

GLEN N. RUPE

OIL PRODUCER

222 Brown Building - Wichita, Kansas 67202 - AM 2-3748

TITUS #1
SW SW of Section 4-26S-19W
Edwards County, Kansas

- April 29, 1968 - Pits dug and location staked.
- May 6, 1968 - Spudded at 3:00 p.m. - Set 8 5/8" Casing at 283' cemented with 255 sacks common 2% cc. Plug was down at 12:15 a.m. on May 7th - cement circulated.
- May 7, 1968 - Waiting on cement.
Elevation ordered.
Gas Detector is ordered out and will be on location tomorrow morning.
- May 8, 1968 - Drilling at 2190' at 8:00 a.m. this morning.
Anhydrite is 1310' to 1320'.
No elevation as yet, probably Friday of this week.
Gas Detector hooked up and operating.
- May 9, 1968 - Drilling at 2880' at 8:00 a.m.
3:00 p.m. - Drilling at 3075'.
Baroid representative, Ken Butler reports the following:
- | | |
|---------------|-------|
| Top of Chase | 2472' |
| Fort Riley | 2612' |
| Wreford | 2738' |
| Council Grove | 2792' |
- Expect the Langdon Sand at 3330'
- May 10, 1968 - Laughlin-Simmons elevation
- | | |
|-------|---------------|
| 2222' | Ground |
| 2225' | Derrick Floor |
| 2228' | Kelly Bushing |
- May 11, 1968 - Drilling at 3505' at 8:00 a.m.
- May 12, 1968 - Drilling at 3945' at 8:00 a.m.
- May 13, 1968 - Drilling at 4355' at 8:00 a.m.
- May 13, 1968 - Drilling at 4625' at 8:00 a.m.
- 4160' Lansing is a minus 1932' which is 9' higher than our Michaelis #1 in Sec. 13-26S-19W.
- May 14, 1968 - Drilling at 4758' - Took Drill Stem Test #1 from 4716' to 4758' - shut in 30 min., open 60 min., shut in 30 min.
- | | |
|------|--------------|
| IBHP | 1498# |
| FBHP | 1419# |
| IF | 471# to 480# |
| FF | 500# to 442# |
- Strong blow throughout Test--gas to surface in 3 min., and in 5 min. 1,450,000; and at end half hour 2,470,000 and stabilized at 2,310,000. Real good Drill Stem Test.
Drilling on to the Kinderhook Sand--will run pipe.
- May 15, 1968 - Drilling at 4878' at 8:00 a.m.
Top of the Kinderhook Sand 4840' - didn't have a show. However, taking it on down to the Top of Viola--then run Electric Log and then Casing.
- May 16, 1968 - Rotary Total Depth 4900' - Took Drill Stem Test #2 from 4700' to 4737'. Straddle Test - Top Packer at 4700 and Bottom Packer at 4737'. After looking at Electric Log - completed free of water--see if the gas pressure would hold up--the Packer failed.
Back in now running Halliburton Test again -- testing from 4666' to 4737'.



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Wichita, Kansas 67207

AM 2-3748

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SW SW of Section 4-26S-19W
Edwards County, Kansas

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Back in now running Halliburton Test again -- testing

May 16, 1968

TITUS #1 - C SW SW of Section 4-26S-19W, Edwards County, Kansas

Open 2:58
5 Min. Gas Surface

	After 10 Min.			Cu. Ft.
	" 15 "		734,000	"
	" 30 "		877,000	"
	" 45 "		1,070,000	"
	" 60 "		1,192,000	"
	" 60 "		1,250,000	"
(1)	5		1,250,000	"
	15		1,077,000	"
	30		1,020,000	"
	45		1,077,000	"
	60		1,077,000	"
(2)	15		1,077,000	"
	30		1,020,000	"
	45		1,020,000	"
	60		1,020,000	"
(3)	15		1,020,000	"
	30		1,020,000	"
	45		1,020,000	"
	60		1,020,000	"
(4)	15		1,020,000	"
	30		1,020,000	"
	45		1,020,000	"
	60		1,020,000	"



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TITUS #1 - C SW SW of Section 4-26S-19W, Edwards County, Kansas

May 17, 1968 - Ran Straddle Test from 4662' to 4735' (Drill Stem Test #3) - had gas to surface in 5 minutes. Shut in 45 min. - open 64 min. - closed 46 min. - reopen 4 hour
Initial Bottom Hole Pressure 1484#
Final Bottom Hole Pressure 1351#
Initial Flow Pressure 324#
Final Flow Pressure 259#

The attached is the various Gauges during a 5 hour flow period. The Well stabilized at 1,200,000. This is about one-half of what we had in the first Drill Stem Test. However, we feel there is a great deal of formation damage due to the drilling mud and the compression of this mud against the formation by the numerous trips in and out of the hole.

We feel that the Titus Well should be capable of around 2,000,000 cu. ft. of gas per day natural. So we have decided to run Casing to the depth of 4900' Rotary Total Depth. Ran 150 Joints of 4½" 9.5# Casing - set at 4900' cemented with 100 sacks of 50-50 Pozmix, 2% Gel, 1% Calcium Chloride--used 8 sacks of CFR-2 and 10 bbl. of Salt Flush ahead of cement--plug down at 2:30 p.m. today. Everything went well.

We will be ready to perforate the Mississippi Chat Formation approximately one week from today.

The Electric Log, Drill Stem Tests and Geological Report will follow.

Also enclosing write-up by PETROLEUM INFORMATION regarding the Well--thought you might be interested in seeing it.

After all the various Tests we are convinced we have a good well.

May 21, 1968 - ELECTRIC LOG TOPS:

Tarkio	3426'	-1198'
No Langdon Sand	present	
Heebner	4014'	-1786'
Brown Lime	4142'	-1914'
Lansing	4154'	-1926'
Base of K.C.	4482'	-2254'
Cherokee	4658'	-2430'
Mississippi	4718'	-2490'
Kinderhook	4806'	-2578'
Kinderhook Sand	4854'	-2626'
Rotary Total Depth	4900'	

Corrected

Cute. Sew

March

Harriet

~~number~~

Ann



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TITUS #1
C SW SW of Section 4-26S-19W
Edwards County, Kansas

Engineering Completion:

- May 24, 1968 - Pratt Well Service will be moving in Double Drum Service Unit Monday morning, May 27th, and we will run a correlation log. Then we will run tubing and abraza jet at 4731' and 4725'. Tentative plans are to go in and make these cuts and pump approximately 500 gals. Mud Acid back into the formation and we will then commence swabbing this acid and water back that day.
- May 27, 1968 - Pratt Well Service finished rigging up at 10:00 a.m. McCullough Tool Company cased hole Log from 4830' up to 4400'. ran a
Ran approximately 4735' of 2" EUE Tubing--made 6 slots in the Casing from 4735' to 4730'. Acid Engineers pressured up the Tubing--washed over the slots with 500 gals. Mud Clean Up Acid. Broke the Well down and it started treating at 600# maximum pressure--during the Acid treatment 1600#. Well went on immediate vacuum. LOOKS GOOD. Shut Well down at 9:00 p.m.
- May 28, 1968 - Start swabbing through 2" Tubing, around 9:00 a.m. by 11:30 a.m. Well kicked off and started flowing 1,055,000 cubic feet gas on the open flow test and the Well had been only shut in for 15 minutes and the Tubing pressures went to 440# in 15 minutes.
4:00 p.m. - Well continued to flow--flowing the Well until 8:00 p.m. tonight and will shut the Well in at 8:00pm tonight and open in the morning and gauge then.
We may want to go back in and give a shot of acid as we have quite a mud invasion back into the formation, but looks real good.
- May 29, 1968 - The over night Casing Shut-In Pressure was 1350# and the Tubing Pressure 1350#.
Flowing the Well and at the end of the first hour the Casing Pressure was 280#--the Well gauged 1,300,000 cubic feet of gas. We intend to flow the Well the remainder of the day before making any other decisions.
- flu*



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TITUS #1

C SW SW of Section 4-26S-19W
Edwards County, Kansas

Completion report, continued

- May 30, 1968 -- Acidized well with 2000 gallons of 7% Hydrochloric acid. Formation started taking acid at 850 p.s.i. and dropped to 600 p.s.i. Well went on vacuum in 4 minutes. Commenced swabbing operations. Pulled swab five times and well "kicked off" and started flowing.
- May 31, 1968 -- Tubing and casing shut in pressures = 1350#. Opened well up and flowed through 2" tubing the remainder of the day. At the end of the day the well gauged 1,630,000 cubic feet. Left well flowing all night.
- June 1, 1968 -- Gauged 1,630,000 cubic feet/day. Casing pressure 300#, tubing pressure 30#, left well flowing on 18/64 choke.
- June 2, 1968 -- Flowing on 14/64 choke, tubing pressure 310#, casing pressure 415#, gauged 1,516,000 cubic feet of gas/day. Left well flowing on 18/64 choke.
- June 3, 1968 -- Flowing on 18/64 choke. Tubing pressure 390#, casing pressure 450#, gauging 993,000 cubic feet gas/day.

We will continue flowing the well until tomorrow (June 4) and will then shut in the well for 72 hours, after which Kansas-Nebraska Gas will conduct their tests.

TITUS #1 SW SW of Section 4-26S-19W, Edwards County, Kansas

	1	2	3
			Elevation: 2225 D.F. 2222 Ga.
	Drlg Contractor: Leben Drilling Co.		
	Drill-In Unit: Pratt Well Service		
1	Gorski	RNH Inc.	Geologist:
2	Mimura	Monsour	Ken Butler (Baroid)
3	Runnel	Wilford Scott	Geo. Whitaker (BAROID)
4	Stan Bell	Sperte	Liberal, Kansas
5	Chas. Dingman	Vinton	
6	W. K. Stumbaugh	Timmerman out	
7	Cities Service Oil Co. Oklahoma City (R.M. Strom)		
8	Dug pits and staked location.		
9	Spud on 5/6 at 3:00 p.m. - Set 8 5/8" at 283' cemented with 255 sax		
10	common 2% cc. Plug was down at 12:15 a.m. on 5/7 - cement circulated		
11	Waiting on Cement.		
12	Ordered Elevation.		
13	Leben filed Intent to Drill as per Carol 5/7/68 (GMR)		
14	5/8 Drilling at 2190' at 8:00 a.m. this morning. Anhydrite 1310' to 1320'		
15	No elevation as yet probably Friday of this week.		
16	Gas Detector hooked up and operating.		
17	5/9 Drilling at 2880' at 8:00 a.m. this morning.		
18	3:00 p.m. - KenButler, Baroid "Gas Detector" representative reports		
19	the following Tops:		
20		Chase	2472'
21		Fort Riley	2612'
22		Wreford	2738'
23		Council Grove	2792'
24	Expect the Langdon Sand at 3330'		
25	5/10 Drilling at 3505' at 8:00 a.m.		
26	5/11 Drilling at 3945' at 8:00 a.m.		
27	5/12 Drilling at 4355' at 8:00 a.m.		
28	5/13 Drilling at 4625' at 8:00 a.m.		
29	Lansing is -1932' which is 9' higher than Michaelis #1 in Sec. 19		
30	26S-19W and has the highest Lansing in the area.		
31	5/14 Drilling at 4738' - DST #1 4716-4758' Shut in 30, open 60, shut in 30		
32		IBHP	1498#
33		FBHP	1419#
34		IF	471# to 480#
35		FF	412# 500-400
36	Gas to surface in 3 min. 60 min gauge 2 million		
37	three hundred ten (2,310,000)		
38	180' Muddy Salt Water		
39	1,450,000		
40	2,470,000		
	3,310,000		
	5/15 Drilling at 4878'		

5/10/68 3:00 pm

5/11/68

325

5/17/68

Over

5/16 Rotary Total Depth 4900'

Took Drill Stem Test #2 from 4700' to 4737'

Straddle Test - Top Packer at 4700'

Bottom Packer at 4737'
(Packer failure.)

After looking at Electric Log - completed
free of water--see if the gas pressure would
hold up -- the Packer failed.

Back in now running Halliburton test again.

Testing from 4666' to 4737'.

5/17 Running 4½" Casing

Gas to Surface in 5 minutes.

1 Hr. gauge stabilized at 1,077,000 *Cubic Ft. Gas*

DST #3 from 4661' to 4734'

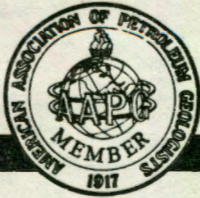
Shut in 45 min. Open 4 min.

IBHP 1484#

FBHP 1351#

IF 324#

FF 259#



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June 25, 1968

TITUS #1 - C SW SW of Section 4-26S-19W, Edwards County, Kansas

Kansas-Nebraska tested TITUS #1 - open flowed 1,720,000 Cu. Ft. Gas
gravity 6.91

Used several different Orifice Openings to test the Well and on 1/8th inch plate the Well made 400,000 Cu. Ft. Gas at 1,089#, and 3/16th inch opening the Well will deliver 750,000 at 940#.

They seemed very satisfied with the Well.

*maced copy to partner
6/26/68*

6/25/68

TiTes

691 Gravity

Open flow
17,720,000

Slope .839

2 hr pts

PS 16
1086

1/16 plate

106,000

1,041

3/32

2251

1089

1/8

4001

#

940

3/16

750