

OPERATOR NORTHERN OIL EXPLORATION CO Miller SEC. 19 TWP. 13 RGE. 21

310277 WELL INFORMATION AS REQUIRED: WELL NO. 1

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
Check if no Drill Stem Tests Run.				
8 Top Soil & Clay		8		
8 Sand Stone		16		
12 Lime		28		
11 Shale		39		
16 Lime		55	Hard	
5 Shale		60	Black	
8 Lime		68		
13 Shale		81		
19 Lime		100		
28 Shale		128		
47 Lime		175		
42 Shale		217	Lane	
13 Lime		230	Iola	
5 Shale		235		
3 lime		238		
4 Shale		242		
18 Lime		260		
10 Shale		270		
13 Lime		283		
2 Shale		285		
35 Lime		320	30 Ft.	
7 Shale		327		
25 Lime		352	20 Ft.	
3 Shale		355		
15 Lime		370	Hertha	
144 Shale		514		
7 Sand		521	No Show or Smell	
14 Shale		535		
12 Lime		547	Pawnee	
9 Shale		556		
5 Lime		561		

If additional space is needed use Page 2, Side 2

Report of all strings set— surface, intermediate, production, etc. CASING RECORD (New) or (Used)

Purpose of string	Size hole drilled	Size casing set (in O.D.)	Weight lbs/ft.	Setting depth	Type cement	Sacks	Type and percent additives
Surface		6½		42'		12	
Production		2½		723.50'		85	
Nipple Setting				630'			

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
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TUBING RECORD

Size	Setting depth	Pecker set at

2

634-641

NO. TWO **V1**
 OPERATOR Northern Oil

LEASE Miller

ACO-1 WELL HISTORY (E)

SEC. 19 TWP. 13 RGE. 21 **XX**

FILL IN WELL INFORMATION AS REQUIRED:

WELL NO. 1

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

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FORMATION DESCRIPTION, CONTENTS, ETC.	TOP	BOTTOM	NAME	DEPTH
Check if no Drill Stem Tests Run.				
2 Shale		563		
1 Lime		563		
15 Shale		579		
4 lime		583		
9 Shale		592	Black	
2 Lime		594		
4 Shale		598		
3 Lime		601		
17 Shale		618		
3 Lime		621		
1 Shale		622	White	
2 Lime		624		
1 Shale		625	Black	
1 Shale		626		
1 Shale		627		
1 Shale		628		
1 Shale		629		
1 Shale		630	White, Sandy	
2 Shale		632	White, Sandy	
1 Shale & Sand		633	Oil Smell	
7 Sand		640		
6 Shale		646		
31 Shale		677		
1 Lime		678		
8 Shale		686	Sandy	
5 Shale & Sand		691	Brown, Gas	
9 Shale		700		
8 Shale & Sand		708	Gas	
22 Shale		730	T.D.	

If additional space is needed use Page 2, Side 2

Report of all strings set — surface, intermediate, production, etc. CASING RECORD (New) or (Used)

Purpose of string	Size hole drilled	Size casing set (in O.D.)	Weight lbs/ft.	Setting depth	Type cement	Sacks	Type and percent additives

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
80 Bbls Gel Water 16-30 Sand	634-641

Date of first production	Producing method (flowing, pumping, gas lift, etc.)	Gravity
	Pumping	
Estimated Production -I.P.	Oil 0.5 bbls.	Water 80 % MCF
Disposition of gas (vented, used on lease or sold)		Gas-oil ratio bbls. CFPB
	Perforations 634-641	