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GEOLOGICAL REPORT

Petroleum, Inc.

#1 Adams "O"
150' ESE of SW SE
Sec. 25-34S-31W
Seward County, Kansas

by

WILLIAM R. ATKINSON
Geologist

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GEOLOGICAL REPORT

Petroleum, Inc.
#1 Adams "O"

150' ESE of SW SE
Sec. 25-34S-31W
Seward County, Kansas
Kneeland South Field

Commencement Date: 7/3/67
Completion Date: 7/22/67
Elevation: 2470 K.B.
2468 D.F. by L&S
2462.5 G.L.

Casing:
Surf: 8 5/8" @ 1305'
Prod: 4 1/2" @ 6163'
w/100 sx.

Total Depth:
Driller: 6165
Schlumberger: 6151
Contractors: Garvey Drlg. Co.
Rig #20

Special Equipment:
Baroid Gas Detecting Equip-
ment was in operation from
approximately 3500 to T.D.

Electrical Surveys: Schlumberger Dual-
Induction, Gamma Ray,
Sonic-Caliper and
Amplitude logs

Drilling of this hole was witnessed by the writer and samples examined from approximately 4100 feet to T.D.

One foot drilling time was recorded and plotted from 2400 feet to T.D.

FORMATION TOPS AND STRUCTURAL COMPARISONS

	Petroleum, Inc. #1 Adams "O" 150' ESE of SW SE Sec. 25-34S-31W 2470 K.B.	Columbian Fuel Adams "H" #1 SW SE Sec. 25-34S-31W 2474 K.B. cor- rected elevation	Horizon Adams "A" #1-36 NE NW Sec. 36-34S-31W 2518 K.B.
Krider	2435 (+35)	2445 (+29)	2486 (+32)
Wreford	2808 (-338)	2811 (-337)	2855 (-337)
Council Grove	2860 (-390)	2864 (-390)	2908 (-390)
Toronto	4195 (-1725)	4200 (-1726)	4256 (-1738)
Lansing	4316 (-1846)	4320 (-1846)	4374 (-1856)
Kansas City	4607 (-2137)	4616 (-2142)	4672 (-2154)
Marmaton	5002 (-2532)	5008 (-2534)	5066 (-2548)
Cherokee	5199 (-2729)	5202 (-2728)	5270 (-2752)
Keating Zone	5350 (-2880)	5358 (-2884)	5426 (-2908)
Morrow	5542 (-3072)	5546 (-3072)	5614 (-3096)
Miss. Chester	5686 (-3216)	5694 (-3220)	5772 (-3254)
Miss. Basal Chester Sand	5860 (-3390)	5867 (-3393)	5954 (-3436)

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Eroded Ste.			
Genevieve	5887 (-3417)	5894 (-3420)	5984 (-3466)
Miss. Ste. Genevieve	5906 (-3436)	-----	6002 (-3484)
Miss. St. Louis	5978 (-3508)	-----	6077 (-3559)
Miss. St. Louis			
"B" Zone	6012 (-3542)	-----	6107 (-3589)
"C" Zone	6096 (-3626)	-----	6182 (-3664)
"D" Zone	6131 (-3661)	-----	6230 (-3712)
Total Depth	6151 (-3681)	5910 (-3436)	6258 (-3740)

SAMPLE DESCRIPTIONS & DRILL STEM TESTS

Toronto

- 4195-4203 Gray to brown, crystalline, slightly chalky, nonporous lime.
- 4203-22 White to light gray, crystalline, chalky, fossiliferous lime with pinpoint and small vug porosity. No shows.
- 4230-4240 White limestone as above with fair visable vug porosity. No shows.
- 4247-4258 Gray to buff, fine crystalline, fossiliferous, dolomitic limestone. Trace of vug porosity. No shows.
- 4270-4282 Mottled gray, fossiliferous, medium to coarse crystalline, slightly chalky lime. No visable porosity.
- 4782-4794 Gray, dense to sublithographic slightly chalky lime with white, sharp, opeque, fossiliferous chert.

Lansing

- 4316-4321 White to light gray, medium crystalline, fossiliferous lime with a trace of pinpoint porosity. Some brownish-gray, fine crystalline fossiliferous, slightly dolomitic lime with a trace of small vug porosity. No shows.
- 4321-4336 Gray and tan, dense to medium crystalline, slightly chalky, fossiliferous, slightly cherty lime with white to gray, mottled, fossiliferous, opeque chert. Trace of very small vug porosity from 4328 to 4336. No shows of oil.

A mud gas increase of 17 units of methane was logged from 4328-4336.

Drill Stem Test No. 1 was run to evaluate the above described show.

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D.S.T. #1 4327-4352 = corrected log depths of 4318-4343
 Tool open 10 min, shutin 30 min, open 60 min, shutin 30 min.
 Weak blow throughout test.
 Recovered 60 feet of mud with no shows.

	<u>Field Readings</u>	<u>Office Readings</u>
Flow Pressure	44-44	41-41
Initial Shutin Press.	88	70
Final Shutin Pressure	44	41
Hydrostatic Pressure	2246-2213	2248-2216

- 4354-4360 White, fine crystalline, oolitic lime with good oolitic porosity. No show of oil. Seven units of methane were logged from this interval.
- 4363-4366 Oolitic lime as above. No show of oil. No mud gas increase.
- 4366-4398 White and light gray, dense to fine crystalline, cherty lime with white, oolitic, sharp chert. The intervals shown to be porous by the Sonic log, 4376-4380 and 4384-4391, were logged as being very chalky with no visible porosity.
- 4401-4426 Gray to white, fossiliferous, chalky lime with poorly developed crystallinity. Small vug and crystalline porosity with no show of oil. A mud gas increase of 18 units of methane was logged from this interval. This show was not evaluated by drill stem test, but log calculations indicate the zone to be water bearing. Porosity calculations vary from 10 to 17% with water saturation of 100%.
- 4428-4436 Medium gray, crystalline to very dense chalky lime, no visible porosity, no shows.
- 4436-4444 Tannish-gray, very chalky, fine crystalline, fossiliferous lime. No shows.
- 4444-4453 Gray, dense, chalky lime with buff, translucent, sharp chert.
- 4456-4540 Gray to tannish gray, crystalline, oolitic, chalky lime with streaks of small oolitic porosity. No shows.
- 4540-4558 Gray, tan and brown fine crystalline and dense, very fossiliferous, chalky, oolitic and oolitic lime. No shows.
- 4558-4572 Gray, crystalline to dense, slightly fossiliferous, non-oolitic, tight lime.

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- 4572-4585 Gray, dense to very fine crystalline, chalky lime with small vug porosity. No Shows.
- Kansas City
4607-4612 Buff to gray, fine crystalline, chalky, oolitic and oolitic lime and buff very fine succrosic to crystalline slightly dolomitic lime. No shows.
- 4612-4620 Gray, chalky, fossiliferous, oolitic tight lime. No shows.
- 4633-4644 Gray to buff, fine crystalline lime with fair to good vug, crystalline, and pinpoint porosity. Slightly chalky. Trace of subopecque gray chert. No shows.
- 4644-4674 Buff, brown and gray, dense and crystalline, fossiliferous, oolitic lime with streaks of oolitic porosity. No shows.
- 4674-4842 Light and dark gray and brownish gray, dense to sublithographic, chalky limestones with gray opeque and gray and tan mottled fossiliferous cherts interbedded with gray, black and some red shales. No visable porosity. No shows.
- 4842-4880 Gray to buff, fine crystalline to dense, chalky lime with oolitic porosity. No shows.
- 4880-4910 Gray, fine crystalline to dense, chalky lime as above with scattered streaks of oolitic porosity. No shows.
- 4910-4923 Light gray to buff, very fine crystalline, oolitic and oolitic lime with good oolitic porosity. Pieces which have crystallinity developed in the matrix between the oolitic were well stained with oil, have good fluorescence and good out in carbontetrachloride. A mud gas increase of approximately 10 units of methane was logged from this interval.
- 4923-4988 Mostly gray, dense to very fine crystalline lime with scattered pieces of crystalline lime with good brown oil stain, good fluorescence and out between approximately 4930 and 4950.

Drill stem test no. 2 was run to evaluate the above described show.

D.S.T. #2 4918-4962 = 4908-4952 corrected log depths.
Tool open 10 min, shutin 30 min, open 75 min, shutin 30 min.

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Weak blow increasing to strong.
 Recovered 30 feet of slightly gas cut watery mud and 450
 feet of slightly gas cut muddy water.

	<u>Field Reading</u>	<u>Office Reading</u>
Flow pressure	103-279	101-272
Initial Shutin Press.	1708	1715
Final Shutin Pressure	1687	1683
Hydrostatic Pressure	2338-2327	2341-2330
Rw of recovered water =	.036 @ 112°	

Marmaton

- 5002-5020 Interbedded dark gray, very dense lime and light gray to brown very fine crystalline to dense, chalky lime.
- 5020-5023 Black carbonaceous shale. 7 unit methane gas increase.
- 5023-5034 White to light gray, coarse crystalline, fossiliferous, chalky lime. No visible porosity. No shows.
- 5034-5044 White to light gray, very fine granular, mealy, fossiliferous lime with fair to good light brown oil stain, good fluorescence and cut, good visible pinpoint and small vug porosity. Mud gas increases of 10 units and 25 units of methane gas were logged as coming from 5034-5037 and 5038-5044, respectively.
- 5044-5060 Gray and white, fossiliferous, oolitic, crystalline to dense, nonporous chalky lime.
- 5060-5066 Gray and black shale.

Drill stem test no. 3 was run to evaluate the show described above.

D.S.T. #3 5032-5075 = 5022-5065 corrected log depths. (the interval ordered for this test, 5043-5075 with 32 feet of anchor was inadvertently changed to 5032-5075 with 43 feet of anchor.)

Tool open 10 min., shutin 30 min., open 60 min., shutin 30 min.

Weak blow increasing to strong.
 Recovered 110 feet of slightly oil cut mud (1% oil or less)

	<u>Field Readings</u>	<u>Office Readings</u>
Flow pressures	51-62	64-74

Initial shutin press.	248	230
Final shutin pressure	238	220
Hydrostatic pressure	2474-2464	2475-2467

5066-5114 The top portion of this interval, from 5066 to approximately 5085, was not recovered or was not describable due to very poor samples caused by having only 1/3 to 1/2 partial returns while drilling this interval. Samples from 5085 to 5114 were described as gray, brown and white, crystalline to dense, chalky, fossiliferous, tight lime with mottled, gray, subpeque chert.

5114-5199 White to light gray, fine crystalline, fossiliferous, oolitic, very chalky limestones interbedded with medium to dark gray, fossiliferous, dense cherty limes. Gray and black, sharp, opeque cherts. No visable porosity, no shows.

Cherokee

5199-5202 Black carbonaceous shale.

5202-5292 Medium to dark gray, very dense, chalky, cherty limes with gray and black, mottled, fossiliferous cherts and interveining gray and black shales. No visable porosity, no shows.

5292-5320 Medium gray and brownish gray, crystalline to dense, slightly chalky, tight lime. No porosity, no shows.

5324-5338 Gray and gray-brown, dense to fine crystalline, tight lime. No shows.

Keating Zone

5350-5366 Gray-brown, coarse crystalline, fossiliferous, oolitic, tight lime. No visable porosity in most. One or two pieces with very small vugs. Fair stain, fluorescence and out. No free oil. Thirty units of methane gas was logged as coming from 5358 to 5363.

Because of the poor visable porosity present and the lack of free oil in wet samples from the zone, no drill stem test was run to evaluate this show. Log calculations indicate the presence of 15 1/2% porosity with 24% water saturation. Except for the poor productive history of this zone in the general area, it would appear to warrant further evaluation.

5374-5384 Gray-brown, crystalline to dense, slightly chalky limestone. No visible porosity. No shows.

5384-5542 This interval consisted of interbedded gray and black carbonaceous shales and gray and gray-brown, dense, chalky, cherty, fossiliferous, oolitic limestones with considerable black, sharp, opaque chert in the bottom 30-40 feet. No visible porosity or shows of oil were noted.

Morrow

5572-5583 Light and dark gray-brown, dense, chalky limestone, no porosity, no shows.

5592-5601 Gray to greenish-gray, fine grained, glauconitic, limey quartz sand. Mostly tightly lime cemented. No show of oil, no fluorescence or cut. A maximum mud gas increase of 90 units of methane was logged from this sand.

5610-5619 Quartz sand as above. Limey and tight. No show of oil. 35 units of methane.

5665-5671 White to gray, fine grained, very limey, glauconitic sand or sandy lime. Poor to no visible porosity. No show of oil. 17 units of methane gas.

5675-5680 Gray to buff, coarse crystalline, glauconitic, sandy lime and tight, dirty, shaley, fine grained quartz sand. No visible porosity. No show of oil. 50 units of methane gas.

The Morrow was evaluated by Drill stem test no. 4.

D.S.T. #4 5542-5701 = 5532-5691 corrected log depths.
Tool open 15 min., shutin 30 min., open 90 min., shutin 45 min.

Weak blow increasing to good.
Recovered 160 feet of gas cut mud.

	<u>Field Readings</u>	<u>Office Readings</u>
Flow pressures	78-93	82-103
Initial Shutin press.	207	165
Final Shutin pressure	207	168
Hydrostatic pressure	2770-2759	2773-2762

Chester

5686-5812 This interval consisted of white to light gray, medium

crystalline to dense, chalky, fossiliferous, tight limestones interbedded with gray, black and light gray-green shales. No visible porosity, no shows.

5812-5820 Gray to dark gray, dirty, shaley, limey, tight, fine grained quartz sand. No porosity, no shows.

Basal Chester Sand

5860-5872 Gray, fine grained, tightly lime cemented quartz sand. No visible porosity. Spotted dark oil stain, no free oil. Dull yellow fluorescence, heavy dark cut. 22 units of methane gas.

Due to the poor quality oil show and lack of visible porosity, the above described zone was not drill stem tested.

Eroded Ste. Genevieve

5887-5897 White to gray, very fine crystalline, finely sandy, slightly chalky limestone. No porosity. Interbedded varicolored shales.

Ste. Genevieve

5906-5978 White to light gray, fine crystalline, finely sandy, tight limestone with a few indistinct small micro-oolites. Slightly chalky throughout. No visible porosity. No shows.

St. Louis - "A" Zone

5978-6012 White, light gray, cream to buff, chalky, medium crystalline, nonsandy, cherty limestone with medium sized oolites. Gray and pinkish-gray, subtranslucent, sharp chert. No visible porosity. No shows.

St. Louis "B" Zone

6012-6052 Medium to light gray, to white, crystalline, oolitic lime as above. Slightly chalky, no visible porosity in most. White, light gray and buff, subtranslucent to opaque sharp chert.

A trace of medium gray, weathered, leached, limey chert or silica replaced limestone with vug porosity and good oil stain, good fluorescence and cut was logged as coming from approximately 6012-6018. This interval correlates with the producing interval in the Horizon Oil & Gas Co. #1 Adams "A", located NE NW Sec. 36-34S-31W. The same

type of chert or silica replaced limestone with shows was logged in the subject interval in the Horizon well. In addition to the described chert, crystalline, oolitic lime with good visible porosity and good oil shows was also evident in this interval in the Horizon well. Limestone of this type was not present in the Adams #1-"O".

6052-6054 Black shale.

6054-6070 White to medium gray, crystalline, chalky, oolitic, tight limestone. Hairline fractures with black free oil were the only visible porosity present except for one small piece of very fine crystalline limestone with fair visible porosity and good even brown oil stain, good fluorescence and cut. The pieces with fractures evident displayed good fluorescence and cut. A 10 unit methane gas increase was logged from 6054-6058.

Drill stem test no. 5 was run to evaluate the above described shows.

D.S.T. #5 6012-6080 = 6002-6070 corrected log depths.
Tool open 10 min., shut in 30 min., open 90 min., shut in 45 min.

Strong blow.

Gas to surface in 3 min.

Gas gauged 205 MCF in 5 min.

Gas gauged 255 MCF in 10 min.

Shut in 30 min.

Gas gauged 847 MCF in 5 min. of second flow period.

Gas gauged 802 MCF in 10 min. of second flow period.

Gas gauged 653 MCF in 15 min. of second flow period.

Gas gauged 599 MCF in 20 min. of second flow period.

Gas gauged 571 MCF in 25 min. of second flow period.

Gas gauged 542 MCF in 30 min. of second flow period.

Gas gauged 415 MCF in 35 min. of second flow period.

Gas gauged 400 MCF in 40 min. of second flow period.

Gas gauged 385 MCF in 45 min. of second flow period.

Gas gauged 360 MCF in 50 min. of second flow period.

Gas gauged 353 MCF in 55 min. of second flow period.

Gas gauged 336 MCF in 60 min. of second flow period.

Gas gauged 336 MCF in 65 min. of second flow period.

Gas gauged 319 MCF in 70 min. of second flow period.

Gas gauged 319 MCF in 75 min. of second flow period.

Gas gauged 301 MCF in 80 min. of second flow period.

Gas gauged 301 MCF in 85 min. of second flow period.

Gas gauged 301 MCF in 90 min. of second flow period.

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Recovered 860 feet of heavily gas out oil. 39° gravity
at 84° F. No water.

	<u>Field Readings</u>	<u>Office Readings</u>
Flow pressures	229-262	239-246
Initial shutin press.	1741	1750
Final shutin pressure	1115	1104
Hydrostatic pressure	3013-2969	3016-2972
Bottom Hole Temperature	- 132°	

The lower part of the B zone, from 6070-6096, was logged as white to gray, medium crystalline, oolitic limestone with medium sized oolites. No visable porosity or oil shows were logged, however the samples were very poor due to large amounts of Morrow and Chester shales contained in them.

St. Louis "C" Zone
6096-6131 Gray, oolitic limestone as above interbedded with light to medium gray, dense, nonoolitic, cherty limestone. White and buff subopecque chert. No visable porosity. No shows.

St. Louis "D" Zone
6131-6140 Light gray, medium crystalline, oolitic, very chalky lime with no visable porosity. One piece of lime as described contained a very slight, questionable stain, very poor fluorescence and very slight cut.

From 6140 to T.D. the limestone was very dense, non-oolitic and cherty.

Based on the recovery of oil on D.S.T. #5, 4 1/2" casing was run to 6163 feet and cemented with 100 sacks.

W. R. Atkinson
Geologist

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DRILLING TIME

Drilling time by 1 ft. intervals from 2400 ft. to total depth.

2400-2410	3	-	2	-	2	-	2	-	2	-	1	-	2	-	2	-	3	-	1
-2420	3	-	2	-	3	-	2	-	2	-	2	-	2	-	2	-	2	-	2
-2430	2	-	2	-	2	-	2	-	3	-	2	-	3	-	2	-	3	-	2
-2440	3	-	2	-	3	-	2	-	2	-	2	-	2	-	1	-	1	-	2
-2450	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	1
-2460	2	-	2	-	1	-	1	-	2	-	1	-	2	-	2	-	3	-	2
-2470	2	-	2	-	2	-	1	-	1	-	1	-	2	-	2	-	3	-	3
-2480	3	-	3	-	3	-	3	-	2	-	3	-	2	-	3	-	2	-	3
-2490	4	-	5	-	4	-	4	-	3	-	4	-	3	-	3	-	4	-	2
-2500	2	-	1	-	2	-	1	-	2	-	2	-	2	-	1	-	2	-	2

2500-2510	1	-	2	-	2	-	2	-	1	-	2	-	2	-	2	-	2	-	2
-2520	2	-	2	-	2	-	1	-	3	-	2	-	3	-	2	-	3	-	2
-2530	3	-	2	-	4	-	3	-	4	-	3	-	4	-	4	-	4	-	2
-2540	2	-	3	-	4	-	3	-	3	-	3	-	3	-	4	-	4	-	4
-2550	4	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-2560	1	-	2	-	2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2
-2570	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2
-2580	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2
-2590	1	-	1	-	1	-	1	-	2	-	2	-	2	-	2	-	2	-	2
-2600	4	-	3	-	2	-	2	-	2	-	2	-	3	-	3	-	3	-	4

Trip @ 2540

2600-2610	3	-	3	-	3	-	4	-	4	-	4	-	4	-	4	-	4	-	4
-2620	4	-	4	-	4	-	4	-	4	-	4	-	4	-	4	-	4	-	4
-2630	4	-	4	-	4	-	4	-	4	-	4	-	4	-	4	-	4	-	4
-2640	4	-	4	-	4	-	2	-	1	-	1	-	1	-	1	-	1	-	1
-2650	1	-	1	-	1	-	1	-	1	-	1/2	-	1/2	-	1/2	-	1/2	-	1/2
-2660	2	-	3	-	2	-	3	-	3	-	2	-	2	-	2	-	4	-	2
-2670	3	-	2	-	2	-	2	-	2	-	3	-	2	-	2	-	2	-	2
-2680	2	-	2	-	2	-	1	-	2	-	1	-	1	-	3	-	2	-	2
-2690	1	-	1	-	1	-	1	-	1	-	2	-	2	-	2	-	2	-	2
-2700	2	-	2	-	2	-	2	-	2	-	3	-	2	-	2	-	2	-	3

2700-2710	3	-	2	-	2	-	2	-	3	-	2	-	4	-	4	-	3	-	3
-2720	3	-	3	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2
-2730	2	-	1	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2
-2740	2	-	2	-	3	-	2	-	3	-	2	-	3	-	3	-	4	-	4
-2750	4	-	4	-	4	-	3	-	3	-	3	-	3	-	3	-	3	-	3
-2760	3	-	3	-	3	-	3	-	2	-	2	-	3	-	2	-	2	-	3
-2770	2	-	2	-	3	-	2	-	3	-	3	-	3	-	3	-	3	-	3
-2780	4	-	2	-	2	-	2	-	2	-	3	-	2	-	2	-	2	-	3
-2790	2	-	1	-	1	-	2	-	1	-	2	-	1	-	1	-	1	-	1
-2800	1	-	1	-	2	-	3	-	3	-	2	-	2	-	2	-	2	-	2

Trip @ 2780

2800-2810	2	-	2	-	1	-	1	-	1	-	1	-	2	-	2	-	2	-	2
-2820	1	-	2	-	2	-	1	-	2	-	1	-	1	-	1	-	2	-	2
-2830	1	-	2	-	1	-	2	-	2	-	1	-	2	-	2	-	2	-	2
-2840	2	-	3	-	2	-	1	-	1	-	2	-	2	-	2	-	2	-	3

Petroleum, Inc.
 #1 Adams "O"
 150' ESE of SW SE
 Sec. 25-34S-31W
 Seward County, Kansas
 Drilling Time

2840-2850	2	-	2	-	2	-	1	-	3	-	2	-	3	-	2	-	2	-	2	-	2
-2860	3	-											3	-	3	-	3	-	2	-	2
-2870	2	-	3	-	4	-	2	-	2	-	2	-	2	-	2	-	2	-	1	-	2
-2880	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-2890	1	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	3	-	3	-	3
-2900	3	-	3	-	3	-	3	-	3	-	3	-	3	-	3	-	3	-	3	-	4
2900-2910	4	-	3	-	2	-	2	-	3	-	3	-	4	-	4	-	3	-	4	-	4
-2920	3	-	2	-	2	-	2	-	2	-	1	-	1	-	2	-	3	-	5	-	5
-2930	2	-	3	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	3	-	3
-2940	1	-	1	-	1	-	1	-	2	-	2	-	4	-	4	-	3	-	4	-	4
-2950	5	-	2	-	3	-	2	-	2	-	4	-	2	-	3	-	2	-	2	-	2
-2960	3	-	2	-	3	-	3	-	5	-	6	-	4	-	3	-	3	-	3	-	3
-2970	4	-	3	-	3	-	2	-	2	-	3	-	1	-	2	-	2	-	2	-	2
-2980	3	-	1	-	1	-	1	-	3	-	2	-	5	-	2	-	2	-	6	-	6
-2990	3	-	2	-	4	-	2	-	3	-	2	-	2	-	2	-	1	-	1	-	1
-3000	1	-	3	-	2	-	2	-	3	-	3	-	3	-	2	-	2	-	3	-	3
3000-3010	1	-	1	-	1	-	1	-	2	-	3	-	3	-	2	-	1	-	1	-	1
-3020	1	-	1	-	3	-	3	-	2	-	2	-	2	-	2	-	2	-	1	-	1
-3030	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	2	-	2
-3040	1	-	1	-	1	-	2	-	2	-	1	-	1	-	2	-	2	-	4	-	4
-3050	2	-	3	-	3	-	3	-	2	-	2	-	2	-	2	-	3	-	2	-	2
-3060	2	-	2	-	2	-	2	-	2	-	3	-	2	-	4	-	2	-	1	-	1
-3070	2	-	1	-	1	-	2	-	3	-	1	-	2	-	2	-	2	-	1	-	1
-3080	$\frac{1}{2}$	-	1	-	1	-	2	-	1	-	2	-	2								
-3090	1	-	2	-	2	-	2	-	2	-	1	-	1	-	1	-	1	-	1	-	1
-3100	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2
3100-3110	2	-	2	-	2	-	1	-	1	-	1	-	2	-	2	-	2	-	1	-	1
-3120	1	-	1	-	2	-	2	-	2	-	2	-	2	-	2	-	1	-	1	-	1
-3130	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-3140	2	-	1	-	2	-	2	-	2	-	1	-	1	-	2	-	1	-	2	-	2
-3150	2	-	2	-	3	-	2	-	3	-	3	-	2	-	1	-	1	-	1	-	1
-3160	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-3170	1	-	1	-	1	-	1	-	1	-	1	-	1	-	2	-	2	-	1	-	1
-3180	2	-	3	-	3	-	2	-	2	-	3	-	2	-	2	-	2	-	2	-	2
-3190	2	-	2	-	3	-	3	-	2	-	2	-	2	-	2	-	1	-	1	-	1
-3200	1	-	2	-	2	-	3	-	3	-	3	-	4	-	3	-	3	-	4	-	4
3200-3210	2	-	3	-	3	-	2	-	2	-	1	-	2	-	2	-	1	-	1	-	1
-3220	2	-	1	-	1	-	3	-	3	-	3	-	3	-	3	-	1	-	2	-	2
-3230	2	-	2	-	3	-	2	-	2	-	2	-	2	-	1	-	1	-	2	-	2
-3240	2	-	2	-	3	-	3	-	3	-	2	-	3	-	2	-	2	-	2	-	2
-3250	2	-	2	-	2	-	2	-	2	-	2	-	3	-	3	-	3	-	3	-	3
-3260	2	-	2	-	3	-	2	-	3	-	2	-	1	-	2	-	1	-	1	-	1
-3270	1	-	2	-	2	-	3	-	2	-	3	-	3	-	3	-	1	-	1	-	1
-3280	2	-	1	-	2	-	2	-	2	-	2	-	1	-	1	-	2	-	2	-	2
-3290	1	-	1	-	2	-	1	-	2	-	1	-	1	-	2	-	2	-	1	-	1
-3300	2	-	2	-	1	-	2	-	2	-	2	-	1	-	2	-	1	-	2	-	2

Geol stuok

Trip @ 2971

Petroleum, Inc.
 #1 Adams "O"
 150' ESE of SW SE
 Sec. 25-34S-31W
 Seward County, Kansas
 Drilling Time

3300-3310	1	-	2	-	1	-	1	-	2	-	1	-	1	-	2	-	1	-	1
-3320	1	-	1	-	1	-	1	-	2	-	1	-	1	-	1	-	1	-	2
-3330	1	-	1	-	1	-	2	-	1	-	1	-	2	-	1	-	1	-	1
-3340	1	-	1	-	1	-	1	-	2	-	1	-	1	-	2	-	1	-	1
-3350	1	-	1	-	2	-	2	-	2	-	3	-	1	-	2	-	1	-	2
-3360	2	-	2	-	2	-	2	-	2	-	3	-	2	-	2	-	2	-	1
-3370	2	-	2	-	1	-	2	-	3	-	1	-	1	-	1	-	1	-	1
-3380	2	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-3390	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-3400	$\frac{1}{2}$	-	$\frac{1}{2}$	-	$\frac{1}{2}$	-	$\frac{1}{2}$	-	1	-	1	-	$\frac{1}{2}$	-	$\frac{1}{2}$	-	$\frac{1}{2}$	-	$\frac{1}{2}$

Trip @ 3372

3400-3410	1	-	1	-	1	-	1	-	1	-	1	-	2	-	2	-	1	-	1
-3420	1	-	1	-	2	-	2	-	2	-	1	-	2	-	2	-	1	-	1
-3430	1	-	1	-	1	-	$\frac{1}{2}$												
-3440	$\frac{1}{2}$	-	$\frac{1}{2}$	-	$\frac{1}{2}$	-	$\frac{1}{2}$	-	1	-	1	-	1	-	1	-	1	-	2
-3450	2	-	3	-	2	-	2	-	2	-	2	-	2	-	2	-	3	-	2
-3460	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	1	-	1
-3470	1	-	2	-	2	-	1	-	2	-	1	-	2	-	2	-	1	-	2
-3480	1	-	2	-	2	-	2	-	2	-	1	-	2	-	2	-	2	-	2
-3490	2	-	2	-	2	-	1	-	2	-	1	-	2	-	1	-	2	-	2
-3500	1	-	2	-	2	-	2	-	2	-	1	-	2	-	2	-	2	-	2

3500-3510	2	-	2	-	2	-	3	-	3	-	2	-	2	-	2	-	3	-	2
-3520	3	-	2	-	3	-	2	-	3	-	3	-	2	-	2	-	2	-	3
-3530	3	-	2	-	3	-	2	-	2	-	3	-	3	-	3	-	3	-	4
-3540	2	-	3	-	3	-	2	-	3	-	2	-	2	-	3	-	2	-	2
-3550	3	-	2	-	4	-	2	-	3	-	2	-	3	-	3	-	3	-	3
-3560	3	-	5	-	3	-	3	-	2	-	2	-	3	-	2	-	2	-	3
-3570	2	-	2	-	3	-	2	-	3	-	2	-	2	-	2	-	3	-	3
-3580	3	-	3	-	2	-	3	-	3	-	2	-	2	-	3	-	4	-	3
-3590	3	-	3	-	4	-	4	-	5	-	2	-	2	-	1	-	2	-	2
-3600	2	-	2	-	2	-	2	-	3	-	2	-	2	-	2	-	2	-	2

Trip @ 3584

3600-3610	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	3	-	2
-3620	2	-	2	-	2	-	3	-	3	-	2	-	2	-	2	-	1	-	2
-3630	2	-	3	-	2	-	2	-	2	-	2	-	2	-	2	-	1	-	2
-3640	1	-	3	-	2	-	1	-	2	-	2	-	2	-	2	-	2	-	2
-3650	2	-	1	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2
-3660	2	-	2	-	1	-	2	-	2	-	2	-	2	-	2	-	2	-	1
-3670	2	-	1	-	1	-	1	-	2	-	1	-	1	-	1	-	2	-	1
-3680	1	-	1	-	1	-	1	-	1	-	1	-	2	-	2	-	2	-	1
-3690	2	-	2	-	1	-	2	-	2	-	2	-	1	-	1	-	2	-	2
-3700	2	-	2	-	2	-	2	-	2	-	1	-	2	-	2	-	2	-	2

3700-3710	2	-	2	-	2	-	2	-	1	-	2	-	2	-	1	-	1	-	2
-3720	2	-	1	-	2	-	2	-	1	-	1	-	2	-	2	-	1	-	2
-3730	1	-	1	-	2	-	2	-	1	-	1	-	2	-	2	-	1	-	2
-3740	2	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-3750	1	-	1	-	2	-	2	-	1	-	1	-	1	-	2	-	1	-	2
-3760	2	-	1	-	2	-	2	-	2	-	2	-	2	-	1	-	2	-	1

Petroleum, Inc.
 #1 Adams "O"
 150' ESE of SW SE
 Sec. 25-34S-31W
 Seward County, Kansas
 Drilling Time

3760-3770	2	-	2	-	2	-	1	-	1	-	1	-	2	-	2	-	1	-	1
-3780	1	-	1	-	1	-	2	-	1	-	1	-	2	-	1	-	2	-	1
-3790	2	-	1	-	1	-	1	-	1	-	2	-	1	-	1	-	1	-	1
-3800	2	-	1	-	1	-	1	-	1	-	1	-	2	-	1	-	1	-	1
3800-3810	1	-	1	-	1	-	1	-	2	-	1	-	1	-	2	-	2	-	1
-3820	2	-	2	-	1	-	1	-	1	-	2	-	1	-	2	-	1	-	1
-3830	1	-	1	-	2	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-3840	2	-	1	-	1	-	2	-	1	-	1	-	1	-	1	-	1	-	1
-3850	1	-	1	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2
-3860	2	-	2	-	2	-	2	-	2	-	1	-	1	-	1	-	1	-	2
-3870	1	-	1	-	1	-	1	-	2	-	1	-	1	-	1	-	3	-	2
-3880	2	-	1	-	1	-	1	-	2	-	2	-	2	-	2	-	2	-	2
-3890	2	-	2	-	2	-	2	-	2	-	1	-	1	-	1	-	2	-	1
-3900	2	-	1	-	2	-	2	-	1	-	1	-	1	-	2	-	2	-	1
3900-3910	1	-	1	-	2	-	2	-	2	-	1	-	1	-	1	-	2	-	1
-3920	2	-	1	-	2	-	1	-	2	-	2	-	2	-	2	-	2	-	2
-3930	2	-	2	-	2	-	2	-	2	-	2	-	2	-	1	-	2	-	2
-3940	2	-	1	-	1	-	2	-	1	-	2	-	1	-	1	-	1	-	2
-3950	2	-	1	-	2	-	1	-	1	-	1	-	1	-	1	-	1	-	1
-3960	1	-	1	-	1	-	1	-	1	-	1	-	1	-	2	-	1	-	2
-3970	1	-	1	-	1	-	4	-	3	-	3	-	3	-	3	-	3	-	2
-3980	2	-	2	-	3	-	2	-	3	-	2	-	3	-	2	-	2	-	2
-3990	2	-	3	-	2	-	2	-	2	-	3	-	3	-	2	-	3	-	3
-4000	2	-	3	-	2	-	2	-	2	-	3	-	1	-	1	-	2	-	2
4000-4010	1	-	1	-	1	-	2	-	1	-	1	-	1	-	1	-	1	-	1
-4020	1	-	2	-	2	-	2	-	3	-	2	-	2	-	2	-	1	-	1
-4030	1	-	1	-	2	-	1	-	2	-	2	-	3	-	2	-	1	-	2
-4040	2	-	2	-	2	-	1	-	1	-	3	-	1	-	2	-	1	-	1
-4050	1	-	2	-	2	-	1	-	2	-	3	-	3	-	3	-	3	-	2
-4060	1	-	3	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2
-4070	1	-	2	-	1	-	2	-	2	-	2	-	1	-	2	-	2	-	1
-4080	1	-	2	-	2	-	1	-	2	-	1	-	2	-	2	-	1	-	2
-4090	2	-	1	-	2	-	2	-	3	-	1	-	2	-	2	-	2	-	2
-4100	2	-	2	-	2	-	2	-	1	-	2	-	2	-	2	-	3	-	3
4100-4110	2	-	1	-	2	-	2	-	3	-	2	-	1	-	1	-	2	-	1
-4120	1	-	1/2	-	1/2	-	1	-	1	-	1	-	1	-	1	-	1/2	-	1/2
-4130	1	-	1	-	1	-	1	-	1	-	1	-	1	-	2	-	2	-	2
-4140	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	2	-	1
-4150	1	-	1	-	1	-	1	-	1	-	1	-	2	-	3	-	1	-	2
-4160	1	-	3	-	3	-	2	-	2	-	2	-	2	-	2	-	1	-	1
-4170	1	-	1	-	1	-	1	-	1	-	1	-	1	-	2	-	2	-	2
-4180	2	-	2	-	2	-	2	-	2	-	1	-	1	-	2	-	2	-	1
-4190	1	-	3	-	4	-	2	-	1	-	2	-	2	-	1	-	2	-	2
-4200	2	-	2	-	2	-	2	-	1	-	1	-	1	-	3	-	2	-	2
4200-4210	2	-	2 1/2	-	1 1/2	-	2	-	2	-	2	-	2 1/2	-	2 1/2	-	3	-	3

Trip @ 4107

Petroleum, Inc.
 #1 Adams "O"
 150' ESE of SW SE
 Sec. 25-34S-31W
 Seward County, Kansas
 Drilling Time

4210-4220	3	-	1 $\frac{1}{2}$	-	1	-	1	-	1 $\frac{1}{2}$	-	1	-	2	-	2	-	1	-	1
-4230	1 $\frac{1}{2}$	-	1 $\frac{1}{2}$	-	1	-	1 $\frac{1}{2}$	-	1	-	1 $\frac{1}{2}$	-	2	-	2	-	2	-	2
-4240	3	-	3	-	1	-	2	-	1 $\frac{1}{2}$	-	1 $\frac{1}{2}$	-	2	-	2 $\frac{1}{2}$	-	3	-	2 $\frac{1}{2}$
-4250	3	-	2	-	3 $\frac{1}{2}$	-	3	-	2 $\frac{1}{2}$	-	3	-	3	-	3 $\frac{1}{2}$	-	4	-	2 $\frac{1}{2}$
-4260	2 $\frac{1}{2}$	-	2	-	1	-	2												
-4270	2	-	2	-	1 $\frac{1}{2}$	-	1 $\frac{1}{2}$	-	1	-	1 $\frac{1}{2}$	-	2 $\frac{1}{2}$	-	4	-	3	-	3
-4280	3	-	3	-	3	-	2	-	2	-	3	-	3	-	4	-	4	-	3 $\frac{1}{2}$
-4290	3	-	3 $\frac{1}{2}$	-	4	-	5	-	3	-	4	-	4	-	4	-	4	-	3
-4300	2	-	4	-	4	-	5	-	4	-	4	-	3	-	4	-	7	-	5
4300-4310	5	-	5	-	4	-	4	-	4	-	3	-	3	-	3	-	3	-	2 $\frac{1}{2}$
-4320	2 $\frac{1}{2}$	-	3	-	2 $\frac{1}{2}$	-	2 $\frac{1}{2}$	-	3	-	3	-	4	-	5	-	4	-	2 $\frac{1}{2}$
-4330	2 $\frac{1}{2}$	-	2	-	3	-	2	-	3	-	3	-	4	-	3	-	2	-	3
-4340	6	-	4	-	4	-	4	-	3	-	4	-	4	-	3	-	2	-	3
-4350	3	-	2	-	2	-	3	-	3	-	3 $\frac{1}{2}$	-	4 $\frac{1}{2}$	-	4	-	5 $\frac{1}{2}$	-	5 $\frac{1}{2}$
-4360	4	-	5	-	5	-	4	-	9	-	9	-	4	-	3	-	3	-	9
-4370	8	-	10	-	9	-	9 $\frac{1}{2}$	-	4 $\frac{1}{2}$	-	3	-	2 $\frac{1}{2}$	-	2 $\frac{1}{2}$	-	3	-	6
-4380	6	-	4	-	2	-	2 $\frac{1}{2}$	-	3 $\frac{1}{2}$	-	5	-	9	-	6	-	6	-	7
-4390	6	-	8	-	10	-	7	-	6	-	2	-	3	-	2	-	3	-	4
-4400	5	-	4	-	3	-	2	-	3	-	2	-	3	-	3	-	4	-	3
4400-4410	4	-	3	-	4	-	5	-	4	-	3	-	4	-	3	-	2	-	1
-4420	1	-	1	-	1	-	2	-	2	-	2	-	2	-	2	-	2	-	2
-4430	2	-	2	-	3	-	2	-	2	-	3	-	2	-	3	-	4	-	4
-4440	5	-	4	-	4	-	4	-	5	-	3	-	3	-	4	-	4	-	2
-4450	2	-	3	-	4	-	4	-	4	-	4	-	5	-	3	-	2	-	2
-4460	2	-	2	-	3	-	3	-	2	-	3	-	4	-	4	-	3	-	4
-4470	4	-	4	-	3	-	3	-	2	-	3	-	2	-	2	-	2	-	2
-4480	3	-	3	-	3	-	2	-	1	-	2	-	1	-	2	-	2	-	3
-4490	2	-	3	-	1	-	1	-	2	-	3	-	4	-	3	-	3	-	3
-4500	2	-	1	-	2	-	2	-	1	-	1	-	3	-	2	-	2	-	1
4500-4510	1	-	1	-	2	-	2	-		-	3	-	2	-	4	-	3	-	2
-4520	1	-	2	-	1	-	2	-	3	-	4	-	4	-	3	-	3	-	4
-4530	3	-	4	-	3	-	4	-	5	-	3	-	4	-	3	-	3	-	3
-4540	2	-	3	-	3	-	4	-	3	-	1	-	2	-	3	-	7	-	4
-4550	6	-	3	-	2	-	5	-	4	-	4	-	4	-	4	-	4	-	5
-4560	2	-	1	-	1	-	1	-	3	-	4	-	2	-	2	-	3	-	3
-4570	2	-	2	-	2	-	2	-	2	-	2	-	3	-	2	-	4	-	5
-4580	5	-	3	-	4	-	5	-	4	-	4	-	6	-	2	-	3	-	3
-4590	3	-	4	-	1	-	2	-	2	-	2	-	2	-	1	-	1	-	2
-4600	1	-	2	-	2	-	1	-	2	-	3	-	2	-	3	-	4	-	6
4600-4610	2	-	3	-	6	-	6	-	4	-	5	-	3	-	2	-	5	-	4
-4620	4	-	3	-	3	-	4	-	3	-	3	-	3	-	3	-	2	-	1
-4630	2	-	2	-	4	-	4	-	4	-	4	-	4	-	5	-	3	-	3
-4640	3	-	3	-	3	-	3	-	3	-	3	-	3	-	3	-	6	-	3
-4650	4	-	3	-	2	-	2	-	3	-	3	-	1	-	1	-	1	-	2
-4660	2	-	3	-	4	-	4	-	5	-	5	-	5	-	5	-	7	-	4
-4670	3	-	4	-	4	-	5	-	4	-	7	-	5	-	5	-	5	-	5

D.S.T. #1 4327-52

2' short

Trip @ 4541

Petroleum, Inc.
 #1 Adams "0"
 150' ESE of SW SE
 Sec. 25-34S-31W
 Seward County, Kansas
 Drilling Time

4670-4680	6	-	8	-	5	-	6	-	4	-	8	-	6	-	5	-	5	-	3	Kelly 1' Short
-4690	3 $\frac{1}{2}$	-	6 $\frac{1}{2}$	-	7	-	5	-	6	-	6	-	6	-	5	-	5	-	4	
-4700	5	-	12	-	5	-	5	-	8	-	5	-	8	-	5	-	6	-	5	
4700-4710	5	-	5	-	5	-	7	-	6	-	5	-	7	-	4	-	8	-	6	Short 1' Trip @ 4730
-4720	3	-	4	-	5	-	7	-	5	-	5	-	4	-	6	-	3	-	6	
-4730	6	-	6	-	6	-	4	-	4	-	4	-	5	-	7	-	7	-	6	
-4740	4	-	2	-	3	-	3	-	3	-	3	-	3	-	3	-	2	-	4	
-4750	3	-	3	-	3	-	4 $\frac{1}{2}$	-	4 $\frac{1}{2}$	-	3	-	3	-	3	-	3 $\frac{1}{2}$	-	4 $\frac{1}{2}$	
-4760	4 $\frac{1}{2}$	-	3 $\frac{1}{2}$	-	3	-	3 $\frac{1}{2}$	-	3 $\frac{1}{2}$	-	3	-	5	-	2 $\frac{1}{2}$	-	5 $\frac{1}{2}$	-	3 $\frac{1}{2}$	
-4770	9	-	5	-	5	-	4	-	5	-	4	-	5	-	5	-	5	-	4	
-4780	4	-	5	-	6	-	4	-	4	-	4	-	4	-	4	-	4	-	4	
-4790	4	-	2	-	3	-	4	-	5	-	4	-	5	-	5	-	4	-	6	
-4800	5	-	6	-	3	-	3	-	3	-	5	-	5	-	3	-	3	-	5	
4800-4810	5	-	2	-	3	-	5	-	6	-	4	-	5	-	4	-	5	-	3	
-4820	5	-	5	-	2	-	5	-	3	-	5	-	4	-	5	-	5	-	3	
-4830	3	-	3	-	2	-	2	-	2	-	2	-	4	-	2	-	3	-	3	
-4840	3	-	4	-	4	-	3	-	3	-	2	-	3	-	4	-	4	-	3	
-4850	3	-	3	-	3	-	3	-	5	-	5	-	5	-	4	-	2	-	2	
-4860	3	-	4	-	4	-	3	-	2	-	1	-	1	-	1	-	1	-	2	
-4870	5 min drilling 4859-4871																			
-4880)	-	2	-	3	-	2	-	4	-	4	-	2	-	3	-	1	-	1	
-4890	1	-	2	-	3	-	3	-	3	-	2	-	2	-	3	-	3	-	2	
-4900	3	-	5	-	3	-	4	-	3	-	4	-	2	-	6	-	4	-	6	
4900-4910	4	-	2	-	4	-	4	-	5	-	3	-	4	-	4	-	4	-	3	
-4920	3	-	4	-	3	-	3	-	4	-	5	-	5	-	6	-	4	-	3	
-4930	1	-	3	-	3	-	1	-	1	-	2	-	1	-	1	-	1	-	1	
-4940	1	-	2	-	1	-	4	-	4	-	4	-	4	-	4	-	4	-	4	
-4950	5	-	6	-	3	-	3	-	3	-	5	-	5	-	4	-	3	-	4	
-4960	4	-	5	-	5	-	4	-	4	-	4	-	3	-	4	-	5	-	5	
-4970	5	-	5	-	4	-	4	-	5	-	7	-	7	-	4	-	3	-	5	
-4980	4	-	5	-	5	-	5	-	5	-	9	-	8	-	6	-	5	-	4	
-4990	6	-	4	-	4	-	4	-	3	-	4	-	4	-	4	-	4	-	6	
-5000	4	-	6	-	7	-	6	-	6	-	6	-	4	-	4	-	5	-	5	
5000-5010	3	-	3	-	3	-	3	-	4	-	3	-	3	-	4	-	3	-	3	
-5020	3	-	3	-	4	-	4	-	2 $\frac{1}{2}$	-	3 $\frac{1}{2}$	-	3	-	3	-	3	-	3 $\frac{1}{2}$	
-5030	4 $\frac{1}{2}$	-	4	-	5	-	3 $\frac{1}{2}$	-	4	-	3 $\frac{1}{2}$	-	4	-	3	-	3	-	5	
-5040	4 $\frac{1}{2}$	-	3 $\frac{1}{2}$	-	2 $\frac{1}{2}$	-	5 $\frac{1}{2}$	-	4	-	3	-	4	-	3	-	4	-	4	
-5050	4	-	5	-	5	-	4	-	4	-	2	-	3	-	4	-	2	-	1	
-5060	2	-	2	-	2	-	3	-	5	-	4	-	4	-	4	-	4	-	4	
-5070	4	-	4	-	4	-	4	-	4	-	5	-	4	-	6	-	5	-	4	
-5080	3	-	2 $\frac{1}{2}$	-	2 $\frac{1}{2}$	-	3	-	4	-	2	-	3	-	5	-	5	-	5	
-5090	5	-	7	-	5	-	6	-	5	-	4	-	3	-	5	-	5	-	5	
-5100	5	-	4	-	5	-	4	-	6	-	7	-	7	-	6	-	9	-	8	
5100-5110	9	-	6	-	9	-	9	-	8	-	8	-	5	-	6	-	5	-	7	
-5120	7	-	6	-	5	-	6	-	5	-	6	-	7	-	7	-	5	-	4	

D.S.T. #2 4918-62

Short 1'

D.S.T. #3 5032-75

Kelly 1' short

Petroleum, Inc.
 #1 Adams "0"
 150' ESE of SW SE
 Sec. 25-34S-31W
 Seward County, Kansas
 Drilling Time

5120-5130	6	-	6	-	8	-	6	-	6	-	9	-	9	-	6	-	7	-	4
-5140	3	-	5	-	4	-	4	-	4	-	8	-	7	-	8	-	10	-	9
-5150	7	-	9	-	7	-	7	-	5	-	3	-	4	-	5	-	3	-	9
-5160		-	3	-	2	-	6 ^{1/2}	-	7	-	7	-	6 ^{1/2}	-	11	-	6	-	9
-5170	7	-	8	-	8	-	9	-	8	-	9	-	6	-	5	-	5	-	4
-5180	5	-	5	-	4	-	6	-	6	-	10	-	9	-	3	-	5	-	5
-5190	7	-	3	-	4	-	4	-	3	-	3	-	3	-	5	-	3	-	3
-5200	5	-	6	-	7	-	7	-	5	-	5	-	6	-	5	-	7	-	7
5200-5210	6	-	7	-	5	-	5	-	5	-	6	-	6	-	6	-	5	-	5
-5220	5	-	4	-	5	-	5	-	5	-	5	-	6	-	7	-	6 ^{1/2}	-	7
-5230	6 ^{1/2}	-	8	-	8	-	10	-	9	-	8	-	9	-	4	-	6 ^{1/2}	-	6 ^{1/2}
-5240	6	-	6	-	5	-	5	-	6	-	7	-	6	-	6	-	5	-	5
-5250	5	-	5	-	9	-	8	-	7	-	8	-	9	-	6	-	5	-	6
-5260	6	-	5	-	5	-	5	-	6	-	7	-	7	-	5	-	7	-	8
-5270	6	-	9	-	7	-	7	-	7	-	8	-	8	-	8	-	7	-	4
-5280	4	-	4	-	8	-	7	-	7	-	8	-	8	-	7	-	7	-	8
-5290	7	-	8	-	7	-	10	-	8	-	8	-	9	-	8	-	11	-	8
-5300	7	-	8	-	5	-	5	-	5	-	5	-	4	-	4	-	4	-	5
5300-5310	6	-	5	-	4	-		-	5	-	6	-	6	-	7	-	6	-	5
-5320	6	-	6	-	6	-	6	-	6	-	5	-	6	-	5	-	6	-	5
-5330	5	-	4	-	4	-	9	-	6	-	5	-	4	-	3	-	4	-	4
-5340	4	-	3	-	2	-	3	-	2	-	5	-	5	-	6	-	7	-	4
-5350	5	-	6	-	5	-	6	-	6	-	5	-	5	-	6	-	7	-	3
-5360	3	-	3	-	3	-	4	-	4	-	3	-	2	-	3	-	3	-	3
-5370	3	-	5	-	5	-	5	-	3	-	3	-	5	-	4	-	5	-	4
-5380	3	-	3	-	3	-	3	-	5	-	10	-	9	-	4	-	4	-	4
-5390	4	-	4	-	3	-	3	-	3	-	5	-	5	-	6	-	5	-	6
-5400	5	-	5	-	8	-	7	-	4	-	4	-	4	-	3	-	4	-	4
5400-5410	3	-	3	-	3	-	2	-	3	-	3	-	3	-	4	-	5	-	4
-5420	3	-	2	-	2	-	9	-	5	-	6	-	5	-	7	-	4	-	3
-5430	3	-	3	-	7	-	5	-	5	-	4	-	5	-	5	-	6	-	4
-5440	5	-	6	-	4	-	6	-	3	-	4	-	5	-	4	-	4	-	4
-5450	6	-	5	-	4	-	4	-	4	-	2	-	4	-	5	-	9	-	7
-5460	9	-	2	-	3	-	6	-	6	-	4	-	4	-	4	-	5	-	4
-5470	2	-	4	-	2	-	3	-	2	-	2	-	2	-	4	-	4	-	4
-5480	3	-	5	-	4	-	4	-	3	-	4	-	4	-	4	-	4	-	4
-5490	4	-	5	-	6	-	6	-	5	-	4	-	4	-	4	-	3	-	5
-5500	5	-	2	-	4	-	4	-	4	-	6	-	4	-	5	-	3	-	5
5500-5510	4	-	2	-	2	-	3	-	5	-	3	-	3	-	3	-	3	-	3
-5520	4	-	6	-	4	-	5	-	3	-	4	-	5	-	3	-	2	-	5
-5530	4	-	4	-	6	-	4	-	4	-	4	-	3	-	3	-	4	-	6
-5540	5	-	5	-	5	-	4	-	3	-	6	-	4	-	4	-	5	-	5
-5550	5	-	5	-	4	-	4	-	4	-	4	-	4	-	4	-	2	-	5
-5560	4	-	3	-	3	-	4	-	4	-	4	-	4	-	4	-	3	-	4
-5570	3	-	2	-	4	-	5	-	4	-	3	-	3	-	4	-	4	-	4

Short 2'

Trip @ 5181

Trip @ 5294

Short 1'

Trip @ 5452

Petroleum, Inc.
 #1 Adams "O"
 150' ESE of SW SE
 Sec. 25-34S-31W
 Seward County, Kansas
 Drilling Time

5570-5580	3	-	3	-	4	-	4	-	4	-	4	-	5	-	5	-	5	-	5
-5590	6	-	4	-	4	-	5	-	7	-	7	-	5	-	6	-	6	-	5
-5600	5	-	7	-	4	-	5	-	4	-	5	-	5	-	5	-	6	-	6
5600-5610	7	-	6	-	6	-	6	-	4	-	2	-	4	-	4	-	5	-	6
-5620	6	-	4	-	6	-	5	-	5	-	5	-	6	-	7	-	6	-	6
-5630	3	-	3	-	3 $\frac{1}{2}$	-	3	-	3	-	4	-	4 $\frac{1}{2}$	-	4	-	4 $\frac{1}{2}$	-	4
-5640	4	-	4 $\frac{1}{2}$	-	5 $\frac{1}{2}$	-	6	-	7	-	4	-	5	-	5 $\frac{1}{2}$	-	4 $\frac{1}{2}$	-	6
-5650	5	-	2 $\frac{1}{2}$	-	5 $\frac{1}{2}$	-	4	-	5	-	5	-	5	-	5	-	4	-	5
-5660	6	-	6	-	4	-	4	-	4	-	4	-	3	-	3	-	5	-	3
-5670	2	-	2	-	2	-	2	-	3	-	5	-	3	-	3	-	3	-	3
-5680	3	-	3	-	3	-	3	-	3	-	3	-	2	-	1	-	1	-	2
-5690	2	-	3	-	5	-	4	-	4	-	4	-	4	-	5	-	6	-	7
-5700	6	-	6	-	5	-	4 $\frac{1}{2}$	-	4 $\frac{1}{2}$	-	5 $\frac{1}{2}$	-	6	-	8 $\frac{1}{2}$	-	6	-	6
5700-5710	5	-	3	-	4	-	4	-	3	-	4	-	6	-	4	-	4	-	1
-5720	4	-	5	-	4	-	4	-	4	-	3	-	3	-	3	-	3	-	3
-5730	2	-	3	-	3	-	3	-	3	-	2	-	4	-	2	-	3	-	3
-5740	3	-	3	-	2	-	4	-	4	-	5	-	5	-	7	-	3	-	4
-5750	3	-	3	-	4	-	5	-	5	-	5	-	4	-	3	-	4	-	4
-5760	4	-	5	-	3	-	5	-	5	-	6	-	5	-	5	-	4	-	3
-5770	3	-	4	-	2	-	3	-	3	-	5	-	2	-	2	-	3	-	3
-5780	2	-	6	-	5	-	4	-	3	-	3	-	4	-	4	-	5	-	3
-5790	4	-	4	-	3	-	4	-	5	-	4	-	4	-	2	-	3	-	1
-5800	4	-	5	-	4	-	3	-	3	-	4	-	4	-	5	-	3	-	4
5800-5810	5	-	3	-	3	-	3	-	5	-	4	-	3	-	3	-	4	-	3 $\frac{1}{2}$
-5820	2 $\frac{1}{2}$	-	3	-	3	-	4	-	4	-	4	-	5	-	5	-	3	-	3
-5830	2	-	3	-	3	-	4	-	4	-	4	-	3	-	5	-	4	-	4
-5840	4	-	3	-	2	-	3	-	2 $\frac{1}{2}$	-	2 $\frac{1}{2}$	-	2	-	2	-	4	-	5
-5850	6	-	3	-	5	-	4	-	5	-	6	-	5	-	4	-	3	-	6
-5860	5	-	5	-	5	-	5	-	5	-	6	-	7	-	6	-	5	-	6
-5870	4	-	5	-	4	-	6	-	4	-	6	-	5	-	6	-	6	-	4 $\frac{1}{2}$
-5880	5 $\frac{1}{2}$	-	4	-	4	-	2	-	3	-	6	-	4	-	3	-	4	-	5
-5890	6	-	6	-	4	-	5	-	5	-	6	-	5	-	7	-	9	-	6
-5900	5 $\frac{1}{2}$	-	7	-	6 $\frac{1}{2}$	-	6 $\frac{1}{2}$	-	6	-	6 $\frac{1}{2}$	-	5	-	7	-	10	-	7
5900-5910	4	-	6	-	4 $\frac{1}{2}$	-	4 $\frac{1}{2}$	-	6	-	5	-	7	-	7	-	6	-	4
-5920	6	-	5	-	6	-	8	-	8 $\frac{1}{2}$	-	5	-	6 $\frac{1}{2}$	-	7	-	9	-	5
-5930	7	-	8	-	7	-	9	-	10	-	8	-	8	-	6	-	10	-	11
-5940	9	-	7	-	9	-	10	-	12	-	12	-	11	-	9	-	10	-	9
-5950	11	-	13	-	12	-	10	-		-		-	12	-	12	-	9	-	10
-5960	14	-	11	-	11	-	10	-	8	-	14	-	12	-	10	-	10	-	12
-5970	12	-	9 $\frac{1}{2}$	-	12	-	9	-	11 $\frac{1}{2}$	-	12	-	15	-	13	-	7	-	9
-5980	11	-	9	-	11	-	12	-	12	-	12	-	10	-	8	-	10	-	14 $\frac{1}{2}$
-5990	11 $\frac{1}{2}$	-	13	-	10	-	10	-	8	-	7	-	8	-	12	-	18	-	7
-6000	10	-	8	-	5	-	11	-	8	-	9	-	10	-	8	-	10	-	7
6000-6010	7	-	9	-	9	-	9	-	10	-	5	-	10	-	8	-	7	-	10
-6020	10	-	10	-	9	-	9	-	8 $\frac{1}{2}$	-	9 $\frac{1}{2}$	-	9	-	9	-	8 $\frac{1}{2}$	-	9

Trip @ 5635

Short 1'

D.S.T. #4 5542-5701

1' off

Kelly 1' long
 Trip @ 5900

2' off

Trip @ 5990