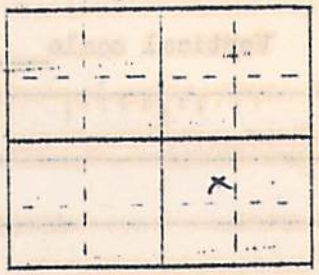
IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

3534

RECORD OF WELL



Location:

Town: New Hampton (N E / S W): County Chickasaw

SE-NW-SE sec. 7 T 95 N., R. 12 W. N.H. Twp.

Well name and number City of New Hampton - No. 4A (approx 20' E of well #4, abandoned)

Owner City of New Hampton Address N. Hampton

Tenant _____ Address _____

Contractor C. D. Nolan Address Cedar Rapids

Drillers Lee Summy

Drilling dates Dec. 1948 —

Well data:

Elevations: Drilling curb 1142 feet; Land surface 1142 feet

Determined by Alt. (ICEA)

Topographic position Upland

Total depth: Reported 305 feet, Measured _____ feet

Drilling method Cable tool

Hole and casing date _____

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

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

Sources of water: Principal _____ ; Others _____

At depth 138 ft, with no casing in hole, SWL = 63.68 ft., 1/20/49, 2:35 pm (M.P. 1.5' above Land surface)

Production data: Date _____

Static depth to water _____ Measuring point _____
Pumping level _____ at _____ g.p.m.

_____ _____

_____ _____

_____ _____

Specific capacity _____ g.p.m. per ft. drawdown; Temperature _____ °F.

Pump data; Type pump _____ Column Dia. _____ Length _____
Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____
Power _____ Airline _____
Estimated rate of production: _____ g.p.m. for _____ hrs. a day
Use of water _____

WATER AIALYSES (in parts per million)

Date samples				
Sampled by				
Total solids				
Insoluble matter				
Alkalinity (Meo)				
Alkalinity (Phn)				
pH				
Fe_2O_3- Mn_2O_3-Al_2O_3				
Alkali as sodium				
Calcium				
Magnesium				
Iron (unfiltered)				
Manganese				
Nitrate				
Fluoride				
Chlordie				
Sulfate				
Bicarbonate				
Hardness (ppm)				
Hardness (gpg)				

Remarks _____

Laboratory data: Sample storage location CE6-1

Sample range 0-305 No. spls. 62 No. dupls. & cond. 62 F
Spls. prepared by Staff Washed range 107 - 305 by EMR & KEA
Driller's log and cond. —

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
Microscopic study 0-305 strip log 5-10-49
Gen. log _____ Correl. by Ruth Wehner

(DL)

MASTER CARD-A

STATE	COUNTY	LATITUDE DEG	LATITUDE MIN	LATITUDE SEC	N or S	LONGITUDE DEG.	LONGITUDE MIN	LONGITUDE SEC.	NO SEQ
1 2	3 4	5 6	7 8	9 10	11	12 13 14	15 16	17 18	19
19	9	43	03	23	N	092	18	17	1

WELL SCHEDULE

US GEOLOGICAL SURVEY

IOWA DISTRICT WRD

WELL NO. 095-12W-07 DBD CO. Chickasaw

OWNER City Well No. 4 ADDRESS New Hampton

DRILLER C. D. Noland DATE DRLD 3/49

MAP

SOURCE OF DATA File

DESCRIPTION M. P. LSD FEET (ABOVE) (BELOW) LSD

WELL-DESCRIPTION CARD - B

DUPLICATE CARD A CC 1-19	DEPTH OF WELL	ACCURACY	DEPTH CASED OR FIRST PERF.	DIAM. INCHES	WELL KNOWN DEPTH DRILLED	YEAR DRILLED	PUMP SETTING	METH. LIFT	DEEP/SHALLOW	POWER	ALTITUDE OF LSD (FEET)	ACCURACY	WATER LEVEL (FEET)	ACCURACY	DATE MONTH	DATE YEAR	YIELD OF WELL (GPM)	METH. DET	DRAWDOWN (FEET)	ACCURACY	PUMPING PERIOD (HOURS)	QUALITY OF WATER IRON	SULF.	CHLOR.	HARD	SP. COND.	TEMP.	DATE SAMPLED	CARD DESIG.
	20 21 22 23	24	25 26 27 28	29 30	31	32 33 34 35	36 37 38	39	40	41	42 43 44 45 46	47	48 49 50 51	52	53 54 55		56 57 58 59 60	61	62 63 64	65	66 67 68	69	70	71	72	73	74 75 76	77 78 79	80
	305 3					C 9 4 9					1 1 4 2 7		55	D	3 4 9		4 1 5		6 3 3										B

HYDROGEOLOGIC CARD - C

DUPLICATE CARD A CC 1-19	PHYSIOGRAPHY PROV.	PHYSIOGRAPHY SEC.	DRAINAGE BASIN	SUBBASIN	TOPO SETTING	MAJOR AQUIFER SYSTEM	MAJOR AQUIFER SERIES USGS	MAJOR AQUIFER SERIES ISB	MAJOR AQUIFER UNIT	MAJOR AQUIFER LITHOLOGY	MAJOR AQUIFER ORIG.	MAJOR AQUIFER THICKNESS	MAJOR AQUIFER LENGTH WELL OPEN TO	MAJOR AQUIFER DEPTH TO TOP OF	MINOR AQUIFER SYSTEM	MINOR AQUIFER SERIES USGS	MINOR AQUIFER SERIES ISB	MINOR AQUIFER UNIT	MINOR AQUIFER LITHOLOGY	MINOR AQUIFER ORIG.	MINOR AQUIFER THICKNESS	MINOR AQUIFER LENGTH WELL OPEN TO	MINOR AQUIFER DEPTH TO TOP OF	DEPTH TO CONSOLIDATED ROCK	SOURCE	DEPTH TO BASEMENT	SOURCE	SURF. MAT. LITHOLOGY	SURF. MAT. INFIL.	COEF. TRAN. SIG. FIG.	COEF. TRAN. XIO	COEF. STOR. SIG. FIG.	COEF. STOR. XIO-	CARD CARD DESIG.
	20 21	22	23 24 25	26	27	28	29	30	31	32 33	34	35 36 37	38 39 40	41 42 43	44	45	46	47	48 49	50	51 52 53	54 55 56	57 58 59	60 61 62 63	64	65 66 67 68	69	70 71	72	73 74	75	76 77	78	79	80
	12	E	26	A	F	0	3	W	E	QL	6			270	D	2	M	C	8 D	6	145		125	125	C			S	1						C

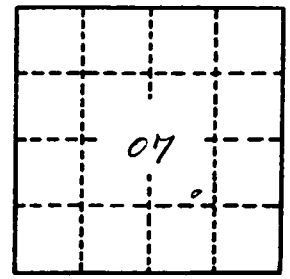
CASING AND SCREEN (SIZE, TYPE, INTERVALS):

CODED BY [signature] DATE 1-9-75

PUNCHED BY _____ DATE _____

VERIFIED BY _____ DATE _____

SKETCH ON REVERSE: YES _____ NO _____



WELL NO. 095-12W-07 DBD

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves Patented. FORM 427575

MOORE'S MODERN METHODS

Fill N. H. Forster

3-7-49

New Hampton

Air line gauge - 3.5' above L.S.
Top 12" casing 2.5' " "

Artific line 20.3' from pump

137' of casing 17"
137' of 17" hole.
305' at present.
137' of 12" casing

150' to top bowls
7' bowls, -8 stage
10' Suction

Air line base at 150

Bowls - 10"
Column - 6"

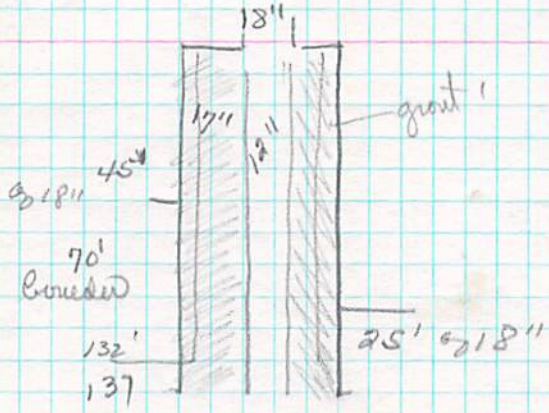


65.00
9.61
55.39 d/w @ 1:00 pm SW.L.

150
93
57

MOORE'S MODERN METHODS

New Hampton



March 15, 1949

Mr. Albert Griffith
Town Clerk
New Hampton, Iowa

Dear Mr. Griffith:

Enclosed is a copy of the results of a production test made on New Hampton town well No. 4 on March 7-8, 1949.

If you have any questions or if we can be of further service please let us know.

Very truly yours,

H. G. Hershey aeh

HGH:AEH
Enc.

Copy sent to Green Engrg.

2

March 15, 1949

Mr. Charles D. Nolan
412 S. Second Street
Cedar Rapids, Iowa

Dear Mr. Nolan:

Enclosed is a copy of the results of a production test made on New Hampton town well No. 4 on March 7-8, 1949.

If we can be of further service please do not hesitate to let us know.

Very truly yours,

H. G. Hershey

HGH:AEH
Enc.

RESULTS OF PRODUCTION TEST MADE ON NEW HAMPTON TOWN WELL NO. 4 (1949)

New Hampton, Iowa
March 7-8, 1949

NAME: New Hampton town well No. 4 (1949).

LOCATION: SE NW SE sec. 7, T. 95 N., R. 12 W. Relocated 8/75 095N-12W-07 DBBC E.S.

ELEVATION: Land surface 1142 feet above sea level.

OWNER: Town of New Hampton.

CONTRACTOR: C. D. Nolan, Cedar Rapids, Iowa.

DRILLER: Lee Summy.

COMPLETION DATE: March, 1949.

TOTAL DEPTH: 305 feet.

CASING AND HOLE DATA:

18-inch casing from one foot above land surface to 45 feet below land surface.
17-inch casing from one foot above land surface to 132 feet below land surface.
12-inch casing from 2.5 feet above land surface to 137 feet below land surface.
17-inch hole from surface to 137 feet below land surface. Cement grout from 137 feet below land surface to surface between 12-inch and 17-inch casings.
168 feet of 12-inch open hole from 137 feet to 305 feet total depth.

CHIEF AQUIFER: Devonian limestone and dolomite.

TEST PUMP: Turbine, electrically powered.
150 feet of 6-inch column.
7 feet, 8 stages of 10-inch bowls.
10 feet of 6-inch suction pipe.

WATER-LEVEL MEASUREMENTS: Reference point for tape measurements made during test was top of 12-inch casing 2.5 feet above land surface. Reference point for air line measurements was pressure gage 3.5 feet above land surface.

DISCHARGE MEASUREMENTS: Discharge rate obtained by observing height of water in orifice tube. Orifice was 5-inch in diameter on 6-inch pipe.

TEMPERATURE MEASUREMENTS: The temperature of the water was measured at the end of the discharge pipe which consisted of 20 feet of 6-inch iron pipe; 60 feet of 6-inch corrugated metal pipe and 60 feet of 8-inch corrugated metal pipe.

REMARKS: This well is listed as New Hampton town well 4-A in Iowa Geological Survey files. Observations were made during test by J. B. Cooper of the Geological Survey office in Iowa City.

NEW HAMPTON TOWN WELL NO. 4 MARCH 7-8, 1949

TIME	DEPTH TO WATER STEEL TAPE (FEET)	DEPTH TO WATER AIR GAGE (FEET)	ORIFICE READING	G.P.M.	TEMP. °F.	REMARKS
Mar. 7						
1:00 PM	55.39	57.00				
1:08						Pump on.
1:15				-100		Water very muddy.
1:23			9	372		Water clearing.
1:36		113	10	393		
1:37		110	8	350		
1:45		106	10	393		
1:53		95	6½	316		
2:00		94	6½	316		Water clearing.
2:10		93	6	305		
2:15		92	6	305		
2:35		97	7	328		Water fairly clear.
3:00		93	6	305	49	
3:30		97	5½	293		
4:15		97	7	328		
4:30		97	6½	316		
4:50		95	6¼	310		
5:20		105	8½	361		
5:50		105	8½	361		
6:05		105	8	350		
6:30		105	8	350	49	
7:05		105	8	350		
7:40		105	8	350		
8:50		105	8	350		
9:07		105	7-3/4	345		
9:25		105	8	350		
10:10		105	8	350		
10:40		105	8	350		
11:00		105	8	350		
11:30		105	8	350		
12:00		105	8	350		
Mar. 8						
12:30 AM		105	8	350		
1:00		102	8	350		
2:00		102	8	350		
3:00		102	8	350		
4:00		102	7½	339		
5:00		100	7½	339		
6:00		100	7	328		
7:00		100	7	328		
7:15		102	9	372		
8:00		105	9	372		
8:05		105	9	372		
8:10					49	Water sample taken for analysis.
8:25		120	12	430		Opened valve wider.

TIME	DEPTH TO WATER STEEL TAPE (FEET)	DEPTH TO WATER AIR GAGE (FEET)	ORIFICE READING	G.P.M.	TEMP. °F.	REMARKS
Mar. 8						
8:35 AM		118	12	430		Water dirty.
8:45		118	12	430		
9:10		118	12	430		Water clearing.
9:25		120	12¼	430+		
10:00		118	12	430		
10:15		118	11½	415		Water cloudy.
10:45		118	11	400	49	Water fairly clear.
11:00		118	11	400		
11:30		119	11	400		
12:00		119	11	400		Water clear.
12:30 PM		118	11	400		
12:50		118	11½	415		
1:00						Pump off.
1:01		80				Recovery measurements.
1:02		78				
1:03		77				
1:04		76				
1:06		75				
1:09		74				
1:11		73				
1:13		72.5				
1:16		72				
1:20		71				
1:25		70				
1:26	69.47					
1:37		68				

Chickasaw

MEMORANDUM

From: H. G. Hershey
Date: August 7, 1947

Charles D. Mullinex called to ask for information on the well drilled in 1934 for the city of New Hampton He reported that the well was approximately 306' and produced approximately 300 gallons per minute.

File GW

New Hampton, Chickasaw County

Land elev. = 1150'±

Iowan drift at surface

Drift 100 - 200 over most of county. 135' in old well.

Bedrock: Cedar Valley ls.

Old well: 235', last 100' in rock, SWL = 40', 35 gpm., tested 125 gpm. c.el. 1140' probably top Maquoketa.

Top Maquoketa est. at 900' alt. 250' est. depth.

Gen Data

New Hampton (Chickasaw Co.)

City has four wells.

No. 1 in E. part of power house, close to No. 2 (within 20 ft.). This well now plugged and abandoned. Rept. 237 feet deep. 10-inch diameter.

No. 2, in E. part of power house. T.D. 256 feet. Equipped with Layne pump at present, but not in use and to be abandoned because the well is pumping shale or mud. Will be replaced by the No. 4 well now drilling. No airline in this well and no hole in pump base for W/L measurements.

No. 3, in W. part of power house. T.D. 306 feet. drilled about 1928 by driller from Oelwein (Scharf?). Equipped with Layne pump. No airline but breather hole in pump base could be used for W/L measurements. Temperature 48 °F. Production 340 gpm on 1/20/49. Some evidence of iron in the water (staining on plumbing, etc.) Present pumpage about 350,000 gallons daily, all from this one well.

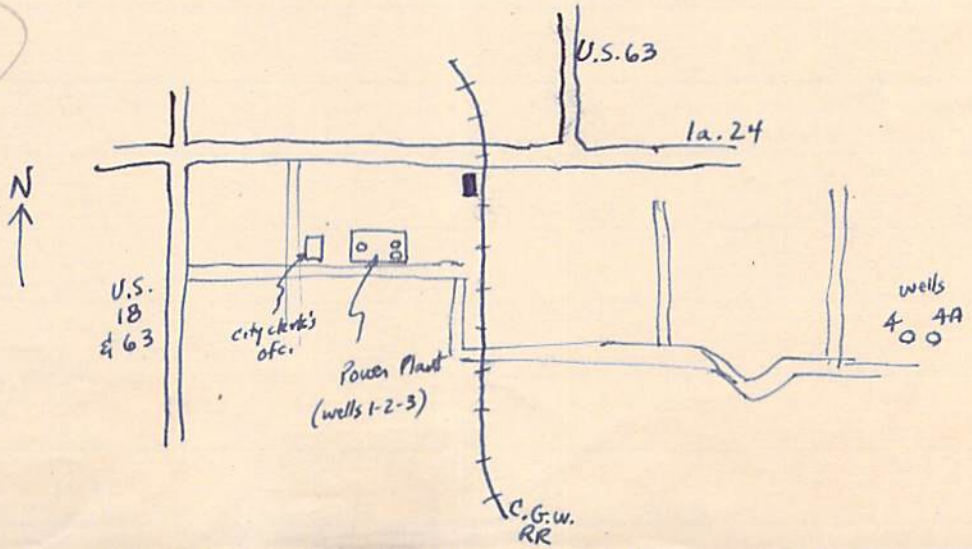
No. 4, started east of the power house, east of C.G.W. tracks and S. of highway. Hole reached and entered rock, but before casing was installed the hole caved and had to be abandoned.

No. 4-A, now drilling just east of No. 4 (approx. 20 ft.). Contractor: C.D. Nolan of Cedar Rapids; driller, Lee Summy. Now down to rock and ready to set and cement casing when weather breaks (1/20/49).

Location of wells 1-2-3 (power plant): SW-NE-SW-7-95-12
Location of wells 4-4A (east of plant): SE-NW-SE-7-95-12
Elevation of wells 1-2-3 (land surface): 1153'
Elevation of Well 4: =1141' (land surface); of well 4-A =1142' (land surface).

City clerk: Albert Griffith, at city hall just west of power plant

K.E.Anderson
1-24-49



Chickasaw

May 22, 1950

Gerald J. Bailey, City Clerk
Municipal Light Plant
New Hampton, Iowa

Dear Mr. Bailey:

In reply to your request of May 18, we are sending you such data on the New Hampton City Wells No. 3 and No. 4 as are available in the open files of the Geological Survey.

Copies of the geologic logs from Well No. 4 and Well No. 4A are attached. Well No. 4 extended to a depth of 150 feet, but the hole caved before casing was installed and it had to be abandoned. We do not have a log of City Well No. 3.

Well No. 3 was drilled about 1928 and is located in the west part of the power house in the SW¼ NE¼ SW¼ Sec 7, T. 95 N., R. 12 W. The altitude of the land surface is 1153 feet. The total depth is reported to be 306 feet. Yields of 340 gallons a minute and about 350,000 gallons daily were reported for this well in January, 1949. The water temperature is 48°F.

Your New Hampton City Well No. 4 is known as No. 4A in the Iowa Geological Survey files. The complete record of our information on this well is as follows:

Name: New Hampton City Well No. 4A (1949)
Location: SE NW SE Sec. 7, T. 95 N., R. 12 W.
Elevation: Land surface 1142 feet above sea level
Owner: City of New Hampton
Contractor: C. D. Nolan, Cedar Rapids, Iowa
Driller: Lee Summy
Completion date: March, 1949
Total Depth: 305 feet
Casing and hole data:

18-inch casing from one foot above land surface to 45 feet below land surface.
17-inch casing from one foot above land surface to 132 feet below land surface.
12-inch casing from 2.5 feet above land surface to 137 feet below land surface.
17-inch hole from surface to 137 feet below land surface. Cement grout from 137 feet below land surface to surface between 12-inch and 17-inch casings.
168 feet of 12-inch open hole from 137 feet to 305 feet total depth.

Chief aquifer: Devonian limestone and dolomite
Test pump: Turbine, electrically powered
150 feet of 6-inch column
7 feet, 8 stages of 10-inch bowls
10 feet of 6-inch suction pipe
Production data: 415 gallons a minute with 63 feet of drawdown from a static water level of 55.39 feet.
Temperature: 49°F

We hope that this is the information you desired. If we can be of other service to you in this matter, please do not hesitate to write us.

Very truly yours,

H. G. Hershey

HGH:RMJ:GES
PSH

3

MAY 19 1950

City of New Hampton

Municipal Light Plant

New Hampton, Iowa

New Hampton, Iowa.
5-18-50

Bureau of Geological Survey
Iowa City, Iowa.

Dear Sirs:

We are wondering if this department could give us the Log on our two wells for the City of New Hampton, Iowa. These wells are numbered #3 and #4. If your department does not have this information please direct us to the right department.

Very truly yours,
Gerald J. Bailey
Gerald J. Bailey
City Clerk.

Chickasaw Co.

August 7, 1947

Mr. Charles D. Mullinex
208-210 Bever Building
Cedar Rapids, Iowa

Dear Mr. Mullinex:

A search of our records shows that we do not have any information on the well drilled for the city of New Hampton in 1934.

We have records of several wells in the vicinity of New Hampton indicating that bedrock occurs between 70 and 135 feet.

If I can be of other assistance please do not hesitate to let me hear from you.

Very truly yours,

H. G. Hershey

HGH:BH