

State Geological Survey

WICHITA BRANCH

15-009-20969

KANSAS DRILLERS LOG

API No. 15 _____
County _____ Number _____

S. 13 T. 18 R. 13 W
Loc. C SW/4 NW/4
County Barton

Operator
Benson Mineral Group, Inc.

Address
1400 Metrobank Bldg., Denver, Colorado 80202

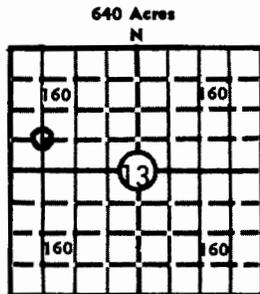
Well No. 1-13 Lease Name Tindall 'C'

Footage Location
1980 feet from (N) (S) line 660' feet from XX (W) line

Principal Contractor Emphasis Oil Operations Geologist C. W. Hickok

Spud Date April 13, 1976 Total Depth 1685 P.B.T.D. 1664

Date Completed April 18, 1976 Oil Purchaser



Elev.: Gr. 1799'
DF 1802' KB 1804'

CASING RECORD

Report of all strings set — surface, intermediate, production, etc.

Purpose of string	Size hole drilled	Size casing set (in O.D.)	Weight lbs./ft.	Setting depth	Type cement	Socks	Type and percent additives
Surface	12 1/4"	8 5/8"	28.55	497	Common	300	CaCl 3%, Gel 2%
Production	7 7/8"	4 1/2"	10.79	1684	50/50 Pozmix	150	

Well purchased by Benson Mineral Group from Northern Natural Gas.

Log previously furnished by Northern Natural Gas.

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Socks cement	Shots per ft.	Size & type	Depth interval
TUBING RECORD			1		1574-82
Size	Setting depth	Packer set at	1		1619-27
2-3/8		1594			

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
750 gal 15% Gas Well Acid	1574-82
750 gal 15% Gas Well Acid	1619-27
3000 gal 15% HCl	1574-1627

INITIAL PRODUCTION

Date of first production 1/11/77	Producing method (flowing, pumping, gas lift, etc.) Pumping water				
RATE OF PRODUCTION PER 24 HOURS	Oil	Gas	Water	Gas-oil ratio	CFPB
	bbis.	100	MCF 45-50	bbis.	
Disposition of gas (vented, used on lease or sold) Sold			Producing interval(s) 1619-27		

INSTRUCTIONS: As provided in KCC Rule 82-2-125, within 90 days after completion of a well, one completed copy of this Drillers Log shall be transmitted to the State Geological Survey of Kansas, 4150 Monroe Street, Wichita, Kansas 67209. Copies of this form are available from the Conservation Division, State Corporation Commission, 3830 So. Meridian (P.O. Box 17027), Wichita, Kansas 66217. Phone AC 316-522-2206. If confidential custody is desired, please note Rule 82-2-125. Drillers Logs will be on open file in the Oil and Gas Division, State Geological Survey of Kansas, Lawrence, Kansas 66044.

Operator _____ DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.: **Gas**

Well No. **1-13** Lease Name **Tindall 'C'**

S **13** T **18** R **13** ^{1/2} W

WELL LOG

Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.

FORMATION DESCRIPTION, CONTENTS, ETC.	TOP	BOTTOM	NAME	DEPTH
Shale	407	526	Stone Corral	678
Red Bed & Shale	526	680	Her-Kri	1571
Shale	680	699	Winfield	1618
Anhydrite	699	703		
Sand	703	725		
Shale	725	1190	Ran Comp. Density-GR log.	
Shale & Red Bed	1190	1245		
Shale	1245	1685		
DST #1 1537-1620				
Open 1 Hr FP 31-39				
Closed 1 Hr SIP 423				
Open 2 Hrs FP 54-54				
Closed 2 Hrs SIP 423				
GTS in 6" of 2nd open. Ggd 8.3 Mcfd @ end of 2 hrs. Rec 70' wtry mud.				
DST #2 1620-1685 Misrun				
DST #3 1536-1685				
Open 1 Hr FP 7-78				
Closed 1 Hr SIP 408				
Open 2 Hrs FP 62-157				
Closed 2 Hrs SIP 408				
GTS in 5" of 2nd open. Ggd 15.5 Mcfd @ end of 2 hrs. Rec 314' wtry mud.				

USE ADDITIONAL SHEETS, IF NECESSARY, TO COMPLETE WELL RECORD.

Date Received	<i>Courtney E Cook</i>
	Signature
	Production Manager
	Title
	11/29/77
	Date

978401

13-18-13W

EMPHASIS OIL OPERATIONS

P. O. Box 506

Russell, Kansas 67665

DRILLERS LOG

OPERATOR: Northern Natural Gas Company
Exploration Division
2223 Dodge Street
Omaha, Nebraska 68102

CONTRACTOR: Emphasis Oil Operations
P. O. Box 506
Russell, Kansas 67665

LEASE: Tindall

WELL: #C1-13

LOCATION: C SW NW
Section 13-18S-13W
Barton County, Kansas

Total Depth: 1685'

Elevation: Not released (tight hole)

Commenced: 4-13-76

Completed: 4-18-76

Casing: 8-5/8" @ 497'
4-1/2" @ 1684 1/2'

Status: Gas well

DEPTHS & FORMATIONS

(All measurements from K.B.)

Shale	407	Shale	725
Bed & Shale	526	Shale & Bed Bed	1190
Shale	680	Shale	1245
Anhydrite	699	Lima (R.T.D.)	1685
Sand	703		

STATE OF KANSAS)
COUNTY OF RUSSELL) SS

I, Joe K. Branum, of Emphasis Oil Operations, state that the above and foregoing is a true and correct log of the above captioned well.

ORIGINAL SIGNED BY
JOE K. BRANUM