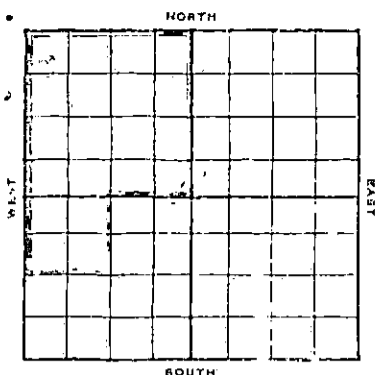


# SKELLY OIL COMPANY

## Well Record



Lease Name and No. J. Miller (17887) Well No. 1 Elev. 1651' DZ.  
 Lease Description NW/4 and NW/4 SW/4 Sec. 31-27S-10W,  
Kingman County, Kansas, (200 Acres),  
 Location made      19      by       
990 feet from North line      feet from East line } of NW/4 Sec. 31  
     feet from South line 1286 feet from West line }

Work com'd June 17, 1939 Riv. comp'd June 23, 1939 Drilg. com'd June 26, 1939 Drilg. comp'd July 26, 1939

Rig Contractor Furnished by drilling contractor on turnkey basis.  
 Drilling Contractor Bodine Drilling Co. - Great Bend, Kansas.  
 Rotary Drilling from Top to 4066' Cable Tool Drilling from 4066 to 4074'  
 Commenced Producing Sept. 27, 1939 Initial Prod. before shot or acid      Bls  
 Initial Prod. after shot or acid Before acid: 17,512-M. Bls  
 Dry Gas Well Pressure Gauged 1294.7 - AFP 1443.7 Volume After " : 35,300-M. Cu. ft  
 Casing Head Gas Pressure      Volume      Cu. ft  
 Braden Head [10-3/4" 5-1/2"] Gas Pressure      Volume      Cu. ft  
 Braden Head [    ] Gas Pressure      Volume      Cu. ft

PRODUCING FORMATION Viola Line Top 4062 Bottom 4074' TOTAL DEPTH 4074'  
 (Name)

### CASING RECORD

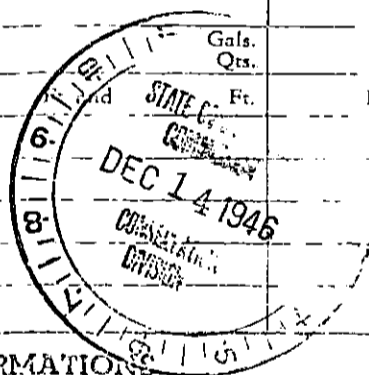
Size OD	Wt.	Thds.	Where Set	PULLED OUT			LEFT IN			KIND	Cond'n	CEMENTING	
				Jts.	Feet	In.	Jts.	Feet	In.			Sacks Used	Method Employed
10-3/4"	40	8	291				15	290	8	Seamless	"B"	114	Halliburton
5-1/2"	17	10	4063				131	4096	0	"	"A"	250	"

Top of 10-3/4" casing was 5' in cellar, and 5-1/2" was cased to derrick floor.

Liner Set at      Length      Perforated at       
 Liner Set at      Length      Perforated at       
 Packer Set at      Size and Kind       
 Packer Set at      Size and Kind     

### SHOT OR ACID TREATMENT RECORD

	FIRST	SECOND	THIRD	FOURTH
Date	<u>Oct. 4, 1939</u>			
Acid Used	<u>1000</u> Gals.			
Size Shot	<u>200</u>			
Shot Between	<u>4063 Ft and 4074</u> Ft.	<u>    </u> Ft. and <u>    </u> Ft.	<u>    </u> Ft. and <u>    </u> Ft.	<u>    </u> Ft. and <u>    </u> Ft.
Size of Shell	<u>    </u>			
Put in by (Co)	<u>Halliburton</u>			
Length anchor	<u>    </u>			
Distance below Cas'g	<u>    </u>			
Damage to Casing or Casing Shoulder	<u>None</u>			



### SIGNIFICANT GEOLOGICAL FORMATIONS

NAME	Top	Bottom	GAS		OIL		REMARKS
			From	To	From	To	
<u>Lansing lime</u>	<u>3456</u>	<u>3456</u>			<u>3456</u>	<u>3469</u>	<u>Slight saturation,</u>
		<u>3456</u>			<u>3481</u>	<u>3487</u>	<u>" "</u>
					<u>3600</u>	<u>3617</u>	<u>Show oil,</u>
					<u>3651</u>	<u>3656</u>	<u>Oil stained,</u>
					<u>3706</u>	<u>3712</u>	<u>" "</u>
					<u>3765</u>	<u>3775</u>	<u>Oil saturation.</u>
<u>Kinderhook dolomite</u>	<u>4000</u>	<u>4000</u>					
<u>Viola lime</u>	<u>4062</u>	<u>4074</u>			<u>4062</u>	<u>4074</u>	<u>Main body pay formation.</u>

### CLEANING OUT RECORDS

	Date Commenced	Date Completed	Prod. Before	Prod. After	REMARKS
1st					See Reverse for other details
2nd					" " " " "
3rd					" " " " "
4th					" " " " "
5th					" " " " "

### PLUGGING BACK AND DEEPENING RECORDS

	Date Commenced	Date Completed	No. Feet Plugged Back or Deepened	Prod. Before	Prod. After	REMARKS
1st						See Reverse for other details
2nd						" " " " "
3rd						" " " " "
4th						" " " " "

RECORD OF FORMATIONS

FORMATION	TOP	BOTTOM	REMARKS
			Indicate Casing Points. Describe Shows of Oil, Gas and Water. Etc.
Surface soil, clay & sand	0	105	
Red beds	105	355	
Red beds & shells	355	635	
Shale & shells	635	830	Drilled to 785' and ran and cemented 10-3/4" OD. casing at 291' w/ 114 sacks - Halliburton process.
Red beds & shells	890	1040	
Salt	1040	1300	
Shale & shells	1300	1410	
Lime	1410	1615	
Shale & shells	1615	1630	
Shale	1630	1730	
Sandy shale	1730	1750	
Lime	1750	1810	
Shale & shells	1810	1850	
Lime & shale	1850	1890	
Shale & shells	1890	1915	
Hard lime	1915	1940	
Shale & shells	1940	1955	
Hard lime	1955	2020	
Shale & shells	2020	2115	
Lime	2115	2175	
Shale & shells	2175	2255	
Lime	2255	2310	
Lime & shale	2310	2395	
Shale & shells	2395	2450	
Shale	2450	2560	
Lime	2560	2575	
Broken lime	2575	2605	
Lime	2605	2630	
Broken lime	2630	2680	
Shale & shells	2680	2780	
Broken lime	2780	2790	
Shale	2790	2815	
Broken lime	2815	2900	
Shale	2900	2975	
Hard lime	2975	2995	
Broken lime	2995	3040	
Lime	3040	3060	
Lime & shale	3060	3225	
Broken lime	3225	3240	
Hard lime	3240	3270	
Lime & shale	3270	3355	
Black shale	3355	3390	
Shale & lime	3390	3420	
Shale & shells	3420	3445	
Dark gray silty shale & red shale	3445	3455	Top Lansing lime 3455'.
Gray crystalline & brown fossiliferous lime	3455	3469	Fair porosity & slight saturation.
Gray crystalline lime	3469	3481	
Brown & gray fossiliferous lime	3481	3487	
Lime	3487	3540	
Cherty lime	3540	3570	
Lime	3570	3760	Show oil 3600-3617'. Porous, oolitic & slightly stained lime 3651-3656'. Slightly porous oil-stained lime 3706-3712'. Porous, oolitic & oil-saturated lime 3765-3776'.
Hard cherty lime	3730	3785	
Lime	3785	3875	
Chert & lime	3785	3900	
Cherty lime	3900	3935	
Shale	3935	4012	
Kinderhook dolomite	4012	4012	Top Kinderhook dolomite 4000' SIM.
Dark gray pyritic dolomite	4012	4053	
Steel line correction	4053	4056	
Dark gray pyritic dolomite	4056	4063	Top Viola lime 4062' SIM.
Dark gray chert & gray crystalline dolomite	4063	4067	Slight porosity. Set and cemented 5-1/2" OD. casing at 4063' w/ 250 sacks - Halliburton process. Finished cementing at 5.30 PM. July 19, 1939. While waiting cement to set, moved out rotary tools and moved in and rigged up cable tools. July 23rd, started bailing mud and bailed mud to top of cement and drilled cement to 4054' and casing tested OK. Drilled cement 4054-4064', then deepened as follows:
Steel line correction	4067	4066	
Gray dolomite	4066	4071	Porous w/ show gas. Hole was drilled while loaded w/ water. July 26, 1939, when ran in hole w/ bailer while at 4074', bailer stuck on bottom. Tried to loosen bailer by shutting in and pressuring up well in effort to kick loose w/ well's gas, but was unable to do so. Strung up tools, then killed gas w/ water by using Halliburton's pumps. Started drilling up bailer on Aug. 1st, and continued drilling on bailer until
Gray dolomite, slightly porous	4071	4074	

Sept. 26, 1939, when had bailer drilled up and hole cleaned out to bottom at 4074'. Sept. 27th, bailed hole down 1500' and well cleaned itself. After allowing to flow for 2 hours to rid hole of water, gas gauged 7,615 M. Allowed to continue flowing 9 hours, and at end of this period still showed little water, believed coming from formation due to well having been loaded for such long period while drilling up bailer.

Sept. 28th, opened well and found 5-1/2" OD. casing below master gate line-cut and leaking. 29th, removed master gate and gas gauged 9,745 M. Oct. 1st, removed bradenhead and found gas had increased to gauge 19,140 M. Oct. 3rd, backed off 3 joints of the 5-1/2" casing, one joint at a time, and found top 9" casing nipple line-cut, trace of cutting in 2nd joint, and 3rd joint in good condition; ran back new nipple, replaced bradenhead, master gate and well head connections, and eliminated all 5-1/2" OD. casing leaks. Oct. 4th, gas gauged 17,512 M. 5th, prepared to treat w/ acid as follows:

TOTAL DEPTH 4074'

Acid Treatment No. 1: Oct. 5, 1939, by Halliburton, using 1000 gal. acid w/ 2060 gal. water to flush casing after treatment, from 4064-4074'.

Time	CP.	
10.00 AM.	1400#	Tested connections and prepared to start acid in casing.
10.07	1365#	100 gal. acid in hole.
10.46	1215#	500 " " " "
11.05	1130#	900 " " " "
11.10	1120#	1000 " " " "
11.36	1120#	200 gal. water in hole.
11.59	1050#	600 " " " "
12.33 PM.	930#	1260 " " " "
12.58	665#	1960 " " " "
1.02	635#	2060 " " " "

After treatment, allowed well to flow open for 30 min. in order to clean hole of acid sludge and water, after which gas gauged 40,640 M. cu. ft. per day. Closed-in pressure 1370# when shut in.

Potential test: Taken Oct. 7, 1939, by Corporation Commission, showed open flow of 35,300 M. by Bureau of Mines method w/ closed-in pressure gauged 1294#. Gauged pressure of 1294# plus 15# correction to atmosphere plus 134# correction for gas column equalled 1443# absolute bottom-hole flowing pressure.

Was connected into gathering system lines, and commenced regular production Oct. 27, 1939.

Slope Test Data

Depth	Angle (In deg.)	Horiz.	Vert.
250'	1/2	2.3'	.0'
500	1/2	2.3	.0
750	0	.0	.0
1000	1/2	2.3	.0
1250	1/2	2.3	.0
1500	1	4.4	.1
1750	1	4.4	.1
2000	0	.0	.0
2250	1/2	2.3	.0
2500	1/2	2.3	.0
2750	1	4.4	.1
3000	0	.0	.0
3250	1/2	2.3	.0
3500	1/2	2.3	.0
3750	3/4	3.3	.0
4074'	1/2	2.3	.0

Total deflections 37.2' .3'