

Give All Information Completely
Make Required Affidavit
Mail or Deliver Report to:
Conservation Division
State Corporation Commission
212 North Market, Insurance Bldg.
Wichita, Kansas

WELL PLUGGING RECORD

Pratt

County. Sec. 5 Twp. 27S Rge. (E) 12 (W)

Location as "NE/CNW/SW" or footage from lines NW/4 NE/4 NW/4

Lease Owner Skelly Oil Company

Lease Name Helmke "G" Well No. 2

Office Address Box 1650, Tulsa, Oklahoma

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

Date well completed September 20, 19 52

Application for plugging filed March 31, 19 60

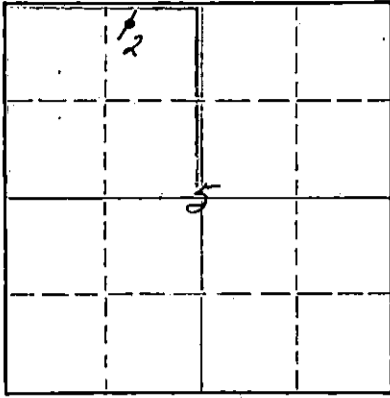
Application for plugging approved April 5, 19 60

Plugging commenced April 4, 19 60

Plugging completed April 11, 19 60

Reason for abandonment of well or producing formation Depleted well

NORTH



Locate well correctly on above Section Flat

If a producing well is abandoned, date of last production December 31, 19 59

Was permission obtained from the Conservation Division or its agents before plugging was commenced? Yes

Name of Conservation Agent who supervised plugging of this well Mr. Fred W. Hampel

Producing formation Arbuckle Lime Depth to top 4314' Bottom 4318' Total Depth of Well 4323 1/2' Feet

Show depth and thickness of all water, oil and gas formations. PB 3694'

OIL, GAS OR WATER RECORDS

CASING RECORD

FORMATION	CONTENT	FROM	TO	OD SIZE	PUT IN	PULLED OUT
Mississippian	Oil	4131'	4147'	8-5/8"	449'6"	None
Viola Lime	Oil	4150'	4179'	5-1/2"	4332'1"	2219'0"
Simpson	Oil	4219'	4234'			
Arbuckle	Oil	4314'	4318'			

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.

Bridging plug @ 4100' and 1/4 sack Cal-Seal from 4100' to 4098'
 Bridging Plug @ 3915' and 1/2 sack Cal-Seal from 3915' to 3907'
 Bridging Plug @ 3884' and 1/2 sack Cal-Seal from 3884' to 3879'
 Bridging Plug @ 3855' and 1/4 sack Cal-Seal from 3855' to 3852'
 Bridging Plug @ 3700' and 1/4 sack Cal-Seal from 3700' to 3694'
 Sand 3694' to 3620'
 5 sacks cement 3620' to 3580'
 Mud 3580' to 310'
 Rock 310' to 300'
 20 sacks cement 300' to 240'
 Mud 240' to 35'
 Rock 35' to 30'
 10 sacks cement 30' to 7'
 Surface soil 7' to Surface

RECEIVED
STATE CORPORATION COMMISSION
APR 14 1960
CONSERVATION DIVISION
Wichita, Kansas

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

Name of Plugging Contractor Ace Pipe Pulling Company
 Address Box 304, Great Bend, Kansas

STATE OF Kansas, COUNTY OF Reno, ss.
H. E. Wamsley (employee of owner) or (owner/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)

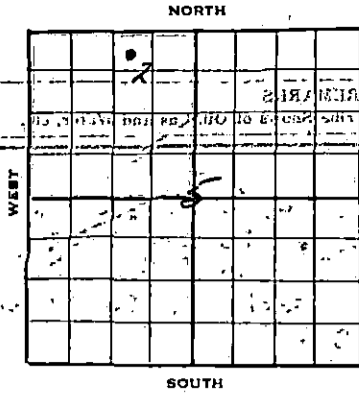
SUBSCRIBED AND SWORN TO before me this 13th day of April, 19 60

My commission expires April 7, 1963

Notary Public.



SKELLY OIL COMPANY



Well Record
#35412

Lease Name and No. **Helake "O"** Well No. **2** Elev. **1896' RB**
1893' DF
1888' BH

Lease Description **N¹/₄ Section 5-27C-124,**
Pratt County, Kansas

Location made **August 9, 1952** by **Pratt County Engineer**
330 feet from North line **990** feet from East line **NW/4**
 feet from South line feet from West line of **Sec. 5**

Work com'd **8/13 1952** Rig comp'd **8/15 1952** Drlg. com'd **8/15 1952** Drlg. comp'd **9/8 1952**

Rig Contractor **Claude Wentworth Drilling Co., Inc.**

Drilling Contractor **Claude Wentworth Drilling Co., Inc., Tulsa, Oklahoma**

Rotary Drilling from **0'** to **4299 1/2' SLM** Cable Tool Drilling from **4299 1/2'** to **4323 1/2'** wtr.

Commenced Producing **September 20, 1952** Initial Prod. before shot or acid **3 gals. oil all. show** Bbls.
 Initial Prod. after shot or acid **POB 8 hrs. 34.1' BO no** Bbls.
wtr. to estab. 24 hr. 500 pot. 103-bbls.

Dry Gas Well Press. Volume Cu. ft.

Casing Head Gas Pressure Volume Cu. ft.

Braden Head **(8-5/8" 5 1/2" OD)** Gas Pressure Volume Cu. ft.

Braden Head () Size Gas Pressure Volume Cu. ft.

PRODUCING FORMATION **Simpson Sand** Top **4221'** Bottom **4234'** TOTAL DEPTH **4323 1/2'**
 (Name) PB 4259'

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
8-5/8"	28 5/8"	SV	452'				22	449	6	R1 LW	C	250	Halliburton	
5-1/2"	14 1/2"	BR					68	2177	0	J55 R2	S A			
5-1/2"	15 1/2"	BR					17	510	3	J55 R2	S A			
5-1/2"	20 1/2"	LOV	4297 1/2'				53	1644	10	R2 SS	B	200	Halliburton	
(8-5/8" casing set 2' in cellar and 5 1/2" cased to derrick floor) (5 1/2" casing perforated from 4221' to 4234' with 52 cone shots)														

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	9/8/52	9/15/52		
Acid Used	500 Gals.			
Size Shot				
Shot Between	4297 1/2' Ft. and 4323 1/2' Ft.	4221' Ft. and 4234' Ft.		
Size of Shell				
Put in by (Co.)	Halliburton	Halliburton		
Length anchor				
Distance below Cas'g.		hydraulic		
Damage to Casing or Casing Shoulder				

SIGNIFICANT GEOLOGICAL FORMATIONS

NAME	Top	Bottom	GAS		OIL		REMARKS
			From	To	From	To	
Hoebner Shale	3486'						
Douglas	3524'						
Brown Line	3664'						
Lansing Line	3678'						
Mississippi Line	4130'						
Viola Line	4150'						
Simpson Sand	4218'				4221'	4234'	
Arbuckle Line	4294 1/2' SLM						

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)

WYOMING OIL RECORD OF FORMATIONS

FORMATION	TOP	BOTTOM	REMARKS
Surface soil and sand	0	230	
Red bed and shells	230	452	Set and cemented 8-5/8" OD, 287.87 lbs., R-1, L.S. steel casing (cont.) at 452' with 250 sacks of cement and 10 sacks of aquagol. Cement circulated.
Shale and shells	453	730	
Red bed and shells	730	905	
Anhydrite	905	940	
Shale and shells	940	1250	
Salt and shale	1250	1400	
Shale and shells	1400	1870	
Sandy lime and shale	1870	2070	
Lime and shale	2070	2220	
Lime	2220	2300	
Lime and shale	2300	3175	
Sandy lime	3175	3260	
Lime and shale	3260	3360	
Lime	3360	3535	
Lime and shale	3535	3695	
Lime	3695	3755	
Lime and shale	3755	3838	
CROOK SWAMP			
Gray to brown fine crystalline oolitic lime	3838	3842	Good porosity, fair stain
Lime	3842	3868	
White to gray, fine crystalline oolitic lime	3868	3872	Fair porosity and stain
Lime	3872	3876	
White to gray, fine crystalline oolitic lime	3876	3878	
Lime	3878	3883	
White, soft to dense lime partly oolitic and oolitic	3883	3893	Good porosity, fair stain
Lime	3893	3929	
White to gray dense to oolitic lime	3929	3932	Fair porosity and fair spotted stain
Lime and shale	3932	3950	
Lime	3950	4085	
Lime and chert	4085	4101	
Lime, chert and shale	4101	4148	TOP WINDSOR LIME 4130'
Chert	4148	4175	TOP WINDSOR SHALE 4140'
Chert and shale	4175	4205	TOP VIOLET LIME 4150'
Shale	4205	4213	TOP SIMPSON SHALE 4162'
Sand	4213	4215	TOP SIMPSON SAND 4202'
Cored from 4215' to 4216'4" - Recovered 7 1/2"			
All gray to brown, fine to medium grained sand, good porosity, good saturation, showing oil and gas.			
Cored from 4216'4" to 4217'6" - Recovered 14"			
All gray to brown, medium grained sand with vertical fractures, good porosity and saturation, some bleeding oil and gas			
Cored from 4217'6" to 4218'7" - Recovered 11"			
All gray to brown, medium grained sand with vertical fractures, few thin shale partings, good porosity and saturation, bleeding oil and gas			
Cored 4222-82			
Ran core hole to bottom. - Ran 1 1/2" - Correction: 4219' equals 4226' SLI			
Cored from 4226' to 4253' - Recovered 27'			
Top 3'9" - Fine to medium grained hard sand, oil saturated			
Next 3'3" - Thin streaks of sand and shale, bleeding oil			
Next 2'6" - Hard fine medium grained sand, oil saturated			
Next 2' - Streaks of sand and shale, bleeding oil			
Next 1'9" - Fine, medium grained sand with vertical fractures and oil saturation			
Next 1'9" - Streaks of hard sand and shale, bleeding oil			
Next 6'6" - Fine grained, hard sand, oil saturated			
Next 2' - Streaks of sand and shale, bleeding oil			
Next 1' - Hard, fine, medium grained sand, oil saturated			
Next 1' - Streaks of sand and shale, bleeding oil			
Next 6" - Hard, fine, medium grained sand, oil saturated			
Last 1' - Streaks of sand and shale, bleeding oil			
Ran core hole to bottom			

Cored from 4253' to 4282' - Recovered 25' 3"

- Top 6" - Streaks of sand and shale, good odor
- Next 1'6" - Fine to medium grained hard sand with vertical fractures, oil saturation, good odor, showing oil
- Next 2'3" - Streaks of sand and shale, good odor, oil saturation, fractures in sand
- Next 4'9" - Streaks of sand and shale, showing oil in spots and scattered streaks
- Next 12'3" - Black shale
- Next 3' - Sandy black shale, no shows
- Last 1' - Black shale

Drilled:

Shale	4282	4296
Fine crystalline, gray dense dolomite	4296	4301

Reamed core hole to bottom

TOP BRUCKLE LINE 4294' SLM

No shows
Set and cemented 1644' of 5 1/2" OD, 20, 107 thd., R-2, S.S. casing (B cond.); 510' of 5 1/2" OD, 15.5#, 88 thd., R-2, J-55, S.S. casing Lot #113 (A cond.); and 2177' of 5 1/2" OD, 14#, 88 thd., R-2, J-55, Fitts, S.S. casing (A cond.) at 4297 1/2' SLM with 200 sacks of Pozmix cement. Finished cementing at 7:40 p.m. 9/2/52.

Moved in and rigged up cable tools and bailed the hole dry on September 5. Drilled cement plug to 4273' and 5 1/2" casing tested dry. Drilled cement plug and cleaned out to bottom and ran SLM. Correction: 4301' SLM rotary table equals 4299 1/2' SLM derrick floor. Ran Lane-Wells Gamma Ray Survey.

SLM 4301 4299 1/2

Gray coarsely crystalline dolomite, hard	4299 1/2	4304 1/2
Same	4304 1/2	4309 1/2
Brown coarsely crystalline dolomite, hard	4309 1/2	4312 1/2
Gray, coarsely crystalline dolomite, hard	4312 1/2	4315 1/2
Gray, finely crystalline dolomite	4315 1/2	4319 1/2
Same	4319 1/2	4321 1/2
Same	4321 1/2	4323 1/2

Slight show of oil
Bailed and tested 4 hours, 3 gallons of oil, slight show of water per hour.

On September 8, treated through 5 1/2" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 1 - Between 4297 1/2' and 4323 1/2'

Treatment put in 9/8/52 by Halliburton, using 500 gallons of acid and 106 barrels of oil to fill and flush.

TIME	CP	REMARKS
12:05 pm		500 gallons of acid in casing, start flush
12:25 pm	500	Bole loaded with oil and acid
12:30 pm	800	20 gallons of acid in formation
12:35 pm	500	250 gallons of acid in formation
12:38 pm	450	500 gallons of acid in formation, treatment complete

Swabbed out oil and spent acid water used in treating, then swabbed through 5 1/2" casing 9 hours, 20 barrels of oil and 5 1/2 barrels of acid water. On September 9, swabbed through 5 1/2" casing 6 hours, 15 barrels of oil and no water. Set Lane-Wells bridging plug at 4296' and plugged back with crushed rock and cement from 4286' to 4266'.

Perforated 5 1/2" casing from 4236' to 4245' with 36 Lane-Wells Kone shots. Bailed and tested 6 hours, 6 to 8 gallons of water per hour with slight scum of oil per hour. On September 10, ran 2" tubing and set Baker cement retainer at 4155'. Cemented off perforations from 4236' to 4245' with 150 sacks of cement, maximum TP-3500#. Pulled 2" tubing and shut down for cement to set.

On September 13, bailed the hole down and drilled cement plug to 4259' and 5 1/2" casing tested dry. Perforated 5 1/2" casing from 4221' to 4234' with 52 Lane-Wells Kone shots, no shows. On September 15, ran 2" tubing and set Halliburton HM packer at 4180'. Ran Halliburton double Hydrafrac from 4221' to 4234' as follows:

HYDRAFRAC TREATMENT NO. 1 - Between 4221' and 4234'

Used 500# Gel agent
20 gallons of breaker agent
1400# of sand
1500 gallons of kerosene
Maximum IP-3500#, broke to 2000#
Used 160 barrels of oil

Pulled tubing and HM packer, bailed and cleaned up hole and swabbed out oil used to Hydrafrac; then swabbed through 5 1/2" casing 12 hours, 42 barrels of oil and no water. On September 18, swabbed through 5 1/2" casing 22 hours, 72 barrels of oil and no water. Ran 2" tubing and rods and on September 20, POC 8 hours, 34.12 barrels of oil and no water to establish 24 hour State Corporation Commission potential of 103 barrels. This potential allows 25 barrels per day.

LOGS TEST DATA

<u>DEPTH</u>	<u>ANGLE OF DEFLECTION</u>
400'	1/2 Degree
650'	0 "
1000'	0 "
1250'	0 "
1500'	0 "
1850'	1/2 "
2000'	1/2 "
2250'	1/2 "
2750'	1/2 "
3150'	0 "
3400'	0 "
3650'	0 "
3800'	0 "
4055'	0 "

WATER ANALYSIS

Pawhuska Research Laboratory
Sample Serial No. 6285
Water from depth of 4236' to 4245'
Date received: 9/16/52
Analysis Completed 9/16/52

PPM

Chlorides as Cl. 47,340
Sulfates as SO₄. 1,660

Chlorides as NaCl. 78,030
Sulfates as CaSO₄. 2,350

Date commenced: November 22, 1953
 Date completed: December 10, 1953

Total Depth: FB 4259'

Production before: 1 barrel of oil and 1 barrel of water
 Production after: 80 barrels of oil and 20 barrels of water

5½" casing perforated from 4219' to 4234' with 60 holes.

- - - - -

On November 22, 1953, moved in and rigged up cable tools of Flournoy Drilling Company. Pulled rods and tubing and swabbed through 5½" casing 12 hours, 1½ barrels of oil and 50 barrels of water.

On November 24, ran 2" tubing and set Halliburton SM retainer at 4210'. Cemented off perforations from 4221' to 4234' with 100 sacks of cement maximum TP-3500#. Pulled tubing and shut down for cement to set.


On November 27, bailed the hole dry and 5½" casing tested dry. Drilled cement retainer and drilled cement plug and cleaned out to 4259'. Test showed leak in 3½" casing at rate of 16 gallons of water per hour. Perforated 5½" casing from 4219' to 4234' with 60 holes by Welox Jet Service, no shows. Ran 2" tubing and set Halliburton HM packer at 4188'. Treated through 2" tubing with 250 gallons of Halliburton MCA acid, then ran Halliburton Sand-Oil-Frac treatment as follows:

SAND-OIL-FRAC TREATMENT NO. 1 - Between 4219' to 4234'

Used 4000# of sand
 70 barrels heavy crude oil
 163 barrels of light oil to fill and flush
 Maximum TP-3900#, broke to 3500#
 Time 35 minutes

Pulled tubing and packer and swabbed through 5½" casing 14 hours, 180 barrels of oil used in treating and 17 barrels of water. Cleaned out from 4230' to 4259', then swabbed through 5½" casing 10 hours, 71 barrels of oil used in treating, 6 barrels of acid water, and 17 barrels of formation water. Then swabbed 6 hours, 28 barrels of oil and 13 barrels of water. On December 4, cleaned out from 4257' to 4259' and ran 2" tubing and rods and moved out cable tools.

On December 7, FOB 16 hours, 32 barrels of oil and 96 barrels of water. On December 8, FOB 16 hours, 45 barrels of oil and 45 barrels of water. On December 9, FOB 20 hours, 65 barrels of oil and 13 barrels of water. On December 10, FOB 24 hours, 80 barrels of oil and 20 barrels of water.



Date Commenced: March 18, 1955
 Date Completed: April 26, 1955

ASCENT 5 1/2" CASING

Total Depth: FB 4259'

Production Before: 100% water
 Production After: 2 1/2 barrels of oil and 10 barrels of water

On March 18, 1955, pulled 2" tubing and rods, and set Lane-Wells bridging plug at 4210'. Shut down for cable tools.

On April 9, moved in and rigged up cable tools of W. L. Copeland. Ran 2" tubing with Halliburton #11 packer and found leak in 5 1/2" casing at 3363'. Pulled tubing and packer. Perforated 5 1/2" casing from 3359' to 3360' with 5 holes by Lane-wells. Ran 2" tubing and set Halliburton #11 retainer at 3341'. Cemented off leaks in 5 1/2" casing with 100 sacks of cement, maximum TP-3500. Pulled 2" tubing and shut down for cement to set.

On April 11, bailed and swabbed hole dry, 5 1/2" casing tested dry. Drilled cement retainer at 3341' and drilled cement plug to 3359'. Bailed and cleaned out to 4210', tested 2 hours and 5 1/2" casing tested dry. Drove Lane-wells bridging plug to 4259'. Bailed hole clean. Unable to swab due to tight places in casing. Tried to run 4-3/4" swedge and it would not go below 3400'. Ran 4-5/8" swedge to 4259', still unable to run swab.

On April 14, bailed and tested 6 hours, 42 barrels of water; then swabbed through 5 1/2" casing 16 hours, 1/2 barrel of oil and 35 barrels of water. On April 15, swabbed through 5 1/2" casing 3 hours, 1/2 barrel of oil and 3 1/2 barrels of water. Ran 30 gallons of Halliburton #11-flo mixed with 32 barrels of oil from 4221' to 4234', flushed with 102 barrels of oil, maximum CP-O, time 16 minutes. Swabbed through 5 1/2" casing 16 hours, 118 barrels of oil used in treating and 4 barrels of water.

On April 16, ran 2" tubing and rods and POB 8 hours, well did not pump up. On April 17, POB 24 hours, 10 barrels of oil and 70 barrels of water. On April 18, POB 24 hours, 5 barrels of oil and 15 barrels of water.

<u>DATE</u>	<u>HOURS PUMPED</u>	<u>BBLS. OIL</u>	<u>BELS. WTR.</u>	<u>REMARKS</u>
4-19-55	20	3 1/2	10	
4-20-55	24	1 1/2	4 1/2	
4-21-55	24	5	20	
4-22-55	24	2	11	
4-23-55	24	1 1/2	10	
4-24-55	24	1 1/2	10	
4-25-55	24	1 1/2	10	
4-26-55	24	1 1/2	10	

PLUGGED BACK TOTAL DEPTH 4259'

W. W. Wandy

TEST VIOLA LIME

Date Commenced: April 28, 1958

Date Completed: July 16, 1958

Total Depth: PB 4259' to 4250' PB TD-4250'

Production Before: 1 barrel of oil and 6 barrels of water per day
Production After: POB 24 hours, 3 barrels of oil and 1/3 barrel of water

5 1/2" casing perforations open:

Above PB TD: 4131'-47' with 96 holes, 4150'-79' with 174 holes,
and 4219'-4234' with 60 holes
Below PB TD: None

Producing Formation: Simpson Sand and Mississippi Lime

On April 28, 1958, pulled rods and 2" tubing, bailed and CO to 4254 1/2'. Swabbed through 5 1/2" casing 6 hours, 18 barrels of oil and no water. Bailed and tested 5 hours, 5 1/2 barrels of water with light scum of oil.

Set Lane-Wells bridging plug at 4198', 5 1/2" casing tested dry. Plugged back with 1/2 sack of Cal-Seal from 4198' to 4193'. Perforated 5 1/2" casing from 4150' to 4179' with 174 holes by Lane-Wells; bailed and tested 2 hours, no fluid. Dumped 84 gallons of Halliburton MCA acid, used 37 barrels of oil to flush. Let set 1 hour, then swabbed through 5 1/2" casing 2 hours, 37 barrels of oil used to flush. Bailed and tested 4 hours, 19 gallons of acid water and no oil. Ran 2" tubing and set Halliburton HM packer at 4123'. Ran Halliburton Sand-Oil-Frac as follows:

SAND-OIL-FRAC TREATMENT NO. 2 - 4150' and 4179'

Used 6000# of sand
4000 gallons of heavy oil
154 barrels of oil to load hole and flush
Maximum TP-4200#, minimum TP-3400#
Time 18 minutes, on vacuum in 2 hours

Pulled 2" tubing and packer. Swabbed through 5 1/2" casing 10 hours, 96 barrels of oil used in treating, no water. On May 2, bailed through 5 1/2" casing 24 hours, 18 barrels of oil used in treating, no water.

Ran 2" tubing and set Halliburton HM packer at 4123'. Ran Halliburton Sand-Oil-Frac as follows:

SAND-OIL-FRAC TREATMENT NO. 3 - Between 4150' and 4179'

Used 4000# sand
3000 gals. heavy oil
60 rubber balls
40 barrels of oil to load hole and flush
Maximum TP-4500#, minimum TP-3400#
Time 27 minutes

Pulled 2" tubing and Halliburton HM packer. Swabbed through 5 1/2" casing 15 hours, 109 barrels of oil used in treating and no water. On May 4, swabbed through 5 1/2" casing 8 hours, 13 barrels of oil used in treating, no water.

Set Lane-Wells cast iron bridging plug at 4147'. Perforated 5 1/2" casing from 4131' to 4147' with 96 holes by Lane-Wells; bailed through 5 1/2" casing 8 hours, 96 gallons of oil, no water. Ran 2" tubing and set Halliburton HM packer at 4121'. Ran Halliburton Sand-Oil-Frac as follows:

SAND-OIL-FRAC TREATMENT NO. 4 - Between 4131' to 4147'

Used 5000# of sand
4000 gallons of heavy crude oil
Used 152 barrels of oil to fill and flush
Maximum TP-4700#, minimum TP-3200#
Time 30 minutes

Pulled 2" tubing and HM packer. Swabbed through 5 1/2" casing 8 hours, 109 barrels of oil used in treating and no water.

Drilled bridging plugs at 4147 1/2' and 4198' and cleaned out to 4250'. Swabbed through 5 1/2" casing 20 hours, 42 barrels of oil used in treating, no water. Ran 2" tubing and rods.

From May 9 to July 13 inclusive, pumped out treating oil with an average of 1/2 barrel of water per day. On July 14, POB 24 hours, 3 barrels of formation oil and 1/3 barrel of water. On July 15, POB 24 hours, 3 barrels of oil and 1/3 barrel of water. On July 16, POB 24 hours, 3 barrels of oil and 1/3 barrel of water.

[Handwritten signature]

TEST ARBUCKLE LINE

Date Commenced: September 1, 1958
 Date Completed: September 21, 1958

Cleaned out from 4250' to 4322' PB TD-4320'

Production Before: 2 barrels of oil and 0.27 barrels of water
 Production After: POB 24 hours, 3 barrels of oil and 28 barrels water

5½" casing perforations open:
 Above PB TD: 4131'-4147' with 96 holes, 4150'-4179' with 174
 holes, 4219'-4234' with 60 holes
 Open Hole perforated: 4314'-4318' with 40 holes
 Below PB TD: None

Formations open: Mississippi Lime, Simpson Sand, Arbuckle Lime

On September 1, 1958, moved in cable tools of W. L. Copeland and pulled 2" tubing and rods. Swabbed through 5½" casing 9 hours, 1½ barrels of oil and 12 barrels of water.

Drilled on bridging plug and cleaned out to 4259'. Drilled cement and cleaned out from 4259' to 4286'. Drilled and drove bridging plug from 4286' to 4322' SLM. Bailed and cleaned out hole, ran 2" tubing and set Halliburton HM packer at 4294'. Swabbed through 2" tubing 8 hours, 9½ barrels of oil and 18 barrels of water. On September 4, swabbed through 2" tubing 24 hours, 10½ barrels of oil and 38 barrels of water. Then swabbed through 2" tubing 4 hours, 1 barrel of oil and 6 barrels of water. Treated through 2" tubing with 200 gallons of Halliburton 25% acid and 250 gallons of HV acid as follows:

ACID TREATMENT NO. 2 - Between 4297½' and 4322'

Treatment put in 9/5/58 by Halliburton, using 450 gallons of acid and 18 barrels of oil.

TIME	CP	TP	REMARKS
10:48 am			Start acid
10:56 am		250'	Acid on bottom
10:58 am		350'	
11:02 am		300'	
11:04 am		200'	Treatment completed

Swabbed through 2" tubing 2 hours, 13 barrels of oil used in treating and 11 barrels of spent acid water. Swabbed through 2" tubing 12 hours, 62 barrels of water and no oil. On September 6, swabbed through 2" tubing 24 hours, 5 barrels of oil and 185 barrels of water.

Pulled 2" tubing and packer and tried to plug back from 4322' to 4319' with 9 gallons of Halliburton resin cement and Halliburton dump bailer, cement failed to set. Tried to plug back from 4322' to 4319' with 3 gallons of resin cement, no fill up. Ran 2" tubing and set Halliburton cement retainer at 4283'. Cemented off open hole from 4322' to 4297½' with 42 sacks of common cement and 5 gallons of DOC mixed with 300 gallons diesel fuel, used 172 barrels of oil to load hole, fill, and flush tubing, maximum TP-500#. Pulled 2" tubing and shut down for cement to set.

Drilled cement retainer at 4283' and cleaned out to 4312'. On September 10, swabbed through 5½" casing 12 hours, 48 barrels of oil used in treating and 5 barrels of water; then swabbed through 5½" casing 3 hours, 4 barrels of oil used in treating and 1/2 barrel of water.

Drilled cement and cleaned out to 4318'. Ran 2" tubing and set Halliburton RTTS packer at 4290'. Swabbed through 2" tubing 3 hours, no recovery.

Open Hole Perforation No. 1 - Arbuckle Lime - 4314'-4318'

4314'-4318' 40 holes

Swabbed through 2" tubing 5 hours, no shows. Treated through 2" tubing with 250 gallons of Halliburton HV acid as follows:

ACID TREATMENT NO. 3 - Between 4314' and 4318'

Treatment put in 9/12/58 by Halliburton, using 250 gallons of acid and 20 barrels of oil.

TIME	CP	TP	REMARKS
9:30 am			Start acid
9:32 am			Start flush
9:35 am		1100'	Acid on bottom
9:40 am		1300'	Acid clear
9:41 am		1200'	Treatment completed

Swabbed through 2" tubing 9 hours, 20 barrels of oil used in treating and 6 barrels of acid water; then swabbed 8 hours, 1 1/2 barrels of oil and 6 barrels of water.

Pulled 2" tubing and packer. Swabbed through 5 1/2" casing 4 hours, 2 barrels of oil and 20 barrels of water; then bailed 3 hours, 11 gallons of oil and 52 gallons of water per hour.

Drilled cement and cleaned out from 4318' to 4319'. Swabbed through 5 1/2" casing 4 hours, 1 barrel of oil and 10 barrels of water; bailed 2 hours, 11 gallons of oil and 51 gallons of water per hour. Drilled cement and cleaned out to 4320'.

PLUGGED BACK TOTAL DEPTH 4320'

Bailed through 5 1/2" casing 2 hours, 11 gallons of oil and 51 gallons of water per hour. Ran 2" tubing and set Halliburton RITS packer at 4293'. Swabbed through 2" tubing 1 hour, 11 gallons of oil and 52 gallons of water. Treated through 2" tubing with 500 gallons of Halliburton HV acid as follows:

ACID TREATMENT NO. 4 - Between 4297 1/2' to 4320'

Treatment put in 9/14/58 by Halliburton, using 500 gallons of acid and 20 barrels of oil.

TIME	CP	TP	REMARKS
4:24 pm			Start acid
4:26 pm			Acid in, start flush
4:29 pm			Hold loaded
4:32 pm		1100'	
4:44 pm		100'	Treatment completed

Swabbed through 2" tubing 7 hours, 20 barrels of oil used in treating and 12 barrels of spent acid water. Swabbed through 2" tubing 4 hours, 2 1/2 barrels of oil and 6 barrels of water.

Ran rods and pumped as follows:

DATE	HOURS PUMPED	BSLS. OIL	BSLS. WTR.
9/15/58	18	7	43
9/16/58	24	10	50
9/17/58	24	1.5	12
9/18/58	24	1.5	15
9/19/58	24	2	18
9/20/58	24	3	27
9/21/58	24	3	28

[Handwritten signature]

9/21/58
11:00 AM
4297 1/2'

TEST LANSING LINE AND PLUG AND ABANDON WELL

Date Commenced: February 23, 1960

Date Completed: April 11, 1960

Plugged back from 4320' to 0'

P & A 4/11/60

Production Before: 1/2 barrel oil and 9 1/2 barrels water per day

Pulled Out:

68 jts. (2177')	5 1/2" OD, 14 1/2" SR, J-55, R-2, S.S. csg. (C cond.)
1 jt. (12')	5 1/2" OD, 15 1/2" SR, J-55, R-2, S.S. csg. (C cond.)
1 jt. (30')	5 1/2" OD, 15 1/2" SR, J-55, R-2, S.S. csg. (D cond.)
70 jts. 2219'	

On February 23, 1960, moved in cable tools of W. L. Copeland Drilling Company, pulled rods and 2" tubing and Halliburton HM packer. Bailed and cleaned out hole and swabbed through 5 1/2" casing 1 hour to swab hole down, 10 barrels of oil and 35 barrels of water; then swabbed 2 hours, 10 1/2 barrels of water per hour with slight trace of oil.

Ran Lane-Wells Gamma Ray Chlorinilog. Swabbed through 5 1/2" casing 3 hours, 9 barrels of water per hour.

Set Lane-Wells cast iron bridging plug at 4100' and swabbed through 5 1/2" casing 3 hours, 7 barrels of water per hour, unable to swab hole down. Loaded hole with water, unable to pump into casing at maximum pressure of 1500#. Swabbed and bailed hole dry, tested dry.

Plugged back from 4100' to 4098' with 1/4 sack of Cal-Seal.

PERFORATION JOB NO. 7 - Lansing Line - 4040'-4071'

Perforated 5 1/2" casing with 4 Lane-Wells holes per foot:

4064'-4071'	- 7'	- 28 holes	- Bailed 1 hour, no recovery
4040'-4048'	- 8'	- 32 holes	- Bailed 2 hours, no recovery
TOTAL	15'	60	

Ran 2" tubing and set Halliburton HM packer at 4030'.

TREATMENT NO. 10 - (Acid) - 4040'-4071'

2/26/60 treated with 250 gallons of Halliburton FGA acid, used 20 barrels of oil to flush, maximum IP-1000#, minimum IP-400#, time 11 minutes, injection rate 1/2 barrel per minute.

Swabbed through 2" tubing 16 hours, 20 barrels of oil used in treating with slight show of gas; then swabbed 2 hours, no recovery.

TREATMENT NO. 11 - (Acid-Frac) - 4040'-4071'

2/27/60 ran Halliburton Acid-Frac using 3000# of sand, 3000 gallons gelled acid, 350# mothballs. Sand screened out after using 2000#, 2500# gelled acid, and 350# mothballs, maximum IP-5400#, minimum IP-2000#, time 7 minutes, injection rate 9 barrels per minute, used 165 barrels oil to fill casing, take input and attempt to unseat packer.

Unable to unseat packer. Swabbed through 2" tubing 11 hours, 19 1/2 barrels of oil used in treating, 2 1/2 barrels spent acid water. Swabbed through 2" tubing 8 hours, 6 1/2 barrels of oil used in treating. Circulated hole with 60 barrels of oil to remove sand from above packer. Swabbed through tubing 2 hours, 20 barrels oil used in treating, no water. Pulled tubing and packer.

Swabbed through 5 1/2" casing 17 hours, 41 barrels oil used in treating and 5 barrels of water; then swabbed 2 hours, 13 barrels of oil and 16 barrels water per hour.

Set Lane-Wells cast iron bridging plug at 3915', 5 1/2" casing tested dry. Plugged back from 3915' to 3907' with 1/2 sack of Cal-Seal.

PERFORATION JOB NO. 8 - Lansing Line - 3888'-3898'

Perforated 5 1/2" casing by Lane-Wells as follows:

3888'-3898'	- 10'	- 41 holes
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Bailed 2 hours, 1 gallon water per hour. Ran 2" tubing and set Halliburton HM packer at 3877'

TREATMENT NO. 12 - (Acid) - 3888'-3898'

3/1/60 treated through 2" tubing with 500 gallons of Halliburton 15% acid, used 18 barrels of oil to flush, maximum IP-900#, minimum IP-550#, time 17 minutes, injection rate 3/4 barrels per minute.

Swabbed through 2" tubing 9 hours, 18 barrels of oil used in treating and 12 barrels of spent acid water; then swabbed through tubing 2 hours, 3 1/2 barrels of water with scum of oil per hour. Pulled 2" tubing and packer. Shut down on account of storm.

On March 5, set Lane-Wells cast iron bridging plug at 3884' and swabbed and bailed hole dry, tested dry. Plugged back with 1/2 sack of Cal-Seal from 3884' to 3879'.

PERFORATION JOB NO. 9 - Lansing Line - 3871'-3877'
Perforated 5 1/2" casing by Lane-Wells as follows:

3871'-3877' - 6' - 23 holes

Swabbed through 5 1/2" casing 6 1/2 hours, 7 barrels salt water with scum of oil per hour.

Set Lane-Wells cast iron bridging plug at 3855' and swabbed and bailed hole dry, tested dry. Plugged back with 1/4 sack of Cal-Seal from 3855' to 3852'.

PERFORATION JOB NO. 10 - Lansing Line - 3840'-3844'
Perforated 5 1/2" casing with 4 Lane-Wells holes per foot:

3840'-3844' - 4' - 16 holes

Swabbed through 5 1/2" casing 8 hours, 1 barrel salt water per hour.

Set Lane-Wells cast iron bridging plug at 3700' and swabbed and bailed hole dry, tested dry. Plugged back with 1/4 sack of Cal-Seal from 3700' to 3694'.

PERFORATION JOB NO. 11 - Lansing Line - 3677'-3686'
Perforated 5 1/2" casing with 4 holes per foot by Lane-Wells:

3677'-3686' - 9' - 36 holes

Bailed 2 hours, no recovery. Ran 2" tubing and set H1 packer at 3668'.

TREATMENT NO. 13 - (Acid) - 3677'-3686'

3/6/60 treated through 2" tubing with 500 gallons of Halliburton 15% acid, used 18 barrels oil to fill and flush, maximum IP-1550, minimum IP-300, time 9 minutes, injection rate 1 1/2 barrels per minute.

Swabbed through 2" tubing 12 hours, 18 barrels of oil used in treating, 12 barrels of spent acid water and 23 barrels of formation water; then swabbed through 2" tubing 2 hours, 7 barrels salt water. Pulled tubing and packer.

As all producing zones are depleted and all other possible producing zones have been tested with negligible results, regular authority was granted to plug and abandon the well.

On April 4, 1960, moved in plugging machine and while plugging back with sand, hole bridged over at 800'. Pulled 15" tension on 5 1/2" casing and cleaned out sand bridge at 800'. Plugged as follows:

Sand	3694' to 3620'
5 sacks of cement	3620' to 3580'

Shot off 5 1/2" casing at 3205', 3115', 2995', and 2845', unable to pull casing. Spotted 35 barrels oil behind 5 1/2" casing at 2845'. Unable to pull casing. Shot casing off at 2605' and 2510', unable to pull. Displaced oil with 25 barrels of water. Shot off casing at 2215'.

Pulled 69 jts. (2189') of 5 1/2" OD, 14#, GR, R-2, J-55, S.S. casing (C cond.); and 1 joint (30') same (D cond.).

Mud	3580' to 310'
Rock	310' to 300'
20 sacks of cement	300' to 240'
Mud	240' to 35'
Rock	35' to 30'
10 sacks of cement	30' to 7'
Surface soil	7' to Surface

PLUGGED AND ABANDONED 4/11/60.

