

STATE OF KANSAS
STATE CORPORATION COMMISSION

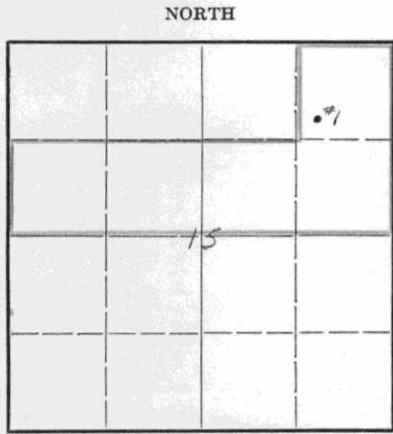
WELL PLUGGING RECORD

Give All Information Completely
Make Required Affidavit
Mail or Deliver Report to:
Conservation Division
State Corporation Commission
800 Bitting Building
Wichita, Kansas

OR

FORMATION PLUGGING RECORD

Strike out upper line
when reporting plug-
ging off formations.



Locate well correctly on above
Section Plat

Barber

County. Sec. 15 Twp. 33S Rge. (E) 12 (W)

Location as "NE 1/4 NW 1/4 SW 1/4" or footage from lines. 990' from N & E lines of

Lease Owner. Skelly Oil Company Sec. 15

Lease Name. A. N. Harbaugh Well No. 1

Office Address. Box 391, Hutchinson, Kansas

Character of Well (completed as Oil, Gas or Dry Hole). Dry Hole

Date well completed. November 12, 19 46

Application for plugging filed. November 12, 19 46

Application for plugging approved. November 15, 19 46

Plugging commenced. December 22, 19 46

Plugging completed. December 24, 19 46

Reason for abandonment of well or producing formation. Dry Hole

If a producing well is abandoned, date of last production. 19

Was permission obtained from the Conservation Division or its agents before plugging was com-
menced? Yes

Name of Conservation Agent who supervised plugging of this well. Mr. H. W. Kerr

Producing formation. Depth to top. Bottom. Total Depth of Well. 4950' Feet

Show depth and thickness of all water, oil and gas formations.

OIL, GAS OR WATER RECORDS

CASING RECORD

Formation	Content	From	To	OD Size	Put In	Pulled Out
Douglas Sand	Water	3715'	3722'	8-5/8"	425'9"	None
Simpson Sand	Dry	4789'	4842'	5-1/2"	3743'9"	3085'6"
Arbuckle Lime	Dry	4924'	4950'			

Describe in detail the manner in which the well was plugged, indicating where the mud fluid was placed and the method or methods used in introducing it into the hole. If cement or other plugs were used, state the character of same and depth placed, from feet to feet for each plug set.

40 sacks cement 3816' to 3722 1/2'
Mud laden fluid 3722 1/2' to 300
15 sacks cement 300 to 252
Mud laden fluid 252 to 20
10 sacks cement 20 to 6
Surface soil 6 to 0

PLUGGING
FILE NO. 15 33-12W
BOOK PAGE 81 LINE 36



(If additional description is necessary, use BACK of this sheet)

Correspondence regarding this well should be addressed to. Skelly Oil Company
Address. Box 391, Hutchinson, Kansas

STATE OF KANSAS, COUNTY OF RENO, ss.
H. E. Wamsley (employee of owner) or (owner or operator) of the above-described well,
being first duly sworn on oath, says: That I have knowledge of the facts, statements, and matters herein contained and the log of the above-
described well as filed and that the same are true and correct. So help me God.

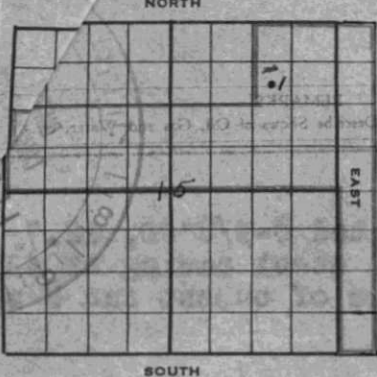
(Signature) [Signature]
Box 391, Hutchinson, Kansas (Address)

SUBSCRIBED AND SWORN to before me this 3rd day of February, 19 47.

My commission expires April 7, 1947

[Signature] Notary Public.

SKELLY OIL COMPANY



Well Record

Lease Name and No. A. H. Harbaugh #32162 Well No. 1 Elev. 1452' DB
 Lease Description The 3/2 NW/4 & 3/2 & E/2 NE/4, Section 15;
& the 3/2 W/2, Section 14-333-12W, Barber County, Kas.
 Location made Sept. 9, 1946 by Barber County Engineer
990 feet from North line 990 feet from East line
990 feet from South line 990 feet from West line of Sec. 15

Work com'd Sept. 12 46 19 46 Rig com'd Sept. 15, 19 46 Drlg. com'd Sept. 15 46 Drlg. comp'd Oct. 18 46
 Rig Contractor Ruso Drilling Company
 Drilling Contractor Ruso Drilling Company, Tulsa, Oklahoma
 Rotary Drilling from Top to 4950' Cable Tool Drilling from Top to 4950'
 Commenced Producing DRY HOLE 19 46 Initial Prod. before shot or acid _____ Bbls.
 Initial Prod. after shot or acid _____ Bbls.
 Dry Gas Well Press _____ Volume _____ Cu. ft.
 Casing Head Gas Pressure _____ Volume _____ Cu. ft.
 Braden Head (8-5/8 Size 5 1/2 OD) Gas Pressure _____ Volume _____ Cu. ft.
 Braden Head (_____ Size _____) Gas Pressure _____ Volume _____ Cu. ft.

PRODUCING FORMATION DRY HOLE (Name) Top _____ Bottom _____ TOTAL DEPTH 4950'

CASING RECORD

OD Size	Wt.	Thds.	Where Set	PULLED OUT			LEFT IN			KIND	Cond'n	CEMENTING	
				Jts.	Feet	In.	Jts.	Feet	In.			Sacks Used	Method Employed
<u>8-5/8</u>	<u>22.7</u>	<u>43</u>	<u>429</u>				<u>11</u>	<u>428</u>	<u>6</u>	<u>Nat'l 80</u>	<u>A</u>	<u>200</u>	<u>Halliburton</u>
<u>5-1/2</u>	<u>15</u>	<u>82</u>	<u>3715</u>	<u>95</u>	<u>3085</u>	<u>6</u>	<u>20</u>	<u>658</u>	<u>3</u>	<u>755 H2</u>	<u>B</u>	<u>150</u>	<u>Halliburton</u>
<u>(8-5/8" OD casing set 5' in cellar and 5 1/2" cased to Gerriek floor)</u>													
<u>Used 1 - 8-5/8" OD Larkin Combination Guide & float shoe)</u>													
<u>Used 1 - 5 1/2" OD Baker Combination Guide & float shoe)</u>													

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>Nov. 8, 1946</u>			
Acid Used	<u>20</u> Gals.			
Size Shot	<u>20</u> Qts.			
Shot Between	<u>3722'</u> Ft. and <u>3718'</u> Ft.			
Size of Shell	<u>4" H.J.</u>			
Put in by (Co.)	<u>Indp.-East.</u>			
Length anchor				
Distance below Cas'g				
Damage to Casing or Casing Shoulder				

SIGNIFICANT GEOLOGICAL FORMATIONS

NAME	Top	Bottom	GAS		OIL		REMARKS
			From	To	From	To	
<u>Douglas Sand</u>	<u>3573'</u>						
<u>Lansing Line</u>	<u>3709'</u>						
<u>Mississippi Line</u>	<u>4390'</u>						
<u>Mississippi Line</u>							
<u>Red Section</u>	<u>4417'</u>						
<u>Misener Sand</u>	<u>4683'</u>						
<u>Viola Line</u>	<u>4686'</u>						
<u>Simpson Sand</u>	<u>4789'</u>						
<u>Arbuckle Lime</u>	<u>4924'</u>						

CLEANING OUT RECORDS

	DATE COMMENCED	DATE COMPLETED	PROD. BEFORE	PROD. AFTER	REMARKS
1st					See Reverse for other details.
2nd					" " " " "
3rd					" " " " "
4th					" " " " "

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						" " " " "

(See Reverse for Record of Formation)

RECORD OF FORMATIONS

FORMATION

TOP

BOTTOM

REMARKS

Indicate Casing Points, Describe Shows of Oil, Gas and Water, etc.

FORMATION	TOP	BOTTOM	REMARKS
Surface soil, clay & sand	0	80	
Sand and red bed	80	380	
Shale and shells	380	429	Set 8-5/8" casing at 429' with cement and 200 lbs of logs.
Shale and shells	429	1335	
Shale	1335	1340	
Lime	1340	1450	
Shale	1450	1470	
Shale	1470	1530	
Lime	1520	1960	
Sand and shale	1960	2025	
Lime	2025	2300	
Shale	2300	2320	
Lime	2320	2395	
Lime and shale	2395	2455	
Lime	2455	2625	
Shale	2625	2715	
Shale and lime	2715	2790	
Lime	2790	2860	
Lime and shale	2860	2980	
Lime	2980	3010	
Shale	3010	3055	
Lime	3055	3305	
Shale	3305	3380	
Lime	3380	3535	
Shale	3535	3565	
Lime	3565	3685	TOP DOUGLAS SAND 3573'
Sandy shale	3685	3675	
Lime and shale	3675	3745	(3715'-22' soft brown sand, porous, medium oil saturation; 3728'-42' soft, no oil)
Lime	3745	3785	
Lime and shale	3785	3823	TOP LAMING LIME 3789'
Lime	3823	4025	
Lime and shale	4025	4115	
Lime	4115	4155	
Lime and shale	4155	4175	
Lime	4175	4250	
Lime and shale	4250	4285	
Shale	4285	4325	
Dark shale	4325	4360	
Dark shale and gray lime with trace of chert	4360	4390	TOP MISSISSIPPI LIME 4390'
Dense gray coarsely crystalline lime with trace of chert, hard	4390	4400	
Dense gray coarsely crystalline lime, finely crystalline dolomite & white chert	4400	4412	No porosity or oil stain
Gray coarsely crystalline lime and white chert	4412	4417	No porosity or stain
Red lime, red shale, pink chert & red sandy lime	4417	4455	TOP MISSISSIPPI LIME AND SECTION 4417'
Sandy shale	4455	4500	
Lime	4500	4540	
Lime and shale	4540	4560	
Shale	4560	4650	
Lime and shale	4650	4683	TOP MISSISSIPPI LIME 4683'
Fine grey sand	4683	4686	TOP MISSISSIPPI LIME 4686'
Finely crystalline grey dolomite	4686	4690	No porosity or saturation, medium hard
Finely crystalline & coarsely crystalline dolomite	4690	4700	No saturation, soft
Lime	4700	4779	slight porosity with slight oil stain, soft.
Gray coarsely crystalline lime	4779	4789	Set test with packer at 4684' and 4686' for 1 hour, and 30' of salt water.
Dense grey dolomitic sand	4789	4800	TOP MISSISSIPPI LIME 4789'
Dense grey sand	4800	4810	No porosity, very hard
Dense grey sand	4810	4820	No porosity or saturation, very hard
Sand	4820	4836	medium hard, no porosity or saturation
Medium hard porous grey sand	4836	4842	Trace of oil stain
			Set test with packer at 4835', open 1 hour, and showed 1860' of salt water

Line	4842	4878	
Sand	4878	4883	
Dark shale with little sand	4883	4924	
Grey finely crystalline dolomite, dense	4924	4927	No porosity or saturation
Grey finely crystalline & coarsely crystalline dolomite	4927	4931	Slight porosity, no stain
Grey finely crystalline & coarsely crystalline dolomite	4931	4938	Slight porosity, no stain
Same	4938	4950	TOP ANBUCELE LIME 4924'

Ran Schlumberger Survey (Recording attached)
 After survey, set and cemented 5 1/2" OD, 15 1/2" 8 round thread, J-55, Range 2, Seamless Steel casing at 3715' with 150 sacks of cement and 6 sacks of aquagel. Finished cementing at 1:00 AM October 21, 1946.

TOTAL DEPTH 4950'

Moved in and rigged up cable tools and bailed the hole down on Oct. 26th, and 5 1/2" casing tested OK. Loaded hole with water and drilled cement plug and cement job tested OK. On October 28, ran 2" tubing and plugged back from 3816' to 3723' with 40 sacks of cement, then pulled tubing and shut down for cement to set.

On October 31, ran bailer and found top of cement plug at 3797'. Ran tubing and plugged back with 30 sacks of cement, then pulled tubing and shut down for cement to set. On November 4, found top of cement plug at 3722 1/2'. Bailed hole down to top of cement plug and tested 24 hours, 1 barrel of water per hour, showing no oil or gas. On November 6, tested 24 hours, 30 gallons of water per hour with rainbow show of oil. November 7, tested 24 hours, 30 gallons of salt water with rainbow show of oil. On November 8, shot with 20 quarts of nitro-glycerin between 3722 1/2' and 3718 1/2' in 4" W.J. shell tamped with 175' of chat. After shot, cleaned out to 3713' and found 5 1/2" casing collapsed at this point (2500' of salt water in hole and no oil in 18 hours). Swedged out 5 1/2" casing from 3713' to 3715', and cleaned out to bottom with 3000' of salt water in hole and no oil.

Regular authority was granted at this time to plug the well and abandon the location. On December 24, 1946, the well was plugged as follows:

40 sacks of cement	3816' to 3722 1/2'
Mud laden fluid	3722 1/2' to 300
15 sacks cement	300 to 252
Mud laden fluid	252 to 20
10 sacks cement	20 to 6
Surface soil	6 to 0

Plugged and abandoned December 24, 1946.

SLOPE TEST DATA

DEPTH	ANGLE OF DEFLECTION	DEPTH	ANGLE OF DEFLECTION
350'	1/2 Degree	2250'	1/2 Degree
500'	1 "	2500'	1/2 "
750'	1 "	2850'	1 "
TOTAL DEPTH 4950'	1 "	3000'	1 "
1250'	1/2 "	3338'	1 "
1500'	1/2 "	3780'	1/2 "
2000'	1/2 "	4279'	1/2 "

Analysis of water sample taken from depth of 3722 1/2'

SOLUTE	Grains per Gallon	Parts Per Million	Percent by Weight
Chlorides expressed as NaCl	6200	106132	10.61
Chlorides expressed as Cl	3761	64378	6.44
Sulphates expressed as CaSO4	19.91	341	0.0341
Sulphates expressed as SO4	14.05	240	0.0240

Analysis of water sample taken from depth of 4842'

SOLUTE	Grains per Gallon	Parts Per Million	Percent by Weight
Chlorides expressed as NaCl	8480	145161	14.52
Chlorides expressed as Cl	5144	88053	8.81
Sulphates expressed as CaSO4	68.17	1167	0.1167
Sulphates expressed as SO4	48.10	823	0.0823