" 10 1/2" + 6" + 0 1/2" pipe 30" 6" ft.

PUMP CONTROL: Manual Automatic Semi-Automatic

STATIC LEVEL 23 ft. Pumping Level 36 ft. Drawdown 13 ft.

OPTIMUM SPECIFIC YIELD 400 GPM Drawdown 13 ft. Time 6 1/2 hrs.

RATE OF DRAWDOWN Fast for 15 min. Rate of Recovery slow

TEMPERATURE OF WATER 54 °F Where Measured at pump discharge Temp. of Atmosphere 80 °F

DRAWDOWN GAUGE INSTALLED Yes

TOPOGRAPHICAL POSITION OF WELL Flat

WELL SITE INVESTIGATED Yes Approved Yes Why not _____

WELL CONSTRUCTION REVIEWED -- Approved _____ Why not _____

PIT CONSTRUCTION: Purpose None Size and Description _____

CONDITION: _____ Drainage Facilities _____

PUMP INSTALLATION: Approved Yes Why Not --

CUTTINGS FROM WELL PRESERVED: No Where Samples at water supply

DEPTH TO BED ROCK None Depth to Water-bearing Stratum Sand & gravel 58' to 70'

SOURCE OF WATER: Principal Formation Drift Other _____

DATE RECONDITIONED..... None 19..... Contractor..... -- Address.....

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CURB ELEVATION..... REFERENCE.....

TYPE OF CONSTRUCTION Drilled gravel packed Depth 70 ft. Diameter 18 in.

CASING: Material Steel Condition New

SCREEN: Material Stainless steel Length 15 ft. Diameter 18 in. Slot Opening 1 in.

WELL SEALED Yes How 22" sq. concrete pedestal 20" high Approved Yes

WELL VENTED Yes How 1" screened turned breather Approved Yes

TYPE OF PUMP V.T. Make Peerless Operated at 250 gpm. Capacity 300 GPM Lubricated water

DEPTH TO TOP OF BOWLS 60 ft. 2.5 stages - 41' long + 6" tail pipe 10" 6" ft.

PUMP CONTROL: Manual x Automatic Semi-Automatic

STATIC LEVEL 23 ft. Pumping Level 36 ft. Drawdown 13 ft.

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SOURCE OF WATER: Principal Formation Drift Other

Mineral analysis #3688 collected by X.P.B. 8/5/52 tabulated below:

23.2 grains Total Hardness 397 ppm. Total Iron 3.5 ppm. Sulfates 28.8 ppm. Fluorine 0.3 ppm. Manganese -- ppm. pH 7.2 field CO. -- ppm. Alk (Lab) P=0 M.O.= 384. Alk (Field) P=0 M.O.= 215.

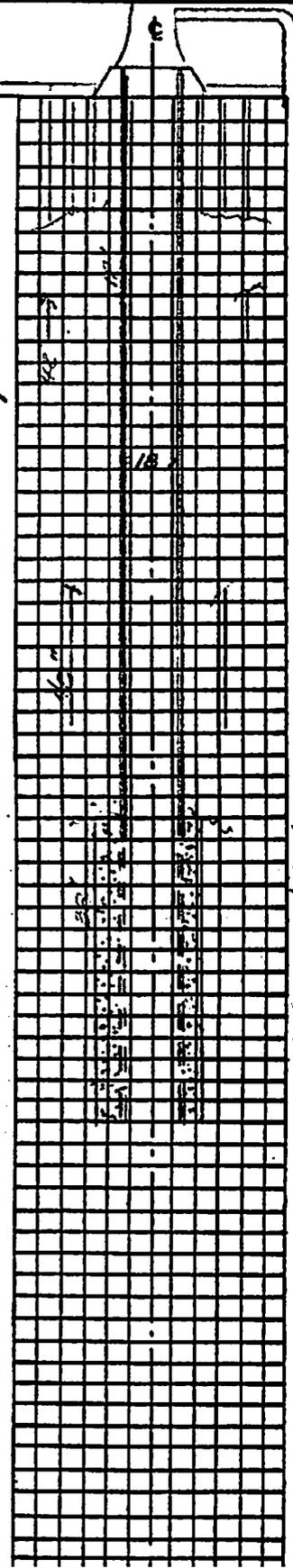
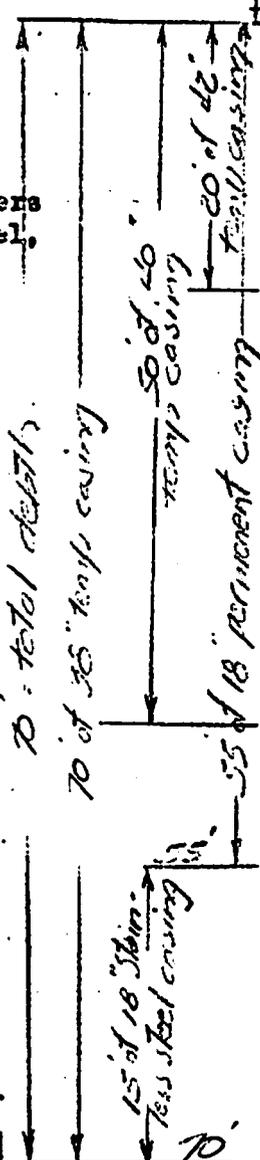
REMARKS: Motor 7 1/2 H.P. U.S. Peerless pump. (This is old pump that was on dug well)

New L.W. V.T. 10 HP Motor installed Oct 20-55 - Pump Cap. 350 gpm operated @ 200 gpm through 2 1/2 miles - Continuous chlorination increased when installation made - 60' to top of bowls + 2.5' bowl sec. + 6" tail pipe 3 stage pumps.

GEOLOGICAL DATA			CASING DATA	WELL DATA	
Formation	Material and distance from surface in ft.	Series	Position, kind and extent of casing, liners, shoes, etc.	Scale: Horizontal _____ Vertical _____	Position of seals, screens, static level, etc.

Log -- New Well #3

From	To	Thick-ness	
0	4	4	Fill
4	9	5	Top sandy clay
9	43	34	Sandy grey clay & small boulders
43	58	15	Hardy sandy grey clay & small boulders
58	65	7	Coarse sand & gravel, grey
65	68	3	Coarse grey gravel & small boulders
68	70.5	2.5	Coarse grey sand & gravel
70.5	70.8	.3	Grey clay



18' of gravel pack
best way 1956
casing 18' temp
as it was pulled.

26' of 1 1/2" by 1/2" packing
set over 18' of 20" casing
and 10" were pulled.

10' of 1 1/2" by 1/2" packing
set over 18' of 20" casing
and 10" were pulled.

some gravel screens
set as shown
pulled

Started drilling June 4, 1952
Completed " July 10, 1952

July 11, 1952 - New well test pumped
6 1/2 hrs. at 400 g/m. S.L. at start =
36' - no drawdown.
Test started at 4:30 p.m. after regular
day's pumping was finished.

July 12, 1952
S.L. #1 = 19
S.L. #2 = 18.5
S.L. #3 = 23

0 well #2

Alley.

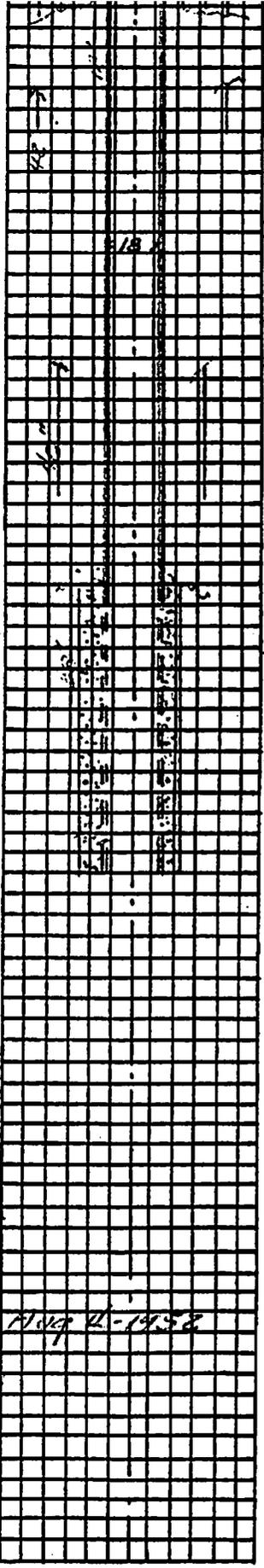
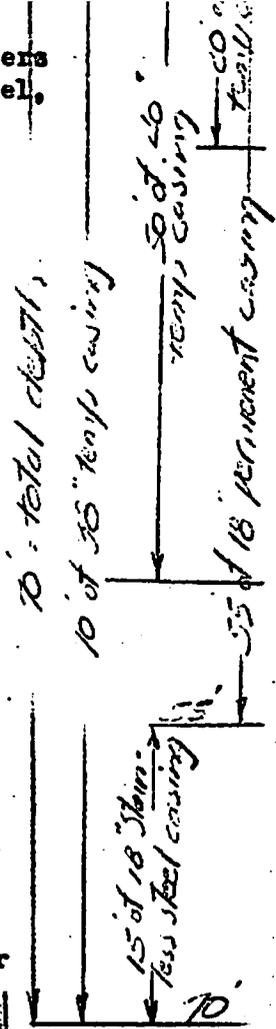
N 1 1/2" = 100'

43	58	15	Hardy sandy grey clay & small boulders
58	65	7	Coarse sand & gravel, grey
65	68	3	Coarse grey gravel & small boulders
68	70.5	2.5	Coarse grey sand & gravel
70.5	70.8	.3	Grey clay

Started drilling June 4, 1952
 Completed " July 10, 1952

July 11, 1952 - New well test pumped 6 1/2 hrs. at 400 g/m. S.L. at start = 36' - no drawdown.
 Test started at 4:30 p.m. after regular day's pumping was finished.

July 12, 1952
 S.L. #1 = 19
 S.L. #2 = 18.5
 S.L. #3 = 23



18' of gravel pack between casing & 38" temp. casing as it was pulled.
 28' of clay packing cut with 15" & 20" casings and 40" were pulled.

