KOLAR Document ID: 1413402

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1
January 2018
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No.:
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:	_+ Feet from
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	NE NW SE SW
CONTRACTOR: License #	
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxxx)
Wellsite Geologist:	
Purchaser:	
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workove	Field Name:
☐ Oil ☐ WSW ☐ SWD	Producing Formation:
Gas DH EOR	Elevation: Ground: Kelly Bushing:
	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
	nv. to SWD Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Committee Downsit #	Chloride content:ppm Fluid volume: bbls
□ Commingled Permit #: □ Dual Completion Permit #:	Dewatering method used:
SWD Permit #:	
EOR Permit #:	
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion	Date or Quarter Sec. Twp. S. R. East West
Recompletion Date Bate Reached 1D Completion Recompletion	

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY									
Confidentiality Requested									
Date:									
Confidential Release Date:									
Wireline Log Received Drill Stem Tests Received									
Geologist Report / Mud Logs Received									
UIC Distribution									
ALT I II Approved by: Date:									

KOLAR Document ID: 1413402

Page Two

Operator Name: _				Lease Name:			Well #:			
Sec Twp.	S. R.	E	ast West	County:						
open and closed,	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot				
Centrol Name:										
			Yes No			on (Top), Depth ar				
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum		
Electric Log Run Geologist Report /	_		Yes No							
		B				ion, etc.				
Purpose of Strir		Hole	Size Casing	Weight	Setting	Type of				
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD					
			ype of Cement	# Sacks Used	‡ Sacks Used Type and Percent Additives					
Protect Casi										
2. Does the volume	of the total base f	fluid of the hydrauli	c fracturing treatment	_	llons? Yes	No (If No, sk	ip question 3)	,		
	tion/Injection or R	esumed Production	1		Gas Lift 0	Other (Explain)				
	on	Oil Bbls.					Gas-Oil Ratio	Gravity		
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:					
	_		Open Hole				ТОР	BOROTT		
,	,			B.11 B1						
					Acid,			Record		
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:						
TODING RECORD:	. 3126.	Set	n.	i donei Al.						

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	WIELAND-CMB UNIT 1-4
Doc ID	1413402

All Electric Logs Run

CDI/CNL/PE	
DIL	
MEL	
Sonic	

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	WIELAND-CMB UNIT 1-4
Doc ID	1413402

Tops

Name	Тор	Datum				
Anhydrite	2544	+ 470				
B/Anhydrite	2564	+ 450				
Heebner	4005	- 991				
Lansing	4049	- 1035				
Stark	4266	- 1252				
Marmaton	4361	- 1347				
Pawnee	4449	- 1435				
Myrick Station	4484	- 1470				
Ft. Scott	4497	- 1473				
Cherokee	4540	- 1526				
Mississippian	4616	- 1602				

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	WIELAND-CMB UNIT 1-4
Doc ID	1413402

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.250	8.625	24	267	Common	3% cc, 2% gel
Production	7.875	5.500	14	4698	50/50 Poz	1000 gal Flocheck 21



PRESSURE PUMPING LLC PO Box 884, Chanute, KS 66720

FIELD	TICKET	&	TREATMENT	REPORT
LIELD	HCKEI	Öţ	IREALMENT	REPOR

620-431-92 ⁻	10 or 800-467-867	6		CEMEN	T		aladice 4	701203
DATE	CUSTOMER#	WEL	L NAME & NUME	BER	SECTION	TOWNSHIP	RANGE	COUNTY
3-9-18	51059	Wiela	NO CHE	3124 +1-4	4	115	3120	6000
USTOMER WA	all Dal	0-		Oakley	TDUOK II			
IAILING ADDRE	SS	1) Alaman	N 1-120	4 West	TRUCK#	DRIVER	TRUCK#	DRIVER
1700 N. VA	batelsteant	YXKW74	,Bldg!200	12N	566	Travis	De lleans	
TY			ZIP CODE	1	300	Liette C	Kerschell_	-
Wichita	,	KS KS	67206-6	637				<u> </u>
DB TYPE	UT Face	HOLE SIZE	1214	ı HOLE DEPTH	267'	CASING SIZE & V	VEIGHT 8	S/2-24#
ASING DEPTH	267'	DRILL PIPE		TUBING		oriente oill a v	OTHER_	18 07
URRY WEIGH	IT_15.2	SLURRY VOL_		WATER gal/sl	k	CEMENT LEFT in		1/020'
SPLACEMENT	153/4	DISPLACEMEN		MIX PSI		RATE 4 BA		
MARKS:	School V	Mosting	· rie us	on Dule	11	C. Casino		#
MIX		com, 3%				74 BBC T		
		1 - 2-			<i>y</i>		The second	
			Come	zut D	rel Circ	,		

						te		
ACCOUNT			<u> </u>			(Yea)		
CODE	QUANITY	or UNITS	DES	SCRIPTION of	SERVICES or PRO	DUCT	UNIT PRICE	TOTAL
20471	-		PUMP CHARGE				1,15000	1,1500
e0002	5	<u> </u>	MILEAGE				1715	35-75
20711	8.2	2.3	Ton M.	lesco	Delivery		175	66000
<u></u>	, , ,							
CC5871	14	5 SKS	SurFa	ce Blow	al II		2400	4,2000
C5376		2	Salt				NIC	NIC.
	-							
	- Kara							_
								6,045-75
				~~~	105	5 30% D	5C -	1,81373
					*			4,23202
								Arr G
3737							SALES TAX	244.40
	mil	en n1 1					ESTIMATED TOTAL	اء اما ما
THORIZTION_	Mile L	Celled		TITLE		1	DATE	44819
	- C. 1	1					20 50500	

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 form.



	3-20-18	DATE SIGNED	MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.	LIMITED WARRANTY provisions	the terms and conditions of	LEGAL TERMS: Custome		7	5	10 HO	191	-FG3	LON	8	578	575	PRICE SECON REFERENCE F	REFERRAL LOCATION	4.	φ [ι	1. A CSS CAT KS		
STOMER ACCEPTANCE OF MATERI	17cc) ▼ P.M.		H CUSTOMER'S AGENT PRIOR TO GOODS.	LIMITED WARRANTY provisions.	the terms and conditions on the reverse side hereof which include, but are not limited to DAYMENT BEI EASE INDEMNITY and	LEGAL TERMS: Customer hereby acknowledges and agrees to		-									SECONDARY REFERENCE/ ACCOUNTING PART NUMBER LOC ACCT	INVOICE INSTRUCTIONS		Duly 1	WELL/PROJECT NO.		ADDRESS
CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledge				SWIFT SERVICES, INC.	KEWII FAYWENI IO:			Plus Container Kentul	Insert Florit Calles w/ Fill up	Top Plus	Port College	Coment Booket	5	Shor	Pump Charge - Longstring	MILEAGE Toly # 112	DESCRIPTION		Development Coment S'/2" Longstring		LEASE COUNTY/PARISH	CITY, STATE, ZIP CODE	ADDRESS Mall Drilling Co.
pe receir	T WISH	ARE YOU SATISFIED WITH OUR SERVICE?	WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?	MET YOUR NEEDS?  OUR SERVICE WAS PERFORMED WITHOUT DELAY?	OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	SURVEY AGREE UNDECIDED		Shin	5413	5/2/1/	51/2 1	512110	5/2 m 12	5h1,m		~	QTY.   U/M   QTY.		WELL PI	VIACT LOCALION			
listed on this tisket	SPOND TOTAL 12/04/00		500 gg 12/01/0	10-036	TOTAL *	DISAGREE		1 job 200 1 200 100	35010 350	100	$ \omega  2500^{\circ\circ} 2500^{\circ\circ}$	1100 275 00 275 100		180 co 180 co	[ b   1300   c   1,300   c	Μ,	Y. U/M PRICE AMOUNT	,	WELL LOCATION  COX - 3E 3 - E inch	ORDER NO.	DATE 3-20-18 OWNER	PAGE OF 1 2	

SWIFT OPERATOR Dawled Muchon

APPROVAL

Thank You!

# TICKET CONTINUATION

327 PRICE SECONDARY REFERENCE/ PART NUMBER PO Box 466 Ness City, KS 67560 Off: 785-798-2300 LOC ACCT ACCOUNTING QF TIME Flocele 13 Flocheck Herland SO/SO POZIMIX CIUSTOMER MULT DECI / May Co. Liquid KCL U-Air DESCRIPTION 2%6 Wichard-CMB Unit 1-4 DATES -20-18 QTY UJM 11/1 0 % 1000 Jan ату SO 165 8 3 10011 A TOP No. 43/337 UNIT 4)2 | 20 25/8 8 3 150 8/8 2 SO Page 350000 00 K. L.1/8 22/1/88 AMOUNT 20100 8 8

		<u>583</u>	.581							
			_							
	•									
		CHARGE TOTAL WEIGHT & LOADED MILES &								
		TON MILES	CUBIC FEET		<b>-</b> , -				-	
CONTINU		758,6	225			-				
CONTINUATION TOTAL /4/4, 36		18 HH9 SS, 00	1 393 17							
μ,	`	1 7	75	\			1			

JOB LC	)G				SWIF	T Spr	uices. Inc.  DATE PAGENO.  2-70-12  PAGENO.
CUSTOM	ER Drillina	(6	WELL NO.	<del></del>	LEASE	1-CMB	IOR TYPE TICKET NO
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T C	PRESSI TUBING	URE (PSI)  CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1030				TODING	CASING	on location 5½" 14"
							Sh II
PT-TV-AFF							RTD-4725" LTD-4721"
-							TP- 4698' SS-1 42.40
		ļ					P.C. 451 2576
						-	Cent-124345 16 48 49410411 412413414 150 Basket-451
	1230		_				
	1250						Start 512 141 casing in well
	1430						Drop Ball circulate
	1 00011 000	1.1	1.6		/		
	1545	61/2	15			360	Pump 15 Hd KCL Flush
		612	24			300	Pump 1000 gal Flochack 21
		012				300	Pump 5 Hd 14L Flush
		,	7.5				Plug RH-MH (30-20)
							130 131 131
	1600	4/2	40			200	mix 175 sks 50/50 pozmix @ 1438 ppg
						۰	wash out Pump + Lins
							Reloase Top Plug
					_	* .	TETRESE TOP TIME
	1620	6/2	Ø	1		100	Start Displacement
		6/2	91		<u>,                                     </u>	300	iff Pressure
	1635	61/2	113		_	750	
	درها	6/2	113.6			1600	Land Top Plag
							Release Prossure
							wash up truck
	1700						Job Camplete
							71. 1, 1
							Dave Preston I Saac
							Live MESTON LSAAC



SERVICE LOCATION

REFERRAL LOCATION

PRICE REFERENCE

CHARGE TO: M. D. 1	ing Co.
ADDRESS	
CITY, STATE, ZIP CODE	

TICKET 031343

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS. LIMITED WARRANTY provisions. but are not limited to, PAYMENT, RELEASE, INDEMNITY, and the terms and conditions on the reverse side hereof which include, LEGAL TERMS: Customer hereby acknowledges and agrees to SECONDARY REFERENCE/ PART NUMBER CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES T肉 customer hereby acknowledges receipt of the materials and services listed on this ticket TIME SIGNED TICKET TYPE
- X SERVICE
□ SALES INVOICE INSTRUCTIONS WELL TYPE WELL/PROJECT NO. CONTRACTOR 00 ACCOUNTING ACCT LEASE Wickward MELL CATEGORY 무 EUClopment Flocele SMD Pichan SWIFT SERVICES, INC. MILEAGE 01ton NESS CITY, KS 67560 REMIT PAYMENT TO: * Solice Koranico J-Air -CMB Unit P.O. BOX 466 785-798-2300 CANCY DESCRIPTION JOB PURPOSE Coment 5/2" RIG NAME/NO. COUNTY/PARISH - CAMPA OUR SERVICE WAS
PERFORMED WITHOUT DELAY?
WE OPERATED THE EQUIPMENT
AND PERFORMED JOB
CALCULATIONS
SATISFACTORILY? ARE YOU SATISFIED WITH OUR SERVICE? OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? WE UNDERSTOOD AND MET YOUR NEEDS? SHIPPED STATE SURVEY ☐ CUSTOMER DID NOT WISH TO RESPOND DELIVERED TO VTI3 WELL PERMIT NO. QTY. U/M Warrion. AGREE 1293 □ 8 UNDECIDED QTY. U/M 200 15.40 W. SKS DISAGREE DATE 28 WELL LOCATION ORDER NO. PAGE TOTAL 275% 1001 TOTAL PRICE PAGE 125 88 B OWNER 8019 568 1099 AMOUNT

SWIFT OPERATOR

APPROVAL

Thank You!

DATE SIGNED -18

DATE PAGE NO. SWIFT Services. Inc. **JOB LOG** 3-28-18 JOB TYPE Port Collar CUSTOMER
Mull Drilling LEASE
Wickend - CMB Unit
PRESSURE (PSI)
TUBING CASING WELL NO. TICKET NO. # 3/343 41-4 CHART NO. RATE (BPM) VOLUME (BBL) (GAL) TIME DESCRIPTION OF OPERATION AND MATERIALS TC 6830 21/8×5/2 P.C. - 2576' 0840 1000 Pressure Test Open P.C. 0857) 3/2 3 400 0855 3% 110 300 mix 200 sks SMD 1/4 Flo @ 11.2 pgs Circulate coment to surface 31/2 14/2 600 Displace Coment 0935 1000 Test 0950 3/2 30 Reverse Clean *200 sts Total * * 30sks to pit * 1020 Complete



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

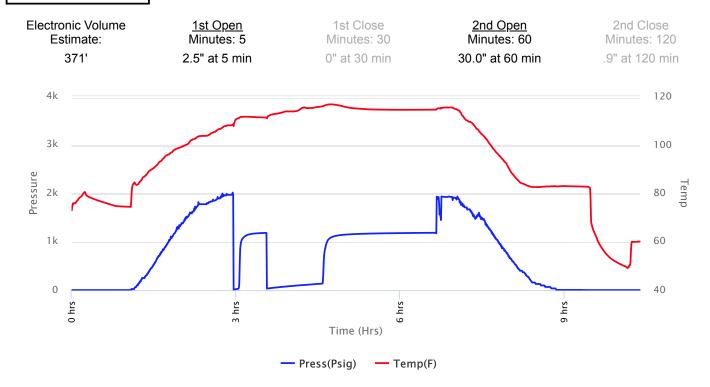
Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **14**2018

DST #1 Formation: Lansing Test Interval: 4095 - Total Depth: 4155'

Time On: 13:59 03/14 Time Off: 00:05 03/15

Time On Bottom: 16:51 03/14 Time Off Bottom: 20:26 03/14





Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

<b>DATE</b>	
March	
14	
2018	

DST #1 Formation: Lansing Test Interval: 4095 - Total Depth: 4155'

Time On: 13:59 03/14 Time Off: 00:05 03/15

Time On Bottom: 16:51 03/14 Time Off Bottom: 20:26 03/14

#### Recovered

<u>Foot</u>	<u>BBLS</u>	Description of Fluid	<u>Gas %</u>	<u>Oil %</u>	Water %	<u>Mud %</u>
70	0.7588	SLMCO	0	93	0	7
130	1.4092	HMCO	0	56	0	44
30	0.3252	MCO	0	79	0	21
65	0.7046	HOCM	0	31	0	69

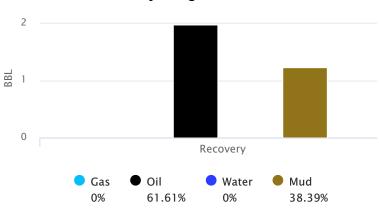
Total Recovered: 295 ft

Total Barrels Recovered: 3.1978

Reversed Out
NO

Initial Hydrostatic Pressure	1967	PSI
Initial Flow	13 to 28	PSI
Initial Closed in Pressure	1181	PSI
Final Flow Pressure	32 to 134	PSI
Final Closed in Pressure	1183	PSI
Final Hydrostatic Pressure	1933	PSI
Temperature	118	°F
Pressure Change Initial	0.0	%
Close / Final Close		

#### Recovery at a glance





**DST #1** 

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

DATE March

**14** 2018

Formation: Lansing Test Interval: 4095 - "D-F" 4155'

Total Depth: 4155'

D-F" 415

Time On: 13:59 03/14 Time Off: 00:05 03/15

Time On Bottom: 16:51 03/14 Time Off Bottom: 20:26 03/14

REMARKS:

IF: 3 inch blow ISI: No BB

FF: BOB 23 min. FSI: 1 inch BB

TOOL SAMPLE: 43% OIL, 57% MUD

Gravity: 29.9 @ 60 degrees F



Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

5/8"

**DATE**March **14**2018

DST #1 Formation: Lansing Test Interval: 4095 - Total Depth: 4155'

4100

Time On: 13:59 03/14 Time Off: 00:05 03/15

Time On Bottom: 16:51 03/14 Time Off Bottom: 20:26 03/14

## **Down Hole Makeup**

**Heads Up:** 21.59 FT **Packer 1:** 4090.12 FT

**Drill Pipe:** 4084.14 FT **Packer 2:** 4095.12 FT

ID-3 Top Recorder: 4079.54 FT

**Bottom Choke:** 

Weight Pipe: 0 FT Bottom Recorder: 4133 FT

ID-2/ 7/8 Well Bore Size: 7 7/8

Collars: 0 FT Well Bore Size: 7 7/8

ID-2 1/4 Surface Choke: 1"

**Test Tool:** 33.57 FT

ID-3 1/2-FH Jars

Safety Joint

**Total Anchor:** 59.88

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: .5 FT

**Drill Pipe: (in anchor):** 31.38 FT

ID-3

Change Over: 1 FT

Perforations: (below): 23 FT

4 1/2-FH



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

**DATE**March **14**2018

DST #1 Formation: Lansing "D-F"

Test Interval: 4095 -

Total Depth: 4155'

4155'

Time On: 13:59 03/14 Time Off: 00:05 03/15

Time On Bottom: 16:51 03/14 Time Off Bottom: 20:26 03/14

## **Mud Properties**

Mud Type: Chemical Weight: 8.7 Viscosity: 51 Filtrate: 6.4 Chlorides: 2,000 ppm



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

**DATE** March 14 2018

Formation: Lansing "D-F" DST #1

Test Interval: 4095 -

Total Depth: 4155'

4155'

Time On: 13:59 03/14 Time Off: 00:05 03/15

Time On Bottom: 16:51 03/14 Time Off Bottom: 20:26 03/14

#### **Gas Volume Report**

2nd Open 1st Open

Time Orifice PSI MCF/D	Time	Orifice	PSI	MCF/D
------------------------	------	---------	-----	-------



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

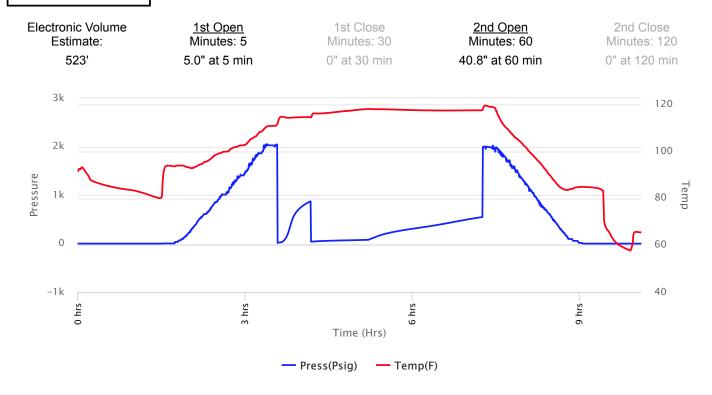
Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **15**2018

DST #2 Formation: Lansing Test Interval: 4220 - Total Depth: 4280' "I& J" 4280'

Time On: 16:59 03/15 Time Off: 02:49 03/16

Time On Bottom: 20:27 03/15 Time Off Bottom: 00:02 03/16





Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE** March 15 2018

DST #2 Formation: Lansing Test Interval: 4220 -Total Depth: 4280' "l& J" 4280'

Time On: 16:59 03/15 Time Off: 02:49 03/16

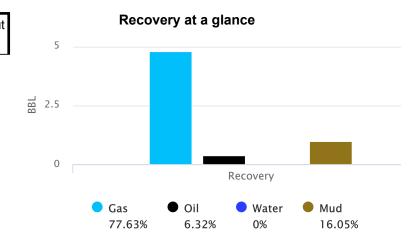
Time On Bottom: 20:27 03/15 Time Off Bottom: 00:02 03/16

#### Recovered

<u>Foot</u>	BBLS	Description of Fluid	<u>Gas %</u>	<u>Oil %</u>	Water %	<u>Mud %</u>
420	4.5528	G	100	0	0	0
150	1.626	SI GCOCM	15	24	0	61

Total Recovered: 570 ft To

otal Recovered: 5/0 ft		
otal Barrels Recovered:	Reversed Out NO	
Initial Hydrostatic Pressure	1997	PSI
Initial Flow	15 to 31	PSI
Initial Closed in Pressure	873	PSI
Final Flow Pressure	39 to 78	PSI
Final Closed in Pressure	549	PSI
Final Hydrostatic Pressure	1989	PSI
Temperature	119	°F
Pressure Change Initial	37.1	%
Close / Final Close		





Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE** March

> 15 2018

Formation: Lansing Test Interval: 4220 -"l& J"

Total Depth: 4280'

4280'

Time On: 16:59 03/15

DST #2

Time Off: 02:49 03/16

Time On Bottom: 20:27 03/15 Time Off Bottom: 00:02 03/16

REMARKS:

IF: 5 inch blow ISI: No BB FF: BOB 9 min FSI: Surface BB

TOOL SAMPLE: 55% OIL, 45% MUD



Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **15**2018

DST #2 Formation: Lansing Test Interval: 4220 - Total Depth: 4280'

Time On: 16:59 03/15 Time Off: 02:49 03/16

Time On Bottom: 20:27 03/15 Time Off Bottom: 00:02 03/16

## **Down Hole Makeup**

**Heads Up:** 21.82 FT **Packer 1:** 4215.15 FT

**Drill Pipe:** 4209.4 FT **Packer 2:** 4220.15 FT

ID-3 Top Recorder: 4204.57 FT

Weight Pipe: 0 FT

ID-2 7/8

Bottom Recorder: 4258 FT

Collars: 0 FT Well Bore Size: 7 7/8

ID-2 1/4 Surface Choke: 1"

Test Tool: 33.57 FT Bottom Choke: 5/8"

ID-3 1/2-FH

Jars

Safety Joint

**Total Anchor:** 59.85

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: .5 FT

**Drill Pipe: (in anchor):** 31.35 FT

ID-3

Change Over: 1 FT

Perforations: (below): 23 FT

4 1/2-FH



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **15**2018

DST #2 Formation: Lansing "I& J"

Test Interval: 4220 -

Total Depth: 4280'

4280'

Time On: 16:59 03/15 Time Off: 02:49 03/16

Time On Bottom: 20:27 03/15 Time Off Bottom: 00:02 03/16

## **Mud Properties**

Mud Type: Chemical Weight: 9.0 Viscosity: 54 Filtrate: 6.4 Chlorides: 2,400 ppm



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **15**2018

DST #2 Formation: Lansing "I& J"

Time On: 16:59 03/15

Test Interval: 4220 - 4280'

Total Depth: 4280'

18.5 4200

Time Off: 02:49 03/16

Time On Bottom: 20:27 03/15 Time Off Bottom: 00:02 03/16

## **Gas Volume Report**

1st Open 2nd Open

ime Orifice PSI MCF/D	Time	Orifice PSI	MCF/D
-----------------------	------	-------------	-------



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **16**2018

DST #3 Formation: Test Interval: 4330 - Total Depth: 4375' Pleasanton 4375'

Time On: 15:56 03/16 Time Off: 01:52 03/17

Time On Bottom: 19:08 03/16 Time Off Bottom: 22:43 03/16





Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

<b>DATE</b>	
March	
16	
2018	

**DST #3** Formation: **Pleasanton** 

Test Interval: 4330 -Total Depth: 4375'

4375'

Time On: 15:56 03/16 Time Off: 01:52 03/17

Time On Bottom: 19:08 03/16 Time Off Bottom: 22:43 03/16

#### Recovered

<u>Foot</u>	BBLS	Description of Fluid	<u>Gas %</u>	<u>Oil %</u>	Water %	<u>Mud %</u>
1230	13.3332	G	100	0	0	0
180	1.9512	SLGCO	4	96	0	0
100	1.084	SLGCSLMCO	4	88	0	8
65	0.7046	SLGCHOCM	12	38	0	50

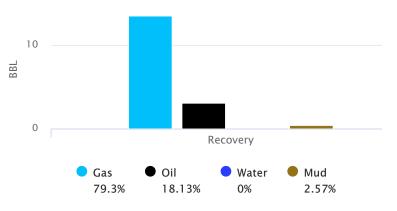
Total Recovered: 1575 ft

Total Barrels Recovered: 17.073

Reversed Out
NO

Initial Hydrostatic Pressure	2067	PSI
Initial Flow	14 to 33	PSI
Initial Closed in Pressure	1341	PSI
Final Flow Pressure	39 to 145	PSI
Final Closed in Pressure	1313	PSI
Final Hydrostatic Pressure	2043	PSI
Temperature	123	°F
Pressure Change Initial	2.1	%
Close / Final Close		

#### Recovery at a glance





Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

**DATE** March

16 2018

Formation: **Pleasanton**  Test Interval: 4330 -

Total Depth: 4375'

4375'

Time On: 15:56 03/16

**DST #3** 

Time Off: 01:52 03/17

Time On Bottom: 19:08 03/16 Time Off Bottom: 22:43 03/16

REMARKS:

IF; 6 inch blow ISI: No BB FF: BOB 3 min FSI: 5 inch BB

TOOL SAMPLE: 53% OIL, 47% MUD

Gravity: 35.7 @ 60 degrees F



Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

DATE March 16 2018

**DST #3** Test Interval: 4330 -Total Depth: 4375' Formation: **Pleasanton** 4375'

Time On: 15:56 03/16 Time Off: 01:52 03/17

Time On Bottom: 19:08 03/16 Time Off Bottom: 22:43 03/16

## **Down Hole Makeup**

**Heads Up:** 7 FT Packer 1: 4325 FT

**Drill Pipe:** 4304.43 FT Packer 2: 4330 FT

ID-3 Top Recorder: 4314.42 FT

Weight Pipe: 0 FT

**Bottom Recorder:** 4332 FT ID-2 7/8

Well Bore Size: 7 7/8 Collars: 0 FT

**Surface Choke:** 1" ID-2 1/4

**Test Tool:** 33.57 FT **Bottom Choke:** 5/8"

ID-3 1/2-FH

Jars Safety Joint

**Total Anchor:** 45

Anchor Makeup

1 FT

Packer Sub:

Perforations: (top): 0 FT

4 1/2-FH

**Change Over:** 0 FT

Drill Pipe: (in anchor): 0 FT

ID-3

**Change Over:** 0 FT

Perforations: (below): 44 FT

4 1/2-FH



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

**DATE**March **16**2018

DST #3 Formation: Pleasanton

Test Interval: 4330 -

Total Depth: 4375'

4375'

Time On: 15:56 03/16 Time O

Time Off: 01:52 03/17

Time On Bottom: 19:08 03/16 Time Off Bottom: 22:43 03/16

## **Mud Properties**

Mud Type: Chemical Weight: 9.1 Viscosity: 56 Filtrate: 6.8 Chlorides: 2,200 ppm



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

**DATE** March 16 2018

**DST #3** Formation: **Pleasanton** 

Time On: 15:56 03/16

Test Interval: 4330 -4375'

Total Depth: 4375'

Time Off: 01:52 03/17

Time On Bottom: 19:08 03/16 Time Off Bottom: 22:43 03/16

## **Gas Volume Report**

2nd Open 1st Open



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **18**2018

DST #4 Formation: Pawnee- Test Interval: 4465 - Total Depth: 4540' Ft. Scott 4540'

Time On: 23:16 03/17 Time Off: 09:25 03/18

Time On Bottom: 02:11 03/18 Time Off Bottom: 05:51 03/18





Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

<b>DATE</b>	
March	
18	
2018	

DST #4	Formation: Pawnee-	Test Interval: 4465 -	Total Depth: 4540'
	Ft. Scott	4540'	•

Time On Bottom: 02:11 03/18 Time Off Bottom: 05:51 03/18

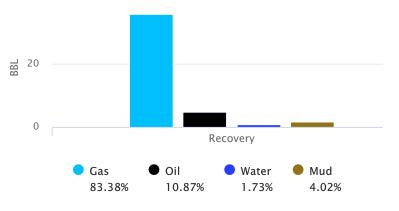
#### Recovered

<u>Foot</u>	<u>BBLS</u>	Description of Fluid	Gas %	<u>Oil %</u>	Water %	Mud %
3240	35.1216	G	100	0	0	0
385	4.1734	SLGCO	8	92	0	0
70	0.7588	SLGCHMCO	12	48	0	40
65	0.7046	SLWCSLGCSLOCM	16	17	4	63
65	0.7046	SLWCSLGCHOCM	6	41	5	48
125	1.355	SLOCHMCW	0	3	50	47

Total Recovered: 3950 ft		
Total Recovered: 3330 it	Reversed Out	
Total Darreis Necovered.	iolai baiteis Recovered. 42.616	
Initial Hydrostatic Pressure	2167	PSI
Initial Flow	55 to 60	PSI
Initial Closed in Pressure	1142	PSI
Final Flow Pressure	105 to 298	PSI
Final Closed in Pressure	1125	PSI
Final Hydrostatic Pressure	2163	PSI
Temperature	128	°F
Pressure Change Initial	1.5	%

Close / Final Close

## Recovery at a glance





Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

March 18

2018

DST #4 Formation: Pawnee-Ft. Scott Test Interval: 4465 - 4540'

Total Depth: 4540'

. .. 000...

Time On: 23:16 03/17

Time Off: 09:25 03/18

Time On Bottom: 02:11 03/18 Time Off Bottom: 05:51 03/18

REMARKS:

IF:BOB 1 1/2 min

ISI:No BB

FF: BOB 1 1/2 min FSI; BOB BB

We got Gas To Surface on the final shut-in

TOOL SAMPLE: 22% OIL, 25% WATER, 53% MUD

Gravity: 41.1 @ 60 degrees F

Ph: 7.5

RW: .28 @ 58 degrees F

Chlorides: 33,000 ppm



Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

DATE March 18

2018

Formation: Pawnee-Ft. Scott

Test Interval: 4465 -

Total Depth: 4540'

4540'

Time On: 23:16 03/17

Time Off: 09:25 03/18

Time On Bottom: 02:11 03/18 Time Off Bottom: 05:51 03/18

## **Down Hole Makeup**

**Heads Up:** 28.97 FT Packer 1: 4459.68 FT

**Drill Pipe:** 4461.08 FT

DST #4

Packer 2: 4464.68 FT

ID-3

Top Recorder: 4449.1 FT

Weight Pipe: 0 FT **Bottom Recorder:** 4502 FT

ID-2 7/8

Collars: 0 FT Well Bore Size: 7 7/8

ID-2 1/4

**Surface Choke:** 1"

**Test Tool:** 33.57 FT **Bottom Choke:** 5/8"

ID-3 1/2-FH

Jars

Safety Joint

**Total Anchor:** 75.32

**Anchor Makeup** 

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

**Change Over:** .5 FT

Drill Pipe: (in anchor): 30.82 FT

ID-3

**Change Over:** 1 FT

Perforations: (below): 39 FT

4 1/2-FH



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **18**2018

DST #4 Formation: Pawnee- Test Interval: 4465 - Total Depth: 4540' Ft. Scott 4540'

Time On: 23:16 03/17 Time Off: 09:25 03/18

Time On Bottom: 02:11 03/18 Time Off Bottom: 05:51 03/18

## **Mud Properties**

Mud Type: Chemical Weight: 9.1 Viscosity: 61 Filtrate: 7.6 Chlorides: 2,000 ppm



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

**DATE** March 18 2018

DST #4 Formation: Pawnee-Ft. Scott

Test Interval: 4465 -

Total Depth: 4540'

4540'

Time On: 23:16 03/17 Time Off: 09:25 03/18

Time On Bottom: 02:11 03/18 Time Off Bottom: 05:51 03/18

#### **Gas Volume Report**

Remarks: GOT GAS TO SURFACE DURING FINAL SHUT-IN PERIOD

1st Open 2nd Open

Time Orifice PSI MCF/D	Time	Orifice	PSI	MCF/D
------------------------	------	---------	-----	-------



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE**March **19**2018

DST #5 Formation: Test Interval: 4540 - Total Depth: 4610' Cherokee Sd. 4610'

Time On: 21:08 03/18 Time Off: 06:41 03/19

Time On Bottom: 00:15 03/19 Time Off Bottom: 03:50 03/19





Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

<u>DATE</u> March **19** 2018 DST #5 Formation: Test Interval: 4540 - Total Depth: 4610' Cherokee Sd. 4610'

Time On: 21:08 03/18 Time Off: 06:41 03/19

Time On Bottom: 00:15 03/19 Time Off Bottom: 03:50 03/19

#### Recovered

<u>Foot</u>	<u>BBLS</u>	Description of Fluid	<u>Gas %</u>	<u>Oil %</u>	Water %	Mud %
65	0.7046	G	100	0	0	0
60	0.6504	SLOCM	0	16	0	84

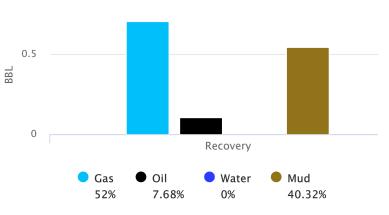
Total Recovered: 125 ft

Total Barrels Recovered: 1.355

ſ	Reversed Out
l	NO

Initial Hydrostatic Pressure	2244	PSI
Initial Flow	13 to 17	PSI
Initial Closed in Pressure	1093	PSI
Final Flow Pressure	19 to 39	PSI
Final Closed in Pressure	1081	PSI
Final Hydrostatic Pressure	2184	PSI
Temperature	121	°F
Pressure Change Initial	1.1	%
Close / Final Close		

#### Recovery at a glance





Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DST #5** 

**DATE** March

19 2018

Formation: Cherokee Sd.

Test Interval: 4540 -4610'

Total Depth: 4610'

Time On: 21:08 03/18 Time Off: 06:41 03/19

Time On Bottom: 00:15 03/19 Time Off Bottom: 03:50 03/19

REMARKS:

IF 1 inch blow ISI: No BB FF: 8 inch blow FSI: No BB

TOOL SAMPLE: 66% OIL, 34% MUD



Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

<u>DATE</u>
March
19
2018

DST #5 Formation: Test Interval: 4540 - Total Depth: 4610' Cherokee Sd. 4610'

Time On: 21:08 03/18 Time Off: 06:41 03/19

Time On Bottom: 00:15 03/19 Time Off Bottom: 03:50 03/19

## **Down Hole Makeup**

**Heads Up:** 15.59 FT **Packer 1:** 4534.68 FT

**Drill Pipe:** 4522.7 FT **Packer 2:** 4539.68 FT

ID-3 Top Recorder: 4524.1 FT

Weight Pipe: 0 FT

ID-2 7/8

Bottom Recorder: 4577 FT

Collars: 0 FT Well Bore Size: 7 7/8

ID-2 1/4 Surface Choke: 1"

Test Tool: 33.57 FT Bottom Choke: 5/8"

ID-3 1/2-FH

Jars

Safety Joint

**Total Anchor:** 70.32

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: .5 FT

**Drill Pipe: (in anchor):** 30.82 FT

ID-3

Change Over: 1 FT

Perforations: (below): 34 FT

4 1/2-FH



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT

Job Number: 126

<u>DATE</u>
March
19
2018

DST #5 Formation: Cherokee Sd.

Test Interval: 4540 -

Total Depth: 4610'

4610'

Time On: 21:08 03/18

Time Off: 06:41 03/19

Time On Bottom: 00:15 03/19 Time Off Bottom: 03:50 03/19

## **Mud Properties**

Mud Type: Chemical Weight: 9.1 Viscosity: 60 Filtrate: 6.2 Chlorides: 2,000 ppm



Company, Inc

Lease: Wieland-CMB Unit #1-4

SEC: 4 TWN: 11S RNG: 31W

County: GOVE State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 10 Elevation: 3002 GL Field Name: Wildcat Pool: WILDCAT Job Number: 126

**DATE** March 19 2018

DST #5 Formation: Cherokee Sd. Test Interval: 4540 -

Total Depth: 4610'

4610'

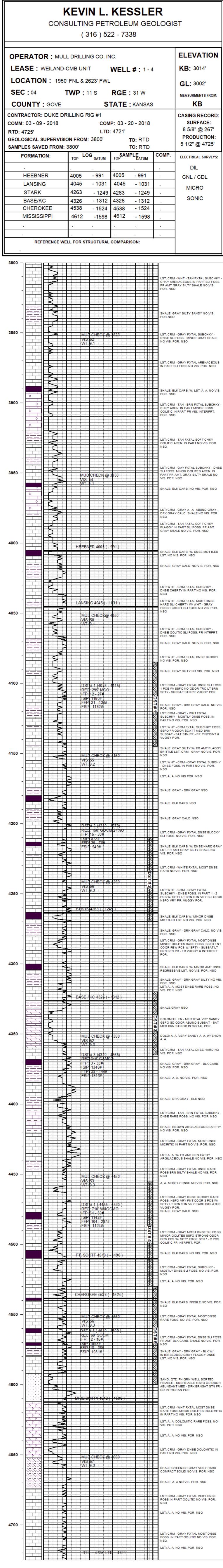
Time Off: 06:41 03/19 Time On: 21:08 03/18

Time On Bottom: 00:15 03/19 Time Off Bottom: 03:50 03/19

## **Gas Volume Report**

1st Open 2nd Open

Time Orifice PSI MCF/D	Time		Orifice	PSI	MCF/D
------------------------	------	--	---------	-----	-------



COMMENTS: 5 1/2" PRODUCTION CASING WAS SET TO FURTHER EVALUATE THE PRODUCTIVITY OF THIS WELL

NOTE: DRILLING MEASURMENTS WERE OFF BY AN AVERAGE OF 14'

ERROR OCCURED WHEN RIG WAS DRILLING OUT FROM UNDER SURFACE

DRILL TIME AND DST INTERVALS WERE AJUSTED ACCORDINGLY

TO RECONCILE THE ERROR

KEVIN L. KESSLER