

IOWA GEOLOGICAL SURVEY  
 Generalized Log Based on ~~Detailed~~  
 Description of Drill Cuttings

w 39539

Name of Well: City of Sioux City Well No. 17 Survey No. W-\_\_\_\_\_

Drilled by: Rasmussen Well Company Date \_\_\_\_\_, 1926

Total Depth: 323 ft; Curb Elevation: 1112.7 ft; Static Level: 34 ft.

Casing Data: \_\_\_\_\_

Pump and Screen Data: \_\_\_\_\_

Pumping Test: \_\_\_\_\_ Hours \_\_\_\_\_ Min; Gal. Per Min. 500 ; Drawdown \_\_\_\_\_ ft. in \_\_\_\_\_ min.  
approx.

<u>No.</u>	<u>Rock Unit</u>	<u>Description of Formations</u>	<u>Thick.</u>	<u>From</u> (Feet)	<u>To</u>	<i>Elev. of Top</i>
<u>Pleistocene</u>						
1.	Clay		40	0	40	
2.	Yellow sand and gravel		102	40	142	
<u>Kansan and Nebraskan</u>						
3.	Blue clay		10	142	152	
4.	Sand and gravel mixed with clay		9	152	161	
5.	Gravel with admixture of coarse sand and grit		14	161	175	
<u>Cretaceous</u>						
<u>Dakota</u>						
6.	Sandstone with numerous layers of blue-gray clay, shale, and gray sandstone in thin bands		95	175	270	937.7
7.	Clay and shale, dark blue to gray-black		7	270	277	
8.	Sandstone, very fine, gray to buff-brown		12	277	289	
9.	Clay, chalky white to light gray, uniform		6	289	295	
10.	Sandstone, medium to fine grain, thin layers of clay and carbonaceous material		45	295	340±	

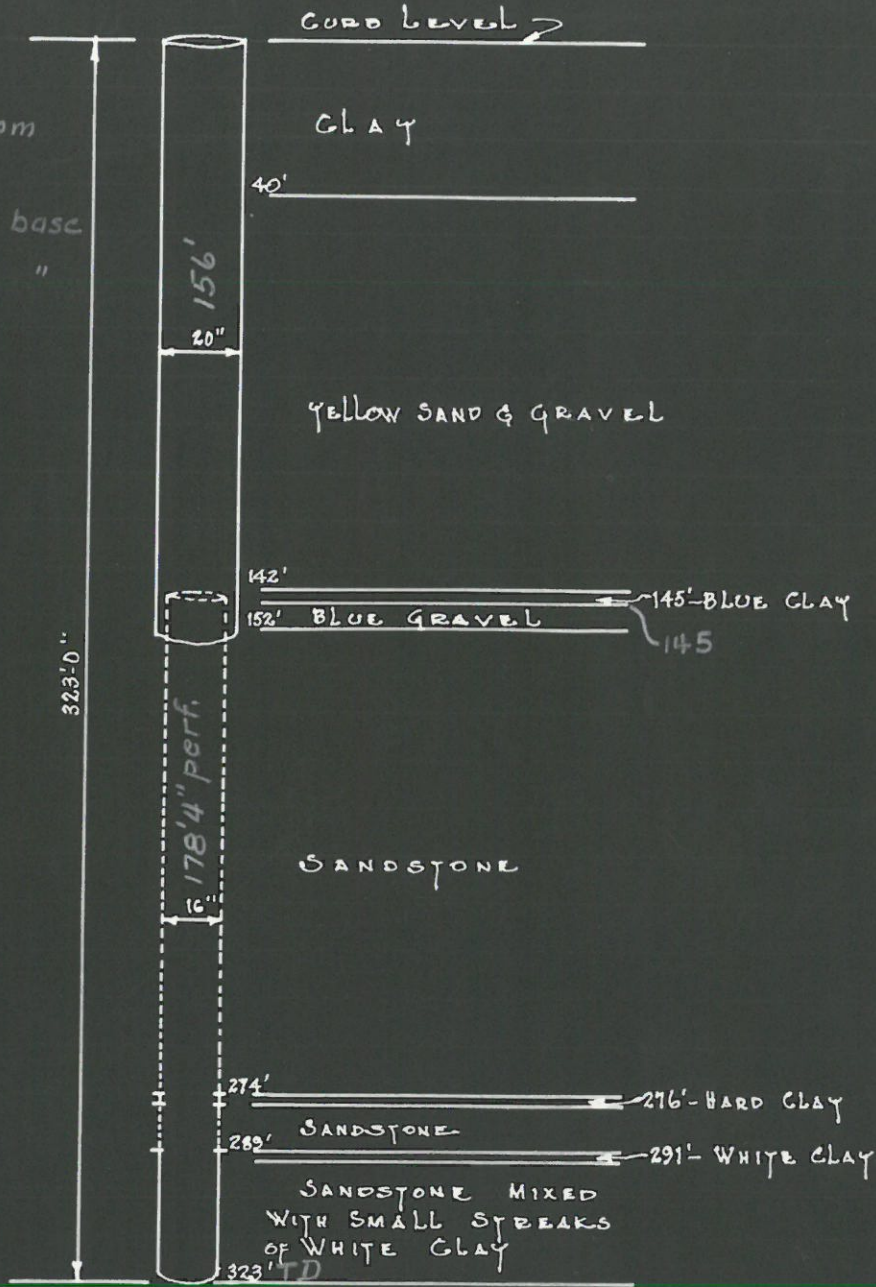
Notes:

# WELL NO. 17 - 710 SIOUX

E.D. O'NEILL - 1937  
SCALE - 1" = 50'

Finished: Oct. 13, 1926  
Curb to water, 29'4"

Apr. 2, 1937  
DD. 50' at 2269 gpm  
Feb. 23, 1938  
T.D. 333' from pump base  
Water level 40'9" " " "



16" Lays into 20"-11'4"

American deep well turbine 4 stage 30' of suction 17"  
14 8' lengths of 10" drop pipe  
13 8' & 1 7'9/4 lengths of 2 3/16" shafting

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

GROUND WATER

Town Sioux City, Iowa. County Woodbury. Date March 28th 1958  
WELL NO. 17 Active Yes. Standby No. Abandoned No. Replaced by No. None.  
LOCATION: Street Sioux Street between Sec. T N.R. East: West  
West 7th & West 8th. Lot \_\_\_\_\_ Block \_\_\_\_\_ Township \_\_\_\_\_  
OWNERSHIP City of Sioux City Date Installed October 8th 1926  
CONTRACTOR Rasmussen Address 4041 Monroe Street.  
Sioux City, Iowa.  
DATE RECONDITIONED Same as Drilled Contractor \_\_\_\_\_ Address \_\_\_\_\_  
CONSTRUCTION EMPLOYED: Drilled and cased with Steel Well casing.  
15' of 20" casing, 182' of 16" casing. The 16" laps up into the 20"  
11' 4" and is perforated through the Sandstone. Blank through the Clay.

CURB ELEVATION 1112.64 REFERENCE \_\_\_\_\_  
TYPE OF CONSTRUCTION See Above. No Change. Depth \_\_\_\_\_ ft. Diameter \_\_\_\_\_ in.  
CASING: Material See Above Condition Good as far as we know.  
SCREEN: Material Only perforated Length \_\_\_\_\_ ft. Diameter \_\_\_\_\_ in. Slot Opening \_\_\_\_\_ in.  
WELL SEALED Yes How Casing Concrete - Casing to floor and Approved \_\_\_\_\_  
Pump base. Also caulked.  
WELL VENTED Yes How with 2" breather Approved \_\_\_\_\_  
TYPE OF PUMP 3 Stg. Turbine Deming Fig. 4700. Capacity 1400 GPM Lubricated Water.  
No. T130S1-e 12" Impeller No 31212. Screened \_\_\_\_\_  
DEPTH TO CYLINDER 123 feet. ft. Tail Pipe None. Bronze screen 3 ft.  
PUMP CONTROL: Manual Yes. Automatic No. Semi-Automatic No.  
STATIC LEVEL 59.11 ft. Pumping Level Unknown ft. Drawdown Unknown ft.  
OPTIMUM SPECIFIC YIELD 1600 GPM Drawdown Unknown ft. Time Continuous.  
RATE OF DRAWDOWN UNKNOWN Rate of Recovery Unknown  
TEMPERATURE OF WATER \_\_\_\_\_ °F Where Measured \_\_\_\_\_ Temp. of Atmosphere \_\_\_\_\_ °F  
DRAWDOWN GAUGE INSTALLED No. Drawdown Gage.  
TOPOGRAPHICAL POSITION OF WELL In Perry Creek Valley about one mile upstream from  
Missouri River.  
WELL SITE INVESTIGATED \_\_\_\_\_ Approved \_\_\_\_\_ Why not \_\_\_\_\_  
WELL CONSTRUCTION REVIEWED \_\_\_\_\_ Approved \_\_\_\_\_ Why not \_\_\_\_\_ (apart.  
PIT CONSTRUCTION: Purpose basement. Station Size and Description 12' 1" x 16' 1" x 10' 2" Ceiling  
Well was cased up through basement to Main Floor in March 1955 and the Deming  
Pump with 8" column pipes installed. The original American Pump had 10" Column  
Pipes  
CONDITION: Good. Poured Concrete Drainage Facilities Sump Pump out to Street  
PUMP INSTALLATION: Approved \_\_\_\_\_ Why Not \_\_\_\_\_  
CUTTINGS FROM WELL PRESERVED: No. Where \_\_\_\_\_  
DEPTH TO BED ROCK Sandstone 152' Depth to Water-bearing Stratum 152' Dakota Sand Stone.  
SOURCE OF WATER: Principal Formation Sandstone Other all cased off. Gravel &  
loose sand.

Total Hardness 477.3 ppm. Total Iron 0.5 ppm. Sulfates 145.9 ppm. Fluorine 0.25 ppm.  
Manganese 0.2 ppm. pH 6.9 CO<sub>2</sub> 0.0 ppm.

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

GROUND WATER

Town Sioux City County Hoodbury Date Jan. 1945

WELL NO. 17 Active  Standby  Abandoned  Replaced by No. \_\_\_\_\_

LOCATION: Street 710 Sioux Street Sec. 89 T. 29 N.R. 47 East: West \_\_\_\_\_  
Lot 4 Block 54 Township Sioux City

OWNERSHIP Sioux City Water Works Date Installed ? 1926

CONTRACTOR Rasmussen Bros. Well Company Address Sioux City, Iowa

DATE RECONDITIONED Not done 19\_\_\_\_ Contractor \_\_\_\_\_ Address \_\_\_\_\_

CONSTRUCTION EMPLOYED: None

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CURB ELEVATION 1112.64 REFERENCE Sea Level

TYPE OF CONSTRUCTION Drilled Depth 325 ft. Diameter 20 in.

CASING: Material Steel Condition Good

SCREEN: Material Perforated Steel Pipe Length 155 ft. Diameter 16" in. Slot Opening 5/8" holes <sup>4" centers</sup>

WELL SEALED Yes How Concrete seal between casing & column pipe. Approved Yes

WELL VENTED Yes How 2" Pipe extending about 7' above seal with screened return bend. Approved Yes

TYPE OF PUMP Turbine Make American Capacity 1700 GPM Lubricated Water

DEPTH TO CYLINDER 104 from well curb ft. Tall Pipe 30' ft.

PUMP CONTROL: Manual  Automatic  Semi-Automatic

STATIC LEVEL 2/23/38 40'9" ft. Pumping Level ? ft. Drawdown ? ft.

OPTIMUM SPECIFIC YIELD 1535 GPM Drawdown ? ft. Time ? hrs.

RATE OF DRAWDOWN ? Rate of Recovery ?

TEMPERATURE OF WATER 54 °F Where Measured \_\_\_\_\_ Temp. of Atmosphere \_\_\_\_\_ °F

DRAWDOWN GAUGE INSTALLED No

TOPOGRAPHICAL POSITION OF WELL Bottom land subject to flooding by Perry Creek

WELL SITE INVESTIGATED No Approved  Why not \_\_\_\_\_

WELL CONSTRUCTION REVIEWED Yes Approved  Why not \_\_\_\_\_

FIT CONSTRUCTION: Purpose Heating Plant Size and Description Concrete pit - good condition - Brick bldg.

CONDITION: Good Drainage Facilities Sump pump

PUMP INSTALLATION: Approved  Why Not \_\_\_\_\_

CUTTINGS FROM WELL PRESERVED: No information Where \_\_\_\_\_

DEPTH TO BED ROCK 155 Depth to Water-bearing Stratum 155

SOURCE OF WATER: Principal Formation Dakota Sandstone Other \_\_\_\_\_

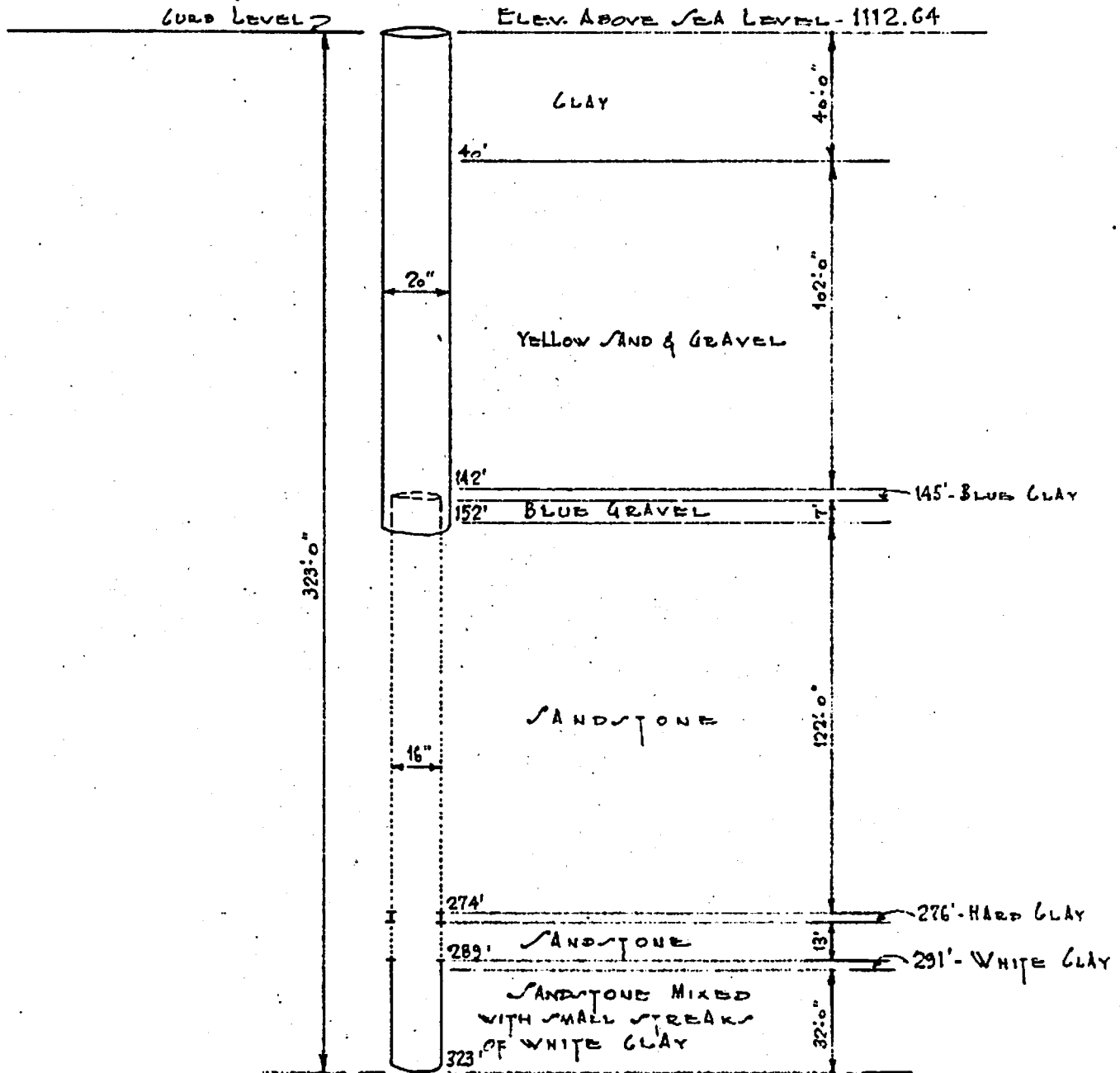
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Total Hardness \_\_\_\_\_ ppm. Total Iron \_\_\_\_\_ ppm. Sulfates \_\_\_\_\_ ppm. Fluorine \_\_\_\_\_ ppm.  
Manganese \_\_\_\_\_ ppm. pH \_\_\_\_\_ CO<sub>2</sub> \_\_\_\_\_ ppm.

REMARKS: This well can be pumped to waste to street gutter.  
This well was flooded during Perry Creek flood in July, 1944.

# WELL NO. 17

710 · SIOUX · STREET  
 AMOUNT OF SANDSTONE IN WELL - - 135' 0"  
 WELL COMPLETED - 1926



16" LAPS INTO 20" - 11.4"

SCALE - 1" = 50' 0"  
 E. D. O'NEILL  
 MARCH 1940

WELL IS ON BOTTOM LAND  
 WATER IS PUMPED UP FROM DAKOTA SANDSTONE