Northway Well and Pump Co.

4895 8th Avenue
Marion, Iowa 52302

Drilled for Water Works Department of Greene, Iowa

Well is located ____ N-E-S-W and ____ miles N-E-S-W from NW NW (next to high school)

in the NW 1/4 SE 1/4 Section 1 Township 93 Range 17W

Drilling started October 23 19 97 Completed December 3 19 97

Well No. #1 Kind of Well Drilled Depth 205' Size hole started 11 7/8 in

Finish 7½" G.P.M. 330 Static Head 25' Pumping level from surface 29' 3"

Water was first encountered at ____ in ____ Approx. Amt. ____ Temp. ____

Remarks This well was drilled in 1948 to 108'. Casing record was +1 to 27'.

(GIVE DETAILS OF PERFORATED PIPE AND SEALS)

RECORD OF PERMANENT PIPE					TEMPORARY PIPE	
SIZE PIPE	AMOUNT OF PIPE	DEPTH TO BOTTOM OF PIPE	DEPTH TO TOP OF PIPE	MAKE OF PIPE	SIZE PIPE	AMOUNT
8"	150'	150'	+1	Steel		

Driller Tom Engelken From ~~Surface~~ 108' to 205 feet

Driller ____ From Surface to ____ feet

Driller ____ From Surfact to ____ feet

AMOUNT IN FEET	KIND OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
5	Shale and previous drill cuttings	113'
3	Tan limestone with shale streaks	116'
3	Blue to green shale	119'
3	Gray and brown limestone with shale streaks	122'
13	Gray and brown limestone, very hard	135'

Phone 319-377-6339 1-800-747-6339 FAX 319-377-8148

AMOUNT FEET	KINDS OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
2	Yellow shale	137'
3	Brown limestone, very hard	140'
4	Gray and brown limestone, hard	144'
8	Gray limestone	152'
2	Brown limestone	154'
6	Light brown limestone w/ shale streaks	160'
4	No cuttings, crevice	164'
13	Gray limestone w/ green shale streaks	177'
1	Green shale	178'
3	Small amount of shale Light gray and brown limestone.	181'
24	Brown limestone very hard from 189' to 193'	205'
	This well has been cased to 150' to eliminate upper aquifer contamination.	
	A grout shoe was used to pressure grout the 8" casing. The grout came up to	
	117'. The grout about 111' was tremied from the outside to surface. Total	
	grout used was 137 bags and 20 of 3/8" bentonite chips.	

WELL TEST DATA REPORT

NORTHWAY WELL AND PUMP COMPANY

4895- 8th Avenue, Marion, IA 52302
319-377-6339

100 North 6th Street, Wanker, IA 50263
515-987-4575

Customer Water Works City Greene, Iowa Location Next to high school

Well No. 1 Size of Casing 8" Total Depth 205' Construction Limestone

Pump Make Simmons Model No. _____ No. of Stages 4 Diameter 6"

Total Setting 147' Air Line Length 147' Meter Used 4" Prop Static Level 25'

DATE	TIME	GPM	P.L.	D.D.	S.C.	PSI	DISCHARG DESCRIPTION
12-3-97	2:00	200	29'	4	50	20	Turbid
	2:15	200	29'	4	50	20	Turbid
	2:30	200	29'	4	50	20	Turbid
	2:45	200	29'	4	50	20	Dirty
	3:00	300	29'4"	4.4	68.18	10	Dirty
	3:15	200	29'4"	4.4	68.18	10	Cloudy
	3:30	300	29'4"	4.4	68.18	10	Cloudy
	3:45	350	29'7"	4.7	74.4	5	Cloudy
	4:00	350	29'7"	4.7	74.4	5	Cloudy
	4:15	350	29'7"	4.7	74.4	5	Clearing
	4:30	350	29'7"	4.7	74.4	5	Clearing
	4:45	350	29'7"	4.7	74.4	5	Clear
	5:00	350	29'7"	4.7	74.4	5	Clear
Recovery	5:05	0	26'3"				
	5:10	0	25'8"				
	5:15	0	25'4"				
	5:20	0	25'2"				
	5:30	0	25'.0	Static	Level		

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

W-3522

RECORD OF WELL

Location:

Town: Greene (N E / S W): County Butler

sec. 1 T 93 N., R. 17 ~~W~~ E. Twp.

(at water tower)

Well name and number City of Greene No. 2 (?)

Owner City of Greene Address

Tenant Address

Contractor Layne-Western Address Ames

Drillers

Drilling dates August 1948

Well data:

Elevations: Drilling curb feet; Land surface feet

Determined by

Topographic position

Total depth: Reported feet, Measured feet

Drilling method

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

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 CFS-7

Sample range 0'-115' No. spls. 23 No. dupls. & cond. 23 good
Spls. prepared by J.C.C. Washed range 5'-115' by E.M.R.
Driller's log and cond. _____

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
Microscopic study _____ strip log R.M.J. Jan 17, 1949
Gen. log _____ Correl. by _____

(DO NOT USE THIS SPACE EXCEPT FOR BINDING PURPOSES)

9—218-A
(November 1939)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

File Number { Washington
District

Shell Rock River

200

960

Top C.V.
1013
16

6 5 4 3 2 1 5 4

7 8 9 10 11 12 7 8 9

x 764
1031

a - 764
979
13

Valley of Shell Rock River = Elev. 960

T. Map, 628

T. SKP-125

10—13468 GPO

Sheet No. ..... of ..... sheets. Prepared by ..... Date ..... Checked by ..... Date .....