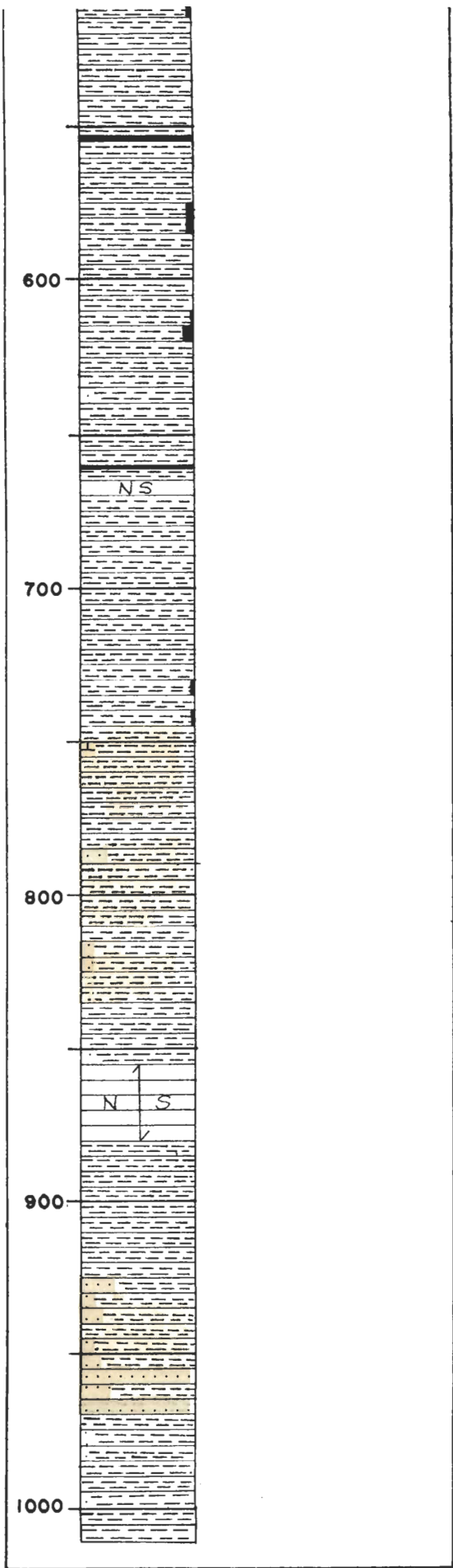
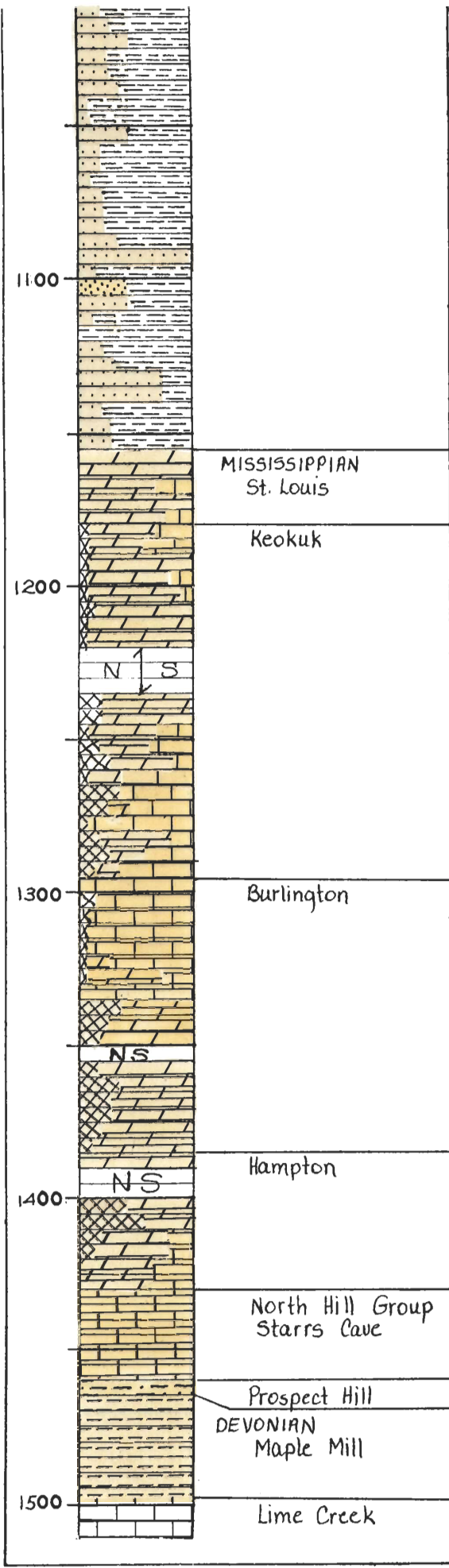
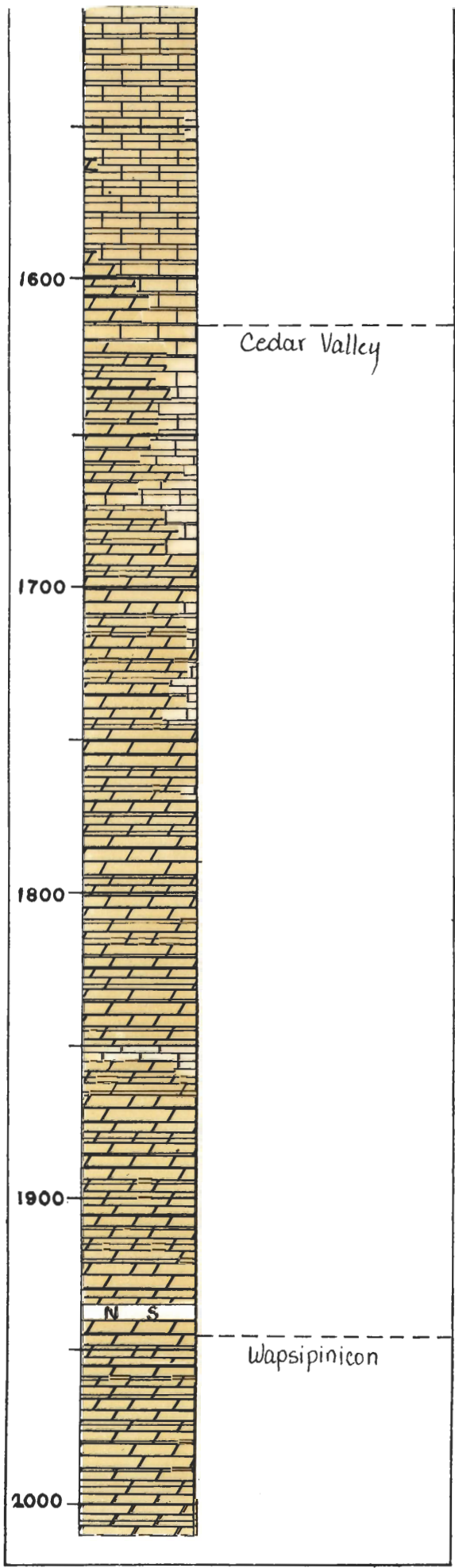


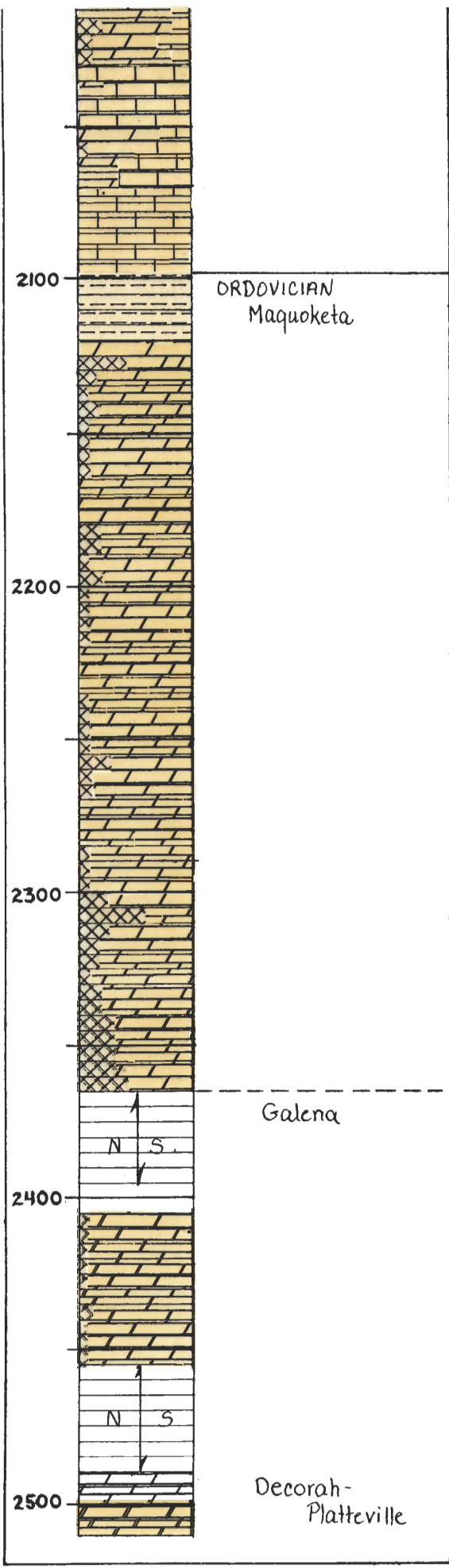
IOWA GEOLOGICAL SURVEY In Cooperation with U. S. GEOLOGICAL SURVEY Iowa City, Iowa														
Name <i>Murray Town Well</i>		State <i>Iowa</i>												
Town <i>Murray</i>	County <i>Clarke</i>	Loc. <i>SWSESW</i>												
Contractor <i>L. F. Winslow</i>	Driller	Sec. <i>10</i>												
Drilling Dates <i>Nov. 4 - Dec. 19, 1968</i>		T. <i>72 N., R. 27 W.</i>												
Casing Record <i>200' of 12" Surface pipe</i>		<table border="1"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>												
<i>1170' of 10" CSG. 0'-1170'</i>														
<i>1612' of 5" CSG. SET @ 2670'</i>														
S.W.L. <i>504</i>	G.P.M. <i>110</i>	D.D. <i>40</i>												
WELL WAS ACIDIZED WITH <i>5500</i> GALLONS OF 30% HCL IN 2 STAGES														
Remarks <i>PLUGGED BACK TO 3066'</i>		Elev. <i>1220'</i>												
		T.D. <i>314'</i>												
Logged By <i>Northup</i>		I.G.S. No. <i>W-21135</i>												

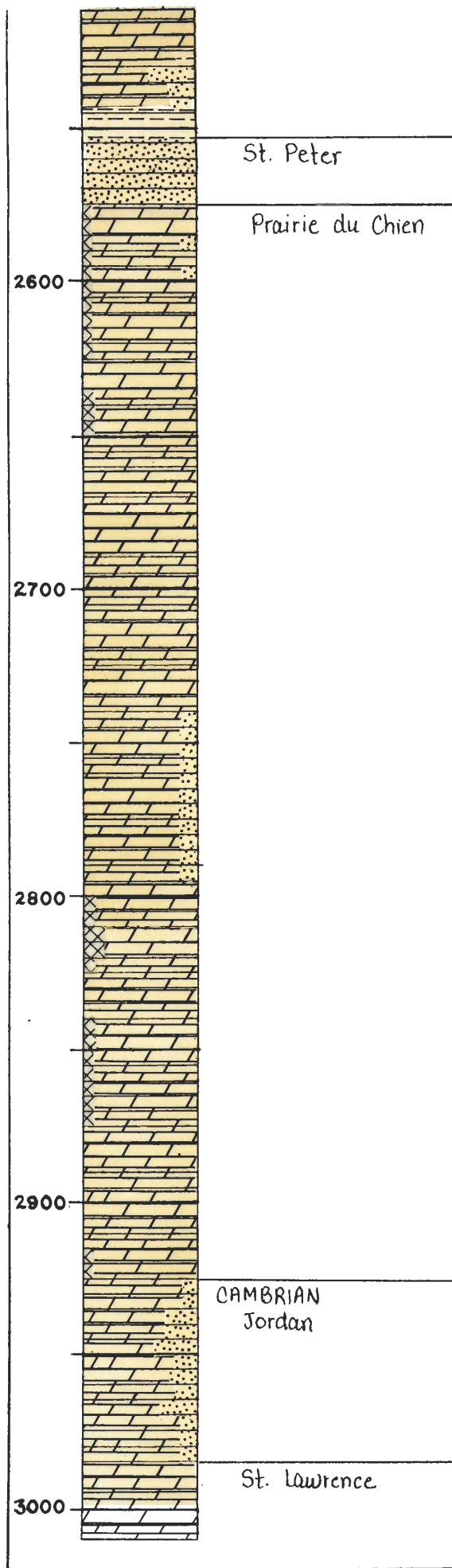
- Explanation of Colors
- Soil
 - Loess, Silt or Siltstone
 - Drift
 - Sand & Gravel
 - Shale
 - Sandstone
 - Limestone
 - Dolomite
 - Chert
 - Gypsum or Anhydrite
 - Coal
 - No Samples

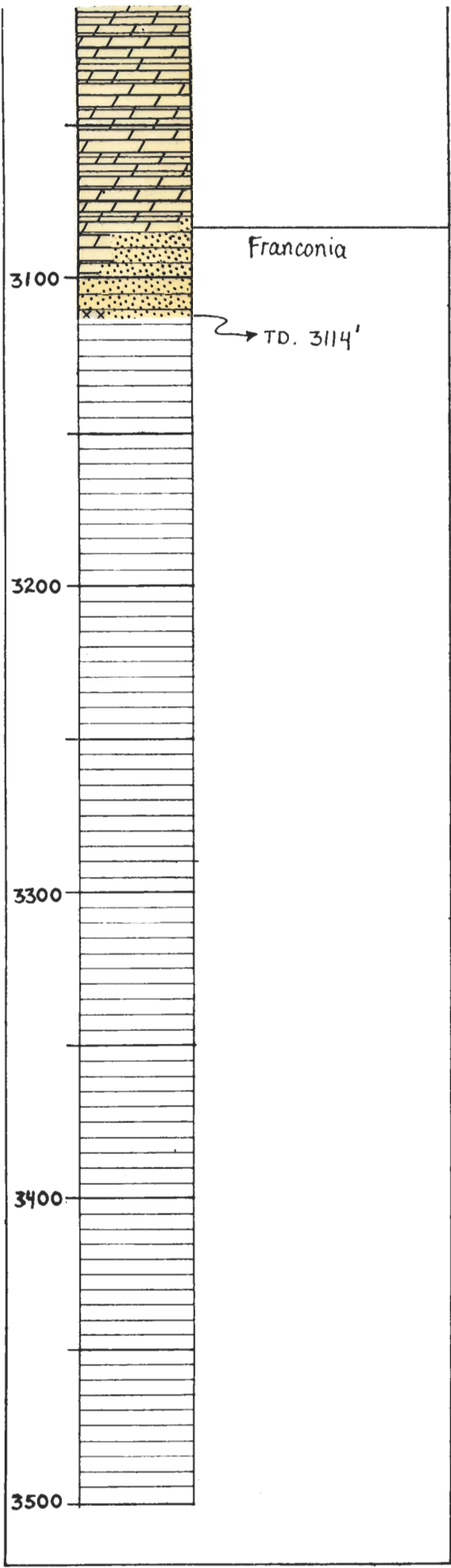












MEMORANDUM
February 12, 1969

TO: Dr. H. G. Hershey
FROM: Richard C. Northup
RE: Completion of Murray Town well

I phoned Mr. McClellan at Anderson Engineering Co. this morning for the final data on the Murray town well. As you recall, the well was acidized, in a second stage, this time employing 4800 gallons of ~~15%~~ HCL. On a second pumping test, again using the airlift method, static water was 504 feet, pumping level 544' @ 110 gpm. While this is not much for a Jordan well it is a big improvement over the original amount of 38 gpm with its much lower pumping level of 626 feet. Mr. McClellan says that the water lab should have the analysis ready by the end of this week, so we should be hearing on this soon. He reports that the town is very pleased, after some understandable anxiety for a while. Copies of the log have been sent today (Wednesday, 2/12) to Ed Winslow, the drilling contractor for the well, Duane McClellan, the engineer, and Mr. Glen Winn, Murray Iowa.

Mr. McClellan hopes that they will have the permanent pump installed in two or three weeks.

STATE HYGIENIC LABORATORY, DES MOINES BRANCH
 WATER LABORATORY DIVISION
 MINERAL ANALYSIS

Wt 21135
 LAB. NO. 1626
 MINERAL NO. 7551
 5 Nov 19 69 bj

TOWN Murray COUNTY Clarke
 OWNER OF SUPPLY Municipal
 COLLECTOR'S NAME R A Karsten
 DATE COLLECTED 1 Oct 69 DATE RECEIVED 3 Oct 69
 REPORT TO: NAME IGS
 ADDRESS Iowa City

FIELD DATA

SOURCE: WELL NAME, NUMBER, POINT OF COLLECTION, DEPTH, CONSTRUCTION DATE, ETC.,
175' from well (directly from well)
3066' Drilled 1968
 WELL PUMPED 1/2 HRS. AT 120 GPM. DATE OF PREVIOUS SAMPLE _____
 WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED No
 TEMPERATURE °C/ F 82 ALKALINITY (ppm CaCO₃) P _____ T _____ pH _____
 IS A POLYPHOSPHATE BEING USED? No

LABORATORY ANALYSIS
 (PARTS PER MILLION)

SPECIFIC CONDUCTANCE K AT 25°C 250 x 10⁻⁵ TURBIDITY _____
 DISSOLVED SOLIDS 1680 SOLUBLE IRON (Fe) 4.5
 TOTAL SOLIDS 1680 SILICA (SiO₂) 15 TOTAL IRON (Fe) 4.5
 ALKALINITY (ppm CaCO₃) P None T 211 pH 7.3 DATE 3 Oct 69

POSITIVE IONS

K⁺ 27
 Na⁺ 340
 Ca⁺⁺ 140
 Mg⁺⁺ 41.3
 Mn⁺⁺ < 0.05
 Al⁺⁺⁺ _____

NEGATIVE IONS

NO₃ - asN 0.5
 F⁻ 2.4
 Cl⁻ 220
 SO₄ -- 760
 HCO₃ - 257
 CO₃ -- None

HARDNESS AS CaCO₃ 520 ppm 30.4 gpg
Turbid and yellow in color on receipt in laboratory.

ANALYST Ryan, Pierson

JHG R. L. MORRIS
 PRINCIPAL CHEMIST

GW Murray well folder
Clarke Co (1969)

MEMORANDUM
January 30, 1969

TO: Dr. H. G. Hershey
FROM: Richard C. Northup
RE: Murray town well

The Jordan well at Murray appears to be in difficulty. On a brief pumping test, with the use of compressed air, the static water level was 510 feet, pumping level 626 feet, with a yield of only 38 gpm. The well was acidized last Thursday with 700 gallons of 30% HCL and a test yesterday showed no change or improvement. This is very hard to understand. Certainly the Prairie du Chien-Jordan-St. Lawrence should prove productive of sufficient water, at least quantitywise. Ed Winslow, as you know, has had excellent success in the completion of his other Jordan wells, and it seems unlikely that he would not have used similar methods in this case. Mr. Duane McClellan, Anderson Engineering Co., Des Moines, phoned this morning and advises that they plan on acidizing again today and will test again early next week. For any official test they plan on setting a regular pump, rather than use the compressed air, he says.

I suppose it is possible that there may be places where no crevices may be encountered in this potentially productive zone, but it seems unlikely. If crevices were clogged with rock flour or cuttings, the acid would surely have helped clean them out - perhaps some development by swabbing would be in order if the next acid job again fails to improve the situation.

It is understandable that the town of Murray, which has been almost out of water since last summer, must be getting quite anxious about the matter, and it is hard to think of what to do next. The quality of any water in the formations below the St. Lawrence would probably be of poor quality, if the drillstem test samples taken at Redfield can be used as a guide.

I would appreciate your thoughts on the matter.

3114 TD
3066 Plug-D

GW Murray town well folder
Clarke Co.

MEMO
December 26, 1968

TO: Dr. H. G. Hershey
FROM: Richard C. Northup
RE: Murray town well

In verification of my verbal report to you on the Murray town well, it has reached total depth of 3114'. Bottom formation is the Franconia, the top of which I have picked tentatively at 3080'. A spot check, last Thursday for Ed Winslow, shows the St. Peter from 2552'-2575', Jordan 2940'-2975', and St. Lawrence 2975'-3080'. As they went deeper than necessary, Mr. McClellan of Anderson Engineering Co., Des Moines, has decided to have them plug back to around 3050' in order to shut off any bad water that might be present in the Franconia. Actually, I don't believe that the Franconia would carry much, if any water, but they want to "play it safe". After their casing is set, the well will be test pumped, and Mr. Winslow will advise us of the time. As at Leighton, they have waited until drilling was finished, before setting their main string of casing into the Prairie du Chien. Incidentally, the Leighton log is now finished and ready for Jean to copy.

Diane copied and copies sent to Venstra & Kumm,
Art Brunekool, Jack Bruin (Layne Western), and Leighton town clerk
Also sent water analyses

MEMORANDUM

January 23, 1969

TO: Dr. H. G. Hershey
FROM: Richard C. Northup
RE: Murray town well

Ed Winslow phoned Thursday afternoon to advise that an initial pumping test has been run at Murray, and which turned out to be somewhat disappointing. On an unofficial eight hour test the well yielded only 40 gpm. Static water level is 500' and pumping level approximately 600'. They now plan on acidizing and to test again on Saturday if all goes well. As you know the well was drilled with rotary tools, and it is quite likely that the drilling mud and mud cake are blocking some of the crevices or porous zones. Regardless of quality the combined open section of Prairie du Chien, Jordan and St. Lawrence should yield a fair quantity. Winslows have never had a poor yield in any of their other Jordan completions, and it seems very likely that a good job will do the trick.

They are using an airlift type of pump (compressed air) instead of a conventional type of pump, which may not give as accurate reading as might be desired.

COMPANY MURRAY TOWN WELL

FARM

WELL NO.

SEC. 16 TWP. 72 N. RGE. 27 W. LOC.

COUNTY CLARKE

STATE IOWA

CONTRACTOR

SIZE HOLE

DRILL PIPE

REMARKS:

SIZE PUMP LINERS

LENGTH STROKE

DATE 08545

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1430	45	8	
31	53	8	
32	57	4	
33	602	5	
34	607	5	
35	612	5	mud line
36	10/620	4	
37	24	4	pumps
38	64013	3	
39	47	4	
40	52	5	
41	56	4	
42	702	6	
43	05	3	
44	708	3	
45	713	5	
46	717	4	
47	722	5	
48	27	5	
49	30	3	
1450	32	2	
51	36	4	
52	40	4	
53	44	4	
54	47	4	
1455	49	4	
55	53	4	
56	57	4	
57	57	4	
58	57	4	
59	57	4	
1460	80	5	
61	805	3	CONN
62	833	5	OB 8 28
63	839	6	
64	840	7	
1465	853	7	
66	850	3	
67	900	4	
68		5	
69		4	
1470	907	7	
71	910	3	
72	914	4	
73			
74	910	2	
75	918	2	
76	920	3	
77			
78			
79			
1480			

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1480			
81			
1482			
83			
84			
85			
86			
87			
88			
89			
90			
1491		4	
92	1005	4	CONN.
93	1015	2	OB 10 23
94	18	3	
95	22	4	
96	26	4	
97	1030	4	
98	35	5	
99	39	4	
1500	1044	5	
1	50	6	
2	1055	5	
3	11	5	
4	1105	5	
5	1110	5	
6	15	5	
7	19	4	
8	24	5	
9	1129	5	
10	1133	4	
11	1141	8	
12	1148	7	
13	1154	6	
14	58	4	
15			1112 OB.
16			
17			
18			
19			
20	1206		
21	1211	5	
22	1221	6	1225
23	36	5	
24	43	7	CONN
25	1116	4	1112
26	1120	4	
27	1124	4	
28	1131	7	
29	1136	5	
30	1141	5	

DRILLING TIME SHEET # 503
MICHIGAN

COMPANY MURRAY IOWA FARM _____ WELL NO. 1
 SEC. _____ TWP. _____ RGE. _____ LOC. _____ COUNTY _____ STATE _____
 CONTRACTOR _____ SIZE HOLE 7 7/8 DRILL PIPE 4 1/2
 REMARKS: _____ SIZE PUMP LINERS 7 LENGTH STROKE 14

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1530	1:41		
31	1:49	8	adding water slow
1532	1:56	7	
3	2:00	4	
4	2:04	4	
5	2:09	5	
6	2:15	6	
7	2:24	9	
8	2:32	8	
9	2:39	7	
1540	2:43	4	
41	2:47	4	
2	2:51	4	
3	3:00	9	
4	3:04	4	
5	3:08	4	
6	3:14	16	
7	3:18	4	
8	3:22	4	
9	3:26	4	
1550	3:29	3	
1	3:33	4	
2	3:36	3	
3	4:1	5	
4	4:7	6	
1555	5:2	5	CONN 5 1/4 OD 2 1/2" P
56	4:08	7	OB 4:01
57	14	6	
58	17	3	
59	4:23	6	
60	4:30	7	
61	35	5	
62	40	5	
63	45	5	
64	51	6	
1565	4:56	5	
66	5:03	7	
67	5:10	7	
68	15	5	
69	5:20	5	
1570	5:25	5	
71	31	6	
72	39	8	
73	5:45	6	
74	50	5	
75	55	5	
76	6-	5	
77	6:07	7	
78	14	7	
79	20	6	
1580	28	8	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1580	6:14		
81	14	5	OB 7:09
82	19	5	
83	7:24	5	
84	27	3	
1585	31	4	CONN
86	45	5	OB 7:40
87	7:50	5	
88	53	3	
89	57	4	
1590	8:02	5	
91	8:07	5	
92	8:12	5	
93	18	6	
94	24	6	
1595	29	5	
96	34	5	
97	41	7	
98	47	6	
99	54	7	
1600	9:02	8	
1	12	10	
2	24	12	
3	39	15	
4	9:50	11	
5	55	5	
6	58	3	
7	10:01	3	
8	06	5	38
9	12	6	14:98
10	10:21	9	
11	3:47	3	47M EN 4:16
12	50	3	OB 3:44 PM
13	52	2	
14	54	2	
15	56	2	
16	58	2	
17	47	2	CONN
18	4:10	5	OB 4:15
19	20	5	
20	26	6	
21	32	6	
22	37	5	
23	39	2	
24	44	5	
25	48	4	
26	51	3	
27	54	3	
28	5:43	3	
29	57	2	
1630	58	1	

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY MURRAY FARM _____ WELL NO. _____
 SEC. TWP. RGE. LOC. COUNTY STATE
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

4 1/8
120
2 5/8
80
8000
64
1000
8000

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1030	5		
31	502	2	
32	505	3	
33	510	5	
34	17	7	
35	24	7	
36	29	5	
37	32	3	
38	37	5	
39	41	4	
40	47	6	41
41	56	9	
42	603	7	
43	611	8	
44	618	7	38
45	625	7	45
46	632	7	27
47	637	5	
48	642	5	CONN CR PUMP
49	7-	5	OB 655
50	705	5	112
51	711	6	
52	717	6	
53	724	7	
54	31	7	
55	37	6	144
56	43	6	30
57	50	7	13
58	57	7	
59	801	4	
60	07	6	174
1	812	6	26
2	820	8	
3	829	09	13
4	835	6	
5	842	7	200
6	849	7	
7	856	7	
8	904	8	
9	911	7	
1670	916	5	224/10.1 46 VIS
1	920	4	24
2	925	5	
3	931	6	
4	937	6	22
5	950	13	268
6	955	5	167909 2997
7	1004	9	170906
8	1012	8	1408
9	1019	7	
1680	1028	11	CONIV

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1680	1056		ONE FT. MAKE UP
1691	1103	7	MIX 15 OB 15A
82	1110	7	
3	1118	8	
4	1127	9	
5	1134	7	39
6	1141	7	32
7	1150	9	3
8	55	5	
9	1200	5	Midnight
1690	1205	5	19 DEC 10, 1968
1	1210	5	22
2	1214	4	
3	19	5	
4	23	4	
5	27	4	91
6	32	5	2-
7	37	5	
8	42	5	
9	45	3	
1700	49	4	113
1	54	5	24 31.11
2	100	6	170906
3	106	6	174047
4	112	6	
5	117	5	141
6	123	6	37
7	131	8	
8	138	7	
9	146	8	
1710	58	8	OB 150
1	203	5	7
2	08	5	
3	15	7	
4	21	6	
5	227	6	217
6	31	4	22
7	35	4	
8	40	5	
9	46	6	
1720	52	6	242
21	259	7	34
22	306	7	
23	13	7	
24	20	7	
25	26	6	276
26	331	5	21
27	335	4	
28	40	5	
29	43	3	
1730	47	4	297

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

900 1057.00

COMPANY _____ FARM _____ WELL NO. _____
 SEC. TWP. RGE. LOC. COUNTY STATE
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

DATE	DEPTH	TIME O'CLOCK	MIN.	REMARKS
1730	31	3:41	3	
	32	3:55	5	
	33	4:01	6	
	34	4:07	6	
	35	4:12	5	25
	36	4:19	7	29
	37	4:24	5	
	38	4:28	4	fluid loss
	39	4:37	9	
1740	454	4:54	4	64 450 OB.
	41	4:58	4	
	42	5:03	5	5 Fibre top
	43	5:10	9	2 C. S. HULLS
	44			
1745	518	5:18	8	78
	46	5:27	9	30
	47	5:32	5	
	48	5:40	8	
	49	5:47	7	
1750	554	5:54	7	114
	51	6:01	7	
	52	6:07	6	
	53	6:12	5	
	54	6:14	2	
	55	6:17	3	137
	56	6:20	3	VI'S 46 W-10
	57	6:26	6	
	58	6:32	6	
	59	6:37	5	828 min on bit
1760	644	6:44	7	
	61	6:50	6	
	62	6:55	5	
	63	7:02	7	
	64	7:09	7	
	65	7:15	6	828
	66	7:24	9	58
	67	7:34	10	88.6 11/14 3/4
	68	7:36	2	
	69	8:38	2	
	70	7:40	2	
	71	50	10	
	72	8:17/20	6	CONN.
	73	23	3	
	74	28	5	
	75	33	5	
	76	40	7	
	77	45	5	
	78	50	5	
	79	57	7	
1780	903	9:03	6	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1780	9:03	6	
81	9	6	1428 ✓
82	14	5	310 ✓
83	9:19	5	1738 ✓
84	27	8	310 ✓
85	34	7	2048
86	42	5	
87	47	5	
88	54	7	113
89	59	5	
90	10:04	5	
91	10:14	10	
92	10:20	6	
93	23	3	
94	29	6	
95	35	6	
96	41	6	160
97	47	6	
98	52	5	
99	55	3	
1800	57	2	176
1	11:01	4	180 17 3/4
2	11:06	5	
3	11:20/21	5	CONN.
4	27	6	18
5	43	6	5?
6	11:54	13	
7	12:03	7	
8	12:17	14	
9	12:21	4	60
1810	12:24	3	Rough H!
11	12:31	7	
12	12:39	8	19
13	43	4	
14	48	5	
1815	1:02	14	
16	1:07	5	
17	1:11	4	
18	1:19	8	
19	1:26	7	Y.M. ECH 393
1820	1:34	8	
21	1:37	13	
22	1:45	7	
23	1:52	7	
24	56	4	
1825	1:59	3	
26	2:05	6	
27	2:09	4	
28	13	4	
29	19	6	
1830	2:06	7	

COMPANY MURRAY CITY FARM _____ WELL NO. _____
 SEC. TWP. RGE. LOC. COUNTY STATE
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1830	2210		
31	33	7	
32	41	8	
33	49	8	TRIP
34	724	3	OB 720
1835	28	4	
36	32	4	
37	35	3	
38	40	5	
39	44	4	
1840	7:50	6	Water started + + + + + X
41	54	4	
42	58	4	
43	8:04	6	
44	09	5	
1845	15	6	64 min
46	8:18	3	
47	824	6	
48	831	7	
49	838	7	
1850	844	6	83
51	851	7	
52	857	6	
53	902	5	
54	907	5	
1855	912	5	111
56	919	7	
57	925	6	
58	930	5	
59	935	5	
1860	940	5	139
61	943	3	
62	946	3	
63	952	6	
64	955	3	
65	58	3	157 CON/N
66	1009	5	OB 10:04
67	12	3	
68	18	3	
69	18	3	
70	24	6	177
71	1030	6	
72	1035	5	
73	1040	5	
74	1042	2	
75	1044	2	191
76	1046	2	
77	1048	2	
78	1056	8	
79	1100	4	
1880	1102	2	215

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1880	1102		
81	1104	2	
82	1107	2	
83	1111	4	
84	1113	2	
1885	1115	2	28
86	1118	3	"
87	1121	3	
88	1123	2	
89	1126	3	
1890	1129	3	42
91	1133	4	
92	1141	8	
93	1147	6	
94	1152	5	165
95			OB, 12:00
96			
97	1208	8	X
98	1212	4	
99	1216	4	
1900	1219	3	284
1901	1225	6	
1902	1240	15	
1903	1245	5	
1904	1248	3	
1905	1251	3	317
1906	1253	2	
07	1255	2	
08	1259	4	
09	103	4	
10	109	6	335
1911	114	5	
12	118	4	
13	123	5	
14	125	2	
15	129	4	355
16	133	4	"
17	135	2	
18	137	2	
19	140	3	
1920	143	3	369
21	146	3	
22	149	3	
23	153	4	
24	200	7	
1925	204	4	390
26	208	4	
27	214	6	
28	219	5	CON
29	232	3	OB 2:29
1930	237	5	OK pump

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY _____ FARM _____ WELL NO. _____
 SEC. TWP. RGE. LOC. COUNTY STATE
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1930	231		
1931	241	8	413
1932	255	8	
33	300	5	
34	306	6	
1935	312	6	446
36	319	7	
37	324	5	
38	325	1	
39	327	2	
1940	329	2	463
41	330	1	
42	332	2	
43	334	2	
44	335	1	
1945	337	2	47
46	339	2	
47	340	1	
48	342	2	
49	345	3	
1950	349	4	483
51	354	5	
52	358	4	
53	402	4	
54	406	4	
1953	410	4	504
56	414	4	
57	418	4	
58	422	5	
59	426	3	
1960	431	5	525 Conn
61	443	2	OB 4:41
62	448	5	
63	451	3	
64	455	4	
1965	500	5	544
66	504	4	
67	509	5	
68	512	3	
69	517	5	
1970	520	3	564 mins
71	522	3	
72	527	4	
73	529	2	
74	531	2	
1975	535	4	579
76	537	2	
77	539	2	
78	541	2	
79	543	2	
1980	544	1	588

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1980	544		
1981	547	3	
82	549	2	
83	550	1	
84	553	3	
1985	555	2	
86	558	3	
87	601	3	
88	603	2	
89	604	1	
1990	605	1	
91	606	1	CONN. air line on watch
92	636	2	OB 6.34
93	637	1	
94	39	2	
1995	640	1	
96	643	2	
97	646	3	
98	649	2	
99	652	3	
2000	6:56	4	51
01	701	5	579
02	707	6	74
63	7:16	9	653 min
04	22	6	
2005	728	6	
06	35	7	
07	41	6	
08	48	9	762
09	54	6	
2010	801	7	
11	07	6	
12	833	6	45
13	20	7	
14	25	5	
2015	30	5	
16	31	4	
17	11	7	
18	45	4	
19	45	3	
2020	53	5	
21	58	5	
22	005	7	
23	915	10	1475-130
24	29	5	OB 2:24
2025	35	6	4 MEN 4:22
26	42	7	
27	49	7	
28	2:55	6	
29	304	9	
2030	312	8	38

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY MURRAY CITY FARM WELL NO. 1
 SEC. TWP. .RGE. LOC. COUNTY CLAY E STATE IOWA
 CONTRACTOR _____ SIZE HOLE 7 1/8 DRILL PIPE 4 1/2
 REMARKS: _____ SIZE PUMP LINERS 7 LENGTH STROKE 14

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2030	312		38
31	321	9	
32	32	11	
33	42	10	
34	52	10	
2035	402	10	88
36	409	7	27
37	34	12	422
38	37	5	
39	42	5	
2040	50	8	115
41	57	7	37
42	504	7	
43	512	8	
44	19	7	
2045	27	8	152
46	33	6	33
47	38	5	
48	46	8	
49	52	6	
2050	539	7	184
51	603	4	26
52	608	5	
53	13	5	
54	6:18	5	CONN.
2055	35	8	OB 627
56	44	9	
57	52	8	
58	703	11	
59	12	9	
2060	718	6	253
61	7:25	7	27
62	7:31	6	
63	7:39	6	
64	7:44	7	
2065	47	3	282
66	51	4	28
67	57	6	
68	802	5	
69	8:10	8	
2070	15	5	310
71	821	6	28
72	827	6	
73	833	6	
74	838	5	
2075	843	5	338
6	847	4	32
7	853	6	
8	900	7	
9	9:07	7	
2080	915	8	370 min

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2080	915		370
281	922	7	35
2	931	9	
3	939	8	
4	947	8	
2085	953	6	108
6	10:11	7	35
7	10:17	6	
8	10:27	10	
9	10:34	7	
2090	10:40	6	444
91	10:48	8	
92	10:57	9	
93	11:05	8	
94	11:13	8	
2095	11:20	7	484
96	11:29	9	35
97	11:35	6	
98	11:44	9	
99	11:51	7	
2100	11:56	5	520
01	12:02	6	31
02	12:06	4	
03	12:13	7	
04	12:19	6	
05	12:27	8	551 min
06	12:33	6	35
07	12:39	6	
08	12:46	7	
09	12:56	10	
2110	102	6	586
11	109	7	33
12			min time tap
13	113	12	
14	123	18	
2115	137	6	619
16	144	7	27
17	149	5	CONN.
18	204	5	OB 1:59
19	211	7	
2120	216	5	648
21	222	6	27
22	227	5	
23	232	5	
24	237	5	
2125	240	3	674 min
26	245	5	18
27	251	6	
28	257	6	
29	305	8	
2130	311	3	700

KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY MURRAY FARM _____ WELL NO. _____
 SEC. _____ TWP. _____ RGE. _____ LOC. _____ COUNTY _____ STATE _____
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

DATE

DEPTH	TIME O'CLOCK	MIN.	100-MIN	REMARKS
2130	311			
2131	322	11		
2132	327	5		
33	330	3		
34	339	9		
2135	349	10	738	
36	356	7		
37	402	6		
38	412	10		
39	418	6		
2140	423	5	772 min	
41	430	7		
42	436	6		
43	442	6		
44	447	5		
2145	450	4	800	
46	459	8		
47	506	7		
48	509	3		
49	512	3		CONN
2150	535	4	825 min	OB. 5:31
51	544	9		
52	551	7		
53	600	9		
54	607	7		
2155	615	8	865 min	
56	624	9		
57	632	8		
58	641	11		operator
59	650	9		
2160	659	9		843-2702
61	709	10		
62	716	7		
63	723	7		
64	30	7		
2165	37	7		515
66	46	9		232-3563
67	52	6		Healy
68	57	5		
69	812	15		
2170	19	7		
71	24	5		
72	30	6		
73	36	6		
74	42	6		
2175	48	6		
76	53	5		
77	9-	7		
78	905	5		
79	10	5		
80	17	7		TRIP

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2180	1726		
81	29	3	OBNB
82	34	5	
83	37	3	
84	40	3	
2185	44	4	
86	1248	4	
87	51	3	
88	54	3	
89	58	4	
2190	102	4	
91	105	3	
92	110	5	
93	14	4	rough
94	19	5	
2195	23	4	
96	28	5	
97	33	5	
98	38	5	
99	45	7	
2200	51	6	
1	58	7	
2	205	7	
3	212	7	
4	18	6	
2205	25	7	
6	32	7	
7	40	8	
8	45	5	
9	50	5	
2210	55	5	
11	301	6	CONN
12	3134	7	OB 3:27
13	3:42	8	
14	3:51	9	
2215	356	5	
16	4:03	7	
17	4:10	7	
18	18	8	
19	23	5	
2220	29	6	2 Soda Ash
21	36	7	1 carbon
22	43	7	1 P Brofin
23	51	8	12 gels
24	57	6	
2225	503	5	
26	9	6	
27	16	7	
28	21	5	
29	527	6	
2230	35	8	

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

F 85 1670

COMPANY TOWN OF MURRAY FARM WELL NO. _____
 SEC. _____ TWP. _____ RGE. _____ LOC. _____ COUNTY _____ STATE _____
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

256 864

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2230	11:35		
31	41	6	
32	48	7	
33	55	7	
34	60	8	
35	10	7	
36	16	6	
37	23	7	
38	6:29	6	
39	6:35	6	60
2240	42	7	
41	49	7	
42	56	7	CONN
43		7	OB 7:34
44	40	6	
2245	45	5	
46	52	7	
47	57	5	
48	8:03	6	
49	8:10	7	
2250	8:16	6	
51	8:22	6	
52	8:27	5	
53	33	6	
54	40	7	
2255	47	7	
56	53	6	
57	9:02	10	
58	9:10	7	
59	9:17	7	
2260	9:23	5	
61	9:30	7	
62	39	9	
63	9:43	4	
64	9:47	4	
2265	9:49	12	
66	53	4	
67	57	4	
68	10:05	8	
69	10:00	5	10:10
2270	10:18	8	
71	10:24	6	
72	10:31	7	
73	10:38	7	CONN
74	10:53	3	OB 10:50
2275	10:56	3	
76	11:00	4	
77	11:06	6	
78	11:14	8	
79	11:26	12	
2280	11:38	12	256

1919 378-326
 Pick 2nd group

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2280	11:38		
2282	11:50	6	
83	11:57	7	
84	12:05	8	A.M.
2285	12:11	6	
86	12:17	6	
87	12:24	6	
88	29	5	
89	33	4	
2290	36	3	211
91	39	3	60
92	45	6	
93	50	5	
94	12-55	5	
2295	1:00	5	A.M.
96	1:03	3	
97	1:11	8	
98	1:18	7	
99	1:25	7	
2300	1:31	6	
01	1:37	6	
02	1:44	7	Rough
03	1:50	6	
04	1:57	7	
2305	2:03	6	
6	2:10	7	CONN OB 2:05
7	2:16	6	
8			
9	2:28		
2310	2:34	6	
11	2:40	6	
2	2:47	7	
3	2:54	7	
4	2:59	5	
5	3:04	5	
6	3:10	6	
7	3:17	7	
8	3:24	7	
9	3:28	4	
2320	3:33	5	
1	3:40	7	
2	3:45	5	?
3			
4	3:47	2	
2325	3:50	3	
6	3:54	4	
7	3:57	3	
8	4:04	7	
9	4:12	8	
2330	4:20	8	

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY _____ FARM _____ WELL NO. _____
 SEC. TWP. RGE. LOC. COUNTY STATE
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

0 scale

DATE	DEPTH	TIME O'CLOCK	MIN.	REMARKS
	2330	420		
	2331	431	11	bring fluid out of water
	2332	438	7	down
	33	444	6	
	34	450	6	ok fluid level
	35	455	5	
	36	500	5	CONN
	37	8106	6	O.B. 5:10
	38	10	4	got 15 B.O. J.
	39	14	4	2 S. A.
	2340	18	4	
	41	823	5	
	42	27	4	
	43	32	5	
	44	36	4	
	2345	40	4	
	46	43	3	
	47	45	2	
	48	48	3	
	49	52	4	
	2350	55	3	
	51	59	4	
	52	904	5	
	53	08	4	weld
	54	12	4	rotary hose union
	2355	39	4	O.B. 10 35
	56	44	5	
	57	47	3	
	58	53	6	
	59	56	3	
	2360	11	4	
	61	1103	3	
	62	07	4	
	63	13	6	
	64	1119	6	
	65	1125	6	
	66	42	5	CONN No 1137
	67	48	6	
	68	1155	7	
	69	12	5	
	2370	08	8	
	71	14	6	
	72	1220	6	
	73	27	7	
	74	35	5	
	75	42	7	
	76	48	8	
	77	56	8	
	78	102	6	
	79	110	8	
	2380	120	10	

$$\begin{array}{r} 2429 \\ 2180 \\ \hline 249 \end{array}$$

DEPTH	TIME O'CLOCK	MIN.	REMARKS
	2380	120	
	81	126	6
	82	31	5
	83	37	6
	84	41	4
	2385	44	3
	86	51	7
	87	57	6
	88	208	5
	89	07	5
	2390	14	7
	91	20	6
	92	23	3
	93	28	5
	94	31	3
	2395		
	96		
	97		
	98		
	99		
	2400	39	1
	01	47	3
	02	45	3
	03	52	7
	04	59	7
	05	302	3
	06	305	3
	07	10	5
	08	316	6
	09	21	5
	2410	24	3
	11	26	2
	12	30	4
	13	37	7
	14	42	5
	2415	48	6
	16	53	5
	17	57	4
	18	401	4
	19	405	4
	2420	12	7
	21	18	6
	22	25	7
	23	32	7
	24	35	3
	2425	38	3
	26	41	3
	27	46	5
	28	449	3
	29	54	5
	2430	21	6

QB 2:38
 Visc 37 WH 9.6
 W.L. 7.8 PH 11
 25
 22 - 249
 CONN
 O.B. 5:15

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY _____ FARM _____ WELL NO. _____
 SEC. TWP. RGE. LOC. COUNTY STATE _____
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: U SIZE PUMP LINERS _____ LENGTH STROKE _____

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2430	5:27	6	
31	34	7	
32	41	7	mud gauge
33	47	6	OB 545
34	55	8	
2435	6:00	5	
36	6:07	7	
37	6:14	7	
38	6:21	7	
39	6:26	5	86-23 1/2 - 764
2440	31	5	
41	36	5	
42	44	8	
43	49	5	
44	56	7	
2445	7:02	6	
46	7:10	8	
47	7:18	8	
48	7:24	6	
49	7:29	5	
2450	36	6	
51	40	5	V2 H J Smith
52	45	5	37032
53	50	5	OF. 8:15
54	55	5	
2455			O.B. 6:10
2456			
7			
8			
9			
2460			
1			9.
2			OB 6:33
3	6:36	3	} 11 min
4	6:40	4	
5	6:		
6	6:44		
7	6:46	2	
8	49	3	
9	53	4	
2470	55	2	
1	6:58	3	
2	7:01	3	
3	7:04	3	
4	07	3	
5	11	4	
6	15	4	
7	17	2	
8	19	2	
9	22	3	
2480	26	4	55

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2480	7:30	4	
81	7:33	3	
82	38	5	
83	42	4	
84	45	3	
85	49	4	
86	53	4	
87	56	3	
88	59	3	
89	8:03	4	
2490	07	4	
91	11	4	CONN
92	9:01	4	857
93	05	4	
94	08	3	
95	12	4	60
96	15	3	139
97	19	4	60
98	23	4	25
99	26	3	2
2500	9:30	4	
1	9:34	4	
2	39	5	
3	43	4	
4	47	4	rough
5	53	6	rough
6	59	6	
7	03	4	
8	7	4	
9	10:10	3	
2510	13	3	
11	15	2	
12	18	3	rough
13	23	5	
14	28	5	
2515	32	4	
16	37	5	
17	40	3	rough
18	44	4	
19	47	3	
20	5:1	4	
21	5:6	5	
22	11-	4	
23	11:05	5	CONN
24	11:10	4	11:12
2525	21	5	
26	25	4	
27	27	2	
28	32	5	
29	38	6	
2530			

ROTARY DRILLING TIME SHEET # 505
 KANSAS BLUE PRINT CO., WICHITA, KAN.

3921

601492
420
72

Web
332-6275 Home

COMPANY _____ FARM _____ WELL NO. _____

SEC. TWP. RGE. LOC. COUNTY STATE

CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____

REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

DATE

25 11 11
26275

Open 112 Odessa tex office
366-3674

DEPTH	TIME O'CLOCK	MIN.	REMARKS
31	11:41	3	
32	45	4	
33	50	5	
34	56	6	
25 35	12:01	5	
36	12:05	4	
37	10	5	
38	13	3	
39	19	6	
25 40	24	5	
41	30	6	
42	38	8	
43	46	8	
44	52	6	
45	57	5	
46	12:09	4	
47	12:06	5	
48	10	4	
49	15	5	
25 50	23	8	
51	28	5	
52	133	5	
53	34	1	
54	35	1	
55	36	1	CONN
56	49	1	148
57	49 1/2	1/2	1 1/2 ft hole
58	50	1/2	
59	51	1	
60	52 1/2	1 1/2	
61	444	1	OB 443
62	47	3	
63	49	2	
64	51	2	
65	52	1	
66	54	2	
67	56	2	
68	57	1	
69	59	2	
70	501	2	
71	504	3	
72	06	2	
73	9	1	
74	9	2	
75	10	1	
76	18	8	rough st. p.
77	23	5	
78	27	4	
79	30	3	
25 80	34	4	112

DEPTH	TIME O'CLOCK	MIN.	REMARKS
81	6:37	3	
82	42	5	
83	48	6	
84	53	5	
85	58	5	
86	6:03	5	
87	07	4	CONN
88	20	5	OB 6:15
89	25	5	
25 90	30	5	
91	35	5	
92	43	8	rough 8 1/4
93	49	6	
94	56	7	
95	7:03	7	
96	7:08	5	
97	16	8	
98	21	5	
99	27	6	
26 00	38	11	
1	47	9	
2	56	9	
3	8:03	7	Rough
4	8:09	6	
26 05	8:15	6	
6	8:21	6	
7	27	6	
8	31	10	
9	46	9	
26 10	54	8	
11	9:01	7	
12	13	6	
13	21	8	
14	29	8	
26 15	35	6	
16	9:44	9	
17	52	8	
18	10:00	5	
19			Final CORR. 6:11
26 20	10:14	5	OB 10:09
21	24	10	
22	32	8	
23	40	8	
24	49	9	
26 25	56	7	
26	11:02	6	Visc 52
27	09	7	
28	15	6	
29	22	7	
26 30	27	07	

KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY Town of Murray FARM _____ WELL NO. _____
 SEC. 1 TWP. 1 RGE. 1 LOC. _____ COUNTY _____ STATE _____
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: 270 403 SIZE PUMP LINERS _____ LENGTH STROKE _____
133

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2632	1129		
2631	1135	6	
2632	40	5	
33	44	4	
34	50	6	
2635	56	6	
36	1201	5	A.M. 12/17/68
37	07	6	
38	13	6	
39	18	5	
2640	23	5	
41	28	5	
42	32	4	
43	38	6	
44	45	7	
2645	50	5	
46	55	5	
47	0101	6	
48	08	7	
49	116	8	
2650	123	7	CONN
51	140	8	1:32
52	51	11	
53	2-	9	15
54	07	9	
55	18	9	
56	24	6	
57	31	7	
58	38	7	
59	46	8	
2660	51	5	
61	58	7	
62	305	7	
63	12	7	
64	19	7	
2665	25	6	
66	29	4	
67	36	7	
68	42	6	
69	49	7	
2670	54	5	
71	402	8	
72	11	9	
73	18	7	
74	22	4	
2675	27	5	
76	34	7	Row 9 ft
77	43	7	
78	49	6	
79	54	5	
2680	59	10	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2680	59		
2681	514	10	
2682	527	5	5:22-OB 109
3	532	5	159
4	542	10	
2685	551	9	
6	57	6	
7	604	7	
8	13	4	
7	18	5	
2690	27	9	
91	31	4	
92	37	6	
93	42	5	
94	48	6	
2695	55	7	
96	702	7	
97	707	7	
98	15	6	
99	16	1	
2700	21	5	
1	27	6	
2	32	5	
3	37	5	
4	42	5	
2705	48	6	
6	53	5	
7	58	5	
8	904	6	=21=
9	09	5	
2710	14	5	
11	20	6	
12	26	6	CONN Serv Rig
13	57	6	OB 9:51
14	9:03	6	
2715	08	5	
16	15	7	
17	18	3	140
18	23	5	
19	28	5	=22=
2720	33	5	
21	40	7	
22	45	5	
23	51	6	
24	57	6	
2725	1003	6	
26	9	6	
27	12	3	
28	16	4	
29	21	5	
2730	26	5	

NDE 1968
 W pump 2 gal.

COMPANY TOWN OF MURRAY FARM _____ WELL NO. _____
 SEC. _____ TWP. _____ RGE. _____ LOC. _____ COUNTY CLARKE STATE IOWA
 CONTRACTOR _____ SIZE HOLE _____ DRILL PIPE _____
 REMARKS: _____ SIZE PUMP LINERS _____ LENGTH STROKE _____

595
 3
 2195
 2753
 2575
 178

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
27 30	10:20		
31	30	4	
32	35	5	
33	41	6	
34	46	5	
27 35	51	5	
36	56	5	
37	11:02	6	
38	11:06	4	
39	11:10	4	
27 40	15	5	
41	11:20	5	
42	24	4	
43	28	4	CONN 24
44	46	9	O.B. @ 11:37
27 45	52	6	
46	58	6	NOON 12-17-68
47	12:04	6	rough
48	08	4	rough
49	12	4	
27 50	20	8	rough
51	28	8	
52	35	7	
53	40	5	
54	47	7	
27 55	54	7	
56	10:2	8	
57	10:8	6	
58	13	5	2.5 1/2
59	19	6	
27 60	26	7	
61	32	6	
62	37	5	
63	42	5	
64	47	5	
27 65	53	6	
66	2	7	
67	20:5	5	
68	12	7	
69	21	9	
27 70	26	5	
71	32	6	
72	39	7	
73	45	6	
74	4	7	had to make trip
27 75	6:59	5	UTM F 85 417
76	10:3	4	O.B. 6:54
77	08	5	
78	12	4	
79	17	5	
27 80	20	3	26

DEPTH	TIME O'CLOCK	MIN.	REMARKS
27 80	7:20		
81	7:23	3	
82	:27	4	
83	:32	5	
84	:37	5	
27 85	:43	6	
86	:47	4	
87	49	2	
88	51	2	
89	55	4	
27 90	59	4	
91	8:03	4	
92	8:08	5	
93	:14	6	
94	:19	5	
27 95	:23	4	
96	27	4	
97	32	5	
98	37	5	
99	42	5	
28 00	47	5	
1	50	3	
2	56	6	
3	9:00	4	
4	:06	6	
28 05	:11	5	CONN
6	9:26	4	O.B. 9:22
7	:29	3	
8	31	2	
9	39	8	
28 10	43	4	
11	50	7	
12	58	8	
13	10:04	6	
14	12	8	
28 15	20	8	
16	29	9	
17	10:37	8	Different watch
18	42	5	
19	46	4	
28 20	50	4	
21	55	5	
22	11:01	6	extremely rough
23	11	10	
24	17	6	
28 25	22	5	
26	28	6	
27	37	9	
28	44	7	
29	51	7	
28 30	59	8	268

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY TOWN OF MURRAY FARM _____ WELL NO. _____
 SEC. _____ TWP. _____ RGE. _____ LOC. _____ COUNTY CLARKE STATE IOWA
 CONTRACTOR LFWINSLOW SIZE HOLE 7 7/8 DRILL PIPE 4 1/2
 REMARKS: _____ SIZE PUMP LINERS 7 LENGTH STROKE 14

104
60
60
143
367

367
268
635

DATE	DEPTH	TIME O'CLOCK	MIN.	REMARKS
	2830	1159		
	2831	1206	7	Loosening Drilling Fluid
	32	1214	8	A.M. Dec. 18 1968
	33	22	8	
	34	30	8	
	2836	37	7	
	36	40	3	CONN
	37	101	5	O.B. 12,56
	38	08	7	
	39	13	5	2
	2840	20	7	1428
	41	28	8	310
	42	38	10	310
	43	49	11	310
	44	59	10	104 2358
	2845	205	6	310
	46	13	8	2668
	47	20	7	2000
	48	27	7	
	49	35	8	
	2850	244	9	
	51	50	6	
	52	259	9	
	53	308	9	
	54	16	8	
	2855	324	8	
	56	33	9	
	57	342	9	
	58	48	6	
	59	54	6	
	2860	59	5	
	61	407	8	
	62	413	6	
	63	421	8	
	64	429	8	
	2865	433	4	
	66	437	4	
	67	445	8	2000.00
	68			Conn 0000/6
	69	504	4	O.B. 500
	2870	510	6	
	71	518	8	
	72	25	7	
	73	530	5	
	74	539	9	885
	2875	548	9	
	76	57	9	
	77	607	10	102
	78	617	10	
	79	26	9	
	80	37	11	10 1/2

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2880	637		
2881	646	9	
2882	58	12	
83	707	9	11
84	717	10	
2885	25	8	
86	31	6	
87	38	7	
88	42	4	
89	750	8	
2890	59	9	
91	807	8	12
92	16	9	
93	25	9	
94	33	8	
2895	39	6	
96	49	10	
97	54	5	
98	9:00	6	
99	9:05	5	CONN SERV RIG.
2900	9:30	6	
1	36	6	
2	44	8	
3	42	8	
4	49	7	
2905	53	4	
6	10	7	
7	10:05	5	
8	10:12	7	
9	10:17	5	14
2910	21	4	
11	25	4	
12	29	4	
13	33	4	
14	37	4	
2915	43	6	
16	49	7	
17	56	7	
18	10:04	8	
19	14	10	
2920	21	7	
21	28	7	
22	36	8	
23	44	8	
24	53	9	
2925	12:2	9	
26	21	9	12 1/2
27	27	6	
28	34	7	
29	49	15	16 1/2
2930	1-	11	1

ROTARY DRILLING TIME SHEET # 503
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY MCHA 1/2 Town of FARM WELL NO. _____
 SEC. TWP. RGE. LOC. COUNTY CLARKE STATE IOWA
 CONTRACTOR _____ SIZE HOLE 7 7/8 DRILL PIPE 4 1/2 X HOLE
 REMARKS: Bill Lusk SIZE PUMP LINERS 7 LENGTH STROKE 14
Elbert Hanson
1-314 PA-6120

100
180
300
400
420
460
520

DATE _____

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2930			
31	1:09	7	
32	12	5	
33	1:22	10	
34	29	7	
2935	34	5	
36	1:40	6	
37	47	7	
38	53	6	
39	58	5	
2940	2:05	7	
41	12	7	
42	20	8	
43	29	9	
44	35	6	
2945	44	9	
46	51	7	
47	3-	9	
48	3:10	10	
49	3:20	10	
2950	28	8	
51	35	7	
52	42	7	
53	49	7	
54	56	7	
2955	4:04	8	UTM Trip EN4118
56	8:31	4	OB. 5:25 = 8:21
57	35	4	
58	8:40	5	
59	45	5	
2960	8:52	7	
61	9:14	7	OB. 9:07
62	9:21	7	
63	9:28	6	
64	9:33	6	
2965	37	4	
66	44	7	
67	9:51	7	
68	9:59	8	
69	10:06	7	VIS 47 WTA.6#
2970	10:11	5	P.H.11
71	10:16	5	
72	10:20	4	
73	10:25	5	
74	10:31	6	
2975	10:35	4	
76	10:42	7	
77	49	7	
78	35	6	
79	11:03	8	
2980	11:10	7	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2980			
2981	1:19	9	
82	11:22	3	
83	1:33	11	
84	11:40	7	
2985	1:45	5	
86	52	7	
87	12:02	10	Dec. 19/1968/AM.
88	09	7	
89	12:16	7	
2990	12:24	8	
91	12:31	7	
92	40	9	Conn.
93	1:05	8	OB. 12:57
4	1:14	9	
5	1:19	5	R.T. OK
6	1:26	7	little saw
7	1:34	8	
8	1:42	8	
9	1:47	5	
3000	1:53	6	
1	2:02	9	
2	2:13	11	
3	2:21	8	
4	28	7	
5	35	7	
6	42	7	
7	50	8	
8	2:58	8	
9	3:08	10	
30010	3:16	8	
1	3:25	9	
2	3:30	5	
3	3:39	9	
4	3:48	9	
5	5:06	8	CK. WT.
6	4:08	9	OB. 3:59
7	12	4	
8	18	6	
9	22	4	
3020	27	5	
1	4:33	5	
2	4:35	2	
3	4:45	3	
4	4:47	4	Conn.
25	5:03	4	OB. 5:59
6	5:09	6	
7	5:14	5	
8	5:21	7	
9	5:26	5	
3030	5:32	6	

