

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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 III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top _____ Bottom _____
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	NUSS D 33-1
Doc ID	1460514

All Electric Logs Run

Microlog
Spectral Density Dual Spaced Neutron
Array Compensated True Resistivity
Annular Hole Volume
Sector Bond/Gamma Radiation/CCL

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	NUSS D 33-1
Doc ID	1460514

Tops

Name	Top	Datum
Anhydrite	916	+1007
B/Anhydrite	950	+973
Topeka	2845	-922
Heebner	3075	-1152
Toronto	3094	-1171
Lansing	3137	-1214
Muncie Creek	3279	-1356
B/KC	3379	-1456
Arbuckle	3382	-1459
RTD	3455	-1532
LTD	3455	-1532



BASIC
ENERGY SERVICES

RECEIVE
FEB 20 2019
(620) 672-1201

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1003649	1718	02/14/2019
INVOICE NUMBER			
92909753			

Pratt
B RUSSELL OIL
L PO Box: 8050
L EDMOND
T OK US 73083
O ATTN: ACCOUNTS PAYABLE

J LEASE NAME NUSS 33-1
O LOCATION
B COUNTY RUSSELL
S STATE KS
I JOB DESCRIPTION Cement-New Well Casing/Pi
T JOB CONTACT
E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41160834	19843		Net - 30 days	03/16/2019

For Service Dates: 02/13/2019 to 02/13/2019

0041160834

171817679A Cement-New Well Casing/Pi 02/13/2019
5 1/2" PRODUCTION CASING

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
AA2 Cement	150.00	EA	9.86	1,479.00 T
60/40 POZ	30.00	EA	6.96	208.80 T
38 LBS Celloflake	1.00	LB	81.55	81.55 T
C-41P	71.00	LB	2.32	164.72 T
Salt	691.00	LB	0.29	200.39 T
C-17	71.00	LB	11.60	823.60 T
750 LBS Gilsonite	1.00	LB	291.45	291.45 T
52 LBS Cement Gel	1.00	LB	7.54	7.54 T
Auto Fill Float Shoe 5 1/2" (Blue)	1.00	EA	208.80	208.80
Latch Down Plug & Baffle, 5 1/2" (Blue)	1.00	EA	232.00	232.00
Turbolizer, 5 1/2" (Blue)	8.00	EA	63.80	510.40
5 1/2" Basket (Blue)	1.00	EA	168.20	168.20
500 GALS Super Flush II	1.00	GAL	443.70	443.70 T
CLAYMAX KCL SUBSTITUTE	6.00	EA	20.30	121.80 T
"Unit Mileage Chg (PU, cars one way)"	80.00	MI	2.61	208.80
Heavy Equipment Mileage	160.00	MI	4.35	696.00
Proppant & Bulk Del. Chgs., per ton mil	668.00	EA	1.45	968.60
Depth Charge; 3001-4000'	1.00	EA	1,252.80	1,252.80
Blending & Mixing Service Charge	1.00	SK	146.16	146.16
Plug Container Utilization Charge	1.00	EA	145.00	145.00
Casing Swivel Rental	1.00	EA	116.00	116.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	101.50	101.50

V ~~022000~~
G ~~71~~
U ~~WOL~~

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	8,576.81
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	324.92
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	8,901.73
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		

Customer Russell Oil Inc.	Lease No.	Date 2/13/2019
Lease NUSS	Well # 33-1	
Field Order # 17679	Station Pratt, KS	Casing 5 1/2
		Depth 3451
Type Job 242 / 5 1/2 Long string	Formation TD-3455	Legal Description 33-15S-14U
		County Russell
		State KS

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
5 1/2								
Depth 3451	Depth	From	To	Pre Pad	Max		5 Min.	
Volume 82	Volume	From	To	Pad	Min		10 Min.	
Max Press	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 3732	Packer Depth	From	To	Flush KCL Water	Gas Volume		Total Load	

Customer Representative Todd Brown	Station Manager Justin Westerman	Treater Darin Franklin
Service Units 92911 78982 19843 19885 19860		
Driver Names Darin Gilley Gilley Dis2 Dis2		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
2/13					
10:30am					ON LOCATION / SATELITE MEETING
					T-5, 8, 12, 15, 65, 70, 74, 81 B-3
					150SK 1002 Cement, Russell Oil Blend
					15.3 pps, 1.36 vol. H ₂ O, 5.53 water
					30SK 60/40 Puz, 490 Gr
					13.78 pps, 1.43 vol. H ₂ O, 6.92 water
2:45pm	300		5	5	Pump 5 bbls water
	300		12	5	Pump 12 bbls Flush
	300		5	5	Pump 5 bbls water
	300		36	5	mix 150SK cement
					Shut down
					WASH PUMP & LINE & RELEASE PLUG
	200		0	6	Start displacement
	500		60	6	Line Pressure
	600		70	3	Slow Rate
3:30pm	1500		80	3	Bump Plug
					Flow - Hold
			7	3	Plug Rest hole
3:45pm					Job Complete / Darin & Crew
					Thank you!!!



BASIC
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

33-155-140

FIELD SERVICE TICKET
1718 17679 A

DATE _____ TICKET NO. _____

DATE OF JOB 2/13/2019 DISTRICT Pratt & Iks		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER Russell Oil Inc		LEASE Nuss WELL NO. 33-1							
ADDRESS		COUNTY Russell STATE Ks							
CITY STATE		SERVICE CREW D Sr, G. Illoy, P, S2							
AUTHORIZED BY		JOB TYPE: 2 42/5 1/2 Longstring							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM/PM	TIME
19843	1						2/12	AM	6:30
19860	1/2					ARRIVED AT JOB	2/12	AM	10:30
						START OPERATION	2/13	PM	2:45
						FINISH OPERATION	2/13	PM	3:4+
						RELEASED	2/13	PM	4:30
						MILES FROM STATION TO WELL			82

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *Todd Brown*
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP105	DP2 Cement	SK	150		2,550 00
CP103	60/40 P02	SK	30		360 00
CC102	Celloflock	Lb	38		140 60
CC105	C-41P	Lb	71		284 00
CC111	SS12	Lb	691		345 50
CC148	C-17	Lb	71		1,420 00
CC201	Gilsonite	Lb	750		502 50
CC200	Cement Gel	Lb	52		13 00
CF1251	Drill Fill Flgs + Shear 5 1/2" (Blue)	ES	1		360 00
CF607	Log Down Plug & Baffle 5 1/2" (Blue)	ES	1		400 00
CF1651	Turbolizer, 5 1/2" (Blue)	ES	8		880 00
CF1501	5 1/2" Baffle (Blue)	ES	1		290 00
CC155	Super Flush IT	Gal	500		765 00
C704	Clay msv KCL Substitute	Gal	6		210 00
E100	unit mileage charge - pickups, small users etc	mi.	80		360 00
E101	Heavy Equipment + mileage	mi.	160		1,700 00
E113	Proppant gas Bulk Delivery charges per ton mile	100m	668		11670 00
CF204	Depn Charge; 3,001' - 4,000'	4hr	1		2160 00

CHEMICAL / ACID DATA:			

SUB TOTAL	
SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$

TOTAL
JW

SERVICE REPRESENTATIVE *John Frank* THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *Todd Brown*

FIELD SERVICE ORDER NO. _____ (WELL OWNER OPERATOR CONTRACTOR OR AGENT)

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1191

Date	2-5-19	Sec.	33	Twp.	15	Range	14	County	Russell	State	Ks	On Location		Finish	9:00 PM
------	--------	------	----	------	----	-------	----	--------	---------	-------	----	-------------	--	--------	---------

Lease Nuss D Well No. 33-1-0 Location MPH Berger - 15, 1E, N/Tank

Contractor WW #8 To: Quality Oilwell Cementing, Inc.
Type Job Surface You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 2 1/4" T.D. 928' Charge To Russell Oil

Csg. 8 5/8" Depth 928' Street _____

Tbg. Size _____ Depth _____ City _____ State _____

Tool _____ Depth _____ The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 32' Shoe Joint 32' Cement Amount Ordered 375 80/20 3 1/2 CC 2% Gel

Meas Line _____ Displace 57 BLS

EQUIPMENT			Common
Pumptrk	17	No. Cementer/Helper <u>David</u>	Poz. Mix
Bulktrk	21	No. Driver <u>Jack</u>	Gel.
Bulktrk	pu	No. Driver <u>Rick</u>	Calcium

JOB SERVICES & REMARKS		Hulls
Remarks:	<u>Cement did Circulate</u>	Salt
Rat Hole		Flowseal
Mouse Hole		Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand
		Handling
		Mileage

FLOAT EQUIPMENT	
Guide Shoe	<u>Rubber Plug</u>
Centralizer	<u>Baffle plate</u>
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	
Mileage	

X Signature <u>[Signature]</u>	Tax
	Discount
	Total Charge

QUALITY OILWELL CEMENTING, INC.

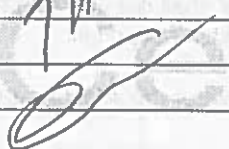
Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1234

Date	3-11-19	Sec.		Twp.		Range		County	Russell	State	KS	On Location		Finish	10:00 AM
Lease								Well No.		Owner					
Nuss								D-33-1		To Quality Oilwell Cementing, Inc.					
Contractor								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Outlaw well															
Type Job								Charge To							
Squeeze								Russell Oil							
Hole Size								T.D.							
5 7/8															
Csg.								Depth							
5 1/2															
Tbg. Size								City							
2 3/8								State							
Tool								The above was done to satisfaction and supervision of owner agent or contractor.							
Reinhardt's Chris															
Cement Left in Csg.								Cement Amount Ordered							
								100 lbm 100 COM							
Meas Line								Displace							
EQUIPMENT															
Pumptrk								Common							
20								50							
No. Cementer								Poz. Mix							
Tony F.															
Bulktrk								Gel.							
No. Driver								Calcium							
Michael															
Bulktrk								Hulls							
3															
No. Driver								Salt							
Tony L.															
JOB SERVICES & REMARKS															
Remarks:								Flowseal							
Rat Hole								Kol-Seal							
Mouse Hole								Mud CLR 48							
Centralizers								CFL-117 or CD110 CAF 38							
Baskets								Sand							
DN or Port Collar								Handling							
Pent 5- 3233-35								100							
Packer @ 315.5								Mileage							
Rax 4B @ 1500*								FLOAT EQUIPMENT							
Mixed 50SK & Squeeze to 1500*								Guide Shoe							
Wash out slurry way Pol. Joints & Shut in @ 500*								Centralizer							
USED 50SK								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge							
								Squeeze							
								Mileage							
								15							
								Tax							
								Discount							
								Total Charge							
X Signature															
Todd Brown															

Thanks




Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Test Complete

DATE
 February
09
 2019

DST #1 **Formation: LKC "B-C"** **Test Interval: 3148 - 3186'** **Total Depth: 3186'**
 Time On: 06:23 02/09 Time Off: 13:16 02/09
 Time On Bottom: 08:51 02/09 Time Off Bottom: 11:51 02/09

Electronic Volume Estimate:
 84'

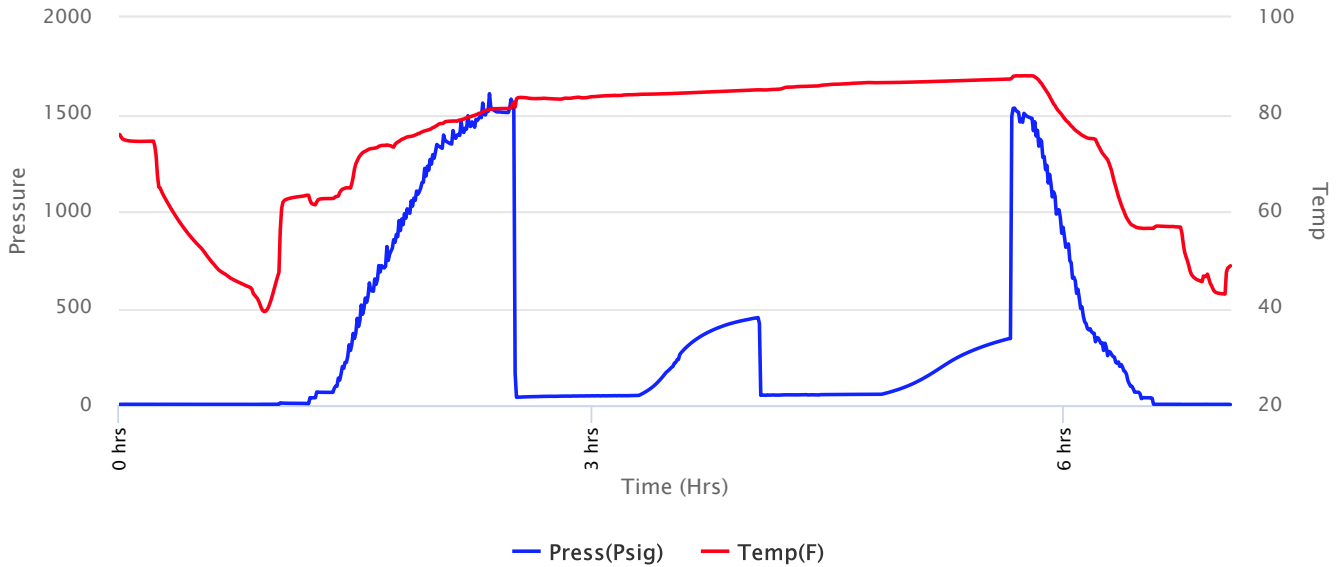
1st Open
 Minutes: 45
 Current Reading:
 2.5" at 45 min
 Max Reading: 2.5"

1st Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 45
 Current Reading:
 1.1" at 45 min
 Max Reading: 1.1"

2nd Close
 Minutes: 20
 Current Reading:
 0" at 20 min
 Max Reading: 0"

Inside Recorder





Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
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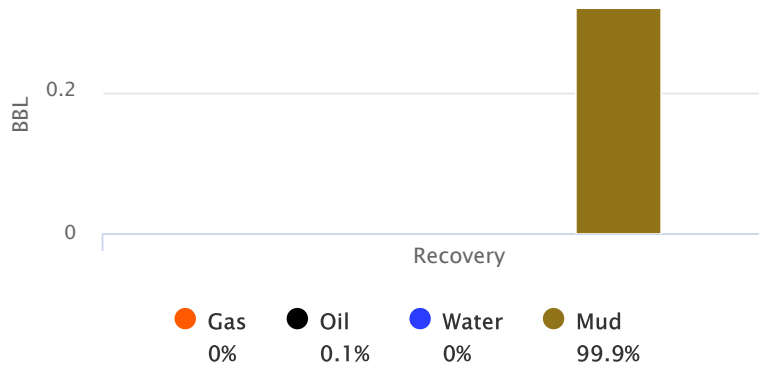
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
65	0.3198	M (trace O)	0	.1	0	99.9

Total Recovered: 65 ft
 Total Barrels Recovered: 0.3198

Reversed Out
NO

Recovery at a glance



Initial Hydrostatic Pressure	1512	PSI
Initial Flow	42 to 51	PSI
Initial Closed in Pressure	453	PSI
Final Flow Pressure	52 to 58	PSI
Final Closed in Pressure	345	PSI
Final Hydrostatic Pressure	1511	PSI
Temperature	88	°F
Pressure Change Initial Close / Final Close	23.9	%

GIP cubic foot volume: 0



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Rig 8
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Time On Bottom: 08:51 02/09 Time Off Bottom: 11:51 02/09

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 3/4" Blow built to 2 3/4" over 45 min.

1st Close: No Return

2nd Open: Surface Blow built to 1 1/4" over 45 min.

2nd Close: No Return

REMARKS:

Oil specks in recovery.

Tool Sample: 0% Gas .2% Oil 0% Water 99.8% Mud



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

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 Rig 8
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Down Hole Makeup

Heads Up: 22.16 FT	Packer 1: 3142.66 FT
Drill Pipe: 3017.65 FT <i>ID-3 1/2</i>	Packer 2: 3147.66 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3132.08 FT
Collars: 119.6 FT <i>ID-2 1/4</i>	Bottom Recorder: 0 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 38.34	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 2 FT <i>4 1/2-FH</i>	
Change Over: .5 FT	
Drill Pipe: (in anchor): 31.34 FT <i>ID-3 1/2</i>	
Change Over: .5 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



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2019

DST #1 **Formation: LKC "B-C"** **Test Interval: 3148 - 3186'** **Total Depth: 3186'**
Time On: 06:23 02/09 Time Off: 13:16 02/09
Time On Bottom: 08:51 02/09 Time Off Bottom: 11:51 02/09

Mud Properties

Mud Type: Chem **Weight:** 8.7 **Viscosity:** 59 **Filtrate:** 8.0 **Chlorides:** 5200 ppm



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC -
 Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery &
 pressures

DATE
 February
09
 2019

DST #2 **Formation: LKC "E-
 F"** **Test Interval: 3196 -
 3225'** **Total Depth: 3225'**
 Time On: 20:58 02/09 Time Off: 03:32 02/10
 Time On Bottom: 22:32 02/09 Time Off Bottom: 00:32 02/10

Electronic Volume
 Estimate:
 N/A

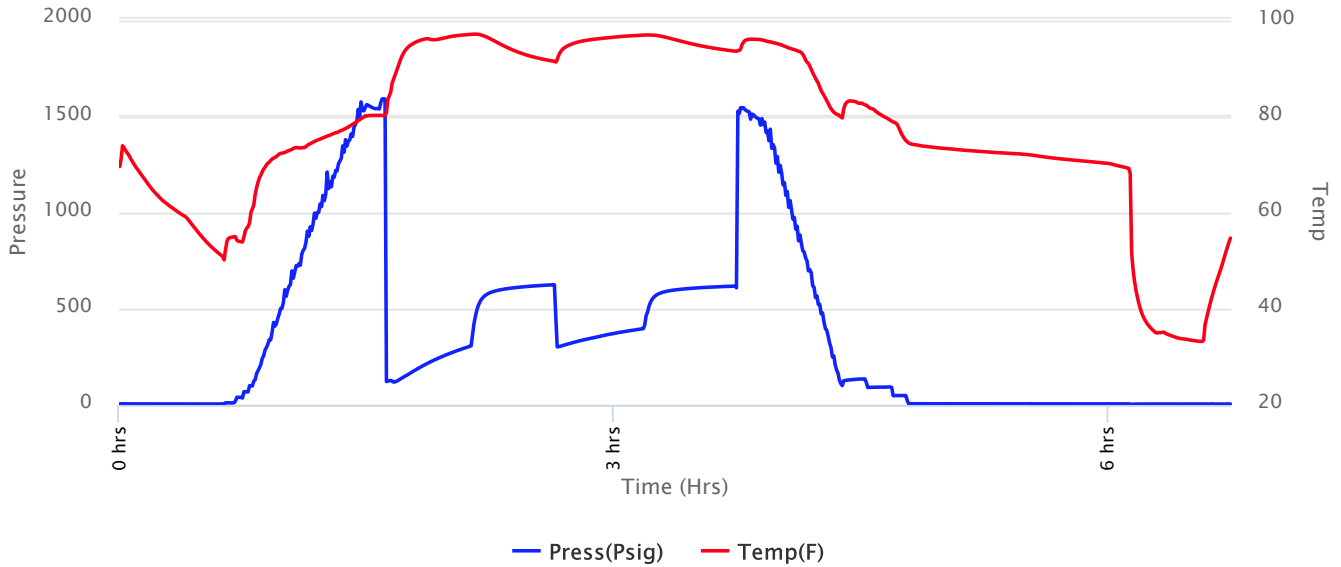
1st Open
 Minutes: 30
 Current Reading:
 Gg" at 30 min
 Max Reading: Gts"

1st Close
 Minutes: 30
 Current Reading:
 122.5" at 30 min
 Max Reading: 122.5"

2nd Open
 Minutes: 30
 Current Reading:
 Gg" at 30 min
 Max Reading: Gg"

2nd Close
 Minutes: 30
 Current Reading:
 118.7" at 30 min
 Max Reading: 118.7"

Inside Recorder





Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

DATE
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 2019

DST #2 **Formation: LKC "E-F"** **Test Interval: 3196 - 3225'** **Total Depth: 3225'**
 Time On: 20:58 02/09 Time Off: 03:32 02/10
 Time On Bottom: 22:32 02/09 Time Off Bottom: 00:32 02/10

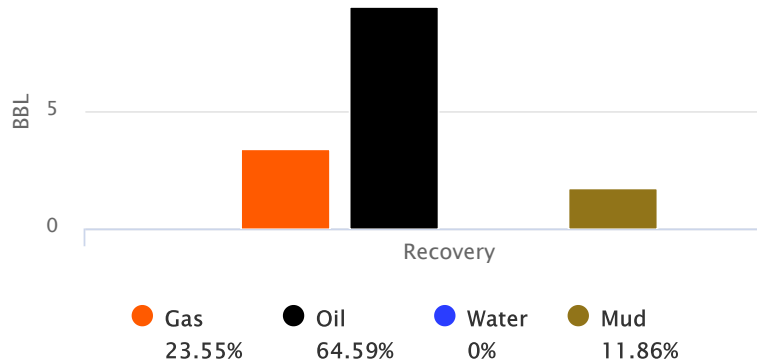
Recovered						
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
471	6.70233	HGCO	30	70	0	0
189	2.68947	SLMCGCO	20	63	0	17
126	1.79298	GCOCM	20	25	0	55
295	3.270574	SLMCSLGCO	15	78	0	7
20	0.0984	SLOCHGCM	30	15	0	55

Total Recovered: 1101 ft
 Total Barrels Recovered: 14.553754

Reversed Out
NO

Initial Hydrostatic Pressure	1535	PSI
Initial Flow	121 to 306	PSI
Initial Closed in Pressure	623	PSI
Final Flow Pressure	301 to 394	PSI
Final Closed in Pressure	615	PSI
Final Hydrostatic Pressure	1525	PSI
Temperature	98	°F
Pressure Change Initial Close / Final Close	1.2	%

Recovery at a glance



GIP cubic foot volume: 19.24255



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

DATE
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2019

DST #2 **Formation: LKC "E-
F"** **Test Interval: 3196 -
3225'** **Total Depth: 3225'**
Time On: 20:58 02/09 Time Off: 03:32 02/10
Time On Bottom: 22:32 02/09 Time Off Bottom: 00:32 02/10

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: BoB in 43 seconds.

1st Close: BoB in 1 min.

2nd Open: BoB in 30 sec.

2nd Close: BoB in 55 sec.

REMARKS:

Tool Sample: 20% Gas 65% Oil 0% Water 15% Mud

Gravity: 42.7 @ 60 °F



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC -
 Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery &
 pressures

DATE
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DST #2 **Formation: LKC "E-
 F"** **Test Interval: 3196 -
 3225'** **Total Depth: 3225'**
 Time On: 20:58 02/09 Time Off: 03:32 02/10
 Time On Bottom: 22:32 02/09 Time Off Bottom: 00:32 02/10

Down Hole Makeup

Heads Up: 36.24 FT	Packer 1: 3191 FT
Drill Pipe: 3080.07 FT <i>ID-3 1/2</i>	Packer 2: 3196 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3180.42 FT
Collars: 119.6 FT <i>ID-2 1/4</i>	Bottom Recorder: 3198 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 29	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): FT <i>4 1/2-FH</i>	
Change Over: FT	
Drill Pipe: (in anchor): FT <i>ID-3 1/2</i>	
Change Over: FT	
Perforations: (below): 28 FT <i>4 1/2-FH</i>	



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

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DST #2 **Formation: LKC "E-
F"** **Test Interval: 3196 -
3225'** **Total Depth: 3225'**
Time On: 20:58 02/09 Time Off: 03:32 02/10
Time On Bottom: 22:32 02/09 Time Off Bottom: 00:32 02/10

Mud Properties

Mud Type: Chem **Weight:** 9.2 **Viscosity:** 58 **Filtrate:** 7.6 **Chlorides:** 6800 ppm



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

DATE
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DST #2 **Formation: LKC "E-F"** **Test Interval: 3196 - 3225'** **Total Depth: 3225'**
 Time On: 20:58 02/09 Time Off: 03:32 02/10
 Time On Bottom: 22:32 02/09 Time Off Bottom: 00:32 02/10

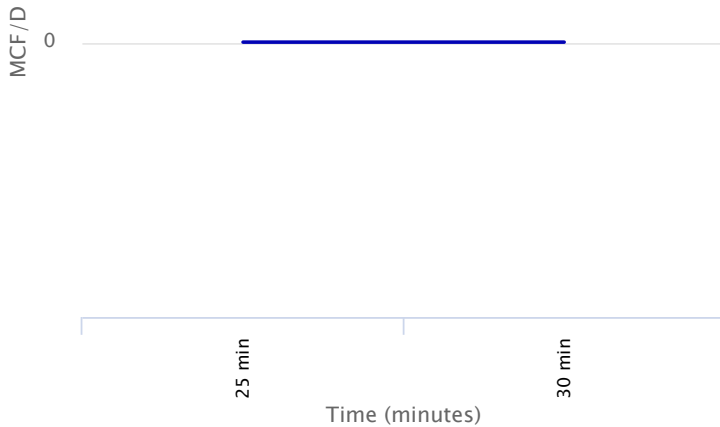
Gas Volume Report

Remarks: Gas to surface 25 min into 1st open. Took gas sample at 25 min. Into 2nd open

1st Open			
Time	Orifice	PSI	MCF/D
25	0.25	Too weak to measure	Weak
30	0.25	Too weak to measure	Weak

2nd Open			
Time	Orifice	PSI	MCF/D
5	0.25	Too weak to measure	Weak
10	0.25	Too weak to measure	Weak
15	0.125	Too weak to measure	Weak
20	0.125	1.0	2.76
25	0.125	1.0	2.76
30	0.125	1.0	2.76

MCF/D





Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

DATE
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DST #3 Formation: LKC "G" Test Interval: 3230 - 3237' Total Depth: 3237'

Time On: 09:41 02/10 Time Off: 16:15 02/10
 Time On Bottom: 11:34 02/10 Time Off Bottom: 14:34 02/10

Electronic Volume Estimate:
 96'

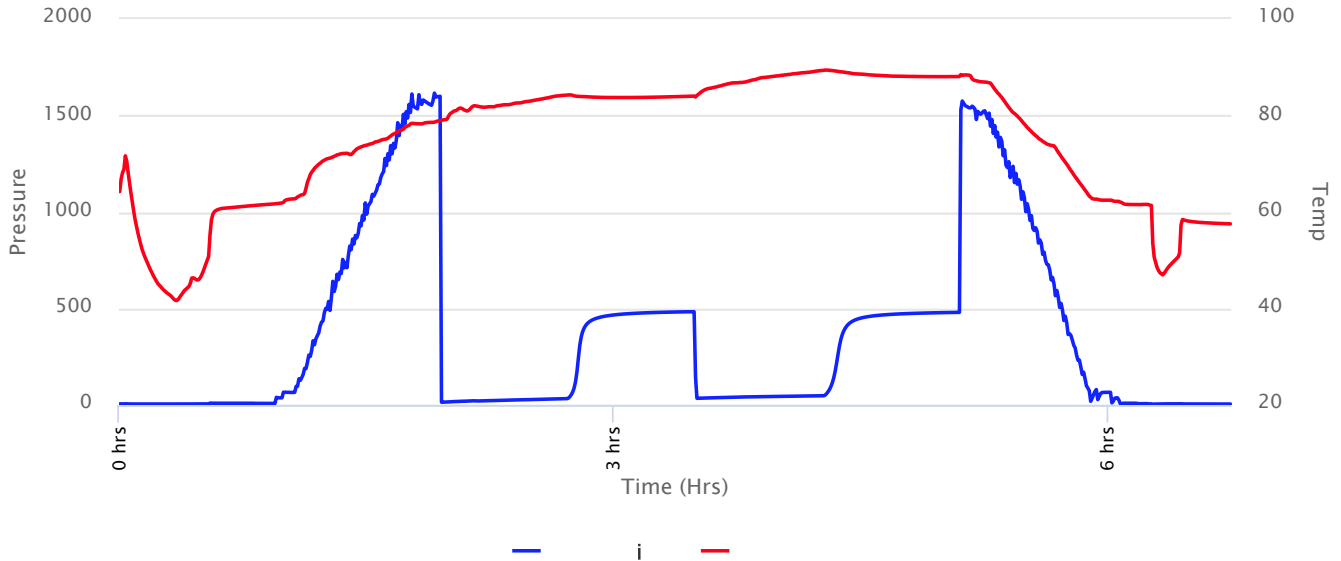
1st Open
 Minutes: 45
 Current Reading:
 2.4" at 45 min
 Max Reading: 2.4"

1st Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 45
 Current Reading:
 1.6" at 45 min
 Max Reading: 1.6"

2nd Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

Inside Recorder





Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

DATE
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 2019

DST #3 Formation: LKC "G" Test Interval: 3230 - 3237' Total Depth: 3237'

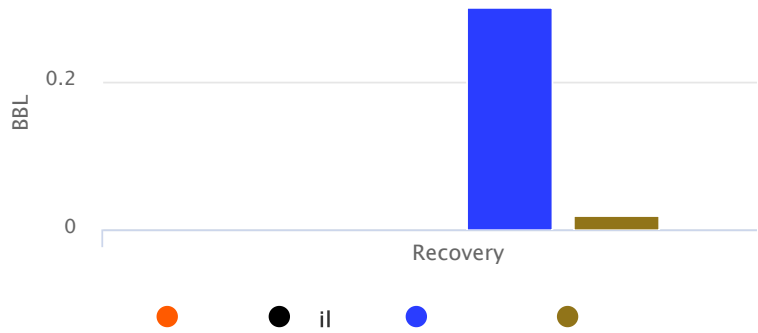
Time On: 09:41 02/10 Time Off: 16:15 02/10
 Time On Bottom: 11:34 02/10 Time Off Bottom: 14:34 02/10

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
5	0.0246	SLOCMLCW	0	2	95	3
60	0.2952	SLMCW (trace O)	0	.1	93.9	6

Total Recovered: 65 ft
 Total Barrels Recovered: 0.3198

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1595	PSI
Initial Flow	14 to 33	PSI
Initial Closed in Pressure	483	PSI
Final Flow Pressure	35 to 48	PSI
Final Closed in Pressure	480	PSI
Final Hydrostatic Pressure	1563	PSI
Temperature	90	°F
Pressure Change Initial Close / Final Close	0.7	%

GIP cubic foot volume: 0



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

DATE
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DST #3 Formation: LKC "G" Test Interval: 3230 - Total Depth: 3237'
3237'
Time On: 09:41 02/10 Time Off: 16:15 02/10
Time On Bottom: 11:34 02/10 Time Off Bottom: 14:34 02/10

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: Surface Blow built to 3 3/4" over 45 min.

1st Close: No Return

2nd Open: SurfAce blow built to 3" over 45 min.

2nd Close: No Return

REMARKS:

Tool Sample: 0% Gas 2% Oil 96% Water 2% Mud

Ph: 6

Measured RW: .2 @ 45 degrees °F

RW at Formation Temp: 0.107 @ 90 °F

Chlorides: 42000 ppm



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

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DST #3 Formation: LKC "G" Test Interval: 3230 - 3237' Total Depth: 3237'

Time On: 09:41 02/10 Time Off: 16:15 02/10
 Time On Bottom: 11:34 02/10 Time Off Bottom: 14:34 02/10

Down Hole Makeup

Heads Up: 25.94 FT	Packer 1: 3225 FT
Drill Pipe: 3111.18 FT <i>ID-3 1/2</i>	Packer 2: 3230 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3217 FT
Collars: 119.6 FT <i>ID-2 1/4</i>	Bottom Recorder: -5 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 7	Surface Choke: 1"
Anchor Makeup	
Packer Sub: 1 FT	Bottom Choke: 5/8"
Perforations: (top): 0 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/2</i>	
Change Over: 0 FT	
Perforations: (below): 6 FT <i>4 1/2-FH</i>	



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

DATE
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DST #3 Formation: LKC "G" Test Interval: 3230 - Total Depth: 3237'
3237'
Time On: 09:41 02/10 Time Off: 16:15 02/10
Time On Bottom: 11:34 02/10 Time Off Bottom: 14:34 02/10

Mud Properties

Mud Type: Chem **Weight:** 9.2 **Viscosity:** 51 **Filtrate:** 7.6 **Chlorides:** 7500 ppm



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

DATE
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 2019

DST #4 **Formation: LKC "I-J"** **Test Interval: 3297 - 3350'** **Total Depth: 3350'**
 Time On: 04:18 02/11 Time Off: 11:13 02/11
 Time On Bottom: 06:21 02/11 Time Off Bottom: 09:21 02/11

Electronic Volume Estimate:
 83'

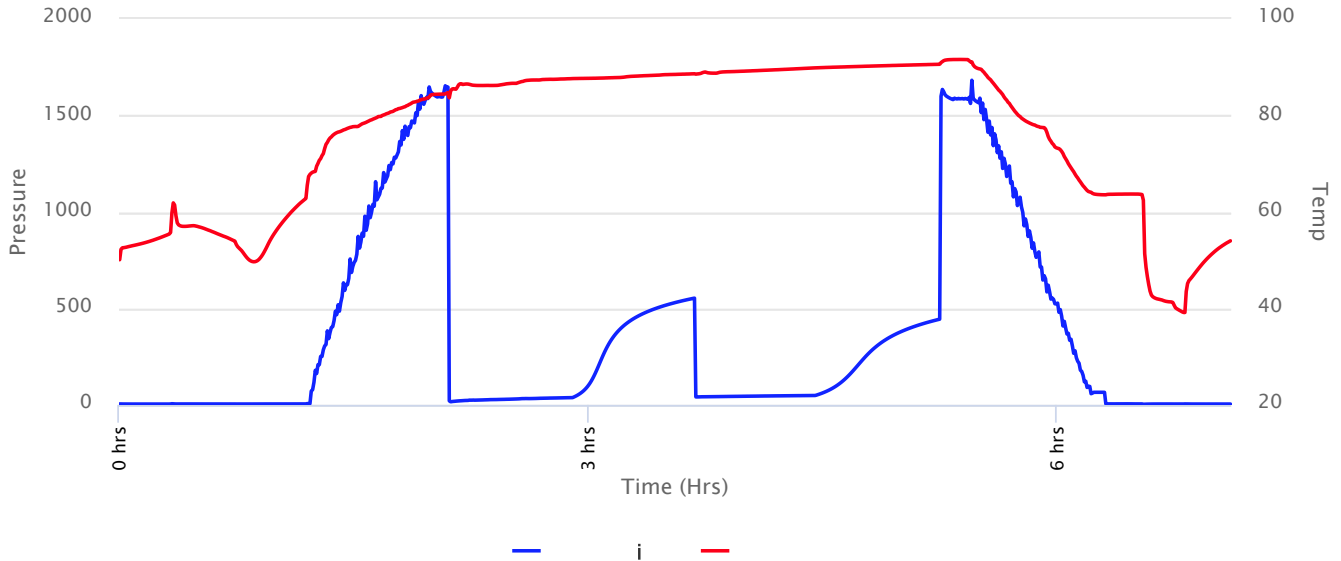
1st Open
 Minutes: 45
 Current Reading:
 2.7" at 45 min
 Max Reading: 2.7"

1st Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 45
 Current Reading:
 .7" at 45 min
 Max Reading: .7"

2nd Close
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

Inside Recorder





Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

DATE
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DST #4 **Formation: LKC "I-J"** **Test Interval: 3297 - 3350'** **Total Depth: 3350'**
 Time On: 04:18 02/11 Time Off: 11:13 02/11
 Time On Bottom: 06:21 02/11 Time Off Bottom: 09:21 02/11

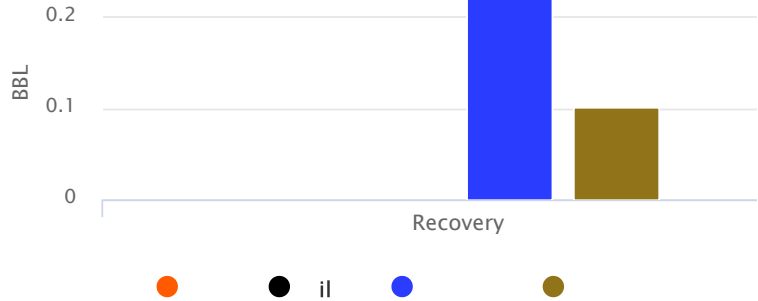
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
10	0.0492	MCW (trace O)	0	.1	74.9	25
60	0.2952	HMCW (trace O)	0	.1	69.9	30

Total Recovered: 70 ft
 Total Barrels Recovered: 0.3444

Reversed Out
 NO

Initial Hydrostatic Pressure	1595	PSI
Initial Flow	17 to 38	PSI
Initial Closed in Pressure	552	PSI
Final Flow Pressure	42 to 49	PSI
Final Closed in Pressure	443	PSI
Final Hydrostatic Pressure	1589	PSI
Temperature	91	°F
Pressure Change Initial Close / Final Close	19.8	%

Recovery at a glance



GIP cubic foot volume: 0



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

DATE
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DST #4 **Formation: LKC "I-
J"** **Test Interval: 3297 -
3350'** **Total Depth: 3350'**
Time On: 04:18 02/11 Time Off: 11:13 02/11
Time On Bottom: 06:21 02/11 Time Off Bottom: 09:21 02/11

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 1/8" Blow built to 3 3/4" over 45 min.

1st Close: No Return

2nd Open: Surface blow built to 1 1/2" over 45 min.

2nd Close: No Return

REMARKS:

Tool Sample: 0% Gas 1% Oil 69% Water 30% Mud

Ph: 6

Measured RW: .41 @ 34 degrees °F

RW at Formation Temp: 0.171 @ 91 °F

Chlorides: 28000 ppm



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC -
 Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery &
 pressures

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DST #4 **Formation: LKC "I-
 J"** **Test Interval: 3297 -
 3350'** **Total Depth: 3350'**
 Time On: 04:18 02/11 Time Off: 11:13 02/11
 Time On Bottom: 06:21 02/11 Time Off Bottom: 09:21 02/11

Down Hole Makeup

Heads Up: 22.09 FT	Packer 1: 3292 FT
Drill Pipe: 3174.33 FT <i>ID-3 1/2</i>	Packer 2: 3297 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3284 FT
Collars: 119.6 FT <i>ID-2 1/4</i>	Bottom Recorder: 3299 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 53	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 17 FT <i>4 1/2-FH</i>	
Change Over: .5 FT	
Drill Pipe: (in anchor): 31 09 FT <i>ID-3 1/2</i>	
Change Over: .5 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

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DST #4 **Formation: LKC "I-
J"** **Test Interval: 3297 -
3350'** **Total Depth: 3350'**
Time On: 04:18 02/11 Time Off: 11:13 02/11
Time On Bottom: 06:21 02/11 Time Off Bottom: 09:21 02/11

Mud Properties

Mud Type: Chem **Weight:** 9.2 **Viscosity:** 51 **Filtrate:** 7.6 **Chlorides:** 7500 ppm



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

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DST #5 **Formation: Arbuckle** **Test Interval: 3377 - 3397'** **Total Depth: 3397'**

Time On: 21:35 02/11 Time Off: 04:40 02/12
 Time On Bottom: 23:58 02/11 Time Off Bottom: 02:58 02/12

Electronic Volume Estimate:
 18'

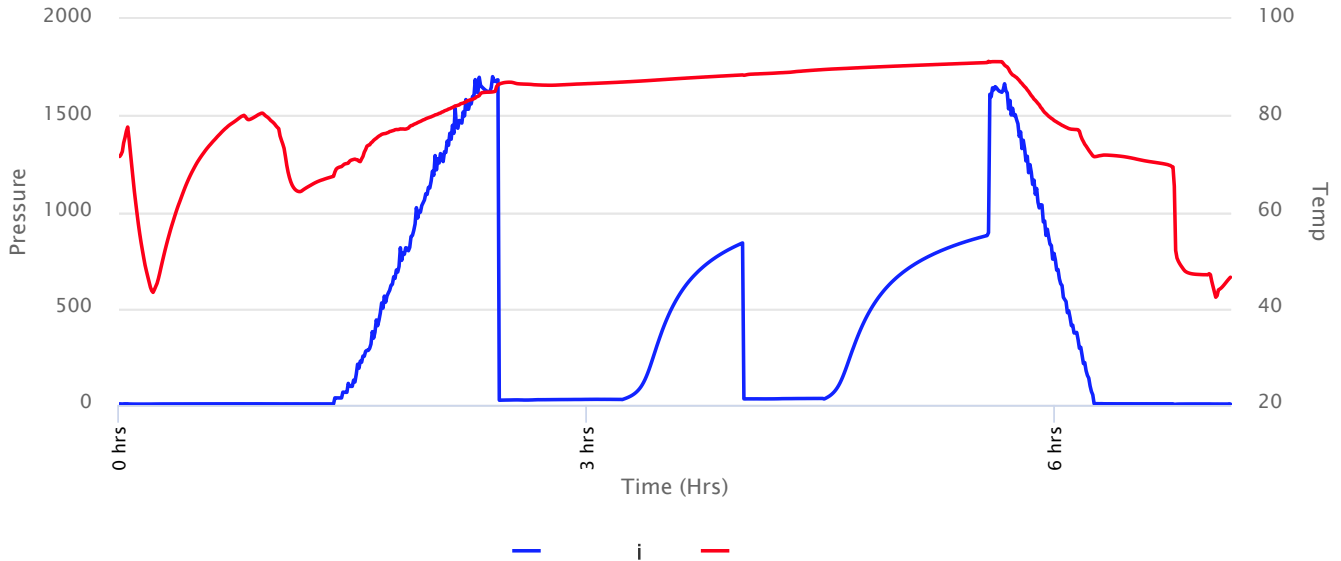
1st Open
 Minutes: 45
 Current Reading: .6" at 45 min
 Max Reading: .7"

1st Close
 Minutes: 45
 Current Reading: 0" at 45 min
 Max Reading: 0"

2nd Open
 Minutes: 30
 Current Reading: 0" at 30 min
 Max Reading: 0"

2nd Close
 Minutes: 60
 Current Reading: 0" at 60 min
 Max Reading: 0"

Inside Recorder





Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery & pressures

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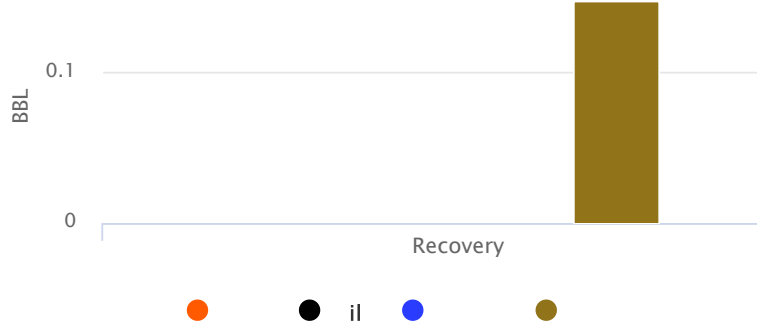
DST #5 **Formation: Arbuckle** **Test Interval: 3377 - 3397'** **Total Depth: 3397'**
 Time On: 21:35 02/11 Time Off: 04:40 02/12
 Time On Bottom: 23:58 02/11 Time Off Bottom: 02:58 02/12

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
30	0.1476	M	0	0	0	100

Total Recovered: 30 ft
 Total Barrels Recovered: 0.1476

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1679	PSI
Initial Flow	25 to 28	PSI
Initial Closed in Pressure	839	PSI
Final Flow Pressure	32 to 34	PSI
Final Closed in Pressure	876	PSI
Final Hydrostatic Pressure	1664	PSI
Temperature	91	°F
Pressure Change Initial Close / Final Close	0.0	%

GIP cubic foot volume: 0



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

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DST #5 Formation: Arbuckle Test Interval: 3377 - Total Depth: 3397'
3397'
Time On: 21:35 02/11 Time Off: 04:40 02/12
Time On Bottom: 23:58 02/11 Time Off Bottom: 02:58 02/12

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: Surface Blow built to 1 1/8" over 45 min.

1st Close: No Return

2nd Open: No Blow

2nd Close: No Return

REMARKS:

Tool Sample: 0% Gas .1% Oil 0% Water 99.9% Mud



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
 County: RUSSELL
 State: Kansas
 Drilling Contractor: WW Drilling, LLC -
 Rig 8
 Elevation: 1918 GL
 Field Name: Nuss
 Pool: Pool Ext
 Job Number: 310

Operation:
 Uploading recovery &
 pressures

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DST #5 **Formation: Arbuckle** **Test Interval: 3377 - 3397'** **Total Depth: 3397'**
 Time On: 21:35 02/11 Time Off: 04:40 02/12
 Time On Bottom: 23:58 02/11 Time Off Bottom: 02:58 02/12

Down Hole Makeup

Heads Up: 4.63999999999998 FT	Packer 1: 3372 FT
Drill Pipe: 3236.88 FT <i>ID-3 1/2</i>	Packer 2: 3377 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3364 FT
Collars: 119.6 FT <i>ID-2 1/4</i>	Bottom Recorder: -18 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 20	Surface Choke: 1"
<u>Anchor Makeup</u>	
Packer Sub: 1 FT	Bottom Choke: 5/8"
Perforations: (top): 0 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/2</i>	
Change Over: 0 FT	
Perforations: (below): 19 FT <i>4 1/2-FH</i>	



Company: Russell Oil, Inc
Lease: Nuss "D" #33-1

SEC: 33 TWN: 15S RNG: 14W
County: RUSSELL
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1918 GL
Field Name: Nuss
Pool: Pool Ext
Job Number: 310

Operation:
Uploading recovery &
pressures

DATE
February
11
2019

DST #5 Formation: Arbuckle Test Interval: 3377 - Total Depth: 3397'
3397'
Time On: 21:35 02/11 Time Off: 04:40 02/12
Time On Bottom: 23:58 02/11 Time Off Bottom: 02:58 02/12

Mud Properties

Mud Type: Chem **Weight:** 9.15 **Viscosity:** 46 **Filtrate:** 8.0 **Chlorides:** 7100 ppm

KITT NOAH

PETROLEUM GEOLOGIST
Kansas License #229



GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

ELEVATION: **KB 1923**
GL: **1918**
MEASURED FROM: **KB**

#15-167-24-087

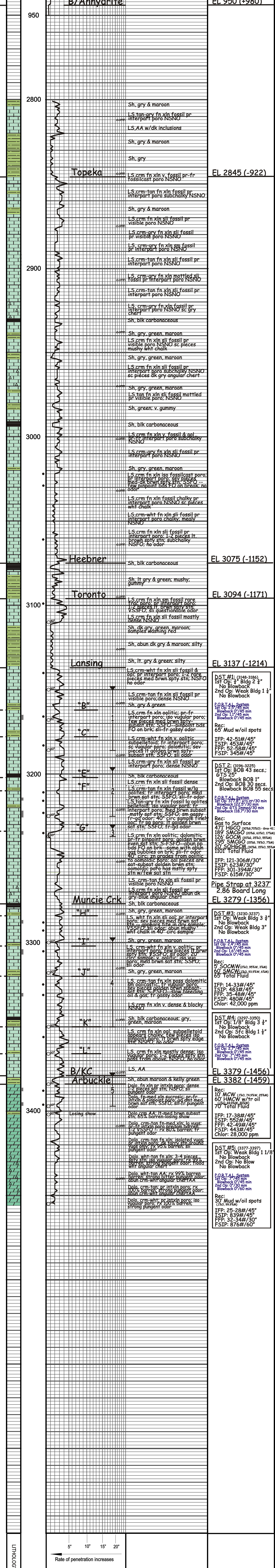
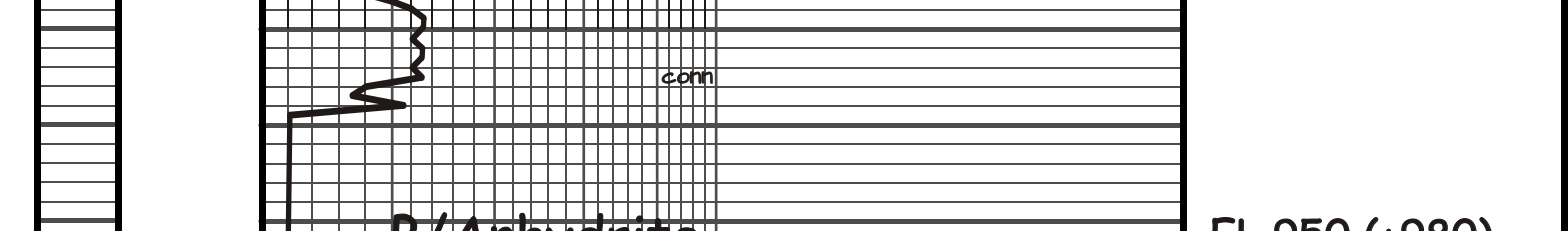
OPERATOR: **Russell Oil, Inc.**
LEASE: **Nuss "D"** WELL NO: **#33-1**
LOCATION: **1925FS & 560FW**
SEC: **33** TWP: **15S** RNG: **14W**

COUNTY: **Russell** STATE: **Kansas**

FORMATION	TOP	LOG	DATE
Anhydrite	916 (+1007)		
B/Anhydrite	950 (+973)		
Topeka	2845 (-922)		
Heebner	3075 (-1152)		
Toronto	3094 (-1171)		
Lansing	3137 (-1214)		
Muncie Creek	3279 (-1356)		
B/KC	3379 (-1456)		
Arbuckle	3382 (-1459)		
RID	3435 (-1532)		
LTD	3455 (-1532)		

CONTRACTOR: **WV Drilling Rig #8**
COMM: **2-4-2019** COMPL: **2-13-2019**
RTD: **3455** LTD: **3455**
SAMPLES SAVED FROM: **2800 to TD**
DRILLING TIME SAVED FROM: **2800 to TD**
SAMPLES EXAMINED FROM: **2800 to TD**
GEOLOGICAL SUPERVISION FROM: **2800 to TD**
MUD UP: **2530** MUD TYPE: **chemical**
Mudco: **Jason Whiting**
B/C: **3379 (-1456)**
DILL STEM TESTS TAKEN: **5**
SURVEYS: **Halliburton**
Spectral Density Neutron Array Compensated Resistivity Microlog

LEGEND



OPERATOR: **Russell Oil, Inc.** LOCATION: **1925FS & 560FW**
LEASE: **Nuss "D"** WELL NO: **#33-1** SEC: **33** TWP: **15S** RNG: **14W**
API: **15-167-24-087** FIELD: **Nuss** COUNTY: **Russell** STATE: **Kansas**

ELEVATION: **KB 1923**