

HUGHES DRILLING REPORT

Well No. #18
 Farm Ch. McMillen
 SURFACE CASING Size 7"
 Feet. 2980
 Circulated 9 sx cement

PERMANENT CSG.
 Size 2 1/8 8rd EUE (New)
 Feet. 795.75 of pipe
 Baffle at 770.0
 Float shoe on Bottom
 T. D. at Completion 807

OPERATOR Hughes Drilling

Contractor HUGHES DRILLING CO.

STRATA THICKNESS	FORMATION DRILLED	T.D.
3	Soil	3
22	clay	25
17	shale	42
23	lime	65
6	shale	71
10	lime	81
9	shale	90
17	lime	107
39	shale	146
31	lime	177
62	shale	239
23	lime	262
19	shale	281
5	lime	286
28	shale	314
11	lime	325
6	shale	331
1	lime	332
16	shale	348
30'	24 lime	372
	8 shale	380
20'	23 lime	403
	5 shale	408
	3 lime	411
	3 shale	414
"Hertwa"	6 lime	420
	11 shale	531
	4 Gray sand	535
	32 shale	567
	3 lime	570
	6 shale	576
	3 cr. sand	579
	11 shale	590
	8 lime	598
	10 shale	608
	5 lime	613
	8 shale	621
	6 lime	627
	13 shale	640
	3 lime	643
	6 shale	649

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
7/16/14	0	3	Soil	(1) 21.5-21.5
29'	3	25	Clay	(2) 22.5-44.0
7/17/14	25	42	Shale	(3) 22.5-62.5
5/8	42	65	lime	(4) 22.5-89.0
PDC	65	71	Shale	(5) 22.5-111.5
	71	81	lime	(6) 22.5-134.0
	81	90	Shale	(7) 22.5-156.5
	90	107	lime	(8) 22.5-179.0
	107	146	Shale (sdy 119-130)	(9) 22.5-201.5
	146	177	lime	(10) 22.5-224.0
	177	239	shale	(11) 22.5-246.5
	239	262	lime	(12) 22.5-268.0
	262	281	shale	(13) 22.5-291.5
	281	286	lime	(14) 22.5-314.0
	286	314	shale	(15) 22.5-336.5
	314	325	lime	(16) 22.5-359.0
	325	331	shale	(17) 22.5-381.5
	331	332	lime	(18) 22.5-404.0
	332	348	shale	(19) 22.5-426.5
30'	348	372	lime	(20) 22.5-449.0
	372	380	shale (slate 374-382)	(21) 22.5-471.5
20'	380	403	lime	(22) 22.5-494.0
	403	408	shale (slate 403-404)	(23) 22.5-516.5
	408	411	lime	(24) 22.5-539.0
	411	414	shale	(25) 22.5-561.5
"Hertwa"	414	420	lime	(26) 22.5-584.0
	420	531	shale (BRK 424-428) (sdy 463-479)	(27) 22.5-606.5

(H) 420
 per 11)
 W side 156
 #1 259
 #2 313

HUGHES DRILLING REPORT

930 FSL 2016 FEL

API # 15-059-26749

Well No. #18

Farm N. McMillen

SURFACE CASING

Size

Feet

Circulated _____ sx cement

PERMANENT CSG.

Size 2 7/8 8rd EVE (New)

Feet 795.75 of pipe
Baffle at 770.10
Float shoe on Bottom
T. D. at Completion 807

Contractor HUGHES DRILLING CO.

OPERATOR Hughes Drilling Co.

STRATA THICKNESS	FORMATION DRILLED	T.D.
10	Lime	639
14	Shale	673
7	Lime	676
3	Shale	679
11	oil sand	690
2	limy	692
4	BRK sand	696
35	Shale	731
2	sdly Lime	733
9	sand	742
54	shale	796
2	lime	798
9	shale	807
		T.D.

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
	531	535	(gray sand (no show))	(28) 2.5 - 629.0
	535	567	Shale (BRK 543-546)	(28) 2.5 - 651.5
	567	570	Lime (Broken)	(30) 2.5 - 674.0
	570	576	Shale	(31) 2.5 - 676.5
	576	579	Gray sand (some bleeding)	(32) 2.5 - 719.0
	579	590	Shale	(33) 2.5 - 741.5
	590	598	Lime	(34) 2.5 - 764.0
	598	608	Shale	(35) 2.5 - 786.5
	608	613	Lime	
	613	621	Shale	
	621	627	Lime (Broken)	
	627	640	Shale	
	640	643	Lime (Brown)	
	643	649	Shale (slate 643-644)	
	649	659	Lime	
	659	673	Shale	
682	673	676	Lime	
7/18/14	676	679	Shale	
#1 spinning	679	690	Oil sand (core time pg 3)	
	690	692	sdly lime	
	692	696	Broken sand	
	696	731	Shale (limebreak 712) (limebreak 724)	
	731	733	sdly lime	
#2 spinning	733	742	Sand (Remarks pg 4)	
	742	796	Shale (lime break 767)	
	796	798	Lime	
	798	807	Shale	

7-18-14 T.D. Set 795.75 of 2 7/8 8rd EVE (New)
Baffle at 770.10 Float shoe on Bottom
Used 3 centralizers

T.D. 682
K.D. 8 1/2
Start core 682

18 Jts on trailer

(H) 420
P. 111
W-side 156
H.L. 259
H.L. 313

HUGHES DRILLING CO.

PS-3

Wellsville, Kansas 66092

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

CORE TIME

Ron 913-883-4655
Clay 913-883-4383

LEASE A McMillen #18
FORMATION #1 Squirrel
DATE: 7-17-14

(~~2~~ 3" Shave Bit)

FROM	FEET TO	TIME	MINUTES	REMARKS
679	680	Chip sample	-	Sand very lamin w/shale (Bleed)
680	681	Chip sample	-	Sand slightly lamin w/shale (Bleed)
681	682	Chip sample	-	
① 682	683	3:19:00 - 3:19:30	:30	Solid sand (Good bleed)
② 683	684	3:20:30	1:00	Sdy shale (Oil trace)
③ 684	685	3:21:00	:30	
④ 685	686	3:21:30	:30	Solid sand (exc bleed)
⑤ 686	687	3:22:00	:30	
⑥ 687	688	3:22:45	:45	687-688.5 (slightly lamin) (Bleed)
⑦ 688	689	3:23:30	:45	688.5-689.5 solid sand (exc bleed)
⑧ 689	690	3:24:15	:45	
⑨ 690	691	3:25:00	:45	Sdy lime (oil trace)
⑩ 691	692	3:26:15	1:15	
⑪ 692	693	3:27:00	:45	Thin wafered sand
⑫ 693	694	3:27:45	:45	Heavy oil (18 gravity)
⑬ 694	695	3:28:45	1:00	Sdy lime
⑭ 695	696	3:29:45	1:00	Thin wafered sand (oil trace)
⑮ 696	697	3:30:45	1:00	Shale
⑯ 697	698	3:31:30	:45	
⑰ 698	699	3:32:30	1:00 stop	Shale
⑱ 699	700			
⑲ 700	701			
⑳ 701	702			

(Best Perf zone)
680-689.5
CCH

HUGHES DRILLING CO.

Wellsville, Kansas 66092

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

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

CORE TIME
LEASE N. McMillen #18
FORMATION # Pipe Tally
DATE: 7/18/14

2 7/8" 8rd EUE
(New)

FROM	FEET TO	TIME	MINUTES	REMARKS
OUT	27.65	28.20		
OUT	26.65	25.65	BA	
	31.55	29.20		145.50
	28.15	27.70		138.10
	31.50	27.35		145.65
	145.50	138.10		142.15
	32	43		139.35
	28.80	28.85		139.30
	28.65	28.40		850.105
	31.50	28.70		27.65
	28.40	28.50		27.1410
	28.30	27.70		26.65
	145.65	142.15		27.75 - Pipe T.O.
	11	21		25.65
	27.25	29.10		870.10
	27.45	27.40		850.05
	29.15	27.45		27.65
	28.00	27.95		27.10
	27.50	27.40		26.65
	139.35	139.30		797.75
				25.65
				770.10
				27.65
				27.40
				26.65
				27.75
				27.40
				26.65

Handwritten calculations and notes at the bottom right of the page, including various numbers and symbols, possibly representing a summary or correction of the data.



CONSOLIDATED
Oil Well Services, LLC

269763

TICKET NUMBER 47483
LOCATION Oxtawa KS
FOREMAN Fred Maden

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
7-18-14	3425	N. McMillan # 18	SE 2	16	20	FR

CUSTOMER	TRUCK #	DRIVER	TRUCK #	DRIVER
Lucas Drilling Co	712	Fremad		
	495	Nat Bee		
	548	Dan Wka		

CITY	STATE	ZIP CODE
Wellsville	KS	66092

JOB TYPE Longshy HOLE SIZE 5 7/8 HOLE DEPTH 806 CASING SIZE & WEIGHT 2 7/8 EVE
 CASING DEPTH 795' DRILL PIPE Baffle TUBING @ 770' OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 25' Plug
 DISPLACEMENT 4.48 BB DISPLACEMENT PSI _____ MIX PSI _____ RATE 53 PM

REMARKS: Hold crew Safety Meeting. Establish circulation. Mix Pump
100# Gel Flush. Mix & Pump 9/8 sks 50/50 Poz Mix Cement 2%
Gel 1/2# Pheno Seal/sk. Cement to Surface. Flush pump lines
clean. Displace 2 1/2" Rubber plug to baffle in casing. Pressure
to 800# PSI. Release Pressure to set float valve. Shut in
Casing.

Customer Supplied H2O Fred Maden

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	495	1085 ⁰⁰
5406	15	MILEAGE	495	63 ⁰⁰
5402	795'	Casing footage		NIC
5407	Minimum	Ten Miles	548	368 ⁰⁰
1124	1085 ^{kg}	50/50 Poz Mix Cement	1242 ⁰⁰	
1107A	54 [#]	Pheno Seal	72 ⁰⁰	
116B	282 [#]	Premium Gel	62 ⁰⁴	
		Material	1376 ²⁴	
		Less 30%	-413 ⁰⁸	
		Total		963 ⁰⁰
4402	1	2 1/2" Rubber Plug		29 ⁵⁰
			3030.03	
			7.65%	2585 ³⁶

Ravin 3737
 AUTHORIZATION Clay TITLE _____ DATE _____
 SALES TAX ESTIMATED TOTAL 2585³⁶

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 this f