

# Record of a Deep Well at Emporia, Lyon County.

PLATE XXVIII.

Elevation of Emporia: 1132 feet above Mean Tide.

Reported by L. C. Wooster.

	MATERIAL.	Thickness of Strata.	Depth to Bottom of Strata.
1	Black Soil.....	9 feet.....	9 feet
2	Blue Clay.....	5 ".....	14 "
3	Soapstone Shale.....	6 ".....	20 "
4	Limestone.....	2 " 6 inches.....	22 " 6 inches.
5	Cherty Limestone.....	9 " 6 ".....	32 "
6	Soapstone Shale.....	11 ".....	43 "
7	Limestone.....	6 ".....	49 "
8	Blue Soapstone Shale.....	16 ".....	65 "
9	Gray Limestone.....	5 ".....	70 "
10	Blue Soapstone Shale.....	8 ".....	78 "
11	Gray Limestone.....	3 ".....	81 "
12	Blue Soapstone Shale.....	19 ".....	100 "
13	Magnesia Limestone.....	3 ".....	103 "
14	Blue Shale.....	4 ".....	107 "
15	Blue Soapstone Shale.....	20 ".....	127 "
16	Gray Limestone.....	2 ".....	129 "
17	Gray Soapstone Shale, salt water.....	8 ".....	137 "
18	Gray Limestone.....	4 " 6 inches.....	141 " 6 inches.
19	Pyrites of Iron.....	2 ".....	143 " 6 "
20	"Selvage" Clay.....	33 ".....	176 " 6 "
21	Gray Limestone.....	4 " 6 inches.....	180 " 6 "
22	Gray Soapstone Shale.....	85 " 6 ".....	266 " 6 "
23	Blue Shale.....	5 ".....	271 " 6 "
24	Blue Soapstone Shale.....	6 ".....	277 " 6 "
25	Gray Limestone.....	3 " 6 inches.....	281 "
26	Blue Soapstone Shale.....	3 ".....	284 "
27	Gray Limestone.....	1 " 6 inches.....	285 " 6 inches.
28	Black Slate Shale and Coal.....	3 " 6 ".....	289 "
29	Gray Soapstone Shale.....	12 ".....	301 "
30	Gray Limestone.....	2 " 6 inches.....	303 " 6 inches.
31	Blue Soapstone Shale.....	14 " 6 ".....	318 "
32	Blue Shale.....	6 ".....	324 "
33	Blue Soapstone Shale.....	15 ".....	339 "
34	Gray Limestone.....	1 ".....	340 "
35	Black Slate Shale.....	1 " 6 inches.....	341 " 6 inches.
36	Magnesia Limestone.....	6 ".....	347 " 6 "
37	Blue Shale.....	7 ".....	354 " 6 "
38	Magnesia Limestone.....	3 ".....	357 " 6 "
39	Blue Limestone.....	14 ".....	371 " 6 "
40	Blue Soapstone Shale.....	3 ".....	374 " 6 "
41	Gray Sandstone, salt water.....	4 ".....	378 " 6 "
42	Black Slate Shale and Coal.....	1 " 6 inches.....	380 "
43	Gray Sandstone, salt water.....	8 ".....	388 "
44	Blue Soapstone Shale, salt water.....	16 ".....	404 "
45	Gray Limestone.....	7 ".....	411 "
46	Blue Soapstone Shale.....	6 ".....	417 "
47	Blue Shale.....	9 ".....	426 "
48	Blue Limestone, shelly.....	2 ".....	428 "
49	Gray Limestone.....	5 ".....	433 "
50	Blue Shale.....	6 ".....	439 "
51	COAL and Black Slate Shale.....	4 ".....	443 "
52	Gray Limestone.....	2 ".....	445 "
53	Black Slate Shale.....	8 ".....	453 "
54	Cherty Limestone.....	2 ".....	455 "
55	Blue Slate Shale.....	13 ".....	468 "
56	Gray Limestone.....	10 ".....	478 "
57	Black Slate Shale.....	17 ".....	495 "
58	Limestone, shelly.....	3 ".....	498 "
59	Gray Limestone.....	10 ".....	508 "
60	Black Slate Shale.....	3 ".....	511 "
61	Magnesia Limestone.....	7 ".....	518 "
62	Blue Soapstone Shale.....	6 ".....	524 "
63	Blue Shale.....	6 ".....	530 "
64	Gray Limestone.....	5 ".....	535 "
65	Black Slate Shale.....	6 ".....	541 "
66	Gray Limestone.....	16 ".....	557 "
67	Blue Slate Shale.....	13 ".....	570 "
68	Gray Limestone.....	11 ".....	581 "
69	Black Slate Shale.....	2 ".....	583 "
70	Gray Limestone.....	6 ".....	589 "
71	Blue Soapstone Shale.....	14 ".....	603 "
72	Blue Shale.....	6 ".....	609 "
73	Black Slate Shale.....	2 ".....	611 "
74	Shale and Pyrites of Iron.....	10 ".....	621 "
75	Blue Shale.....	9 ".....	630 "
76	Blue Slate Shale.....	14 ".....	644 "
77	Cherty Limestone.....	6 ".....	650 "
78	Gray Limestone.....	5 ".....	655 "
79	Black Slate Shale.....	6 ".....	661 "
80	Gray Limestone.....	4 ".....	665 "
81	White Sandstone, trace of Oil.....	11 ".....	676 "
82	Gray Limestone.....	3 ".....	679 "
83	Black Slate Shale.....	5 ".....	684 "
84	Gray Limestone.....	2 ".....	686 "
85	Blue Slate Shale.....	4 ".....	690 "
86	Magnesia Limestone.....	10 ".....	700 "
87	White Sandstone, trace of Oil.....	10 ".....	710 "
88	Black Slate Shale.....	6 ".....	716 "
89	Gray Limestone.....	4 ".....	720 "
90	Blue Shale.....	17 ".....	737 "
91	Gray Limestone.....	6 ".....	743 "
92	Gray Sandstone, trace of Oil.....	8 ".....	751 "
93	"Paraffine" Slate Shale.....	109 ".....	860 "
94	Gray Limestone.....	4 ".....	864 "
95	Gray Soapstone Shale.....	8 ".....	872 "
96	"Paraffine" Slate Shale, salt water.....	20 ".....	892 "
97	Gray Limestone.....	9 ".....	901 "
98	Green Slate Shale.....	4 ".....	905 "
99	"Paraffine" Slate Shale, salt water.....	95 ".....	1,000 "
100	Gray Limestone.....	1 " 6 inches.....	1,001 " 6 inches.
101	Gray Limestone, trace of Oil.....	6 ".....	1,007 " 6 "
102	Cherty Limestone.....	11 ".....	1,018 " 6 "
103	Light gray Sandstone.....	6 ".....	1,024 " 6 "
104	Blue Soapstone Shale.....	12 ".....	1,036 " 6 "
105	Black Slate Shale.....	1 ".....	1,037 " 6 "
106	Blue Shale, salt water.....	5 ".....	1,042 " 6 "
107	Gray Limestone.....	40 ".....	1,082 " 6 "
108	Gray "Marble," salt water.....	21 ".....	1,103 " 6 "
109	Magnesia Limestone.....	3 ".....	1,106 " 6 "
110	Gray Sandstone, trace of Oil.....	20 ".....	1,126 " 6 "
111	Blue Shale.....	6 ".....	1,132 " 6 "
112	Blue Slate Shale.....	4 " 6 inches.....	1,137 "
113	Cherty Limestone.....	22 ".....	1,159 "
114	Gray Limestone.....	10 ".....	1,169 "
115	Marl.....	15 ".....	1,184 "
116	Dark Sandstone, Oil.....	37 ".....	1,221 "
117	Saliferous Limestone.....	15 ".....	1,236 "
118	Dark Sandstone.....	20 ".....	1,256 "
119	Sandstone with "Feldspar".....	10 ".....	1,266 "
120	Argillaceous Sandstone.....	16 ".....	1,282 "
121	Dark Sandstone, Oil.....	20 ".....	1,302 "
122	Light gray Sandstone.....	14 ".....	1,316 "
123	Dark gray Sandstone, Oil.....	24 ".....	1,340 "
124	Light gray Sandstone.....	12 ".....	1,352 "
125	Argillaceous Limestone.....	18 ".....	1,370 "
126	Black Shale.....	20 ".....	1,390 "
127	Limestone.....	5 ".....	1,395 "
128	Shale.....	10 ".....	1,405 "
129	Pyrites of Iron.....	5 ".....	1,410 "
130	Limestone.....	15 ".....	1,425 "
131	Light Sandstone, Oil.....	30 ".....	1,455 "
132	"Mineral Sand and Pyrites of Iron".....	10 ".....	1,465 "
133	Dark Sandstone, Oil.....	5 ".....	1,470 "
134	Blue Slate Shale.....	20 ".....	1,490 "
135	Black Slate Shale.....	60 ".....	1,550 "
136	Limestone.....	10 ".....	1,560 "
137	Blue Slate Shale.....	25 ".....	1,585 "
138	Gray Limestone.....	35 ".....	1,620 "
139	Blue Slate Shale.....	20 ".....	1,640 "
140	Black Slate Shale.....	15 ".....	1,655 "
141	Limestone.....	15 ".....	1,670 "
142	Blue Slate Shale.....	35 ".....	1,705 "
143	Black Slate Shale.....	5 ".....	1,710 "
144	Limestone.....	5 ".....	1,715 "
145	Black Slate Shale.....	20 ".....	1,735 "
146	COAL and Black Slate Shale.....	5 ".....	1,740 "
147	Gray Limestone.....	5 ".....	1,745 "
148	Black Slate Shale.....	10 ".....	1,755 "
149	Blue Slate Shale.....	35 ".....	1,790 "
150	Gray Limestone.....	10 ".....	1,800 "
151	Blue Slate Shale.....	40 ".....	1,840 "
152	Black Slate Shale.....	10 ".....	1,850 "
153	White Sandstone, Oil.....	15 ".....	1,865 "
154	Blue Slate Shale.....	45 ".....	1,910 "
155	Cherty Limestone.....	5 ".....	1,915 "
156	Blue Slate Shale.....	90 ".....	2,005 "

# EMPORIA WELL.

