

069-04w-01A AAAA

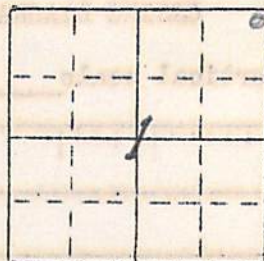
IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

W-1431

RECORD OF WELL

Location:

Town: Middletown (NE)
(SW): County Des Moines
NE/C sec. 1 T 69 N., R. 4 W. Augusta Twp.

Well name and number Iowa Ordnance Plant Well No. 4Owner Iowa Ordnance Plant

Address _____

Tenant _____

Address _____

Contractor Gray Well Co.Address Chicago, Ill.Drillers H.M. Miller, Supt. of drilling operationsDrilling dates December, 1941

Well data:

Elevations: Drilling curb 726 feet; Land surface _____ feet

Determined by _____

Topographic position _____

Total depth: Reported 1924.5 feet, Measured _____ feetDrilling method Cable tool

Hole and casing data About 800 feet of 15-inch pipe from 0 to 800 feet.
About 400 feet of 13-inch pipe from 800 feet to 1200 feet.

Original depth to water 142 ft. ^{above} below CURB Date Dec. 1941Original elevation of water level 584 ft.; Source of data _____

Sources of water: Principal _____; Others _____

Production data:

Date Dec. 22, 1941Static depth to water 142

Measuring point

Pumping level 197.7

at

699

g.p.m.

Specific capacity _____ g.p.m. per ft. drawdown; Temperature 72 3/4 °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 ANALYSES (in parts per million)

Date samples _____

Sampled by _____

Total solids _____

Insoluble matter _____

Alkalinity (Meo) _____

Alkalinity (Phn) _____

pH _____

 $\text{Fe}_2\text{O}_3 + \text{Mn}_2\text{O}_3 + \text{Al}_2\text{O}_3$ _____

Alkali as sodium _____

Calcium _____

Magnesium _____

Iron (unfiltered) _____

Manganese _____

Nitrate _____

Fluoride _____

Chloride _____

Sulfate _____

Bicarbonate _____

Hardness (ppm) _____

Hardness (gpg) _____

Remarks _____

Laboratory data:

Sample storage location _____

Sample range 55-1204No. spls. 253No. dupls. & cond. 198 7.

Spls. prepared by _____

Washed range _____

by _____

Driller's log and cond. _____

Insoluble residues: Prepared by _____

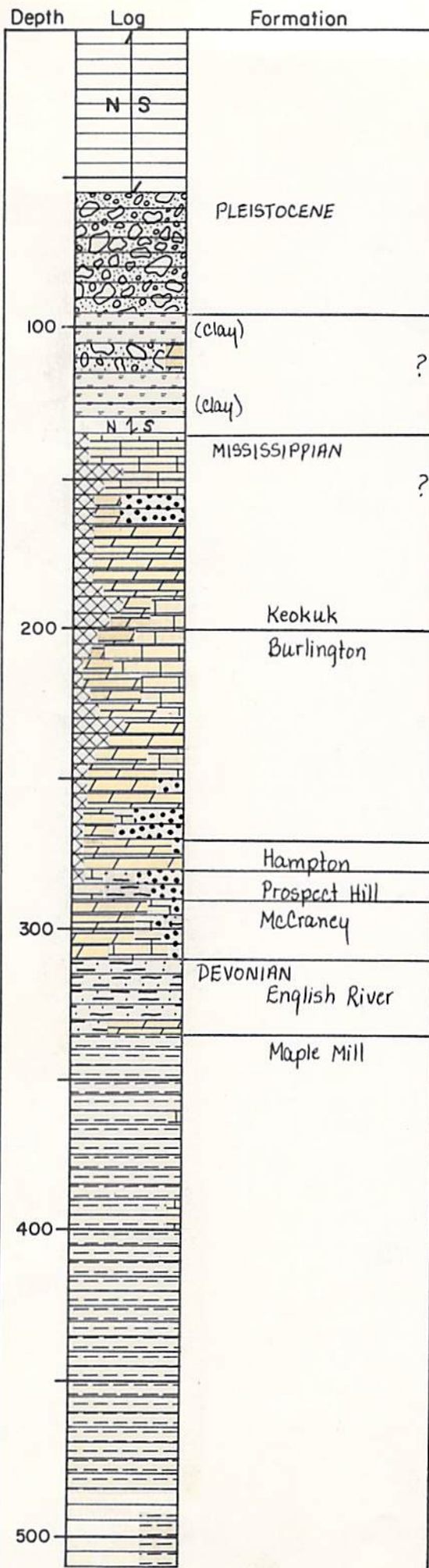
Studied by _____

Strip log _____

Microscopic study Conner, Davis, Harrisstrip log Nov 25, 1949, E m R.

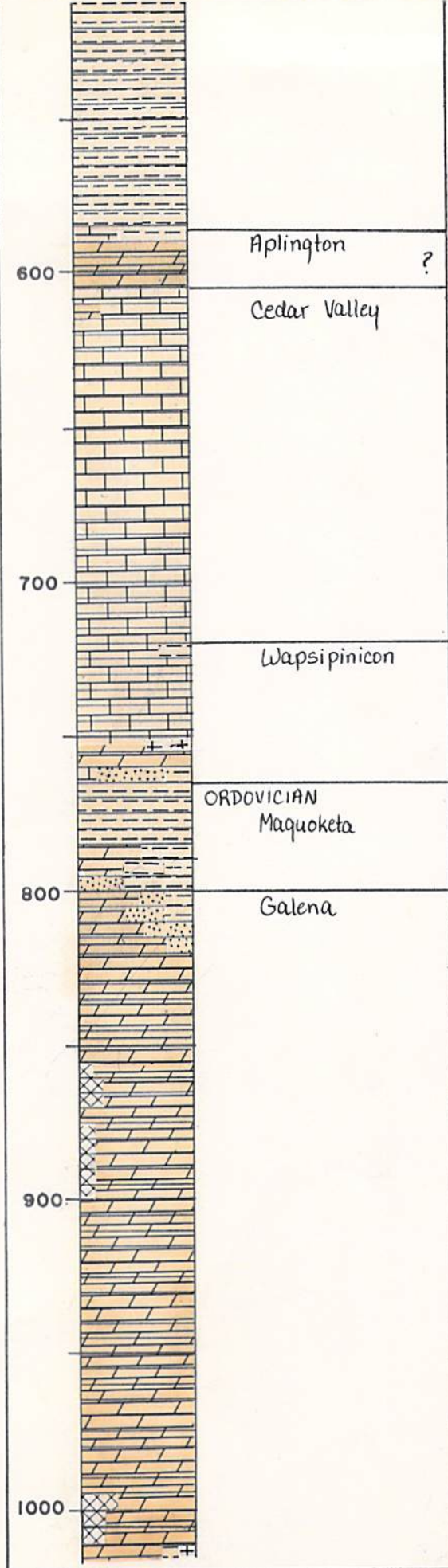
Gen. log _____

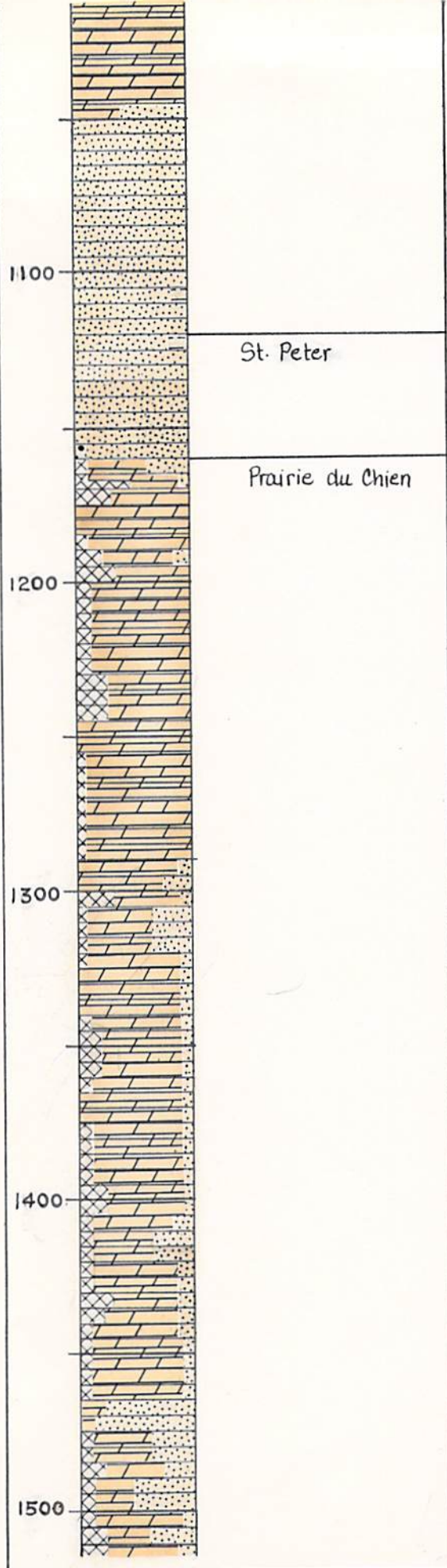
Correl. by _____

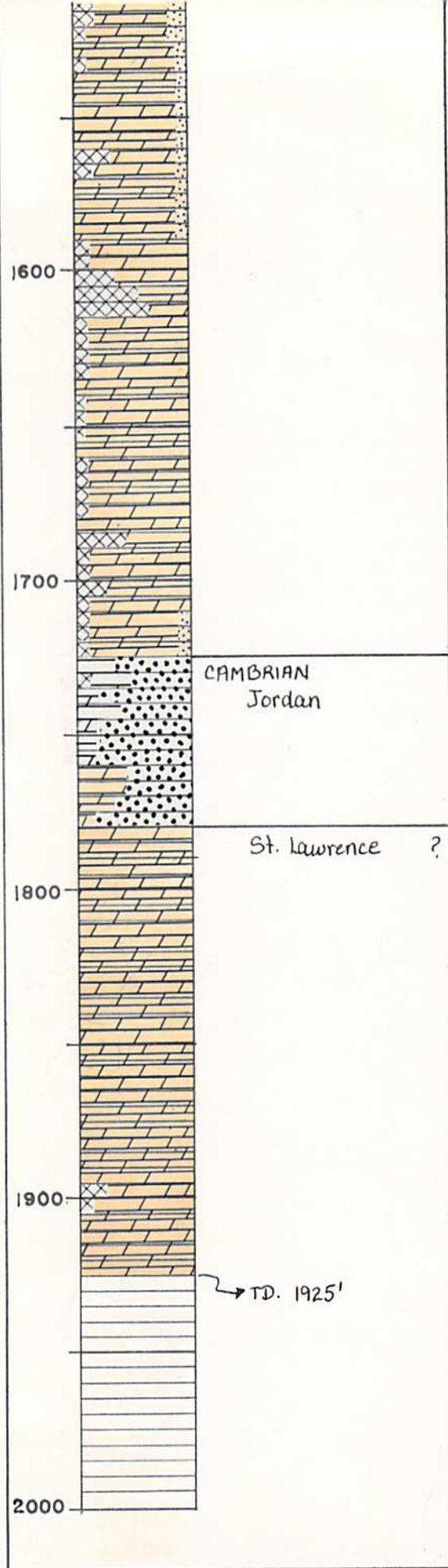


IOWA GEOLOGICAL SURVEY In Cooperation with U. S. GEOLOGICAL SURVEY Iowa City, Iowa		
Name <i>Iowa Ordnance Plant #4</i>		State <i>Iowa</i>
Town <i>Middletown</i>	County <i>Des Moines</i>	Loc. <i>NE Cor.</i>
Contractor Driller		Sec. <i>1</i>
Drilling Dates <i>December 1941</i>		T. <i>69 N., R. 4 W.</i>
Casing Record <i>800' of 15" : 0-800'</i> <i>400' of 13" : 800-1200'</i>		
S.W.L. <i>142'</i> G.P.M. <i>699</i> D.D. <i>56'</i>		
Remarks		
Elev. <i>726'</i>		T.D. <i>1925'</i>
Logged By <i>EMR.</i> <i>11-25-49</i>		I.G.S. No. <i>W-1431</i>

- Explanation of Colors**
- Soil
 - ~~Loess, Silt or Siltstone~~
 - Drift
 - Sand & Gravel
 - Shale
 - Sandstone
 - Limestone
 - Dolomite
 - Chert
 - Gypsum or Anhydrite
 - No Samples









Davis

December 22, 1941

Iowa Ordnance Plant No 4 Well

Pumping Test

Time	Water level Ft.	Production Man. GPM	Temp. °F	
2:16P	196'			
2:26	196.2			
2:36	196.6			
2:40			72 $\frac{3}{4}$ °	Air 40°
2:46	195.5	45" 699		
3:00	196.7			
3:05		45" 699	72 $\frac{3}{4}$ °	Water turned yellowish
3:15	196.85			
3:25		44 $\frac{3}{4}$ "		
3:30	196.9			
3:45	197.25	45" 699		
4:00	197.20	44 $\frac{3}{4}$ "		
4:05			72 $\frac{3}{4}$ °	Air 50°
4:15	197.7	45+ 699		