

Computer Inventoried

WENDELL S. JOHNS

FORMATION LOG

Stickle #1 Green
SE SE SE; 4-23S-13W,
Stafford County, Kansas,
Elevation: 1877 Kelly Bushing

8 5/8" Casing 289'
Comm: 3-4-56
Comp: 3-14-56

Note: All measurements are from the top of the Kelly bushing.

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|--|---------------------------------|
| 0 - 150 | Sand | Drillers log 0-3000' |
| 150 - 291 | Shale | |
| 291 - 870 | Red bed, sand and shale | |
| 870 - 910 | Shale and shells | |
| 910 - 940 | Anhydrite | Stone Corral; drillers top |
| 940 - 1595 | Shale and shells | |
| 1595 - 1675 | Limestone | |
| 1675 - 2075 | Limestone and shale | |
| 2075 - 2195 | Limestone | |
| 2195 - 2250 | Limestone and shale | |
| 2250 - 2400 | Shale and shells | |
| 2400 - 2550 | Shale and limestone | |
| 2550 - 2715 | Limestone and shale | |
| 2715 - 2905 | Shale and shells | |
| 2905 - 3000 | Limestone and shale | |
| 3000 - 06 | Limestone, tan to gray, subcrystalline | Sample log 3000' to Total Depth |
| 3006 - 14 | Limestone, gray to buff, oolitic and fossiliferous, sucrose to subcrystalline; good vugular porosity | No show |
| 3014 - 19 | Limestone and dark gray shale streaks | |
| 3019 - 32 | Limestone, porous, as above | No show |
| 3032 - 42 | Limestone and dark gray shale streaks | |
| 3042 - 47 | Limestone, cream, subcrystalline, earthy, oolitic; good oolitic porosity | No show |
| 3047 - 55 | Shaly limestone, as above | |
| 3055 - 58 | Limestone, porous, as above | No show |
| 3058 - 64 | Limestone, gray to buff, subcrystalline | |
| 3064 - 74 | Limestone, porous, as above | |
| 3074 - 3104 | Limestone, tan to gray, subcrystalline to dense, chert, white to clear, mottled, chalcedonic; porous 3088-92 | No show |
| 3104 - 40 | Limestone, cream to gray, subcrystalline to finely sucrose, | No show |

-2- Formation Log: Stickle #1 Green.

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks.</u> |
|--------------|--|---------------------|
| | dolomitic; chert, gray, sub-vitreous, opaque, figured; some gray, subcrystalline, silicified limestone; spotted good pinpoint and vugular porosity | |
| 3140 - 3143 | Shale, gray-black | |
| 3143 - 48 | Limestone, as above, non-porous | |
| 3148 - 52 | Shale, as above | |
| 3152 - 81 | Limestone, gray, subcrystalline, crypto-oolitic, dolomitic; spotted pinpoint and oolitic porosity; streaks shaly limestone 3164-66 and 3175-81 | No show |
| 3181 - 3206 | Limestone, porous, as above; dolomite, tan, finely sucrose; fair vugular porosity | No show |
| 3206 - 24 | Limestone, tan to gray, subcrystalline, fossiliferous, shaly | |
| 3224 - 34 | Dolomite, tan to brown, finely sucrose; fair vugular porosity | No show |
| 3234 - 52 | Limestone, tan to gray-brown, dense | |
| 3252 - 76 | Limestone, tan to gray, subcrystalline, some slightly dolomitic; porous 3252-70 | No show |
| 3276 - 81 | Shale, brown to brown-black, soft; seams of white subcrystalline limestone | Heebner |
| 3281 - 86 | Limestone, gray to tan, subcrystalline | Leavenworth |
| 3286 - 95 | Shale, gray to gray-green, earthy | Snyderville |
| 3295 - 3312 | Limestone, cream, subcrystalline; shaly 3300-05 | Toronto |
| 3312 - 3412 | Shale, gray, to gray-green, finely micaceous; thin inter-fingered streaks fine to sub-medium gray, silty sand | Douglas |
| 3412 - 20 | Limestone, brown, dense, resinous, fossiliferous | Top Brown Lime 3412 |
| 3420 - 25 | Shale, gray | |
| 3425 - 30 | Limestone, as above | |
| 3430 - 33 | Shale, gray | |

-3- Formation Log: Stickle #1 Green.

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|--|---|
| 3433 - 3456 | Limestone, tan to cream, subcrystalline, fossiliferous; shale, brown to gray | Top Lansing 3433 |
| 3456 - 60 | Limestone, cream, finely sucrose to finely crystalline; spotted vugular porosity | Scattered staining, no free oil. |
| 3460 - 97 | Limestone, tan to gray, subcrystalline, earthy, fossiliferous; streaks gray shale | |
| 3497 - 3504 | Limestone, cream, subcrystalline, chalky; spotted vugular porosity | Trace stain; no odor or free oil |
| 3504 - 16 | Limestone, cream to light gray, dense; streaks gray shale | |
| 3516 - 20 | Limestone, light brown, finely crystalline, resinous, oolitic; spotted oolitic porosity, poor permeability | No show |
| 3520 - 36 | Limestone, light gray to buff, dense, fossiliferous | |
| 3536 - 37 | Shale, gray-brown | |
| 3537 - 43 | Limestone, brown, sucrose, oolitic; spotted good oolitic porosity | No show |
| 3543 - 53 | Limestone, buff, subcrystalline to tan, dense; chert, tan, subvitreous, opaque; streaks brown shale | |
| 3553 - 60 | Limestone, tan to buff, sucrose, oolitic; fair oolitic porosity; streak gray-brown shale 3555-57 | Slight to fair spotted show free oil, good odor; D.S.T. |
| 3560 - 73 | Limestone, brown, dense, resinous, fossiliferous; shaly toward bottom | |
| 3573 - 79 | Limestone, cream, subcrystalline; spotted pinpoint porosity | Trace light stain, no free oil |
| 3579 - 91 | Limestone, tan, subcrystalline, fossiliferous; streaks gray shale toward bottom | |
| 3591 - 96 | Limestone, cream to gray, subcrystalline, very fossiliferous; good spotted vugular porosity | Fair spotted show dark asphaltic free oil, no odor |

-4- Formation Log: Stickle #1 Green.

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|---|---|
| 3596 - 3600 | Limestone, cream to tan, subcrystalline, fossiliferous | |
| 3600 - 04 | Limestone, porous, as above | Fair show dark free oil, slight odor |
| 3604 - 23 | Limestone, tan, dense to subcrystalline; trace tan, subvitreous, opaque chert; streak gray shale 3616-19 | |
| 3623 - 26 | Limestone, tan to cream, mottled, subcrystalline; spotted poor vugular and pinpoint porosity | Slight stain |
| 3626 - 62 | Limestone, cream to gray, subcrystalline to dense, streak dark gray shale 3647-51 | Base Kansas City 3662 |
| 3662 - 70 | Shale, gray to pale green to brown | Top Marmaton 3662 |
| 3670 - 75 | Limestone, tan to salmon, dense, lithographic | |
| 3675 - 89 | Shale, as above, some maroon shale | |
| 3689 - 3713 | Limestone, as above, some tan to black, dense limestone; chert, salmon to flesh, subvitreous, opaque; streaks shale 3694-96 and 2698-3700 | |
| 3713 - 17 | Shale, as above | |
| 3717 - 30 | Limestone, tan, salmon, gray-green, subcrystalline, fossiliferous; much light gray silicified limestone; much chert, as above | |
| 3730 - 53 | Shale, red-brown, maroon and gray-green; much chert, as above; some red, opaque, subvitreous, jasperoid chert; much cream, subvitreous, opaque chert | Conglomerate |
| 3753 - 99 | Chert, white, opaque, vitreous to devitrified; chert, white, cream, tan, and salmon, subvitreous, semitranslucent to opaque; chert, white and brown to black and white, devitrified; some gray-green shale streaks; some tan, finely sucrose, silicified dolomite | Top Viola 3753; fair spotted show free oil, no odor; D.S.T. |

-5- Formation Log: Stickle #1 Green.

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|--|---|
| 3799 - 3819 | Shale, gray-green to dark green, earthy; some thin interfingered streaks gray, medium to coarse, subangular sand | Top Simpson 3799 |
| 3819 - 25 | Sand, clear, medium to coarse, subangular, very shaly | Some light staining no free oil |
| 3825 - 48 | Shale and sand streaks as above | |
| 3848 - 50, | Dolomite, cream to tan, sub-crystalline to very finely sucrose | Top Arbuckle 3848 |
| 3850 - 55 | Dolomite, cream to gray, medium crystalline, rhombohedral; fair vugular porosity | Fair show free oil, good odor; D.S.T. |
| 3855 | Total Depth | |

Ran electric log 3-14-56

Dry and abandoned 3-14-56

Drill Stem Test Data:

Lansing-Kansas City:

D.S.T. #1 3551-65; open 30 minutes - weak blow which died in 2 minutes, flushed tool and again had weak blow which died in 3 minutes.
Recovered 2' mud.
Initial Closed In Pressure: 0 p.s.i. (30 min.).

Viola:

D.S.T. #2 3753-85; open 1 hour - small blow which died in 38 minutes, flushed tool and had weak blow for 8 minutes. While flushing tool, packer pulled loose before tool was closed, thus accounting for a large part of the recovery.
Recovered 190' mud.
Initial Flow Pressure: 12 p.s.i.
Final Flow Pressure: 130 p.s.i.
Closed in Pressure: 770 p.s.i. (20 min.).

Arbuckle:

D.S.T. #3 3848-55; open 1 hour - good blow throughout test.
Recovered 310' sulphur water.
Initial Closed In Pressure: 1400 p.s.i. (30 min.).

-6- Formation Log: Stickle #1 Green.

Drill Stem Test Data (Contd.).

Arbuckle D.S.T. #3 Contd:

Initial Flow Pressure: 25 p.s.i.
Final Flow Pressure: 150 p.s.i.
Final Closed In Pressure: 1145 p.s.i. (20 min.).

Samples examined and log compiled by

Willis Jack Magathan

WENDELL S. JOHNS

TIME LOG

Stickle Drilling Company, #1 Green,
SE SE SE; 4-23S-13W,
Stafford County, Kansas.
Elevation: 1877 Kelly Bushing.

Note: All measurements are from the top of the Kelly Bushing.

| <u>Depth</u> | <u>Time</u> | <u>Remarks</u> |
|--------------|----------------------|------------------|
| 3000 - 3010 | 4-4-5-2-4-4-3-2-1-1 | |
| 3010 - 20 | 2-1-1-1-2-2-2-2-2-1 | |
| 3020 - 30 | 2-1-2-2-4-3-3-2-1-1 | |
| 3030 - 40 | 1-1-2-2-4-4-4-3-2-2 | |
| 3040 - 50 | 5-3-2-2-2-2-1-2-2-2 | |
| 3050 - 60 | 3-3-3-4-3-3-2-2-3-4 | Trip 3055; OWV |
| 3060 - 70 | 3-4-3-4-2-2-2-1-2-2 | |
| 3070 - 80 | 2-2-3-2-4-4-3-4-3-3 | |
| 3080 - 90 | 4-5-4-3-3-3-2-4-3-3 | |
| 3090 - 3100 | 3-4-4-4-4-4-4-6-5-5 | |
| 3100 - 10 | 4-3-3-2-1-1-2-2-2-2 | |
| 3110 - 20 | 2-2-2-2-1-1-2-2-3-3 | |
| 3120 - 30 | 5-4-4-2-3-4-3-2-3-2 | |
| 3130 - 40 | 2-2-2-2-2-2-2-2-2-2 | |
| 3140 - 50 | 4-4-4-4-3-3-7-7-4-3 | |
| 3150 - 60 | 4-3-3-3-3-3-3-3-4-4 | |
| 3160 - 70 | 3-4-4-4-3-4-4-4-3-2 | |
| 3170 - 80 | 2-3-1-2-2-3-3-3-2-2 | |
| 3180 - 90 | 2-2-2-2-2-2-2-2-2-2 | |
| 3190 - 3200 | 1-2-2-2-2-2-3-3-2-2 | |
| 3200 - 10 | 2-3-2-2-2-2-5-5-5-4 | |
| 3210 - 20 | 3-3-3-4-5-5-5-5-6-6 | |
| 3220 - 30 | 6-6-6-6-5-5-5-4-4-4 | |
| 3230 - 40 | 4-5-5-5-6-6-8-7-7-7 | |
| 3240 - 50 | 8-7-7-6-7-7-7-7-7-6 | |
| 3250 - 60 | 5-5-4-4-4-4-5-5-5-4 | |
| 3260 - 70 | 5-4-5-5-5-5-4-5-4-4 | |
| 3270 - 80 | 5-6-5-5-5-4-3-3-2-2 | Top Heebner 3276 |
| 3280 - 90 | 4-X-10-8-6-5-5-3-2-3 | |
| 3290 - 3300 | 3-3-4-3-5-9-4-5-3-4 | |
| 3300 - 10 | 4-4-5-5-6-7-4-4-5-6 | |
| 3310 - 20 | 7-2-3-2-2-3-5-4-2-2 | |
| 3320 - 30 | 2-3-3-4-3-3-4-3-5-4 | |
| 3330 - 40 | 3-3-4-3-3-3-3-3-4-4 | |
| 3340 - 50 | 3-4-2-2-3-4-3-3-3-3 | |

-2- Time Log: Stickle Drilling Company #1 Green.

| <u>Depth</u> | <u>Time</u> | <u>Remarks</u> |
|--------------|-------------------------------|---|
| 3350 - 3360 | 3-4-3-4-3-4-3-5-5-5 | |
| 3360 - 70 | 5-5-5-5-5-5-5-5-5-2 | |
| 3370 - 80 | 2-2-2-2-2-3-3-2-2-3 | |
| 3380 - 90 | 3-3-4-5-5-5-5-2-2-2 | Trip 3385; OWV |
| 3390 - 3400 | 2-2-2-2-1-2-2-2-2-2 | |
| 3400 - 10 | 1-2-2-2+2-3-3-2-2-2 | |
| 3410 - 20 | 4-4-4-3-4-4-4-3-4-4 | Top Brown Lime 3412 |
| 3420 - 30 | 4-4-5-8-8-5-5-5-5-4 | |
| 3430 - 40 | 5-3-2-9-9-4-5-6-9-7 | Top Lansing 3433 |
| 3440 - 50 | 6-5-7-9-6-5-4-4-10-10 | |
| 3450 - 60 | 8-7-7-9-7-9-5-4-4-6 | |
| 3460 - 70 | 8-5-4-4-7-8-6-4-4-4 | Circ. 1 Hr. 3461 |
| 3470 - 80 | 5-5-6-5-5-5-5-7-7-5 | |
| 3480 - 90 | 4-6-6-7-7-6-4-4-4-5 | |
| 3490 - 3500 | 4-5-6-5-5-4-4-5-5-6 | |
| 3500 - 10 | 4-4-5-6-9-9-10-8-9-9 | |
| 3510 - 20 | 8-9-8-7-4-3-2-3-2-2 | |
| 3520 - 30 | 7-8-9-10-7-8-8-7-7-9 | Circ. 1 Hr. 3523 |
| 3530 - 40 | 7-9-9-9-10-5-6-7-8-9 | |
| 3540 - 50 | 10-7-7-11-8-7-7-10-9-8 | |
| 3550 - 60 | 11-10-10-10-5-3-3-4-3-3 | |
| 3560 - 70 | 5-9-8-9-10-8-8-7-8-10 | Circ. 1 Hr. 3565 D.S.T. 3551-65 New W7 @ 3565 |
| 3570 - 80 | 9-4-4-5-5-4-5-5-7-8 | |
| 3580 - 90 | 6-7-8-7-8-5-6-6-6-5 | |
| 3590 - 3600 | 4-5-6-6-6-5-6-5-6-5 | |
| 3600 - 10 | 5-4-4-5-7-5-6-7-7-8 | Circ. 1 Hr. 3605 |
| 3610 - 20 | 8-6-7-6-6-6-4-3-3-4 | |
| 3620 - 30 | 5-5-5-4-4-5-6-7-8-11 | Circ. 1 Hr. 3622 |
| 3630 - 40 | 8-8-7-8-7-7-7-9-7-7 | |
| 3640 - 50 | 6-7-9-9-6-8-8-5-3-4 | |
| 3650 - 60 | 3-5-5-4-5-5-5-7-6-9 | |
| 3660 - 70 | 10-9-8-5-7-5-6-8-5-5 | Base Kansas City 3662 Top Marmaton 3662 |
| 3670 - 80 | 5-7-7-7-6-4-4-4-4-4 | |
| 3680 - 90 | 4-4-4-4-4-4-4-4-4-5 | |
| 3690 - 3700 | 7-6-7-6-6-6-7-8-7-7 | |
| 3700 - 10 | 8-9-9-11-13-13-13-12-13-13 | |
| 3710 - 20 | 12-10-8-8-8-8-8-10-13-16 | |
| 3720 - 30 | 14-14-11-10-12-13-13-11-11-11 | Top Conglomerate 3730 |
| 3730 - 40 | 10-8-7-8-8-8-8-7-7-7 | |
| 3740 - 50 | 7-6-7-5-5-6-6-7-8-8 | |
| 3750 - 60 | 10-11-11-10-7-6-8-7-6-5 | Top Viola 3753 |
| 3760 - 70 | 5-5-6-7-6-5-6-7-6-6 | |

-3- Time Log: Stickle Drilling Company, #1 Green.

| <u>Depth</u> | <u>Time</u> | <u>Remarks</u> |
|--------------|-----------------------|---|
| 3770 - 3780 | 7-6-6-6-6-7-6-5-6-7 | Circ. 1 Hr. 3785 D.S.T. 3753-85 New W7 @ 3785 Top Simpson 3799 |
| 3780 - 90 | 6-6-5-6-6-4-4-4-4-4 | |
| 3790 - 3800 | 4-4-5-5-4-5-4-5-4-6 | Top Arbuckle 3848 Circ. 1 Hr. 3855 D.S.T. 3848-55; T.D. 3855 |
| 3800 - 10 | 7-6-7-8-8-9-8-9-9-8 | |
| 3810 - 20 | 8-8-7-8-9-8-9-8-7-8 | |
| 3820 - 30 | 9-8-8-8-9-7-7-8-8-8 | |
| 3830 - 40 | 9-10-10-8-9-9-8-8-8-6 | |
| 3840 - 50 | 6-7-7-5-7-7-7-9-10-13 | |
| 3850 - 55 | 8-9-9-9-12 | |

Time Log condensed by Johns and Magathan.