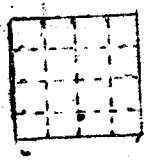
county Dekalb



sec 18 twp 59 rge 32

owner Lawhon et al

elev 1050 MGS [redacted] 6276 spl

farm Gottschall No. 1-B TD 2422 fm [redacted] Jeff. City TD shows none

status date completed 1940

remarks: 48' W of #1 (Lost hole)

00022
~~00003~~

Willman
WI 004

copy

27-F-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY DeKalb LOG NUMBER 6276

COMPANY OR OWNER Willman - Lawhon et al

FARM Gottschall WELL NO. 1B

LOCATION SEC. 18 T. 59 R. 32

CONTRACTOR

DRILLER TOOL DR.

COMMENCED 6/14/40 COMPLETED 8/21/40

PRODUCTION PLOTTED

CASING RECORD

WATER RECORD

SOURCE OF LOG 308 samples

REMARKS

ELEV. 1048

TOTAL DEPTH 2422

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Glacial Drift	95	95			
No Samples	30	125			
Pedee	65	190			
Lansing	110	300			
Kansas City	167	467			
No Samples	12	479			
Pleasanton	111	590			
Henrietta	95	685			
Cherokee	642	1327			
St. Louis	39	1366			
Spergen or Upper Warsaw	29	1395			
Warsaw	50	1445			
Keokuk-Burlington	123	1568			
Chouteau	63	1631			
Kinderhook	37	1668			
Devonian	382	2050			
Silurian ?	20	2070			
Maquoketa	15	2085			
Kimmswick	223	2308			
Decorah	22	2330			
?	18	2348			
St. Peter	48	2396			
Jefferson City	26	2422 TD			

1328
477
851

1631
1048
583

1631
1327
304

6-25-40

27-F-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY DeKalb LOG NUMBER 6277

COMPANY OR OWNER Lawhon et al

FARM Gottschall WELL NO. 1

LOCATION SEC. 18 T. 59 R. ~~32~~ 32

CONTRACTOR

DRILLER TOOL DR.

COMMENCED COMPLETED

PRODUCTION PLOTTED

CASING RECORD

WATER RECORD

SOURCE OF LOG 19 samples

REMARKS Samples above 656 filed with well #6276

ELEV.

TOTAL DEPTH 841

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Henrietta	24	680			
Cherokee	161	841 TD			

27-F-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY DeKalb LOG NUMBER

COMPANY OR OWNER Lawhorn et al

FARM Gottschall FILE NO. 1A

LOCATION SW NW SE 18 59 3.32

CONTRACTOR Veeder Supply & Dev. Co

DRILLER Lee Busby TOOL DR.

COMMENCED 3/27/40 COMPLETED

PRODUCTION PLOTTED

CASING RECORD

WATER RECORD

SOURCE OF LOG Drillers daily reports

REMARKS

ELEV. 1047.4

TOTAL DEPTH

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Soil	0	10	Shale	430	432
Clay	10	80 - 12½	Lime hard	432	450
L. Shale	80	120	Lime	450	469
Blue shale	120	160	Shale	469	472
Blue shale & lime	160	190	Shale L	472	519
Lime	190	217	Shale muddy	519	545
Dark shale	217	220	" "	545	585
Lime	220	243	Shale	585	612
Shale	243	262	"	612	642
Lime	262	273	"	642	656
Shale	273	293			
Lime	301	306			
Shale	306	315			
D. Shale	315	317			
Lime	317	326			
L. Shale	326	340			
Lime	340	348			
Shale	348	371			
Lime	371	380			
Shale	380	387			
Lime	387	423			
Shale dark	423	426			
Shale light	426	430			

Fsg for bed 668 4/10/40

27-F-30

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY Dekalb LOG NUMBER

COMPANY OR OWNER W. Herman & Lawhon

FARM G. H. Schall WELL NO. 1 (Lost hole)

LOCATION SEC. 18 T. 59 R. 32

CONTRACTOR Veeder Supply & Dev Co

DRILLER TOOL DR.

COMMENCED 3/22/40 COMPLETED

PRODUCTION PLOTTED

CASING RECORD

WATER RECORD

SOURCE OF LOG Drillers log book

REMARKS 2600' W - 1375' N of SE cor

ELEV. 1047.45 P Tand

TOTAL DEPTH

CHEM. ANAL. NO.

FORMATION	THICK	DEPTH	FORMATION	THICK	DEPTH
Soil	6	6			
Clay yellow	79	85			
Shale light	100	185			
Lime	58	243			
Shale light	19	262			
Lime	11	273			
Shale	20	301			
Lime	5	306			
Shale	11	317			
Lime	9	326			
L. shale	14	340			
Lime	8	348			
Shale	23	371			
Lime	9	380			
Shale	7	387			
Lime	36	423			
Shale dark	3	426			
Shale light	6	432			
Lime		469			
Shale L		500			
Lime	2	502			
Shale					

JOHN N. WILLMAN, JR.
OIL AND GAS LEASES
ROYALTIES

ST. JOSEPH, MO.

March 27, 1940.

To Whom It May Concern:

This gives to Mr. Frank C. Greene, Assistant State Geologist, authority to handle all questions, relative to testing and any other geological questions that may come up, regardless of nature or character.

We will appreciate your cooperation in regard to same.

Respectfully,

E. H. Lawhon.

E. H. Lawhon.

John N. Willman, Jr.

John N. Willman, Jr.

JNWJr:VS

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb
Owner: Willman - Lawhon et al - Gottschall #1A
Location: Sec. 18, T. 59, R. 32
Source: Well 878-894 and 975-980 (Cherokee)
Analysis No.: 3341 Total Depth_____ and No._____
Date Analyzed: 8-6-40
Analyst: R. T. Rolufs
Collector: F. C. Greene 7-19-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	4449.0	RV
Loss on Ignition	133.0	
Chloride Radicle (Cl)	1839.2	51.88
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	520.5	10.83
Bi-Carbonate Radicle (HCO_3)	513.2	8.42
Carbonate Radicle (CO_3)	12.4	.41
Sodium (Na) Potassium (K) as Na	1518.5	66.05
Magnesium (Mg)	11.9	.98
Iron (Fe)	ND	
Manganese (Mn)	------	
Silica (SiO_2)	2.8	
Calcium (Ca)	26.2	1.31
Total Hardness	114.3	
Carbonate Hardness	114.3	
Alkalinity	431.1	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	1.60	

This sample from 878-894 and 975-980 ft.

Remarks:

Copies to: John N. Willman, Jr.
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb
Owner: Willman - Lawhon et al, Gottschall #1
Location: Sec. 18, T. 59, R. 32
Source: Drilling well, 1096 ft.
Analysis No.: 3340 Total Depth _____ and No. _____
Date Analyzed: 8-6-40
Analyst: R. T. Rolufs
Collector: F. C. Greene 7-23-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid, Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	3383.0	RV
Loss on Ignition	136.0	
Chloride Radicle (Cl)	1406.2	39.65
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	414.8	8.63
Bi-Carbonate Radicle (HCO_3)	378.2	6.20
Carbonate Radicle (CO_3)	9.7	.32
Sodium (Na) Potassium (K) as Na	1218.0	52.98
Magnesium (Mg)	4.4	.36
Iron (Fe)	ND	
Manganese (Mn)	------	
Silica (SiO_2)	2.0	
Calcium (Ca)	11.6	.58
Total Hardness	47.0	
Carbonate Hardness	47.0	
Alkalinity	318.2	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	2.00	

Remarks: This sample from 1096 ft. Sample was bailed when well was in water sand topped at 1065 but as upper waters were not cased off this is a mixed sample but probably mostly from lower sand.

Copies to: John N. Willman, Jr.
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb
Owner: Willman - Lawhon et al - Gottschall #1B
Location: Sec. 18, T. 59, R. 32
Source: Drilling well 1545-1548 #1B
Analysis No.: 3356 Total Depth_____ and No._____
Date Analyzed: 8-15-40
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	3699.0
Loss on Ignition	209.0
Chloride Radicle (Cl)	685.6
Nitrate Radicle (NO_3)	ND
Sulphate (SO_4)	1552.8
Bi-Carbonate Radicle (HCO_3)	210.9
Carbonate Radicle (CO_3)	00
Sodium (Na) Potassium (K) as Na	860.8
Magnesium (Mg)	83.3
Iron (Fe)	ND
Manganese (Mn)	----
Silica (SiO_2)	12.0
Calcium (Ca)	206.4
Total Hardness	857.5
Carbonate Hardness	172.9
Alkalinity	172.9
Precipitated Iron (Pp't. Fe.)	ND
Temporary Hardness	ND
Al_2O_3 & Fe_2O_3	.40

Remarks: This sample from 1545-1548 - #1B Miss. lime
4 bailers per hour

Copies to: John N. Willman
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb
Owner: Willman-Lawhon et al - Gottschall #1B
Location: Sec. 18, T. 59, R. 32
Source: Drilling well 1602-1609 ft. #1B
Analysis No.: 3357 Total Depth _____ and No. _____
Date Analyzed: 8-15-40
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	5270.0	RV
Loss on Ignition	366.0	
Chloride Radicle (Cl)	901.4	25.42
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	2198.9	45.74
Bi-Carbonate Radicle (HCO_3)	330.4	5.41
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1188.1	51.68
Magnesium (Mg)	112.0	9.21
Iron (Fe)	ND	
Manganese (Mn)	----	
Silica (SiO_2)	15.6	
Calcium (Ca)	331.4	16.54
Total Hardness	1287.7	
Carbonate Hardness	270.9	
Alkalinity	270.9	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 & Fe_2O_3	4.00	

Remarks: This sample from 1602-1609 ft. #1B From Miss. Lime
3 bailers per hour.

Copies to: John N. Willman
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb
Owner: Willman-Lawhon et al - Gottschall #1B
Location: Sec. 18, T. 59, R. 32
Source: Drilling well 1730 ft. (Hunton)
Analysis No.: 3358 Total Depth _____ and No. _____
Date Analyzed: 8-15-40
Analyst: R. T. Rolufs
Collector: F. C. Greene 8-5-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	5211.0	RV
Loss on Ignition	296.0	
Chloride Radicle (Cl)	896.7	25.29
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	2215.5	46.08
Bi-Carbonate Radicle (HCO_3)	323.4	5.30
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1168.4	50.83
Magnesium (Mg)	110.4	9.07
Iron (Fe)	ND	
Manganese (Mn)	---	
Silica (SiO_2)	9.2	
Calcium (Ca)	332.8	16.61
Total Hardness	1284.6	
Carbonate Hardness	265.2	
Alkalinity	265.2	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	2.00	

Remarks: This sample from 1730 ft. (Hunton)

Copies to: John N. Willman
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb
Owner: Willman-Lawhon et al - Gottschall #1
Location: Sec. 18, T. 59, R. 32
Source: Drilling well 1842-1851 (Hunton)
Analysis No.: 3369 Total Depth _____ and No. _____
Date Analyzed: 9-13-40
Analyst: R. T. Rolufs
Collector: F. C. Greene 8-7-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	5165.0	RV
Loss on Ignition	249.0	
Chloride Radicle (Cl)	939.0	26.48
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	2188.2	45.51
Bi-Carbonate Radicle (HCO_3)	348.7	5.72
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1173.1	51.03
Magnesium (Mg)	117.0	9.62
Iron (Fe)	ND	
Manganese (Mn)	-----	
Silica (SiO_2)	.80	
Calcium (Ca)	313.2	15.63
Total Hardness	1262.7	
Carbonate Hardness	285.9	
Alkalinity	285.9	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	1.20	

Remarks: This sample from 1842 to 1851 (Hunton)

Copies to: John N. Willman, Jr.
F. C. Greene

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb

Owner: Willman-Lawhon et al - Gottschall #1B

Location: Sec. 18, T. 59, R. 32

Source: Drilling well 2244 ft. (Hunton(

Analysis No.: 3370 Total Depth _____ and No. _____

Date Analyzed: 9-13-40

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	4957.0	RV
Loss on Ignition	297.0	
Chloride Radicle (Cl)	990.6	27.93
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	2052.2	42.69
Bi-Carbonate Radicle (HCO_3)	147.6	2.42
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1270.7	55.28
Magnesium (Mg)	121.1	9.95
Iron (Fe)	ND	
Manganese (Mn)	-----	
Silica (SiO_2)	.80	
Calcium (Ca)	191.1	9.54
Total Hardness	974.3	
Carbonate Hardness	121.0	
Alkalinity	121.0	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 / Fe_2O_3	2.40	

On card: "Top of water standing at 300 ft. Bottom of hole 2244"

Remarks: On sheet Greene says: "Bailed when 2244 ft. - Hunton"

John N. Willman, Jr.
F. C. Greene

Copies to:

27-F-29

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb

Owner: Willman - Lawhon et al - Gottschall #1B

Location: Sec. 18, T. 59, R. 32

Source: Drilling Well, 2250 ft.

Analysis No.: 3371 Total Depth _____ and No. _____

Date Analyzed: 9-13-40

Analyst: R. T. Rolufs

Collector: F. C. Greene, 8-19-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	5040.0	RV
Loss on Ignition	306.0	
Chloride Radicle (Cl)	1028.2	29.00
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	2095.6	43.59
Bi-Carbonate Radicle (HCO_3)	147.6	2.42
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1205.4	52.43
Magnesium (Mg)	127.3	10.46
Iron (Fe)	ND	
Manganese (Mn)	-----	
Silica (SiO_2)	.80	
Calcium (Ca)	198.4	9.90
Total Hardness	1017.9	
Carbonate Hardness	121.0	
Alkalinity	121.0	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	3.20	

Remarks: This sample Bailed from 2250 ft.

John N. Willman, Jr.
F. C. Green

Copies to:

27-F-29

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb

Owner: Willman - Lawhon et al - Gottschall #1

Location: Sec. 18, T. 59, R. 32

Source: Drilling well, 2332-2396 ft.

Analysis No.: 3372 Total Depth _____ and No. _____

Date Analyzed: 9-13-40

Analyst: R. T. Rolufs

Collector: F. C. Greene, 8-21-40

CONSTITUENTS:	IN PARTS PER MILLION	
Turbidity	Turbid - Bailer Sample	
Color	None	
Odor	ND	
Total Suspended Solids	ND	
Total Dissolved Solids	6468.0	RV
Loss on Ignition	340.0	
Chloride Radicle (Cl)	2234.8	63.02
Nitrate Radicle (NO_3)	ND	
Sulphate (SO_4)	1533.2	31.89
Bi-Carbonate Radicle (HCO_3)	265.7	4.36
Carbonate Radicle (CO_3)	00	
Sodium (Na) Potassium (K) as Na	1856.8	80.77
Magnesium (Mg)	134.3	11.04
Iron (Fe)	ND	
Manganese (Mn)	------	
Silica (SiO_2)	7.6	
Calcium (Ca)	182.4	9.10
Total Hardness	1006.6	
Carbonate Hardness	217.9	
Alkalinity	217.9	
Precipitated Iron (Pp't. Fe.)	ND	
Temporary Hardness	ND	
Al_2O_3 + Fe_2O_3	1.60	

Remarks: This sample from 2332-2396 ft. (St. Peter)

John N. Willman, Jr.
F. C. Greene

Copies to:

27-F-29

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

County: DeKalb

Owner: Willman - Lawhon et al - Gottschall #1

Location: Sec. 18, T. 59, R. 32

Source: Well, 2422 ft.

Analysis No.: 3373 Total Depth 2422 and No. _____

Date Analyzed: 9-13-40

Analyst: R. T. Rolufs

Collector: F. C. Greene, 8-21-40

CONSTITUENTS:	IN PARTS PER MILLION
Turbidity	Turbid - Bailer Sample
Color	None
Odor	ND
Total Suspended Solids	ND
Total Dissolved Solids	18617.0
Loss on Ignition	2646.0
Chloride Radicle (Cl)	8188.1
Nitrate Radicle (NO_3)	ND
Sulphate (SO_4)	1690.9
Bi-Carbonate Radicle (HCO_3)	198.2
Carbonate Radicle (CO_3)	00
Sodium (Na) Potassium (K) as Na	4863.2
Magnesium (Mg)	393.6
Iron (Fe)	ND
Manganese (Mn)	----
Silica (SiO_2)	9.6
Calcium (Ca)	632.2
Total Hardness	3194.3
Carbonate Hardness	162.5
Alkalinity	162.5
Precipitated Iron (Pp't. Fe.)	ND
Temporary Hardness	nd
Al_2O_3 + Fe_2O_3	6.00

Remarks: Sample bailed from bottom of hole in Arbuckle at 2422 ft.
SWL 279 ft. at TD

John N. Willman, Jr.
F. C. Greene