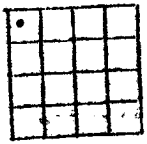
County Holt



sec. 1 T. 61 R. 38

Owner Nathan & Brin

Elev. 1062 MGS# 6795

Farm Decker No. 1 TD 2308 Shows [redacted] Spls. ✓

Status Abn'd Date Completed March 1941 Fm@TD Dev

Remarks:

00007

~~00003~~

Log of Nathan and Brin, *et al* No. 1 Decker. Location: 660 feet east and 660 feet south of the northwest corner of sec. 1, T. 61 N., R. 38 W., Holt County, Missouri, near Bunker's Hill. Surface elevation, 1062 feet (P.T.). Commenced, 7-9-39, and still being drilled on 8-1-40. Drilled with cable tools. Casing record: 15 1/2 inch set at 172 feet; 10 inch at 1056 feet; 8 inch at 1450 feet; and 6 5/8 inch (7 inch OD) at 2220 feet. Contractor: Jerome Flory, Yates Center, Kansas.

FORMATIONAL SUMMARY

	Thickness, feet	*Depth, feet*
No samples	75	75
Pleistocene Series:		
Glacial drift	90	165
No samples	30	195
Pennsylvanian system:		
Shawnee group	185	380
Douglas-Pedee groups	230	610
Lansing-Kansas City groups	299	909
Pleasanton-Henrietta groups	218	1127
Cherokee group	740	1867
Mississippian system:		
Ste. Genevieve formation	28	1895
St. Louis formation	21	1916
Spergen-Upper Warsaw formations	35	1951
Warsaw, Keokuk-Burlington formations	141	2092
Chouteau (?) formation	49	2141
Kinderhook formation (shale, 2159-2168 ft.)	27	2168
Devonian system (undifferentiated):		
Shale	72	2240
Limestone and dolomite	68	2308, T.D.

WATER ANALYSES

Horizon	Parts per million			
	T.D.S.	*Cl.*	*SO_4*	*Na-K as Na*
Cherokee at 1380-1398 feet	7998.0	4062.2	333.1	3035.5
Lower Cherokee, 1445-1460 ft.	3100.0	973.2	585.8	1120.4
Mississippian, 1882-1892 ft.	3312.0	941.9	571.8	1228.2
Mississippian, 2029-2033 ft.	3687.0	1254.4	645.2	1319.5
Devonian ("Hunton"), 2255-2256 ft.	3353.0	1160.8	581.0	1232.1
Devonian ("Hunton"), 2308 ft., T. D.	3082.0	531.2	1246.6	827.7

SAMPLE LOG

	Thickness, feet	*Depth, feet*
No samples	75	75
Pleistocene Series:		
Glacial drift:		
Sand and gravel, coarse, arkosic with limestone, metamorphic and igneous rock fragments. Some garnet appears from 140-145 feet. Gray boulder clay is mixed with the sand and gravel	90	165
No samples	30	195
Pennsylvanian system:		
Shawnee group:		
Limestone and shale: limestone, dark gray, very argillaceous with fossils including fusulinids; and shale, gray. The residue includes some silicified fossil fragments	10	205

	Thickness, feet	*Depth, feet*
Limestone, light tan, chalky with large white oolites. Residue, 30 percent, of gray shale and silicified fossil fragments	5	210
No samples	5	215
Sand, shale, and limestone: shale, gray with mica, angular sand and calcareous fossil fragments cemented with limestone into a solid mass containing fusulinids and brachiopods. The residue contains some silicified fossil fragments, spines and tubes, in addition to sand and shale	25	240
Limestone, tan, fine-grained, fossiliferous. A gap in the sample occurs from 245-250 feet. Residue, 15 percent, of tan chert, spines, silicified foraminifera and porous, brown shale	15	255
Shale, black, platy, carbonaceous with fragments of limestone, as described above	5	260
Limestone, brown, earthy with gray shale. Residue, 20 percent, of porous, tripolitic chert, silicified spines, worm casts and dark shale	5	265
Shale, green with some limestone fragments	5	270
Limestone, white, chalky with many fossils and some oolitic limestone in the upper portion. This interval becomes gray and earthy at base. Residue, 10 percent, of silicified fossil and foraminiferal fragments	15	285
Shale, gray, sandy, calcareous with some fossil fragments	15	300
Shale, gray, soft with some siderite concretions occurring from 300-305 feet	20	320
Shale, gray with brown and gray, calcareous fossil fragments	5	325
Limestone, gray, earthy, fossiliferous. Residue, 10 percent, of silicified foraminifera and tubes	5	330
Shale, black, carbonaceous with some limestone fragments	5	335
Limestone, light tan to white, chalky, fossiliferous. A gap in the sample occurs from 345-350 feet. Residue, 10 percent, of silicified spines, fossil fragments, angular sand grains and pyritized fossil fragments	20	355
Sand, medium-grained, angular, micaceous with plant remains	5	360
Shale, gray with a trace of fossiliferous limestone below 370 feet	20	380
Douglas-Pedee groups (undifferentiated):		
Limestone (Oread), gray, earthy, highly fossiliferous. Becomes lighter colored and more chalky toward the base with spinose texture, fossils of silicified brachiopods and fusulinids and contains gray and brown, porous shale and some pyrite. A trace of sphalerite occurs from 405-410 feet	30	410
Shale, black, carbonaceous with fragments of limestone, as described above	5	415
Shale, gray with some calcareous fossil fragments including crinoid stem fragments	15	430
Limestone, white, fine-grained, fossiliferous. Residue, 10 percent, of white, porous chert	5	435
Shale, red	10	445
Shale, gray, slightly sandy below 450 feet with some pyrite	10	455
Shale, red and gray	5	460
Limestone (Amazonia), tan and brown, highly fossiliferous. Residue, 20 percent, of pyrite and gray shale with tubes and pyrite prints in the shale	5	465
Shale, gray with plant remains and limestone fragments	10	475

	Thickness, feet	Depth, feet
Shale, gray, sandy with mica and plant remains	5	480
Sandstone, shaly with mica and plant remains	10	490
Shale, gray, somewhat sandy from 500-515 feet	60	550
Shale, gray with some limestone nodules and fragments from 550-590 feet and some sand from 580-590 feet	60	610
Lansing-Kansas City groups:		
Limestone, tan, dense, fine-grained to fossiliferous with many small brachiopods. Residue, 20 percent, of gray shale, a trace of pink chert and silicified crinoids, spines and tubes	10	620
Shale and limestone: shale, gray with cream colored, fossiliferous limestone, and some dark gray, fossiliferous limestone	15	635
Limestone, light colored, dense to fine-grained, somewhat fossiliferous. Residue, 10 percent, of fossil fragments replaced by kaolin	10	645
Shale, gray with limestone fragments. The residue contains some pyrite and silicified tubes	5	650
No samples	5	655
Limestone, dark gray, crystalline, argillaceous, fossiliferous. Residue, 30 percent, of fine sand grains, black and green shale and pyrite	5	660
Shale, gray with fragments of fossiliferous limestone	14	674
Limestone, tan and white, crystalline with fossil fragments. Residue, 10 percent, of tan chert, silicified tubes and gray shale	5	679
Shale, gray with limestone fragments in the sample from 679-685 feet	18	697
Limestone, gray, fine-grained, crystalline with gray shale. Residue, 30 to 50 percent, of chiefly, gray shale and with some silicified fossil fragments from 703-711 feet	28	725
Limestone, white, highly crinoidal. Residue, 10 percent, of some gray shale and silicified spines, tubes, and fossil fragments	10	755
Shale, gray and black with some calcareous fossils	10	765
Limestone, light tan, dense, fossiliferous. Residue, 10 percent, of tripolitic chert, silicified fossils and pyrite	6	771
No samples	4	775
Limestone, light tan, dense, sparingly oolitic, fossiliferous. Residue, 10 percent, of gray shale with fossil prints and pyrite	8	783
Shale, gray with limestone fossil fragments. Residue contains some porous, fossiliferous chert and silicified tubes in addition to gray shale	17	800
No samples	15	815
Limestone (Winterset), light tan, crystalline with many fusulinid fragments. Residue, 10 to 30 percent, of white and gray, fossiliferous chert with many silicified fusulinids	35	850
Shale, black, carbonaceous	5	855
Shale, black and pale green with some limestone fragments	5	860
Limestone (Bethany Falls), light tan, dense to sub-lithographic with some oolites between 865-870 feet. Residue, small, less than 10 percent, of gray and green shale with some kaolin	16	876
Shale, black, carbonaceous	5	881
Shale, gray and green	9	890

	Thickness, feet	Depth, feet
Limestone (Hertha), tan and light gray, dense, somewhat fossiliferous. Residue, 10 percent, of chalcedony rosettes, kaolin and gray shale	19	909
Pleasanton group:		
Shale, black and gray with some limestone fragments	6	915
Sand, angular, micaceous with gray shale, pyrite and siderite	15	930
Limestone, brown, crystalline, fossiliferous becoming lighter colored toward the base. Residue, 20 to 30 percent, of fossiliferous chert, gray shale and fossil fragments replaced by kaolin	20	950
Shale, black and gray with limestone fragments	5	955
Shale, gray with limestone fragments and pyrite (samples for this interval are poor)	50	1005
No samples	70	1075

NOTE: The Pleasanton-Henrietta contact comes within this interval. Samples not saved because of bad hole, fishing job and pipe setting.

Henrietta group:		
Shale, black with some calcareous fossils	5	1080
Sand, medium sized, angular grains with mica, some plant remains and traces of brown limestone and black shale	10	1090
Limestone, light tan, fine-grained, sparingly fossiliferous. Residue, 20 percent, of fossils replaced by kaolin, silicified spines, tubes and sand aggregates	5	1095
Shale and limestone: shale, gray; and limestone, brown, dense, earthy. The residue contains some silicified fossil fragments and porous, soft chert with fossil prints	10	1105
Shale and limestone: shale black and gray; and limestone, tan and brown, argillaceous. The residue contains some fossil fragments replaced by kaolin	22	1127
Cherokee group:		
Sand, medium sized, angular grains with gray and green shale, mica and nodules of siderite	28	1155
Shale, dark gray with some small calcareous pelecypod fossils from 1160-1165 feet	10	1165
Shale, gray and black with some calcareous gastropod fossils	20	1185
Shale, gray and black with siderite concretions above 1195 feet	20	1205
Shale, gray with siderite concretions. Some calcareous brachiopods occur in the sample from 1210-1215 feet	10	1215
Shale, black, carbonaceous with siderite concretions, some brown limestone fragments and at 1225 feet, a bed of bituminous coal	15	1230
Shale, gray with sand aggregates, mica and siderite concretions	10	1240
Shale, gray with some siderite concretions and a trace of black shale at the top	10	1250
Shale, black and gray with some black fossiliferous limestone	5	1255
Shale, gray with plant remains, mica and siderite concretions	5	1260
Sand, medium coarse, angular with mica, and siderite concretions and spherulites	15	1275
Shale, gray, slightly sandy from 1280-1290 feet	35	1310

	Thickness, feet	Depth, feet
Shale, gray, black and green	10	1320
Shale, gray with siderite spherulites from 1320-1330 feet	15	1335
Shale, gray and black, sandy. Siderite spherulites occur from 1345-1355 feet	20	1355
Shale, gray and green with siderite spherulites	5	1360
Shale, gray, sandy above 1365 feet with siderite spherulites	10	1370
Shale, black, slaty with some siderite spherulites	10	1380
Sand, medium sized, angular grains with some siderite spherulites. Some black shale occurs from 1380-1390 feet	18	1398
Shale, black, carbonaceous	2	1400
Shale, gray with a thin bed of bituminous coal occurring between 1400-1405 feet	8	1408
Shale, gray, sandy with siderite concretions	14	1422
Shale, black, carbonaceous with concretions of siderite or "ironstone"	8	1430
Shale and sand: shale, gray with sand aggregates, mica, pyrite and some spherulites of siderite. Some plant remains occur below 1440 feet	21	1451
Sand, medium coarse-grained with siderite cement	7	1458
Shale, gray and black with siderite concretions	6	1464
Sand, medium coarse, angular grains. Black and gray shale mixed with the sand occurs below 1500 feet	66	1530
Shale, gray with sand, as described above, and siderite concretions	15	1545
Sand, medium coarse, sub-angular with some siderite below 1575 feet	46	1591
Shale, black with some sand and siderite concretions	11	1602
Shale, gray, sandy	3	1605
Shale, black with dark argillaceous limestone and some crinoid fragments	5	1610
Shale, gray with plant remains	5	1615
Sand, fine-grained, quartzitic and black shale interbedded in very thin strata	10	1625
Shale, black, carbonaceous with concretions of siderite	17	1642
Sand, fine-grained, quartzitic with black shale	5	1647
Shale, black with thin seams of bituminous coal and pyrite	13	1660
Sand and shale: shale, black and gray, interbedded with thin beds of fine-grained, angular sand	25	1685
Sand, medium fine-grained, angular with siderite concretions	20	1705
Shale, gray	5	1710
Shale, black with some siderite concretions, some thin sand beds from 1715-1725 feet and a thin seam of coal between 1735-1740 feet	30	1740
Shale and sand: shale, black, interbedded with fine-grained sandstone	12	1752
Sand, coarse, sub-angular grains	16	1768
No samples	6	1774
Shale and sand: shale, black, interbedded with fine-grained quartzitic sand with siderite concretions	6	1780
Shale, black, carbonaceous with siderite concretions	40	1820
Sand, medium-grained, angular with gray shale and siderite concretions	10	1830
Sand, medium coarse, angular with some pyrite	15	1845
Shale, dark gray to black with thin sand beds below 1855 feet and containing some plant remains	22	1867

	Thickness, feet	Depth, feet
Mississippian system:		
Ste. Genevieve formation:		
Limestone, white, fine-grained to lithographic, sandy. Residue, 40 percent, of coarse, sub-angular sand and quartzose, sub-translucent chert	3	1870
Limestone, white with sub-rounded oolites. Residue, 10 percent, of medium coarse sand grains and quartzose chert	10	1880
Limestone, white to very light tan, dense to sub-lithographic. Residue, 10 percent, of pyrite, quartzose chert and medium coarse sand	2	1882
Sand, sub-angular, frosted grains with some white, calcareous oolites	10	1892
No samples	3	1895
St. Louis formation:		
Limestone, tan, dense to lithographic, oolitic, in part, above 1905 feet. Residue, 10 percent, of quartz rosettes, quartzose chert, pink chert and coarse sand grains	15	1910
Limestone, tan, lithographic. Residue, 30 percent, of tan, dense, fossiliferous chert and quartzose chert	6	1916
Spergen-Upper Warsaw formations:		
Dolomitic limestone, gray, fine-grained crystalline, shaly in part with some silvery-green shale. Residue, from 10 to 20 percent, of pink and white, quartzose geodal chert with some fossiliferous chert and spine aggregates. Green shale occurs in the residues above 1940 feet and a trace of glauconite occurs at 1925 feet	35	1951
Warsaw, Keokuk-Burlington formations (undifferentiated):		
Dolomitic limestone, tan, fine-grained crystalline, cherty. Residue, 30 percent, of porous, fossiliferous chert with quartz and silicified spine aggregates	4	1955
Limestone, tan and gray, fine-grained crystalline, becoming coarse-grained toward the base, cherty. Residue, 20 to 40 percent, of gray and tan, speckled, fossiliferous chert	56	2011
Limestone, white and light tan, crystalline, crinoidal. Residue, 20 to 30 percent, of white, dense, flaky chert	34	2045
Limestone and chert: limestone, white, crystalline. Residue, 50 percent, of white, dense chert and some translucent chert	5	2050
Limestone and chert: limestone, white, crystalline. Residue, 80 to 100 percent, of gray and white, dense chert and some crinoidal chert	42	2092
Chouteau (?) formation:		
Limestone and chert: limestone, tan, fine-grained, sparingly fossiliferous with brachiopods. Residue, 50 to 90 percent, of tan and gray, porous, rough, tripolitic chert	26	2118

NOTE: The upper 9 feet of this interval is composed of a gray and white limestone with medium sized, sub-rounded, calcitic oolites with gray centers, and with a residue of 25 percent of white and gray, crinoidal chert which may prove referable to the Gilmore City formation of Iowa.

Limestone, gray, dense, earthy. Residue, 40 to 50 percent, of gray chert with some silicified brachiopod fragments	7	2125

	Thickness, feet	Depth, feet
Limestone, gray, dense to lithographic, earthy. Some fragments of dolomitic limestone occur at 2137 feet. Residue, 20 percent, of gray chert, green, waxy shale and some fossil fragments	16	2141
Kinderhook group (undifferentiated):		
Dolomitic limestone, gray, fine-grained crystalline. Residue, small, less than 10 percent, of dark brown chert and pyrite	7	2148
Limestone, white, oolitic. Residue, 10 percent, of gray, fine-grained sand and pyrite	7	2155
Dolomite limestone, fine-grained, silty. Residue, of fine silt and sand	4	2159
Shale, gray and green with some large discoidal oolites of phosphatic material	9	2168
Devonian system:		
Shale, red	10	2178
Shale, gray and red	22	2200
Shale, gray	4	2204
No samples	6	2210
Shale, gray with phosphatic nodules and fish teeth	3	2213
Dolomite, brown, fine-grained crystalline with phosphate pebbles. Caved shale obscures this residue sample	3	2216
Shale, dark gray, dolomitic	24	2240
Limestone, white and pink, crystalline. Residue, less than 10 percent, of pyrite, shale and white chert	30	2270
Dolomite, white and pink, crystalline. Residue, less than 10 percent, of regenerated sand grains	27	2297
Limestone, brown, dense. Residue, less than 10 percent, of gray shale and chalcedonic chert	11	2308, T.D.

MISSOURI GEOLOGICAL SURVEY
ROLLA, MISSOURI
H. A. Buehler, Director

Summary, Oil and Gas Test

Nathan and Brin, No. 1 Decker, 660 feet east and 660 feet south of the northwest corner of Sec. 1, T. 61 N., R. 38 W., Holt County, Missouri, near Bunker's Hill. Surface elevation 1062 feet (P.T.). Commenced 7-9-39, still being drilled on 8-1-40. Drilled with cable tools. Casing record: 15½ inch at 172 feet, 10 inch at 1056 feet, 8 inch at 1450 feet, 6 5/8 inch (7 inch OD) at 2220 feet. Contractor, Jerome Flory, Yates Center, Kansas.

The following formational summary has resulted from studies of samples submitted by the operator to the Missouri Geological Survey, where they may be examined.

Formation	Thickness feet	Depth feet
No Samples	75	75
Pleistocene Series		
Glacial Drift	90	165
No Samples	30	195
Pennsylvanian System		
Shawnee formation	185	380
Douglas and Pedee formations	230	610
Lansing and Kansas City formations	299	909
Pleasanton formation	96	1005
No samples	70	1075
Henrietta formation	52	1127
Cherokee formation	740	1867
Mississippi System		
Ste. Genevieve formation	28	1895
St. Louis formation	21	1916
Spergen - Upper Warsaw formation	35	1951
Warsaw formation	36	1987
Keokuk-Burlington formations	105	2092
Chouteau formation	67	2159
Kinderhook formation	81	2240
Devonian System (Hunton)	68	2308

2159
1867
292

2159
1062
1097

August 1, 1940

Crews
(1) Lloyd McJunkin, Ray Barnett (2) Everett McJunkin, Jerome Florey (3) C L Brown, W A Miller

27-F-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY Holt LOG NUMBER

COMPANY OR OWNER Nathan O Brinn

FARM Decker WELL NO. 1

LOCATION C NW NW SEC. 1 T. 61 R. 38

CONTRACTOR Jerome Florey

DRILLER TOOL DR.

COMMENCED COMPLETED

PRODUCTION PLOTTED

CASING RECORD Set 10" @ 1056 and resumed drilling at 1056 5/17/40

WATER RECORD

SOURCE OF LOG Drillers original

REMARKS

ELEV.

TOTAL DEPTH

CHEM. ANAL. NO.

1062
909
+153

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Dark blue shale	1056	1068	Water sand	1511	1550
Shale black	1068	1075	Sand light	1550	1588
Broken lime	1075	1080	Shale dark	1588	1601
Sand hard	1080	1095	Sand	1601	1617
Shale blue	1095	1125	UR to		1597
Shale white	1125	1165	Shale black	1620	1630
Shale light	1165	1210	Shale dark	1630	1660
Lime shell	1210	1212	Sand	1660	1670
Shale dark	1212	1225			
Shale white	1225	1240			
Shale dark	1240	1250			
Shale white	1250	1265	Picked up some water @ 1265		
Sandy shale	1265	1270			
Shale dark	1270	1320	Hard		
Lime soft	1320	1335			
Shale	1335	1365			
Shale gray	1365	1380			
Shale dark	1380	1398	more water (BB PH)		
Sand	1398	1400			
Shale dark	1400	1422	sand		
Gray sandy shale	1422	1445	1 FW		
Shale blue	1445	1450	sand		
Sand	1450	1455			
Sand	1455	1463			
Shale gray	1463	1511			
Sand white					

(Brinn reports 5/25: Sand 1427 to 1450 ... 8" hanging @ 1451)

... at 1620 ... 1660

Shale & lime conglom.	1670	1675	
Sand hard	1675	1683	
Sand (water)	1683	1699	
" "	1699	1709	
Shale light	1709	1725	
Shale dark	1725	1740	
Sand	1740	1766	sent
Shale dark	1766	1774	underreaming 8"
Sandy shale	1774	1778	
Shale dark	1778	1820	
Sand	1820	1845	
Sand	1845	1850	
Shale dark	1850	1860	
Shale light	1860	1868	TP MISS LIM
Lime	1868	1878	
Lime	1878	1885	sent
Sand	1885	1892	water
Lime	1892	1897	
Lime gray	1897	1905	
Lime light	1905	1923	
Shale	1923	1925	
	1925	1930	
Shale	1930	1935	
Shale & shells	1935	1951	
Lime	1951	1955	sent
Lime	1955	1965	
Lime	1965	1980	
Shale	1980	1981	
Lime	1981	2010	
Sand	2010	2015	water
Lime	2015	2157	
Shale dark	2157	2162	
Shale light	2162	2175	
Shale	2175	2180	
Redrock	2180	2190	
Shale	2190	2213 = 2212	

Hunter @ 2240
water @ 2250-55
HFW @ 2270-75
7/16/40
Bmac

2312
8/16/40

set 6 5/8 2220 (7" OD) sent

Rig moved off 9/27/40

oil staining 2297-2308
TD 2310

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY Holt LOG NUMBER

COMPANY OR OWNER Nathan & Brin

FARM Decker WELL NO. 1

LOCATION C NW NW SEC. 1 T. 61 R. 38

CONTRACTOR

DRILLER TOOL DR.

COMMENCED ~~Shortly before~~ 7-9-39 COMPLETED

PRODUCTION PLOTTED

CASING RECORD 15½-172

WATER RECORD

SOURCE OF LOG 1 ac. 660'S - 660'E of NW co

REMARKS Drillers original

ELEV. ~~1062~~ PT aid

TOTAL DEPTH 1059.1 Revised aid

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Soil dark soft	15	15	Shale gray	5	290
Sand brown soft (water in)	5	20	Shale blue	35	325
Sand brown soft	10	30	Lime broken gray	5	330
Shale red soft	10	40	Shale dark	5	335
Shale blue soft	25	65	Lime gray	10	345
Lime black hard	5	70	Shale blue	5	350
Shale blue soft	10	80	Lime gray	10	360
Gravel & sand	10	90	Shale gray	15	375
Shale gray	10	100	Lime gray hard	15	390
Sand-gravel	20	120	Shale gray	2	392
Sand light	45	165	Lime gray hard	18	410
Lime shell & gravel	5	170	Shale black soft	5	415
Blue shale blue	10	180 water 5 BPH	Shale gray	15	430
Shale gray	15	195	Red shale red soft	15	445
Lime dark	5	200	Shale gray soft	110	555
Shale black	2	202	Lime gray	10	565 8/18/39 Sanker
Lime dark	5	207	Shale gray shale	48	613
Lime gray	23	230	Lime hard	11	624
Shale blue	5	235	Shale white soft	3	627
Lime gray	20	255	Lime hard	20	647
Shale dark	10	265	Shale light soft	4	651
Shale gray	15	280	Lime hard	3	654
Limestone gray	5	285	Shale	16	670
			Lime	3	673

1059 170 889

Sanker 5/18/39 Sackett 5/25 & 5/25

OM

Shale	1	674	
Lime	8	682	
Shale	4	686	
Lime	3	689	
Shale dark	8	697	8/22
Lime	5	702	Cracked to 725
Shale gray	5	707	
Lime	10	717	
Shale dark	8	725	
Shale	14	739	
Lime light	16	755	
Shale	9	764	8/24
Lime	16	780	
Shale red soft	2	782	
Lime white hard	3	785	Reduced hole 807
Lime hard	68	853	
Slate black soft	3	856	
Shale dark	4	860	
Lime hard	17	877	
Slate	2	879	
Shale green soft	14	893	9/14
Lime brown hard	16	909	[illegible]
Shale blue	4	913	
Lime hard	1	914	
Shale	16	930	
Lime hard	14	944	
Shale gray soft	2	946	
Lime gray hard	10	956	
Shale dark	5	961	
Shale gray	9	970	
Lime gray hard	15	985	
Shale	5	990	
Lime hard	10	1000	
Shale	5	1005	
Lime hard light	2	1007	
Shale			

1062
909
153

9/14/39 from Flory contractor
Jan 1940

1056 [illegible] 5/17

Drilling

27-F-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY Holt LOG NUMBER

COMPANY OR OWNER Nathan & Brin

FARM Decker WELL NO. 1

LOCATION C/NW/NW SEC. 1 T. 61 R. 38 W

CONTRACTOR

DRILLER

COMMENCED COMPLETED

PRODUCTION PLOTTED

CASING RECORD

WATER RECORD

SOURCE OF LOG

REMARKS Loc. 660'S + 660'E of NW Cor. Sec. 1-61-38 W

ELEV. 1062.01 P.T. Ad

TOTAL DEPTH

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Note:- Drilling above 100 feet July 9, 1939 and					

Frank Greene

Leadecker Hay

~~[illegible]~~

27-F-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY Holt LOG NUMBER

COMPANY OR OWNER Nathan & Brin of Wichita

FARM Decker WELL NO.

LOCATION C NW NW SEC. 1 T. 61 R. 38

CONTRACTOR

DRILLER TOOL DR.

COMMENCED COMPLETED

PRODUCTION PLOTTED

CASING RECORD

WATER RECORD

SOURCE OF DDG

REMARKS 660'S - 660'E of NW cor

ELEV. 1062.01 P7 aid

TOTAL DEPTH

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Tripping to Muff off water Drive shell at		185	7/15/39		

27-F-29

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Drin - Dekor #1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well, 175-180 ft. (Pleistocene)
Analysis No.: 2472 in NB 772, P. 116 Total [illegible] _____ and No. _____
Date Analyzed: 8-6-39
Analyst: R. T. Rolufs
Collector: F. C. Greene, 8-26-38

CONSTITUENTS:	IN PARTS PER MILLION.
Turbidity	Turbid - Bailer Sample
Color	None
Odor	ND
Total Suspended Solids	
Total Dissolved Solids	654.0
Loss on Ignition	
Chloride Radicle (Cl)	6.5
Nitrate Radicle (NO_3)	
Sulphate (SO_4)	137.9
Bi-Carbonate Radicle (HCO_3)	
Carbonate Radicle (CO_3)	
Sodium (Na) Potassium (K) as Na	
Magnesium (Mg)	
Iron (Fe)	
Manganese (Mn)	
Silica (SiO_2)	
Calcium (Ca)	
Total Hardness	
Carbonate Hardness	
Alkalinity	
Precipitated Iron (Pp't. Fe.)	
Temporary Hardness	
Al_2O_3	

Remarks:
Glacial drift, Pleistocene formation.

Copies to: Joe Nathan
F. C. Greene
File

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Drinn - Dooker No. 1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well, 1380-1398 ft.
Analysis No.: 3300 Total Depth_____ and No._____
Date Analyzed: 8-12-40
Analyst: R. T. Rolufs
Collector: F. C. Greene

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailor Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	7098.0	RV
Loss on Ignition	57.0	
Chloride Radicle (Cl)	4068.2	114.55
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	338.1	6.93
Bi-Carbonate Radicle (HCO_3)	513.2	8.42
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	3036.5	132.04
Magnesium (Mg)	22.0	1.81
Iron (Fe)	ND	
Manganese (Mn)	ND	
Silica (SiO_2)	11.2	
Calcium (Ca)	83.9	5.19
Total Hardness	250.0	
Carbonate Hardness	250.0	
Alkalinity	420.6	
Precipitated Iron	ND	
Temporary Hardness	ND	
Al_2O_3 & Fe_2O_3	.40	

Remarks: This sample from 1380-1398 ft.

Copies to:
F. C. Greene
Joe Nathan

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Brinn - Decker #1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well, 1445-1450
Analysis No.: 5302 Total Depth_____ and No._____
Date Analyzed: 6-12-40
Analyst: B. T. Rolufs
Collector: F. C. Greene, 5-26-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	NV
Total Dissolved Solids	3100.0	
Loss on Ignition	94.0	
Chloride Radicle (Cl)	973.2	27.44
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	585.8	12.18
Bi-Carbonate Radicle (HCO_3)	618.8	10.15
Carbonate Radicle (CO_3)	19.4	.65
Sodium (Na) Potassium (K) as Na	1120.4	48.74
Magnesium (Mg)	4.1	.34
Iron (Fe)	ND	
Manganese (Mn)	ND	
Silica (SiO_2)	10.0	
Calcium (Ca)	11.8	.88
Total Hardness	45.8	
Carbonate Hardness	45.8	
Alkalinity	525.5	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	1.20	

Remarks: This sample from 1445-1450 ft. - Cherokee

Copies to:
F. C. Greene
Joe Nathan

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Grinn - Decker #1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well, surface to 1050 ft.
Analysis No.: 3299 Total Depth_____ and No._____
Date Analyzed: 6-12-40
Analyst: R. T. Rolufs
Collector: F. C. Greene

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	824.0	HV
Loss on Ignition	101.0	
Chloride Radicle (Cl)	157.6	4.44
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	118.7	2.47
Bi-Carbonate Radicle (HCO_3)	595.1	8.48
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	186.8	8.08
Magnesium (Mg)	18.6	1.58
Iron (Fe)	ND	
Manganese (Mn)	ND	
Silica (SiO_2)	27.6	
Calcium (Ca)	57.4	2.86
Total Hardness	219.8	
Carbonate Hardness	219.8	
Alkalinity	324.0	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 & Fe_2O_3	3.20	

Remarks: This sample from surface to 1050 ft. Probably mostly Pleistocene (PCG)

Copies to:
F. C. Greene
Joe Nathan

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Erin - Decker #1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well, 1445-1594 ft.
Analysis No.: 8318 Total Depth_____ and No._____
Date Analyzed: 7-16-40
Analyst: R. T. Holuta
Collector: F. C. Greene

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	8088.0	RV
Loss on Ignition	175.0	
Chloride Radicle (Cl)	923.5	26.18
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	586.6	12.20
Bi-Carbonate Radicle (HCO_3)	600.4	9.85
Carbonate Radicle (CO_3)	27.7	.92
Sodium (Na) Potassium (K) as Na	1095.2	47.64
Magnesium (Mg)	5.5	.45
Iron (Fe)	ND	
Manganese (Mn)	------	
Silica (SiO_2)	4.8	
Calcium (Ca)	~~9.8~~ 9.4	.47
Total Hardness	46.1	
Carbonate Hardness	46.1	
Alkalinity	615.4	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	.60	

Remarks: This sample from 1445-1594 ft. Sand 1445-1594 ft. Lower Cherokee

Copies to:

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Brin - Decker #1
Location: Geo. 1, T. 61, R. 38
Source: Drilling well, 1882-1892
Analysis No.: 3314 Total Depth_____ and No._____
Date Analyzed: 7-16-40
Analyst: R. T. Rolufs
Collector: F. C. Greene, 6-24-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	3312.0	EV
Loss on Ignition	197.0	
Chloride Radicle (Cl)	941.9	26.56
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	571.8	11.89
Bi-Carbonate Radicle (HCO_3)	970.1	15.91
Carbonate Radicle (CO_3)	12.4	.41
Sodium (Na) Potassium (K) as Na	1228.2	53.43
Magnesium (Mg)	6.4	.44
Iron (Fe)	ND	
Manganese (Mn)	------	
Silica (SiO_2)	6.8	
Calcium (Ca)	13.1	.65
Total Hardness	54.9	
Carbonate Hardness	54.9	
Alkalinity	805.8	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	1.20	

Remarks: This sample from 1882-1892 ft. (Ste. Genevieve)

Copies to:

27-F-29

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Brin. Decker #1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well, 2029-2033 ft.
Analysis No.: 3333 Total Depth_____ and No._____
Date Analyzed: 7-29-40
Analyst: R. T. Rolufs
Collector:

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	3687.0	RV
Loss on Ignition	111.0	
Chloride Radicle (Cl)	1254.4	35.37
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	645.2	13.42
Bi-Carbonate Radicle (HCO_3)	696.0	11.41
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1319.3	57.40
Magnesium (Mg)	9.3	.76
Iron (Fe)	ND	
Manganese (Mn)	------	
Silica (SiO_2)	18.0	
Calcium (Ca)	28.3	1.41
Total Hardness	108.9	
Carbonate Hardness	108.9	
Alkalinity	570.7	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	3.60	

Remarks: This sample from 2029 - 2033 ft. Sulphur water.

Copies to: Joe Nathan
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan & Brin, Decker #1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well, 2255-2256ft.
Analysis No.: 3334 Total Depth_____ and No._____
Date Analyzed: 7-29-40
Analyst: R. T. Rolufs
Collector: H. S. McQueen, 7-16-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	3353.0	EV
Loss on Ignition	106.0	
Chloride Radicle (Cl)	1160.6	32.73
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	581.0	12.08
Bi-Carbonate Radicle (HCO_3)	558.2	9.15
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1232.1	53.60
Magnesium (Mg)	7.8	.64
Iron (Fe)	ND	
Manganese (Mn)	-------	
Silica (SiO_2)	8.0	
Calcium (Ca)	21.1	1.05
Total Hardness	84.7	
Carbonate Hardness	84.7	
Alkalinity	477.4	
Precipitated Iron (Ppt. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	1.20	

Remarks: This sample from 2255-2256. Water at 2250-2255 ft.
Temperature 102 degrees Fahrenheit
6" pipe set at 2220 Hole was dry to 2250 ft.

Copies to:
Joe Nathan
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: Holt
Owner: Nathan and Brin - Decker #1
Location: Sec. 1, T. 61, R. 38
Source: Drilling well 2308
Analysis No.: 3345 Total Depth_____ and No._____
Date Analyzed: 8-6-40
Analyst: R. T. Rolufs
Collector: H. S. McQueen

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	3082.0	RV
Loss on Ignition	175.0	
Chloride Radicle (Cl)	531.2	14.98
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	1246.6	25.93
Bi-Carbonate Radicle (HCO_3)	330.4	5.42
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	827.7	36.00
Magnesium (Mg)	50.6	4.16
Iron (Fe)	ND	
Manganese (Mn)	------	
Silica (SiO_2)	12.8	
Calcium (Ca)	101.7	5.07
Total Hardness	462.5	
Carbonate Hardness	270.9	
Alkalinity	270.9	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	1.60	

This sample off bottom at 2308 ft.

Remarks:

Copies to:
Joe Nathan
F. C. Greene

cc: fog

27-T-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY Holt LOG NUMBER 7287

COMPANY OR OWNER Brin & Nathan

FARM Decker WELL NO. 2

LOCATION NW NW SEC. 1 T. 61N R. 38W

CONTRACTOR Garetson - Knisely Co

DRILLER TOOL DR.

COMMENCED 4/5/41 COMPLETED

PRODUCTION PLOTTED Yes

CASING RECORD Surface pipe set at 215
7 3/8" hole to be drilled

WATER RECORD

SOURCE OF LOG 291 samples

REMARKS 100 yds NW of #1

ELEV. 1080.1 Gr 1081.6 DF PT Sid

TOTAL DEPTH

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
No Samples	75	75			
Glacial Drift	155	230	1082		
Shawnee	180	410	230		
Pedee - Douglas	215	625	852		
Kansas City - Lansing	315	940			
Henrietta - Pleasanton	205	1145	2185		
Cherokee	755	1900	1900		
St. Louis	40	1940			
Spergen	50	1990	285		
Warsaw	30	2020			
Burlington - Keokuk	105	2125			
Chouteau	60	2185			
Kinderhook	80	2265			
Devonian	159	2424			
Cored	2308	2324	shale at top, hard brown lime in bottom 4'		
"	2324	2336	hard brown lime - no porosity		
"	2336	2344	" " " "		4/28/41
		TD	2424 Oil weakly		
			5/10/41		