

# HUGHES DRILLING REPORT

Well No. #13  
Farm N. Mansfield  
SURFACE CASING  
Size 7"  
Feet 28.45  
Circulated 8 sx cement

PERMANENT CSG.  
Size 2 1/2" 3rd EYE (New)  
Feet 748.75 of pipe  
Baffle at 721' Bottom  
Float shoe on bottom  
T. D. at Completion 762'

OPERATOR Hughes Drilling

Contractor HUGHES DRILLING CO.

STRATA THICKNESS	FORMATION DRILLED	T.D.
3	Soil	3
23	Clay	26
13	Shale	39
23	Lime	62
6	Shale	68
12	Lime	80
5	Shale	85
19	Lime	104
44	Shale	148
31	Lime	179
63	Shale	242
22	Lime	264
14	Shale	278
7	Lime	285
30	Shale	315
9	Lime	324
7	Shale	331
2	Lime	333
13	Shale	346
30'	26	Lime 372
7	Shale	379
20'	22	Lime 401
5	Shale	406
4	Lime	410
2	Shale	412
"North"	4	Lime 416
114	Shale	530
3	Gr sand	533
52	Shale	585
10	Lime	595
7	Shale	602
5	Lime	607
8	Shale	615
7	Lime	622
13	Shale	635
3	Lime	638
5	Shale	643
9	Lime	652
13	Shale	665
2	Lime	667
2	Shale	672

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
6/30/14	0	3	Soil	① 21.5-21.5
20'	3	26	Clay	② 22.5-44.0
7/1/14	26	39	Shale	③ 22.5-66.5
5 1/8 PDC Bit	39	62	Lime	④ 22.5-89.0
	62	68	Shale (slate 67-68)	⑤ 22.5-111.5
	68	80	Lime	⑥ 22.5-134.0
	80	85	Shale	⑦ 22.5-156.5
	85	104	Lime	⑧ 22.5-179.0
	104	148	Shale (sdy 109-148)	⑨ 22.5-201.5
	148	179	Lime	⑩ 22.5-224.0
	179	242	Shale	⑪ 22.5-246.5
	242	264	Lime	⑫ 22.5-269.0
	264	278	Shale	⑬ 22.5-291.5
	278	285	Lime	⑭ 22.5-314.0
	285	315	Shale (Red Bed 304-307)	⑮ 22.5-336.5
	315	324	Lime (oil trace 318-320)	⑯ 22.5-359.0
	324	331	Shale	⑰ 22.5-381.5
	331	333	Lime	⑱ 22.5-404.0
	333	346	Shale	⑲ 22.5-426.5
30'	346	372	Lime	⑳ 22.5-449.0
	372	379	Shale (slate 378-379)	㉑ 22.5-471.5
20'	379	401	Lime	㉒ 22.5-494.0
	401	406	Shale (slate 405-406)	㉓ 22.5-516.5
	406	410	Lime	㉔ 22.5-539.0
	410	412	Shale	㉕ 22.5-561.5
"H. S. K."	412	416	Lime	㉖ 22.5-584.0
	416	530	Shale (BRK'd 421-424) (sdy 424-436)	



# HUGHES DRILLING REPORT

Well No. # 13  
 Farm N. W. Miller  
 SURFACE CASING  
 Size \_\_\_\_\_  
 Feet \_\_\_\_\_  
 Circulated \_\_\_\_\_ sx cement

PERMANENT CSG.  
 Size 2 7/8" 8.1 EVE (new)  
 Feet 748.75 of pipe  
 Baffle at 721.0  
 Float shoe on bottom  
 T. D. at Completion 762

OPERATOR Hughes Drilling

Contractor HUGHES DRILLING CO.

STRATA THICKNESS	FORMATION DRILLED	T.D.
5	Lt. Br. Sand	677
13	oil sand	690
36	shale	726
4	Br. sand	730
7	shale	737
3	Sdy shale	740
7	shale	751
1	lime	752
10	shale	762
		T.D.

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
1/2/14	530	533	Gray sand (no show)	(27) 22.5-606.5
	533	585	shale (CORRY 563-567)	(28) 22.5-629.0
	585	595	lime	(29) 22.5-651.5
	595	602	shale	(30) 22.5-674.0
	602	607	lime	(31) 22.5-696.5
	607	615	shale (slate 614-615)	(32) 22.5-719.0
	615	622	lime	(33) 22.5-741.5
	622	635	shale	
	635	638	lime (brown)	
	638	643	shale (slate 638-639)	
	643	652	lime	
	652	665	shale	
	665	667	lime	
	667	672	shale	
1/2/14	672	677	Lt Brown sand (very lamin w/shale)	
	677	690	oil sand (Remarks pg 3)	
6/9/14	690	726	shale with sdy lime Brack	724-725
	726	730	Br. Sand (oil trace)	
1/2/14	730	737	shale	
	737	740	sandy shale	
	740	751	shale	
	751	752	lime	
	752	762	shale	
		TD		
			7-2-14 set 748.75 of 2 7/8" 8.1 EVE (new)	
			Baffle at 721.0 Float shoe on bottom	
			used 3 centralizers	

start core 674!  
 18 JTS on trailer  
 K. D.



# HUGHES DRILLING CO.

(Pg 3)

Wellsville, Kansas 66092

Roger 913-883-2235  
Darrel 913-883-4027

CORE TIME

Ron 913-883-4656  
Clay 913-883-4383

LEASE H. McMillen #13

FORMATION #1 squirrel

DATE: 7/1/14

(~~2 1/2~~ 3" shale B.t.)

FROM	FERT TO	TIME	MINUTES	REMARKS
672	673	Chip sample -		} Lt Brown sand very lamin. w/shale
673	674	Chip sample -		
① 674	675	4:32:00 - 4:33:00	1:00	
② 675	676	4:33:45	:45	
③ 676	677	4:34:45	1:00	
④ 677	678	4:35:30	:45	} sand very lamin. w/shale (Some Bleeding)
⑤ 678	679	4:36:30	1:00	
⑥ 679	680	4:37:15	:45	- solid sand (Bleeding)
⑦ 680	681	4:38:00	:45	- sand lamin. w/shale (Bleed)
⑧ 681	682	4:39:00	1:00	- solid sand (Bleeding) (shows water)
⑨ 682	683	4:39:45	:45	} solid sand (Good Bleed) 682-686
⑩ 683	684	4:40:30	:45	
⑪ 684	685	4:41:00	:30	
⑫ 685	686	4:42:00	1:00	} sand very lamin. w/shale (Bleed)
⑬ 686	687	4:43:00	1:00	
⑭ 687	688	4:44:00	1:00	} sand very lamin. w/shale (Some Bleeding)
⑮ 688	689	4:45:00	1:00	
⑯ 689	690	4:46:00	1:00	
⑰ 690	691	4:47:30	1:30	- shale
⑱ 691	692	STOP		(Best Perf Zone) 679-689 cch
⑳ 692	693			
㉑ 693	694			



**CONSOLIDATED**  
Oil Well Services, LLC

269624

TICKET NUMBER 47432

LOCATION Ottawa, KY

FOREMAN Jim Green

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
07-02-14	3425	North McMillen 13 SW 2	16	20	FR	
CUSTOMER <u>Hughes Drilling</u>						
MAILING ADDRESS <u>122 N Main St</u>						
CITY <u>Wellsville</u>		STATE <u>Ks.</u>	ZIP CODE <u>66892</u>			
		TRUCK #	DRIVER	TRUCK #	DRIVER	
		<u>669</u>	<u>Jim Green</u>			
		<u>495</u>	<u>Har Bel</u>			
		<u>510</u>	<u>Das Web</u>			

JOB TYPE <u>Long string</u>	HOLE SIZE <u>5 7/8</u>	HOLE DEPTH <u>762</u>	CASING SIZE & WEIGHT <u>2 7/8</u>
CASING DEPTH <u>748.50</u>	DRILL PIPE <u>721</u>	TUBING	OTHER
SLURRY WEIGHT	SLURRY VOL	WATER gal/sk	CEMENT LEFT in CASING
DISPLACEMENT	DISPLACEMENT PSI	MIX PSI	RATE

REMARKS: Held crew safety meeting. Establish circulation, Mix and pump 100' gel to flush hole. Mix and pump 101 sk 5 7/8 2 7/8 gal 1/4" E10-seal. Circulated cement to surface. Flush pump clean of cement. Pump 2 1/2" Rubber plug to total depth of casing. Pressure up to 600 PSI. Well held good, see flow.

Hughes supplied 1/20

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE <u>Cement Pump</u>		1085.00
5406	15	MILEAGE <u>Cement Pump</u>		63.00
5402	748.50	<u>Casing Footage</u>		N/C
5407	min	<u>Ten Mileage</u>		368.00
		<u>Customer supplied Wax PK</u>		N/C
4408	1	<u>2 1/2" Rubber Plug</u>	29.50	29.50
1124	101 sk	<u>5 7/8 Poz Mix Cement</u>	1161.50	
118B	300 lb	<u>Premium Gel</u>	66.00	
1107	25"	<u>E10-seal</u>	61.75	
		<u>Sub total</u>	1289.25	
		<u>less 30% -</u>	386.78	
			902.48	902.48
			2935.63	

Revis 3737

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on