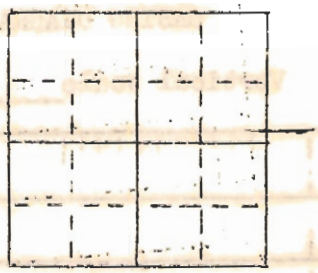
5/79 field located by S. Lenker
on 7½' Akron Quad
42 49 23 N - 096 33 38 - 01
093 - 48W - 31 CDCD

IOWA GEOLOGICAL SURVEY W-1308

In Cooperation with U. S. Geological Survey

RECORD OF WELL



Location:

(N E)
(S W) :County Plymouth
E.

Town: AKRON

sec. 31 T 93 N., R. 48 W. Portland Twp.

Well name and number Town Well #3 1st & South St

Owner _____ Address _____

Tenant _____ Address _____

Contractor Layne Western Co Address Omaha

Drillers _____

Drilling dates Dec. 1940 - Feb. 8, 1941

Well data:

Elevations: Drilling curb 1155.2 feet; Land surface 1150' (Topo EL) feet (C.I. = 20')

Pump base 2' above ground level

Determined by _____

Topographic position _____

Total depth: Reported 55 feet, Measured 57 feet

Drilling method _____

Hole and casing data GRAVEL Pack 16" hole

15' of 16" screen ⅛-inch slot

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

Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal _____; Others _____

Production data: Date _____

Static depth to water 35.5 Measuring point _____
Pumping level 38 at 300 g.p.m.
43 875 test pump
_____ _____
_____ _____

Specific capacity 96-120 g.p.m. per ft. drawdown; Temperature 53.5 °F.

Pump data: Type pump Turbine Column Dia. _____ Length _____
Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____

Power 300 gpm Airline _____

Estimated rate of production: _____ g.p.m. for _____ hrs. a day

Use of water _____

WATER ANALYSES (in parts per million)

Date samples	Feb 8, 1941			
Sampled by	E. J. Marzec			
Total solids	534			
Insoluble matter	9.5			
Alkalinity (Meo)	280.0			
Alkalinity (Phn)	0 0			
pH	7.3			
Fe_2O_3 + Mn_2O_3 + Al_2O_3	1.0			
Alkali as sodium	27.8			
Calcium	115.			
Magnesium	33.3			
Iron (unfiltered)	0.0			
Manganese	0.00			
Nitrate	30.0			
Fluoride	trace			
Chloride	36.0			
Sulfate	119.3			
Bicarbonate	341.6			
Hardness (ppm)	426			
Hardness (gpg)	24.9			

Remarks _____

Laboratory data: Sample storage location WHPS

Sample range 0-55 No. spls. 6 No. dupls. & cond. 5 good
Spls. prepared by Summerford Washed range _____ by _____
Driller's log and cond. _____
Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
Microscopic study _____ strip log EGS
Gen. log _____ Correl. by EGS

WATER LEVEL DATA

Measuring point _____

Date	Depth to water	Altitude	Remarks

REMARKS

Not drilled thru water bearing gravel

Phone JAckson 6544

LAYNE-WESTERN COMPANY

WATER SUPPLY CONTRACTORS

WELL WATER SYSTEMS AND
PUMP EQUIPMENT FOR
MUNICIPALITIES
INDUSTRIES
RAILROADS
MINES AND IRRIGATION

Affiliated with
LAYNE & BOWLER, INC.
LAYNE SCREEN AND LAYNE PUMPS
807 World-Herald Building
OMAHA, NEBR.

FACTORIES:
MEMPHIS, TENN.
HOUSTON, TEXAS
LOS ANGELES, CALIF.
BRANCHES AND REPRESENTATIVES
THROUGHOUT THE COUNTRY

December 12, 1940

Dr. H. G. Hershey
Assistant State Geologist
Iowa City, Iowa

Dear Dr. Hershey: Subject: Akron, Iowa

The well at Akron, Iowa, has just been completed to a depth of 55'. They asked that we stop the well at this depth although we were not through the water bearing gravel. The well tested out at 96 gallons per foot of drawdown, had a static level of approximately 32', and was pumped continuously on test at 875 GPM with a 9' drawdown. They are installing a 300 GPM pump.

Samples of this formation were saved and have either been sent to you by this time or will be sent within the next day or two.

Yours very truly,

LAYNE-WESTERN COMPANY

R. W. Brooks

RWB:AI

R. W. Brooks

IOWA GEOLOGICAL SURVEY
Water Well Data Sheet

Survey Number W-1308

Town Akron County Plymouth T. 93 N., R. 48 W.

Name _____ Location _____ ¼ ¼, Sec. _____

Contractor Wayne Western Driller _____ Use _____

Construction Drilled Drilling Dates Dec 1940 Drilling Depth _____

Topog. _____ Curb Elev. _____ Ref. _____ Total Depth 55

Final Static Level _____ above / below curb Pumping Level _____ Draw down _____ gpm _____ Time pumped _____ Date _____

Depth to bot. pump _____ ft. with _____ ft. suction pipe. Calc. g/ft. drawdown _____ Prin. Prod. _____

Producing Horizons _____

Water levels and pumping tests on various horizons during drilling:

Depth Range	Stat. Level	Pump Level	Draw down	gpm.	Temp.	Producing horizons	Producing formations	Formations cased out

Additional information _____

Laboratory Data

Sample range 55' Number samples 6 Number Duplicates 1 Cond. Good

Log ~~Yes~~ No, Cond. _____ Boxed Summerford Range 0-55 Date Dec. 21, 1940

Remarks _____

Microscopic Study Range		Strip Log	Gen. Log	Blue Print	Samples Washed
Insol. Res. Study Range		Strip Log	Gen. Log	Insol. Res. Prepared	Well Corel.

December 13, 1940

Mr. R. W. Brooks
Layne-Western Company
807 World-Herald Building
Omaha, Nebraska

Dear Mr. Brooks:

Thank you for your letter of December 12 regarding the well at Akron. We are very glad to have the data and will look forward to receiving the samples.

The specific capacity of 96 gallons per foot of drawdown is one of the largest that has been reported to us and the town of Akron is extremely fortunate in having such a well.

Very truly yours,

M. G. Hershey

HGH:N

Pump Installation Approved - Yes

Cuttings Preserved - Yes

Where - Geological Survey

Information by E. J. M.

The original hole was 56" in diameter at the ground and 52" in diameter at 57'. The screen was welded to the casing, and 18 feet of small pea gravel, heavily chlorinated, was placed in the well. The remaining annular space is filled with a puddled clay. The pump base is 2' above the surrounding ground level.

_C_O_P_Y_

E. J. Marzec

Public Health Engineer

February 17, 1941

A. H. Wieters, Director
Division of Public Health Engineering
Iowa State Department of Health
Des Moines, Iowa

Dear Mr. Wieters:

Attached is data concerning the Akron well. No record of the log was on file, but cuttings were to be submitted to the Geological Survey.

Very truly yours,

E. J. Marzec
Public Health Engineer
Health District No. I
Le Mars, Iowa

ejm/ns
cc-H. G. Hershey
Iowa Geological Survey

GROUND WATER

Town - Akron

County - Plymouth

Date - February 8, 1941

Well No. - 3

Active - Yes

Location -

Street - 1st & South

Sec. 31, T 93 N, R. 48 W

Lot - 6

Block - 42

Twp. - Portland

Ownership - Town of Akron

Date Installed - 1941

Contractor - Layne Western

Address - Omaha, Nebraska

Construction Employed - Gravel pack

Curb Elevation - 1155.2

Reference - Sta. 9 + 00 on Highway #5
Road improvement finished 1940

Type of Construction - Gravel pack

Depth - 57'

Diameter - 16"

Casing

Material - Armco Steel

Condition - New

Screen

Material - Armco Steel

Length - 15'

Diameter - 16"

Slot opening - 1/8 in. (?)

Well Sealed - Yes

How - Into pump base

Approved - Yes

Well Vented - No

Type of Pump - Turbine

Make - Layne Bowler

Lubricated - Oil

Capacity - 300 gpm.

Depth to Cylinder - No data

Tail Pipe - No data

Pump Control - Automatic

Static Level - 35.5'

Pumping Level - 38'

Drawdown - 2.5'

Time - Immediate at 300 gpm.

Specific Yield - 120 gal./ft. of drawdown

Rate of Recovery - Immediate

Temp.

Water - 53.5° F

Air - 42° F

Drawdown gauge installed - Yes

Topographical Position of Well - In bottom land

Well Site Investigated - Yes

Approved - Yes, if defects were taken care of.

Well Construction Reviewed - Yes

Approved - Yes

February 18, 1941

Mr. E. J. Marzec
Public Health Engineer
Health District No. 1
Le Mars, Iowa

Dear Mr. Marzec:

Thank you very much for the copy of your report on the Akron well which has just been received. The data contained in the report will be very useful and I appreciate your courtesy in sending it to us.

Very truly yours,

H. G. Hershey

HGH:N