

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:	
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KAUK 2-17
Doc ID	1511850

Tops

Name	Top	Datum
ANHYDRITE	2726	+479
BASE ANHY	2754	+451
STOTLER	3614	-409
HEEBNER	4018	-813
LANSING	4060	-855
BASE KANSAS	4322	-1117
PAWNEE	4444	-1239
FORT SCOTT	4502	-1297
CHEROKEE	4531	-1326
MISSISSIPPI	4648	-1443



TICKET 032928

CHARGE TO: Davis Petroleum
 ADDRESS
 CITY, STATE, ZIP CODE

PAGE 1 OF 2

SERVICE LOCATIONS Nwchky 45

WELL/PROJECT NO. 2-17 LEASE RANK COUNTY/PARISH Thomas STATE KS CITY Colby DATE 12 Dec 19 OWNER

TICKET TYPE SERVICE SALES CONTRACTOR

WELL TYPE LD RIG NAME/NO. LD SHIPPED VIA OT DELIVERED TO Location ORDER NO.

WELL CATEGORY Development JOB PURPOSE convert 2 stage long string WELL PERMIT NO.

REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
575		1			RR 114	100	mi				5.00	500.00
579		1			Plug Change (2 stage)	1	ea				1900.00	1900.00
403		1			Convert Packer	53	in	2	ea		275.00	550.00
407		1			Insert float shoe w/ auto fill	53	in	1	ea		325.00	325.00
408		1			D.V. tool	5 1/2	in	1	ea		3375.00	3375.00
409		1			Turntable	5 1/2	in	10	ea		98.00	980.00
417		1			D.V. with down plug & bottle	5 1/2	in	1	ea		200.00	200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

DATE SIGNED _____ TIME SIGNED _____

A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?

WE UNDERSTOOD AND MET YOUR NEEDS?

OUR SERVICE WAS PERFORMED WITHOUT DELAY?

WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?

ARE YOU SATISFIED WITH OUR SERVICE? YES NO

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 7750.00

TOTAL 11904.32

19654.88

1195.68

20889.90

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR Behall APPROVAL [Signature]

Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 32928

CUSTOMER: DAVIS Petroleum
WELL: RAK 2-17
DATE: 12 Dec 19
PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL				UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	U/M	QTY	U/M		
330						SMD cement	200	SK			17.00	3400.00
325						Standard cement (see SA-2)	175	SK			13.00	2275.00
284						Calced	800	lb			4.25	3400.00
283						SAOts	900	lb			0.25	225.00
292						ht load 322	100	lb	1/2	9/5	8.50	850.00
277						615 onsite	6	166	100	lb	1.25	7.50
276						fbco do	50	lb			3.00	150.00
290						ID - air	3	gal			42.00	126.00
580						Additional hours	2	hr			300.00	600.00
581						SERVICE CHARGE						
583						MILEAGE CHARGE						
TOTAL WEIGHT 39252 CUBIC FEET 375 SK LOADED MILES 100 TON MILES 192.6												
CONTINUATION TOTAL											11904.22	

JOB LOG

SWIFT Services, Inc.

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
Doris Petroleum		2-17		KACK		cement 2 stage / mixing		32928	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
									1755K EA-2 cement w/ 6" Gibsonite 2005K SMD cement w/ 1/4" floccula 5 1/2" x 15.5" casing 110 jts 4743' DV tool 2765' 4743' Basket "6.46 shagjt 43' Cent valves 1, 3, 5, 7, 9, 11, 13, 15, 17, 47
	0500								m be TRK 114
	1024								start 5 1/2" x 15.5" casing in well
	1330								circulate - drop ball - no preflush -
	1430	4	49				200		mix EA-2 cement 1755K @ 15 ppg Drop 1st stage plug wash out Plug & Line to reservoir pit
	1445	6 1/4	45				200		Displace plug w/ H2O
		6 1/4					20		Switch to mud
	1500	6	111				150		Land 1st stage plug Release pressure to truck - dried up Drop bomb
	1550						1200		open D.V. tool
	1555								(2 hr) circulate well - wash truck
	1600	4 1/2	90				200		mix SMD cement 1705K @ 11.6 ppg Drop 2nd stage plug
		6					20		Displace plug w/ H2O
	1845	6	60				600		Land 2nd stage plug
		6	66				1500		close D.V. Release pressure to truck - dried up wash truck
	1855								Back up
	1925								job complete Thanks, Blaine Flint # 1544



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
03
 2019

DST #1 **Formation: Toronto** **Test Interval: 4010 - 4060'** **Total Depth: 4060'**
 Time On: 14:37 12/03 Time Off: 21:59 12/03
 Time On Bottom: 16:57 12/03 Time Off Bottom: 19:57 12/03

Electronic Volume Estimate:
 73'

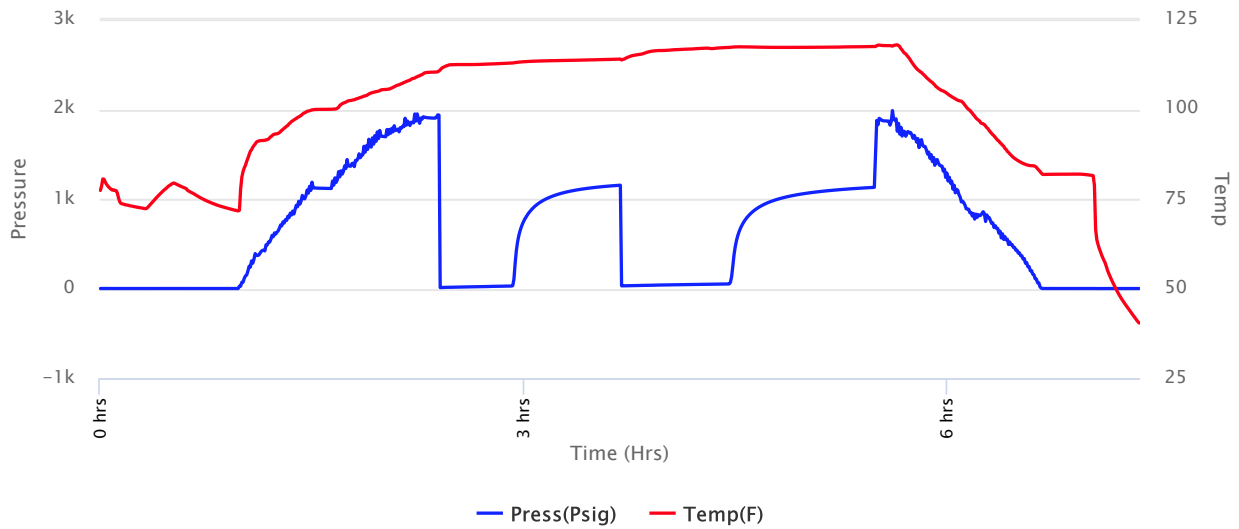
1st Open
 Minutes: 30
 Current Reading: 3.6" at 30 min
 Max Reading: 3.6"

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

2nd Open
 Minutes: 45
 Current Reading: 3.0" at 45 min
 Max Reading: 3.0"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
03
 2019

DST #1 **Formation: Toronto** **Test Interval: 4010 - 4060'** **Total Depth: 4060'**
 Time On: 14:37 12/03 Time Off: 21:59 12/03
 Time On Bottom: 16:57 12/03 Time Off Bottom: 19:57 12/03

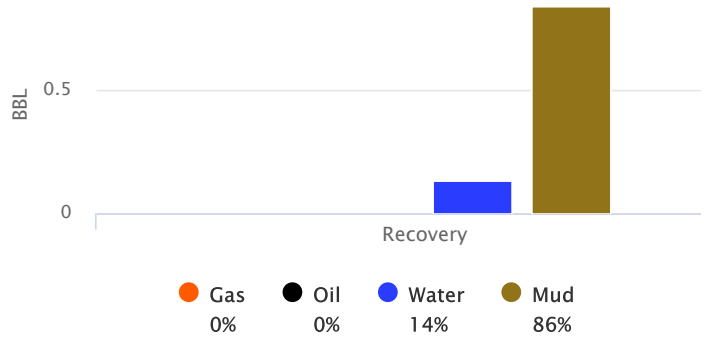
<u>Recovered</u>		<u>Description of Fluid</u>	<u>Gas %</u>	<u>Oil %</u>	<u>Water %</u>	<u>Mud %</u>
<u>Foot</u>	<u>BBLs</u>					
95	0.9747	SLWCM	0	0	14	86

Total Recovered: 95 ft
 Total Barrels Recovered: 0.9747

Reversed Out
NO

Initial Hydrostatic Pressure	1900	PSI
Initial Flow	11 to 28	PSI
Initial Closed in Pressure	1153	PSI
Final Flow Pressure	31 to 52	PSI
Final Closed in Pressure	1128	PSI
Final Hydrostatic Pressure	1898	PSI
Temperature	118	°F
Pressure Change Initial Close / Final Close	2.2	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery &
 pressures

DATE
 December
03
 2019

DST #1 Formation: Toronto Test Interval: 4010 - Total Depth: 4060'
4060'
 Time On: 14:37 12/03 Time Off: 21:59 12/03
 Time On Bottom: 16:57 12/03 Time Off Bottom: 19:57 12/03

BUCKET MEASUREMENT:

1st Open: 1/4" blow building to 3 1/4"
 1st Close: No BB
 2nd Open: Surface blow building to 3"
 2nd Close: No BB

REMARKS:

Tool Sample: 0% Gas .5% Oil 26.5% Water 73% Mud
 Ph: 10.0
 Measured RW: .57 @ 70 degrees °F
 RW at Formation Temp: 0.351 @ 118 °F
 Chlorides: 15,000 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
03
2019

DST #1	Formation: Toronto	Test Interval: 4010 - 4060'	Total Depth: 4060'
	Time On: 14:37 12/03	Time Off: 21:59 12/03	
	Time On Bottom: 16:57 12/03	Time Off Bottom: 19:57 12/03	

Down Hole Makeup

Heads Up: 25.77 FT	Packer 1: 4004.75 FT
Drill Pipe: 4002.95 FT <i>ID-3 1/4</i>	Packer 2: 4009.75 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3994.17 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4048 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: 50.25	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 3 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.25 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 13 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield

Operation:

Uploading recovery & pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
03
2019

DST #1 **Formation: Toronto** **Test Interval: 4010 - 4060'** **Total Depth: 4060'**
Time On: 14:37 12/03 Time Off: 21:59 12/03
Time On Bottom: 16:57 12/03 Time Off Bottom: 19:57 12/03

Mud Properties

Mud Type: Chemical **Weight:** 8.7 **Viscosity:** 50 **Filtrate:** 7.2 **Chlorides:** 2,000 ppm



Operation:

Uploading recovery & pressures

Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00

DATE

December

03

2019

DST #1 Formation: Toronto Test Interval: 4010 - Total Depth: 4060'
4060'

Time On: 14:37 12/03 Time Off: 21:59 12/03

Time On Bottom: 16:57 12/03 Time Off Bottom: 19:57 12/03

Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
04
 2019

DST #2 **Formation: Lansing "E"** **Test Interval: 4118 - 4132'** **Total Depth: 4132'**
 Time On: 07:51 12/04 Time Off: 13:39 12/04
 Time On Bottom: 09:48 12/04 Time Off Bottom: 11:48 12/04

Electronic Volume Estimate:
 24'

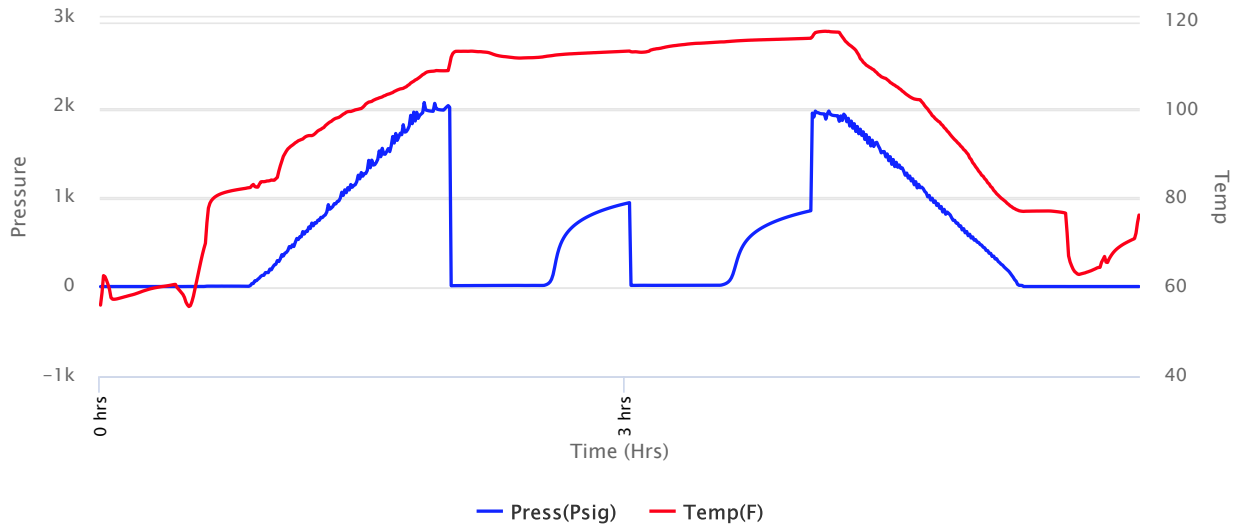
1st Open
 Minutes: 30
 Current Reading: 1.5" at 30 min
 Max Reading: 1.5"

1st Close
 Minutes: 30
 Current Reading: 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 30
 Current Reading: .6" at 30 min
 Max Reading: .6"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
04
 2019

DST #2 **Formation: Lansing "E"** **Test Interval: 4118 - 4132'** **Total Depth: 4132'**
 Time On: 07:51 12/04 Time Off: 13:39 12/04
 Time On Bottom: 09:48 12/04 Time Off Bottom: 11:48 12/04

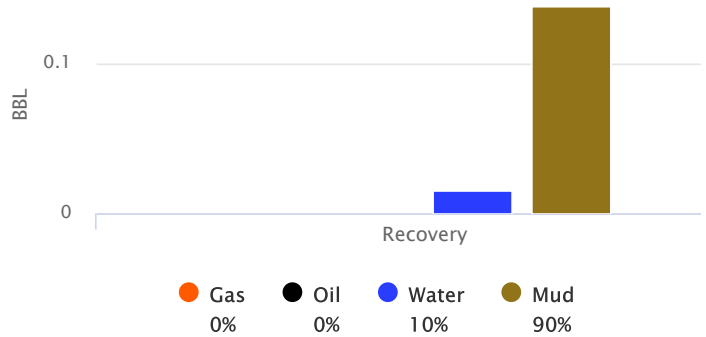
<u>Recovered</u>		<u>Description of Fluid</u>	<u>Gas %</u>	<u>Oil %</u>	<u>Water %</u>	<u>Mud %</u>
<u>Foot</u>	<u>BBLs</u>					
15	0.1539	SLWCM	0	0	10	90

Total Recovered: 15 ft
 Total Barrels Recovered: 0.1539

Reversed Out
NO

Initial Hydrostatic Pressure	1968	PSI
Initial Flow	10 to 14	PSI
Initial Closed in Pressure	936	PSI
Final Flow Pressure	13 to 15	PSI
Final Closed in Pressure	846	PSI
Final Hydrostatic Pressure	1957	PSI
Temperature	117	°F
Pressure Change Initial Close / Final Close	9.6	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery &
 pressures

DATE
 December
04
 2019

DST #2	Formation: Lansing	Test Interval: 4118 -	Total Depth: 4132'
	"E"	4132'	
	Time On: 07:51 12/04	Time Off: 13:39 12/04	
	Time On Bottom: 09:48 12/04	Time Off Bottom: 11:48 12/04	

BUCKET MEASUREMENT:

1st Open: Surface blow building to 1 1/4"
 1st Close: No BB
 2nd Open: Surface blow building to 1/4"
 2nd Close: No BB

REMARKS:

Tool Sample: 0% Gas .1% Oil 31.9% Water 68% Mud
 Ph: 10.0
 Measured RW: .42 @ 66 degrees °F
 RW at Formation Temp: 0.247 @ 117 °F
 Chlorides: 15,000 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
04
2019

DST #2	Formation: Lansing "E"	Test Interval: 4118 - 4132'	Total Depth: 4132'
	Time On: 07:51 12/04	Time Off: 13:39 12/04	
	Time On Bottom: 09:48 12/04	Time Off Bottom: 11:48 12/04	

Down Hole Makeup

Heads Up: 11.98 FT	Packer 1: 4113 FT
Drill Pipe: 4097.41 FT <i>ID-3 1/4</i>	Packer 2: 4118 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4102.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4120 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH Jars Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 14	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 0 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/4</i>	
Change Over: 0 FT	
Perforations: (below): 13 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield

Operation:



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
04
 2019

DST #3 Formation: L/KC "H" Test Interval: 4170 - 4200' Total Depth: 4200'
 Time On: 23:34 12/04 Time Off: 07:21 12/05
 Time On Bottom: 01:47 12/05 Time Off Bottom: 04:47 12/05

Electronic Volume Estimate:
 608'

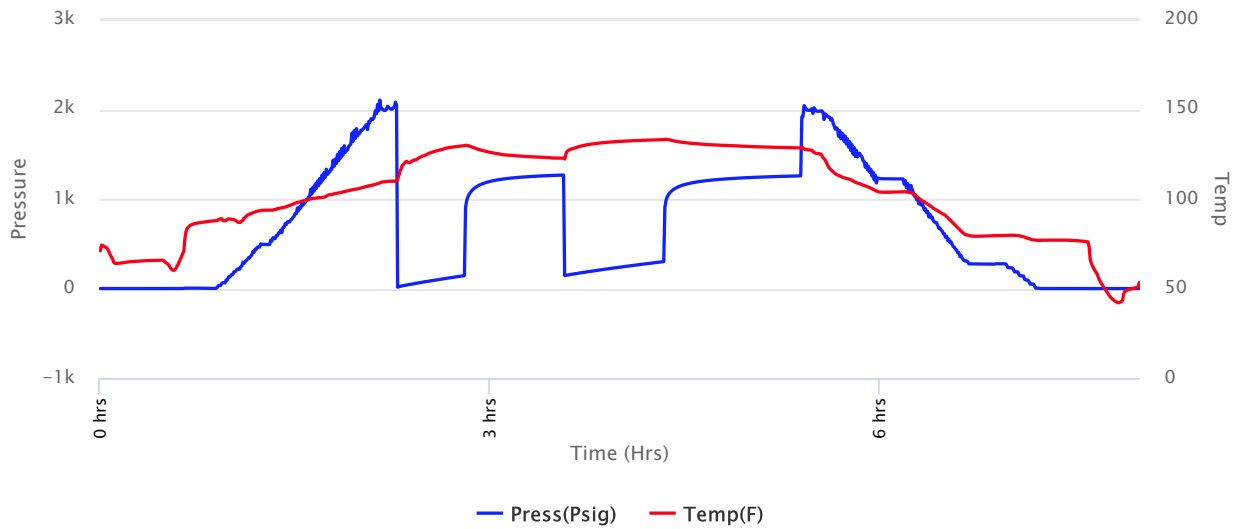
1st Open
 Minutes: 30
 Current Reading: 25.0" at 30 min
 Max Reading: 25.0"

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

2nd Open
 Minutes: 45
 Current Reading: 29.9" at 45 min
 Max Reading: 29.9"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
04
 2019

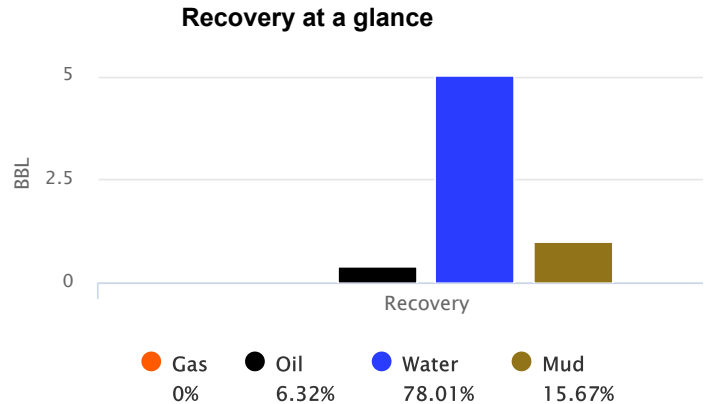
DST #3 Formation: L/KC "H" Test Interval: 4170 - 4200' Total Depth: 4200'
 Time On: 23:34 12/04 Time Off: 07:21 12/05
 Time On Bottom: 01:47 12/05 Time Off Bottom: 04:47 12/05

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
1	0.01026	O	0	100	0	0
55	0.5643	MCHOCW	0	38	38	24
125	1.2825	SLOCMCW	0	7	66	27
380	3.8988	SLMCSLOCW	0	2	96	2
65	0.6669	SLOCHWCM	0	2	31	67

Total Recovered: 626 ft
 Total Barrels Recovered: 6.42276

Reversed Out
 NO

Initial Hydrostatic Pressure	2001	PSI
Initial Flow	16 to 146	PSI
Initial Closed in Pressure	1266	PSI
Final Flow Pressure	146 to 301	PSI
Final Closed in Pressure	1257	PSI
Final Hydrostatic Pressure	2000	PSI
Temperature	134	°F
Pressure Change Initial Close / Final Close	0.7	%



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00

Operation:
Uploading recovery &
pressures

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DST #3 Formation: L/KC "H" Test Interval: 4170 - Total Depth: 4200'
4200'
Time On: 23:34 12/04 Time Off: 07:21 12/05
Time On Bottom: 01:47 12/05 Time Off Bottom: 04:47 12/05

BUCKET MEASUREMENT:

1st Open: 1/2" blow building to BOB 13 min.
1st Close: No BB
2nd Open: Surface blow building to BOB 16 min.
2nd Close: No BB

REMARKS:

Tool Sample: 0% Gas .1% Oil 99.9% Water 0% Mud
Ph: 7.0
Measured RW: .19 @ 59 degrees °F
RW at Formation Temp: 0.089 @ 134 °F
Chlorides: 50,000 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
04
2019**DST #3** **Formation: L/KC "H"** **Test Interval: 4170 - 4200'** **Total Depth: 4200'**Time On: 23:34 12/04 Time Off: 07:21 12/05
Time On Bottom: 01:47 12/05 Time Off Bottom: 04:47 12/05**Down Hole Makeup**

Heads Up: 22.95 FT	Packer 1: 4165 FT
Drill Pipe: 4160.38 FT <i>ID-3 1/4</i>	Packer 2: 4170 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4154.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4172 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: 30	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 0 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/4</i>	
Change Over: 0 FT	
Perforations: (below): 29 FT <i>4 1/2-FH</i>	

**Company: L. D. Drilling, Inc**
Lease: Kauk #2-17SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield**Operation:**

Uploading recovery &
pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
04
2019

DST #3 **Formation: L/KC "H"** **Test Interval: 4170 - 4200'** **Total Depth: 4200'**

Time On: 23:34 12/04 Time Off: 07:21 12/05
Time On Bottom: 01:47 12/05 Time Off Bottom: 04:47 12/05

Mud Properties

Mud Type: Chemical **Weight:** 9.2 **Viscosity:** 50 **Filtrate:** 8.8 **Chlorides:** 3,000 ppm



Operation:

Uploading recovery &
pressures

Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00

DATE

December

04

2019

DST #3 Formation: L/KC "H" Test Interval: 4170 - 4200' Total Depth: 4200'

Time On: 23:34 12/04

Time Off: 07:21 12/05

Time On Bottom: 01:47 12/05

Time Off Bottom: 04:47 12/05

Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
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 2019

DST #4 **Formation: L/KC "I-J"** **Test Interval: 4208 - 4255'** **Total Depth: 4255'**
 Time On: 16:43 12/05 Time Off: 00:41 12/06
 Time On Bottom: 19:00 12/05 Time Off Bottom: 22:30 12/05

Electronic Volume Estimate:
 181'

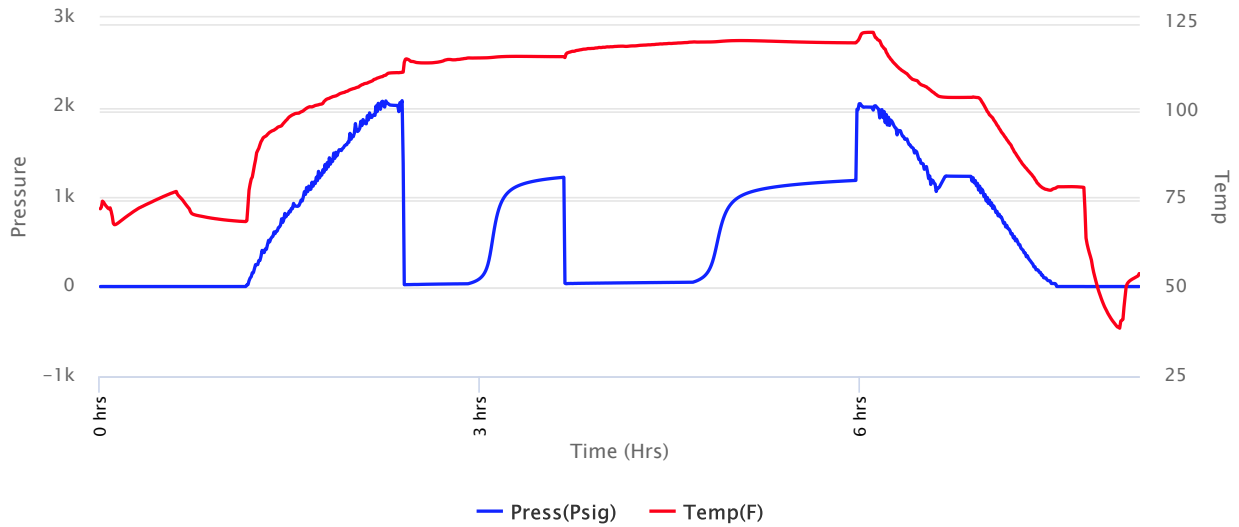
1st Open
 Minutes: 30
 Current Reading:
 5.6" at 30 min
 Max Reading: 5.6"

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

2nd Open
 Minutes: 60
 Current Reading:
 10.2" at 60 min
 Max Reading: 10.2"

2nd Close
 Minutes: 75
 Current Reading:
 0" at 75 min
 Max Reading: 0"

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
05
 2019

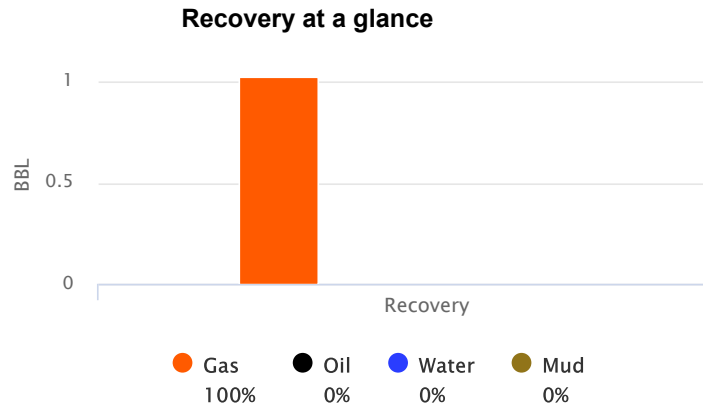
DST #4 **Formation: L/KC "I-J"** **Test Interval: 4208 - 4255'** **Total Depth: 4255'**
 Time On: 16:43 12/05 Time Off: 00:41 12/06
 Time On Bottom: 19:00 12/05 Time Off Bottom: 22:30 12/05

<u>Recovered</u>		<u>Description of Fluid</u>	<u>Gas %</u>	<u>Oil %</u>	<u>Water %</u>	<u>Mud %</u>
<u>Foot</u>	<u>BBLs</u>					
100	1.026	G	100	0	0	0
0	0	HOCM	0	36	0	64

Total Recovered: 100 ft
 Total Barrels Recovered: 1.026

Reversed Out
NO

Initial Hydrostatic Pressure	2035	PSI
Initial Flow	21 to 31	PSI
Initial Closed in Pressure	1219	PSI
Final Flow Pressure	32 to 49	PSI
Final Closed in Pressure	1184	PSI
Final Hydrostatic Pressure	2022	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	2.9	%



GIP cubic foot volume: 5.76048



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery &
 pressures

DATE
 December
05
 2019

DST #4 **Formation: L/KC "I-
 J"** **Test Interval: 4208 -
 4255'** **Total Depth: 4255'**
 Time On: 16:43 12/05 Time Off: 00:41 12/06
 Time On Bottom: 19:00 12/05 Time Off Bottom: 22:30 12/05

BUCKET MEASUREMENT:

1st Open: 1 1/2" blow building to 5 1/4"
 1st Close: No BB
 2nd Open: Surface blow building to 10"
 2nd Close: No BB

REMARKS:

We slid about 5 ft. when setting tool
 Tool Sample: 0% Gas 35% Oil 0% Water 65% Mud



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
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2019

DST #4	Formation: L/KC "I- J"	Test Interval: 4208 - 4255'	Total Depth: 4255'
	Time On: 16:43 12/05	Time Off: 00:41 12/06	
	Time On Bottom: 19:00 12/05	Time Off Bottom: 22:30 12/05	

Down Hole Makeup

Heads Up: 16.15 FT	Packer 1: 4203.28 FT
Drill Pipe: 4191.86 FT <i>ID-3 1/4</i>	Packer 2: 4208.28 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4192.7 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4249 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH Jars Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 46.72	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 4 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.72 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 8 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield

Operation:

Uploading recovery & pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
05
2019

DST #4 **Formation: L/KC "I-J"** **Test Interval: 4208 - 4255'** **Total Depth: 4255'**
Time On: 16:43 12/05 Time Off: 00:41 12/06
Time On Bottom: 19:00 12/05 Time Off Bottom: 22:30 12/05

Mud Properties

Mud Type: Chemical **Weight:** 9.3 **Viscosity:** 56 **Filtrate:** 8.0 **Chlorides:** 3,500 ppm



Operation:
Uploading recovery & pressures

Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
06
 2019

DST #5 **Formation: L/KC "K-L"** **Test Interval: 4253 - 4305'** **Total Depth: 4305'**
 Time On: 10:13 12/06 Time Off: 16:24 12/06
 Time On Bottom: 12:26 12/06 Time Off Bottom: 14:26 12/06

Electronic Volume Estimate:
 45'

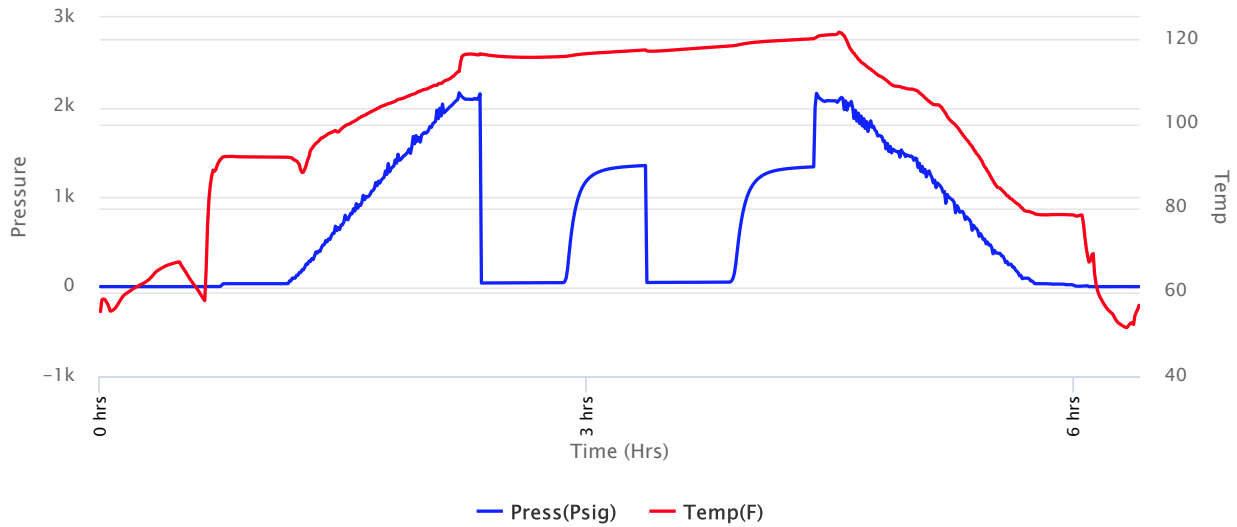
1st Open
 Minutes: 30
 Current Reading: 2.2" at 30 min
 Max Reading: 2.2"

1st Close
 Minutes: 30
 Current Reading: 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 30
 Current Reading: 1.6" at 30 min
 Max Reading: 1.6"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
06
 2019

DST #5 **Formation: L/KC "K-L"** **Test Interval: 4253 - 4305'** **Total Depth: 4305'**
 Time On: 10:13 12/06 Time Off: 16:24 12/06
 Time On Bottom: 12:26 12/06 Time Off Bottom: 14:26 12/06

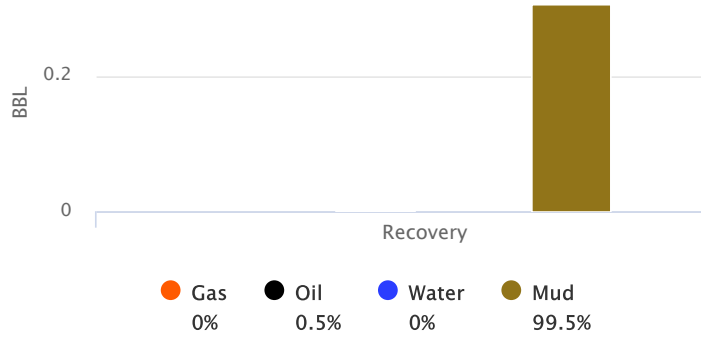
<u>Recovered</u>		<u>Description of Fluid</u>	<u>Gas %</u>	<u>Oil %</u>	<u>Water %</u>	<u>Mud %</u>
<u>Foot</u>	<u>BBLs</u>					
30	0.3078	M (trace O)	0	.5	0	99.5

Total Recovered: 30 ft
 Total Barrels Recovered: 0.3078

Reversed Out
NO

Initial Hydrostatic Pressure	2088	PSI
Initial Flow	39 to 44	PSI
Initial Closed in Pressure	1350	PSI
Final Flow Pressure	45 to 51	PSI
Final Closed in Pressure	1335	PSI
Final Hydrostatic Pressure	2079	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	1.1	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery &
 pressures

DATE
 December
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**DST #5 Formation: L/KC "K-
 L" Test Interval: 4253 - Total Depth: 4305'**
 4305'
 Time On: 10:13 12/06 Time Off: 16:24 12/06
 Time On Bottom: 12:26 12/06 Time Off Bottom: 14:26 12/06

BUCKET MEASUREMENT:

1st Open: 1/4" blow building to 2"
 1st Close: No BB
 2nd Open: Surface blow building to 1 1/4"
 2nd Close: No BB

REMARKS:

Tool Sample: 0% Gas 2% Oil 0% Water 98% Mud



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
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2019

DST #5	Formation: L/KC "K- L"	Test Interval: 4253 - 4305'	Total Depth: 4305'
	Time On: 10:13 12/06	Time Off: 16:24 12/06	
	Time On Bottom: 12:26 12/06	Time Off Bottom: 14:26 12/06	

Down Hole Makeup

Heads Up: 34.71 FT	Packer 1: 4247.72 FT
Drill Pipe: 4254.86 FT <i>ID-3 1/4</i>	Packer 2: 4252.72 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4237.14 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4292 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH Jars Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 52.28	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 4 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.28 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 14 FT <i>4 1/2-FH</i>	


Company: L. D. Drilling, Inc
Lease: Kauk #2-17

 SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield

Operation:

Uploading recovery &
pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
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2019

DST #5 **Formation: L/KC "K-
L"** **Test Interval: 4253 -
4305'** **Total Depth: 4305'**
Time On: 10:13 12/06 Time Off: 16:24 12/06
Time On Bottom: 12:26 12/06 Time Off Bottom: 14:26 12/06

Mud Properties

Mud Type: Chemical **Weight:** 9.3 **Viscosity:** 56 **Filtrate:** 8.0 **Chlorides:** 3,000 ppm



Operation:

Uploading recovery &
pressures

Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
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 2019

DST #6 **Formation: Marmaton/Altamont** **Test Interval: 4307 - 4412'** **Total Depth: 4412'**
 Time On: 05:59 12/07 Time Off: 12:48 12/07
 Time On Bottom: 08:38 12/07 Time Off Bottom: 10:38 12/07

Electronic Volume Estimate:
 43'

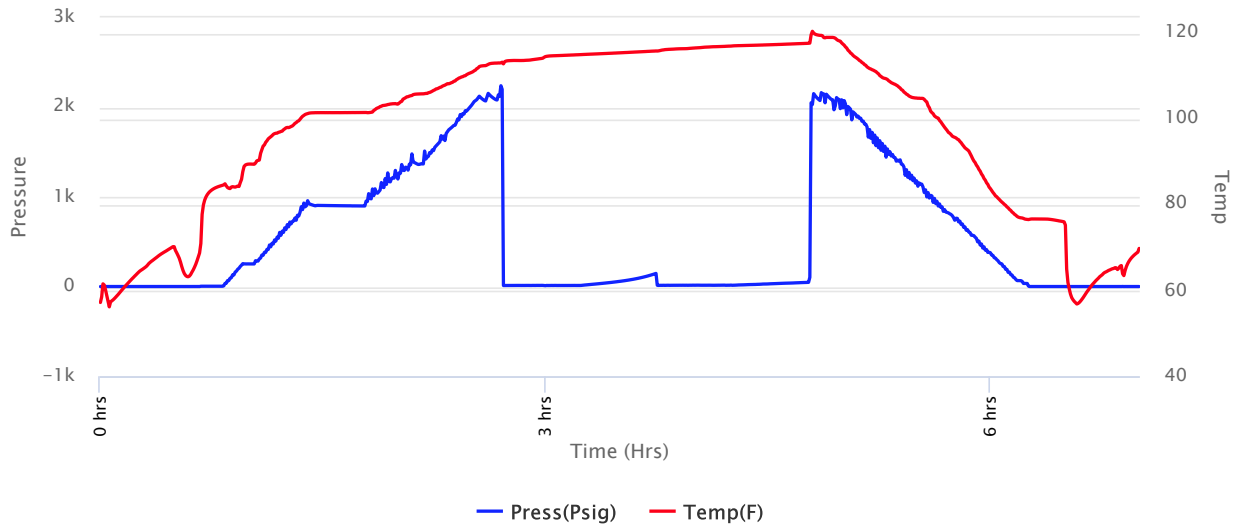
1st Open
 Minutes: 30
 Current Reading: 1.9" at 30 min
 Max Reading: 1.9"

1st Close
 Minutes: 30
 Current Reading: 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 30
 Current Reading: 1.7" at 30 min
 Max Reading: 1.7"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
07
 2019

DST #6 **Formation: Marmaton/Altamont** **Test Interval: 4307 - 4412'** **Total Depth: 4412'**
 Time On: 05:59 12/07 Time Off: 12:48 12/07
 Time On Bottom: 08:38 12/07 Time Off Bottom: 10:38 12/07

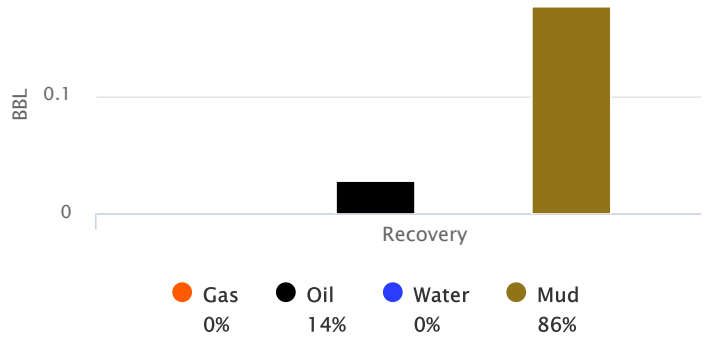
<u>Recovered</u>		<u>Description of Fluid</u>	<u>Gas %</u>	<u>Oil %</u>	<u>Water %</u>	<u>Mud %</u>
<u>Foot</u>	<u>BBLs</u>					
20	0.2052	SLOCM	0	14	0	86

Total Recovered: 20 ft
 Total Barrels Recovered: 0.2052

Reversed Out
NO

Initial Hydrostatic Pressure	2123	PSI
Initial Flow	12 to 13	PSI
Initial Closed in Pressure	147	PSI
Final Flow Pressure	15 to 15	PSI
Final Closed in Pressure	47	PSI
Final Hydrostatic Pressure	2115	PSI
Temperature	118	°F
Pressure Change Initial Close / Final Close	67.9	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery &
 pressures

DATE
 December
07
 2019

DST #6	Formation: Marmaton/Altamont	Test Interval: 4307 - 4412'	Total Depth: 4412'
	Time On: 05:59 12/07	Time Off: 12:48 12/07	
	Time On Bottom: 08:38 12/07	Time Off Bottom: 10:38 12/07	

BUCKET MEASUREMENT:

1st Open: 1/4" blow building to 1 3/4"
 1st Close: No BB
 2nd Open: 1/4" blow building to 1 1/4"
 2nd Close: No BB



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
07
2019

DST #6	Formation: Marmaton/Altamont	Test Interval: 4307 - 4412'	Total Depth: 4412'
	Time On: 05:59 12/07	Time Off: 12:48 12/07	
	Time On Bottom: 08:38 12/07	Time Off Bottom: 10:38 12/07	

Down Hole Makeup

Heads Up: 11.98 FT	Packer 1: 4301.97 FT
Drill Pipe: 4286.38 FT <i>ID-3 1/4</i>	Packer 2: 4306.97 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4291.39 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4378 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: 105.03	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 4 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 63.03 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 35 FT <i>4 1/2-FH</i>	


Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield

Operation:

Uploading recovery &
pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
07
2019

DST #6 **Formation:** **Test Interval: 4307 -** **Total Depth: 4412'**
 Marmaton/Altamont **4412'**
Time On: 05:59 12/07 Time Off: 12:48 12/07
Time On Bottom: 08:38 12/07 Time Off Bottom: 10:38 12/07

Mud Properties

Mud Type: Chemical **Weight:** 9.3 **Viscosity:** 56 **Filtrate:** 8.0 **Chlorides:** 3,500 ppm



Operation:

Uploading recovery &
pressures

Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00

DATE

December

07

2019

DST #6

**Formation:
Marmaton/Altamont**

**Test Interval: 4307 -
4412'**

Total Depth: 4412'

Time On: 05:59 12/07

Time Off: 12:48 12/07

Time On Bottom: 08:38 12/07

Time Off Bottom: 10:38 12/07

Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
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 2019

DST #7 **Formation: Pawnee/Myrick** **Test Interval: 4409 - 4490'** **Total Depth: 4490'**
 Time On: 01:13 12/08 Time Off: 10:52 12/08
 Time On Bottom: 03:19 12/08 Time Off Bottom: 06:19 12/08



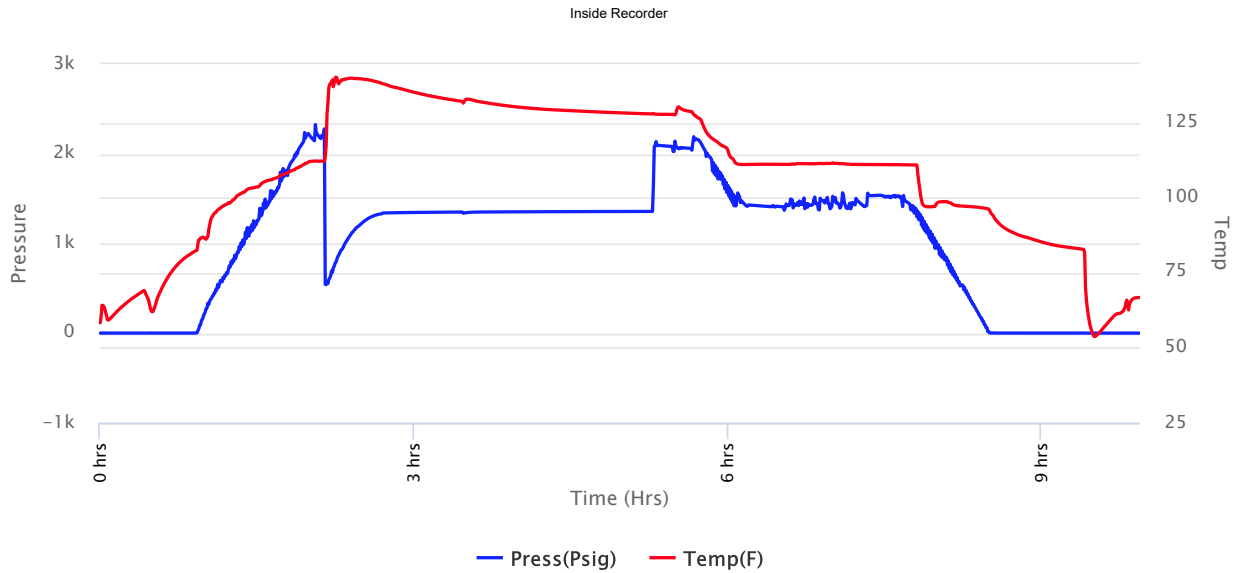
Electronic Volume Estimate:
 N/A

1st Open
 Minutes: 30
 Current Reading:
 Gauging gas" at 30 min
 Max Reading: Gauging gas"

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

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

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





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures



DATE
 December
08
 2019

DST #7 **Formation: Pawnee/Myrick** **Test Interval: 4409 - 4490'** **Total Depth: 4490'**
 Time On: 01:13 12/08 Time Off: 10:52 12/08
 Time On Bottom: 03:19 12/08 Time Off Bottom: 06:19 12/08

Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
485	4.9761	HMCW	0	0	57	43
2425	24.8805	SLMCW	0	0	87	13
65	0.6669	SLWCM	0	0	15	85

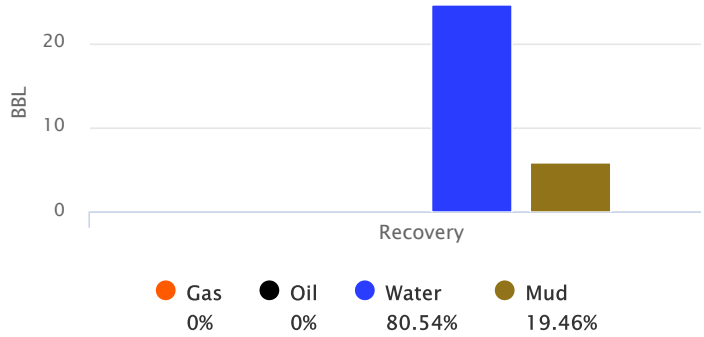
Total Recovered: 2975 ft
 Total Barrels Recovered: 30.5235

Reversed Out YES

Initial Hydrostatic Pressure 2178 PSI
 Initial Flow 543 to 1350 PSI
Initial Closed in Pressure 1350 PSI
 Final Flow Pressure 1337 to 1354 PSI
Final Closed in Pressure 1357 PSI
 Final Hydrostatic Pressure 2136 PSI
 Temperature 140 °F

 Pressure Change Initial Close / Final Close 0.0 %

Recovery at a glance



GIP cubic foot volume: 0

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
08
2019

DST #7	Formation: Pawnee/Myrick	Test Interval: 4409 - 4490'	Total Depth: 4490'
	Time On: 01:13 12/08	Time Off: 10:52 12/08	
	Time On Bottom: 03:19 12/08	Time Off Bottom: 06:19 12/08	

**Down Hole Makeup**

Heads Up: 35.93 FT	Packer 1: 4403.97 FT
Drill Pipe: 4412.33 FT <i>ID-3 1/4</i>	Packer 2: 4408.97 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4393.39 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4480 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: 81.03	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 4 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 63.03 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 11 FT <i>4 1/2-FH</i>	


Company: L. D. Drilling, Inc
Lease: Kauk #2-17

 SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield

Operation:

Uploading recovery & pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
08
2019

DST #7 **Formation:**
Pawnee/Myrick **Test Interval: 4409 - 4490'** **Total Depth: 4490'**
Time On: 01:13 12/08 Time Off: 10:52 12/08
Time On Bottom: 03:19 12/08 Time Off Bottom: 06:19 12/08



Mud Properties

Mud Type: Chemical **Weight:** 9.5 **Viscosity:** 54 **Filtrate:** 11.2 **Chlorides:** 4,000 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00

Operation:
Uploading recovery & pressures

DATE
December
08
2019

DST #7

Formation:
Pawnee/Myrick

Test Interval: 4409 -
4490'

Total Depth: 4490'

Time On: 01:13 12/08

Time Off: 10:52 12/08

Time On Bottom: 03:19 12/08

Time Off Bottom: 06:19 12/08

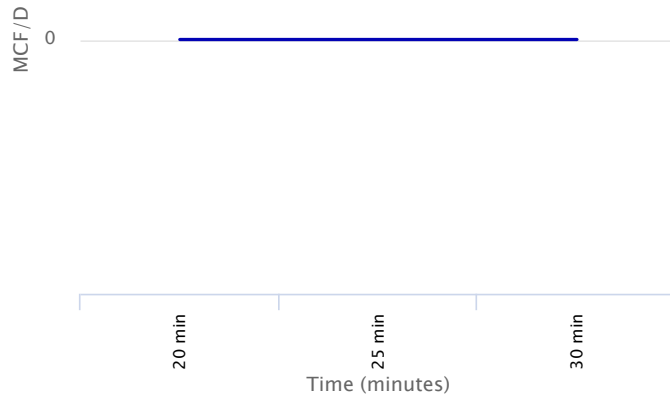


Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D
20	0.125	Too weak to measure	Weak
25	0.125	Too weak to measure	Weak
30	0.125	Too weak to measure	Weak

2nd Open			
Time	Orifice	PSI	MCF/D
5	0.125	Too weak to measure	Weak
10	0.125	Too weak to measure	Weak
15	0.125	Too weak to measure	Weak
20	0.125	Too weak to measure	Weak
25	0.125	Too weak to measure	Weak
30	0.125	Too weak to measure	Weak
35	0.125	Too weak to measure	Weak
40	0.125	Too weak to measure	Weak
45	0.125	Too weak to measure	Weak

MCF/D





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
08
 2019

DST #8 **Formation: Myrick Station** **Test Interval: 4461 - 4490'** **Total Depth: 4490'**
 Time On: 12:36 12/08 Time Off: 20:47 12/08
 Time On Bottom: 14:16 12/08 Time Off Bottom: 17:16 12/08



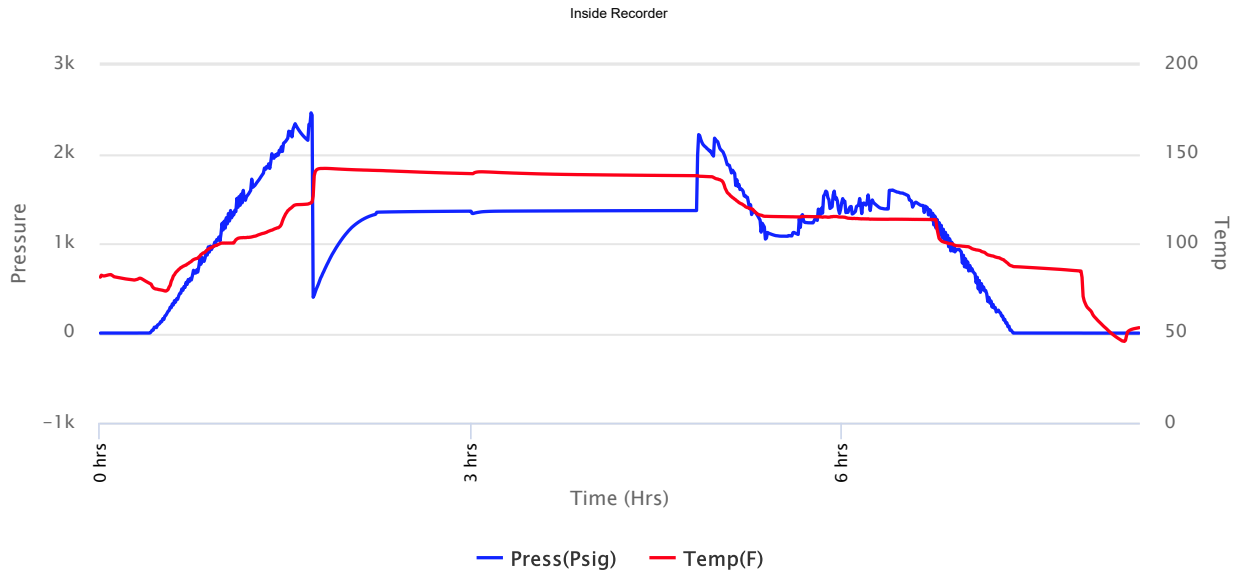
Electronic Volume Estimate:
 N/A

1st Open
 Minutes: 30
 Current Reading:
 Gauging gas" at 30 min
 Max Reading: Gauging gas"

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

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

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





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
08
 2019

DST #8 **Formation: Myrick Station** **Test Interval: 4461 - 4490'** **Total Depth: 4490'**
 Time On: 12:36 12/08 Time Off: 20:47 12/08
 Time On Bottom: 14:16 12/08 Time Off Bottom: 17:16 12/08



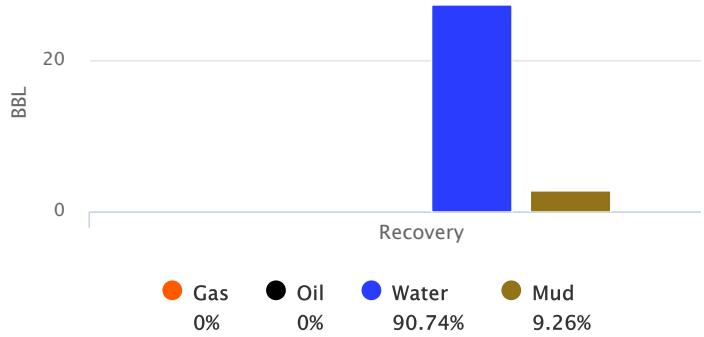
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
660	6.7716	HMCW	0	0	64	36
1725	17.6985	SLMCW	0	0	98	2
555	5.6943	W	0	0	100	0

Total Recovered: 2940 ft
 Total Barrels Recovered: 30.1644

Reversed Out YES

Initial Hydrostatic Pressure	2150	PSI
Initial Flow	400 to 1326	PSI
Initial Closed in Pressure	1349	PSI
Final Flow Pressure	1336 to 1364	PSI
Final Closed in Pressure	1367	PSI
Final Hydrostatic Pressure	2129	PSI
Temperature	142	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-01



Operation:
 Uploading recovery &
 pressures

DATE
 December
08
 2019

DST #8	Formation: Myrick Station	Test Interval: 4461 - 4490'	Total Depth: 4490'
	Time On: 12:36 12/08	Time Off: 20:47 12/08	
	Time On Bottom: 14:16 12/08	Time Off Bottom: 17:16 12/08	

BUCKET MEASUREMENT:

1st Open: 4 1/2" blow building to BOB 45 sec.
 1st Close: No BB
 2nd Open: 1 1/4" blow building to BOB 5 1/2 min.
 2nd Close: No BB

REMARKS:

Tool Sample: 0% Gas 0% Oil 100% Water 0% Mud
 Ph: 7.5
 Measured RW: .19 @ 59 degrees °F
 RW at Formation Temp: 0.084 @ 142 °F
 Chlorides: 49,000 ppm
 Max H2S Reading: 50+ ppm



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
08
2019

DST #8	Formation: Myrick Station	Test Interval: 4461 - 4490'	Total Depth: 4490'
	Time On: 12:36 12/08	Time Off: 20:47 12/08	
	Time On Bottom: 14:16 12/08	Time Off Bottom: 17:16 12/08	

**Down Hole Makeup**

Heads Up: 15.4 FT	Packer 1: 4456 FT
Drill Pipe: 4443.83 FT <i>ID-3 1/4</i>	Packer 2: 4461 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4445.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4463 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): 0 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/4</i>	
Change Over: 0 FT	
Perforations: (below): 28 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield

Operation:

Uploading recovery &
pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
08
2019

DST #8 **Formation: Myrick Station** **Test Interval: 4461 - 4490'** **Total Depth: 4490'**
Time On: 12:36 12/08 Time Off: 20:47 12/08
Time On Bottom: 14:16 12/08 Time Off Bottom: 17:16 12/08



Mud Properties

Mud Type: Chemical **Weight:** 9.7 **Viscosity:** 57 **Filtrate:** 14.4 **Chlorides:** 4,500 ppm



Operation:

Uploading recovery &
pressures

Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00

DATE
December
08
2019

DST #8 **Formation: Myrick Station** **Test Interval: 4461 - 4490'** **Total Depth: 4490'**

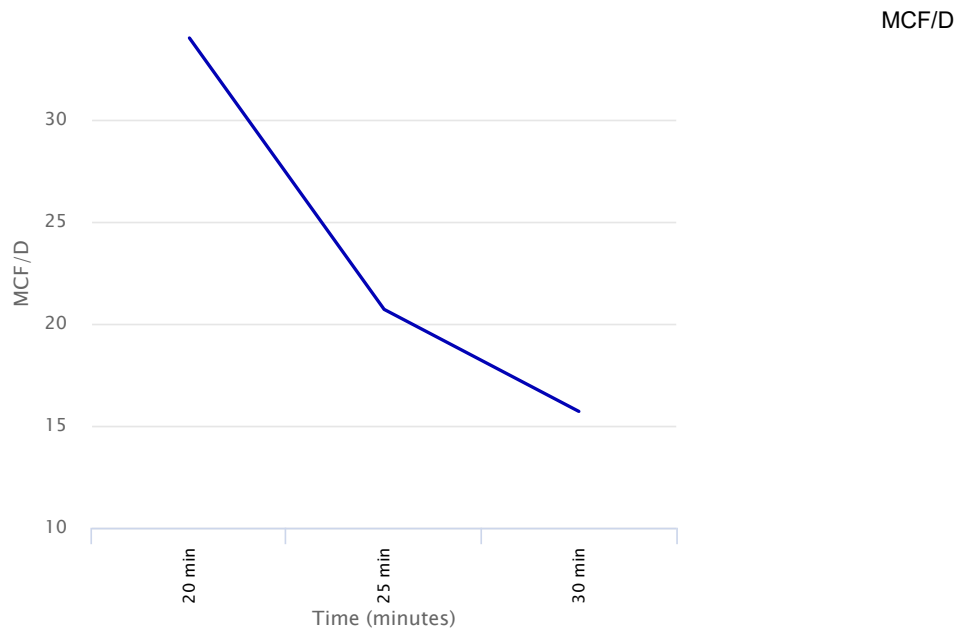
Time On: 12:36 12/08 Time Off: 20:47 12/08
Time On Bottom: 14:16 12/08 Time Off Bottom: 17:16 12/08



Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D
20	0.25	12	34.0
25	0.25	5.0	20.7
30	0.25	3.0	15.7

2nd Open			
Time	Orifice	PSI	MCF/D
5	0.25	Too weak to measure	Weak
10	0.125	Too weak to measure	Weak
15	0.125	Too weak to measure	Weak
20	0.125	Too weak to measure	Weak
25	0.125	Too weak to measure	Weak
30	0.125	Too weak to measure	Weak
35	0.125	Too weak to measure	Weak
40	0.125	Too weak to measure	Weak
45	0.125	Too weak to measure	Weak





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
09
 2019

DST #9 **Formation:** Cherokee/Johnson/Morrow **Test Interval: 4515 - 4589'** **Total Depth: 4589'**
 Time On: 14:16 12/09 Time Off: 00:07 12/10
 Time On Bottom: 16:52 12/09 Time Off Bottom: 19:52 12/09



Electronic Volume Estimate:
 3278'

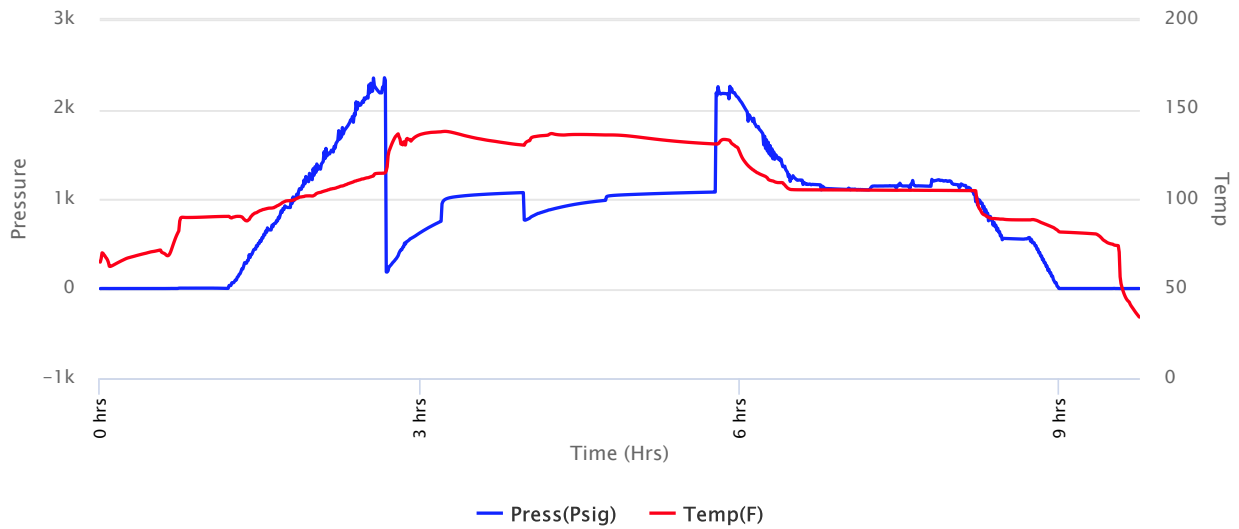
1st Open
 Minutes: 30
 Current Reading: 229.0" at 30 min
 Max Reading: 229.0"

1st Close
 Minutes: 45
 Current Reading: 3.7" at 45 min
 Max Reading: 3.7"

2nd Open
 Minutes: 45
 Current Reading: 90.3" at 45 min
 Max Reading: 90.3"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3201 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 420
 API #: 15-193-21063-00-00

Operation:
 Uploading recovery & pressures

DATE
 December
09
 2019

DST #9 **Formation:** Cherokee/Johnson/Morrow **Test Interval: 4515 - 4589'** **Total Depth: 4589'**
 Time On: 14:16 12/09 Time Off: 00:07 12/10
 Time On Bottom: 16:52 12/09 Time Off Bottom: 19:52 12/09



Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
365	3.7449	G	100	0	0	0
15	0.1539	O	0	100	0	0
65	0.6669	SLMCO	0	95	0	5
1290	13.2354	GCO	22	78	0	0
975	10.0035	SLGCSLMCWCO	4	66	22	8
65	0.6669	SLGCHOCM	3	34	0	63

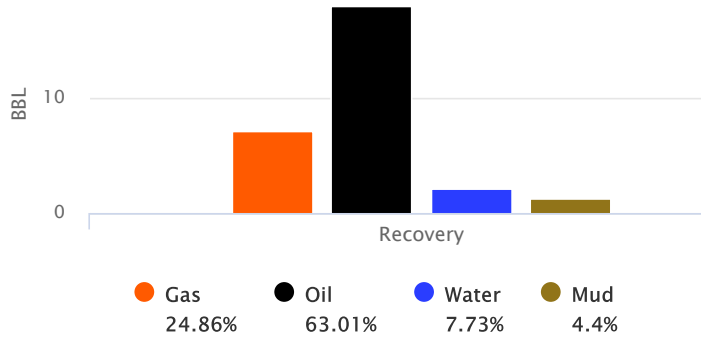
Total Recovered: 2775 ft
 Total Barrels Recovered: 28.4715

Reversed Out
YES

Initial Hydrostatic Pressure 2232 PSI
 Initial Flow 185 to 751 PSI
Initial Closed in Pressure **1071** **PSI**
 Final Flow Pressure 765 to 984 PSI
Final Closed in Pressure **1077** **PSI**
 Final Hydrostatic Pressure 2200 PSI
 Temperature 138 °F

 Pressure Change Initial 0.0 %
 Close / Final Close

Recovery at a glance



GIP cubic foot volume: 39.73289



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-01

Operation:
Uploading recovery &
pressures



DATE
December
09
2019

DST #9 **Formation:** Cherokee/Johnson/Morrow **Test Interval:** 4515 - 4589' **Total Depth:** 4589'
Time On: 14:16 12/09 Time Off: 00:07 12/10
Time On Bottom: 16:52 12/09 Time Off Bottom: 19:52 12/09

BUCKET MEASUREMENT:

1st Open: 6" blow building to BOB 1 min.
1st Close: 3 1/2" BB
2nd Open: 1/4" blow building to BOB 3 min.
2nd Close: 1/4" BB

REMARKS:

We slid about 2 feet when setting tool.

Tool Sample: 0% Gas 98% Oil 0% Water 2% Mud

Gravity: 25.1 @ 60 °F

Ph: 7.0

Measured RW: .32 @ 70 degrees °F

RW at Formation Temp: 0.17 @ 138 °F

Chlorides: 35,000 ppm

Max H2S Reading: 100+ ppm



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL

Operation:Uploading recovery &
pressuresField Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00**DATE**December
09
2019**DST #9** **Formation:** Cherokee/Johnson/Morrow **Test Interval: 4515 - 4589'** **Total Depth: 4589'**
Time On: 14:16 12/09 Time Off: 00:07 12/10
Time On Bottom: 16:52 12/09 Time Off Bottom: 19:52 12/09**Down Hole Makeup**

Heads Up: 23.94 FT	Packer 1: 4510.28 FT
Drill Pipe: 4506.65 FT <i>ID-3 1/4</i>	Packer 2: 4515.28 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4499.7 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4554 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: 73.72	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 3 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.72 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 36 FT <i>4 1/2-FH</i>	

**Company: L. D. Drilling, Inc**
Lease: Kauk #2-17SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield**Operation:**

Uploading recovery & pressures

Job Number: 420
API #: 15-193-21063-00-00

DATE
December
09
2019

DST #9 **Formation:** Cherokee/Johnson/Morrow **Test Interval:** 4515 - 4589' **Total Depth:** 4589'
Time On: 14:16 12/09 **Time Off:** 00:07 12/10
Time On Bottom: 16:52 12/09 **Time Off Bottom:** 19:52 12/09



Mud Properties

Mud Type: Chemical **Weight:** 9.3 **Viscosity:** 62 **Filtrate:** 10.4 **Chlorides:** 5,900 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #2-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3201 EGL
Field Name: Morgan
Pool: Infield
Job Number: 420
API #: 15-193-21063-00-00

Operation:
Uploading recovery & pressures

DATE

December

09

2019

DST #9

Formation: Cherokee/Johnson/Morrow

Test Interval: 4515 - 4589'

Total Depth: 4589'

Time On: 14:16 12/09

Time Off: 00:07 12/10

Time On Bottom: 16:52 12/09

Time Off Bottom: 19:52 12/09



Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-584-9709 * WICHITA, KS

GEOLOGIST'S REPORT

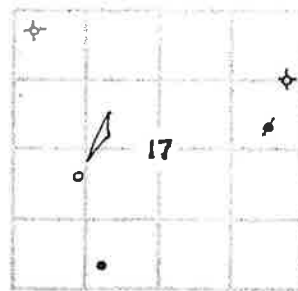
DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.
 LEASE # 2-17 KAUK
 FIELD MORGAN
 LOCATION 2032' FSL & 1281' FWL
 SEC 17 TWP 8s RGE 34w
 COUNTY THOMAS STATE KANSAS
 CONTRACTOR L. D. DRILLING, INC.
 SPUD 11-25-19 COMP 12-12-19
 RTD 4750 LTD 4746
 MUD UR 3593 TYPE MUD CHEMICAL

ELEVATIONS
 KB 3205
 DF _____
 GL 3200
 Measurements Are All From 3205 KB
 CASING
 SURFACE 8 5/8" @ 339'
 PRODUCTION 5 1/2" @
 ELECTRICAL SURVEYS
 DUAL IND., DENS-N, MICRO

SAMPLES SAVED FROM 3600 TO 4750
 DRILLING TIME KEPT FROM 3500 TO 4750
 SAMPLES EXAMINED FROM 3600 TO 4750
 GEOLOGICAL SUPERVISION FROM 3700 TO 4750
 GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2726 + 479	2722 + 483
B/ANN.	2751 + 451	2751 + 454
STOTLER	3614 - 409	3605 - 400
HEEBNER	4018 - 813	4013 - 808
LANSING	4060 - 855	4054 - 849
B/KC	4322 - 1117	4312 - 1107
PAWNEE	4444 - 1239	4428 - 1223
FORT SCOT	4502 - 1297	4495 - 1290
CHEROKEE	4531 - 1326	4526 - 1321
MISSISSIPPI	4648 - 1443	4648 - 1443



REMARKS
 11-25-19 SPUD 12-8-19 @ 4490'
 11-26 @ 357 12-9 @ 4550'
 11-27 @ Down Snow 12-10 @ 4650'
 11-28 @ " 12-11 @ 4750'
 11-29 @ 788' 12-12 @ 4756'
 11-30 @ 2066'
 12-1 @ 3020'
 12-2 @ 3565'
 12-3 @ 4040'
 12-4 @ 4132'
 12-5 @ 4200'
 12-6 @ 4295'
 12-7 @ 4412'

API: 15-193-21063

LOG DEPTHS are 5' deep to Drill Time

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Dark oil
- Limestone
- Oil/Lime
- Grit
- Dolomite



REMARKS

SAMPLE DESCRIPTIONS

LITHOLOGY

540501-11

2800

3500

3600

3700

Samples are Logged

Sh. Ltg. sdy. silty

STOTLER 3605-400

ls. gy. sh. foss. calcite

ls. wt. sh. foss. silty

ls. wt. silty.

Dol. to 1/2 sh. Sec.

ls. to sh. 1/2 sh. Foss.

sh. Ltg. sdy. silty

ls. gy. 1/2 sh. Foss.

ls. Ltg. silty

ls. wt. chky

ls. wt. sh. Foss. Calcite w/ dol. blk. str.
7 1/2' to 8 1/2' 23780

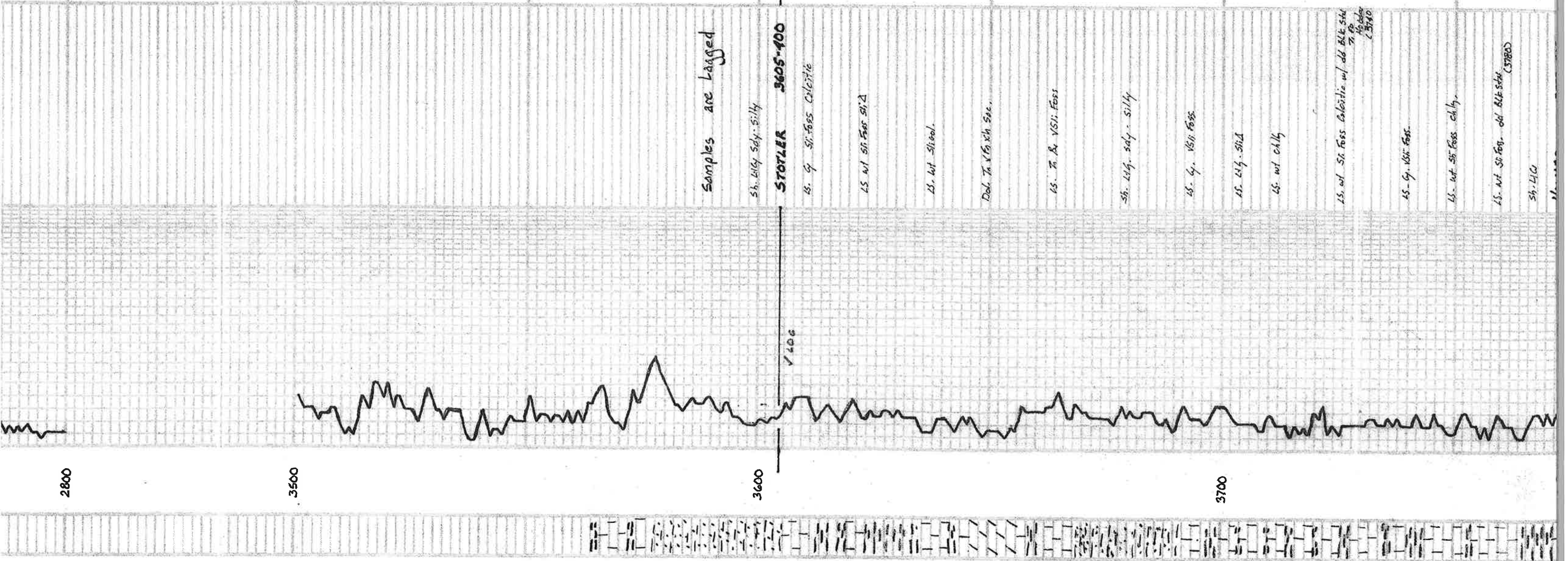
ls. gy. 1/2 sh. Foss.

ls. wt. sh. Foss. chky.

ls. wt. sh. Foss. dol. blk. str. (3780)

sh. Ltg.

✓ 400



LS. wt. Sil. Foss. - 64. BLE SH. (5780)

Sh. LiG

HOWARD 3773-568

LS. wt. Foss.ool. Calcitic

LS. LiG, vsii chh

3800

LS. Gy. Sil. Foss

Sh. LiG

LS. Thin Sil. Foss w/ Tiny Sil (3820)

Sh.

TOPEKA 3821-616

LS. Thin Foss Sil. A

LS. wt. Mercol Sil. A

LS. wt. ool. Calcitic

LS. wt. Sil. Foss Sil. A

LS. wt. Foss.

LS. Thin Foss. ool.

Sh. Gy.

LS. wt. Sil. Foss Sil. chh

3900

LS. wt. Sil. Foss Chh

LS. Gy. Dol.

Sh. BLE

Sh. Li. Blue G

LS. Thin Foss. Dolomitic

Sh. Li. Blue G

LS. wt. Sil. Foss w/ Ble. Hvy Sil (3980)

Sh. Li. Blue

LS. wt. ool. Calcitic

Sh. Li. G

LS. wt. LiG, Sil. Foss

4000

LS. Gy. Sil. Foss

DST (1)
VIS: 60 WT: 84
Wt: 7.2 Ctl: 2000

HEEBNER 4013-808

Sh. BLE G

Sh. Li. Blue

DST (1) 4010-4060
1/STOEN: Blow built to 3 1/4"
2/OPEN: " " " 3"

Tool Sample: 30-45-45-60

57.01

24.5 W

73.7. H

PH: 10.0

RY: 57 @ 70%

RY: 35 @ 118%

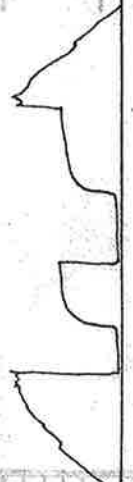
CU: 15.000

Re: 95' SWCH
(19' wt 86/14)

FP: 11:28 31-52 #

SIP: 11:53-11:28 #

Temp: 118° F



TORONTO

LS. wt. Sil. Foss vsii chh, F. Hvy, Dull Flaw
BLE SH. Sil. Foss Sil. A

LS. wt. Sil. Foss

LANSING 4051-849

LS. wt. ool. Sil. A

LS. wt. ool. Sil. A

Sh. Li. Blue G

LS. Thin Sil. Foss. Foss. F. Hvy
BLE SH. Sil. Foss. Sil. A

LS. Thin Sil. Foss. Foss. F. Hvy
BLE SH. Sil. Foss. Sil. A

50 wt. Cr. F. M. Co. Sub B. B.

Sh. Tng. Yellow Lt. G.

MISSISSIPPI 4648-1443

A G. LS Th. Chert. Sil. A

LS Th. G. Sil. A

Large

Vis: 52 WT: 92
Wt: 96 CHL: 6000

LS Bl. G. ool. Foss. Calc. etc.

LS wt. Th. ool. suby. ch. G.

Large

Dol. G. Sil. Foss. V. End.

Dol. Lt. G. Foss. w/ D. G. J.

Dol. Lt. G. Y. Foss. Sil. G.

LS Bl. G. Sil. Foss. Calc. etc.

Dol. Lt. G. Y. Foss. Sil. G.

RTD 4750-1515

Vis: 59 WT: 93
Wt: 88 CHL: 4400

4700

⊙

