

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 3-17
Doc ID	1559228

Tops

Name	Top	Datum
Anhydrite	2746	+475
Base Anhydrite	2775	+446
Stotler	3635	-414
Heebner	4040	-819
Lansing	4081	-860
Base Kansas City	4343	-1122
Pawnee	4462	-1241
Fort Scott	4526	-1305
Cherokee	4555	-1334
Mississippi	4671	-1450
Arbuckle	5022	-1802

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KAUK 3-17
Doc ID	1559228

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	326	60/40 Pozmix	250	2%Gel,3% CC,.25#C L
Production	7.875	5.5	15.5	4844	H-Conn	450	NA
Production	7.875	5.5	15.5	4844	H-Conn	75	2%CC
Production	7.875	5.5	15.5	4844	H-Plug	30	Rathole



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Tripping out of hole with test tool

DATE
 January
17
 2021

DST #1 Formation: LKC "E" Test Interval: 4147 - 4159' Total Depth: 4159'
 Time On: 13:30 01/17 Time Off: 00:00 01/01
 Time On Bottom: 16:38 01/17 Time Off Bottom: 19:38 01/17

Electronic Volume Estimate:
 24'

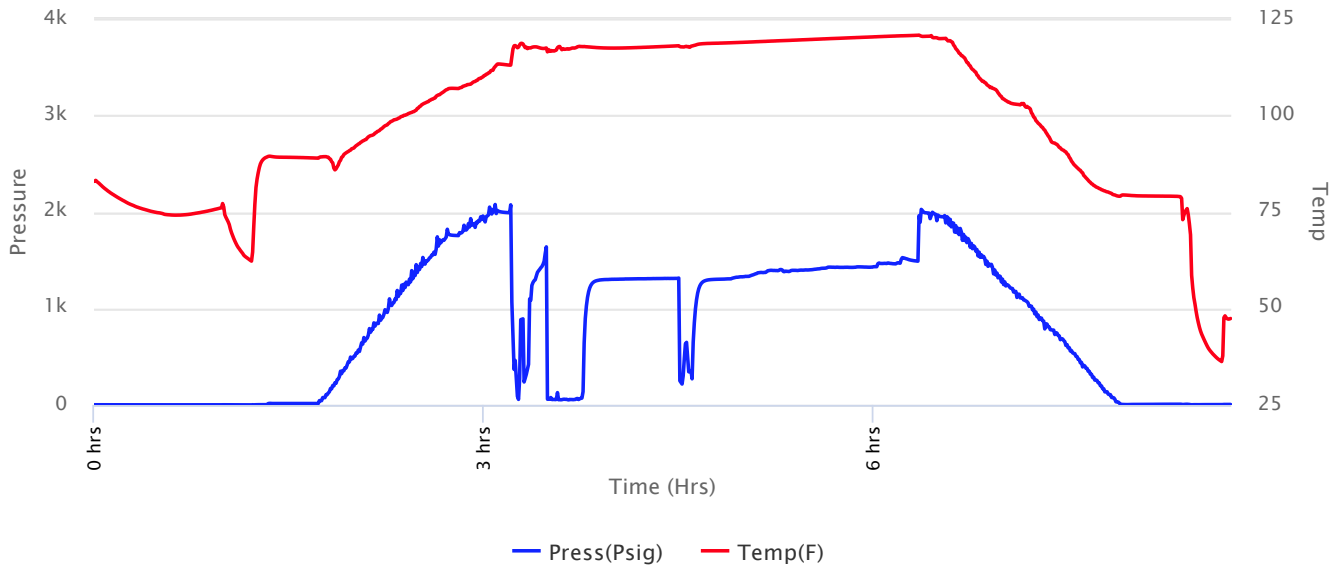
1st Open
 Minutes: 30
 Current Reading: 1.8" at 30 min
 Max Reading: 1.8"

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

2nd Open
 Minutes: 45
 Current Reading: .3" at 45 min
 Max Reading: .3"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Tripping out of hole with test tool

DATE
 January
17
 2021

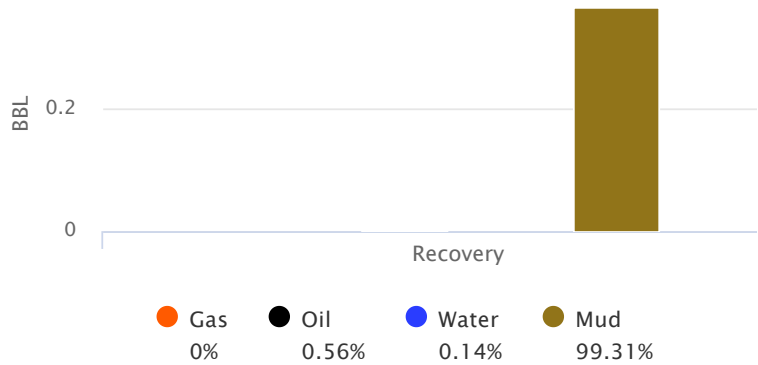
DST #1 **Formation: LKC "E"** **Test Interval: 4147 - 4159'** **Total Depth: 4159'**
 Time On: 13:30 01/17 Time Off: 00:00 01/01
 Time On Bottom: 16:38 01/17 Time Off Bottom: 19:38 01/17

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
35	0.3591	M	0	0	0	100
1	0.01026	SLWCOCM	0	20	5	75

Total Recovered: 36 ft
 Total Barrels Recovered: 0.36936

Reversed Out
NO

Recovery at a glance



Initial Hydrostatic Pressure	1993	PSI
Initial Flow	89 to 64	PSI
Initial Closed in Pressure	1311	PSI
Final Flow Pressure	216 to 270	PSI
Final Closed in Pressure	1491	PSI
Final Hydrostatic Pressure	1992	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	0.0	%

GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Tripping out of hole with
test tool

DATE
January
17
2021

DST #1 Formation: LKC "E" Test Interval: 4147 - Total Depth: 4159'
4159'
Time On: 13:30 01/17 Time Off: 00:00 01/01
Time On Bottom: 16:38 01/17 Time Off Bottom: 19:38 01/17

BUCKET MEASUREMENT:

1st Open: 1/4" Blow built to 1-3/4" over 30 min.
1st Close: No Return Blow.
2nd Open: Surface Blow built to 1/4" over 45 min.
2nd Close: No Return Blow

REMARKS:

Tool Sample: 0% Gas 0% Oil 0% Water 100% Mud



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Tripping out of hole with
test tool

DATE
January
17
2021

DST #1 Formation: LKC "E" Test Interval: 4147 - Total Depth: 4159'
4159'

Time On: 13:30 01/17 Time Off: 00:00 01/01
Time On Bottom: 16:38 01/17 Time Off Bottom: 19:38 01/17

Mud Properties

Mud Type: Chem **Weight:** 9.1 **Viscosity:** 54 **Filtrate:** 7.2 **Chlorides:** 2000 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

DATE
 January
18
 2021

DST #2 Formation: LKC "H" Test Interval: 4201 - 4230' Total Depth: 4230'

Time On: 08:40 01/18 Time Off: 16:44 01/18
 Time On Bottom: 11:13 01/18 Time Off Bottom: 14:13 01/18

Electronic Volume Estimate:
 944'

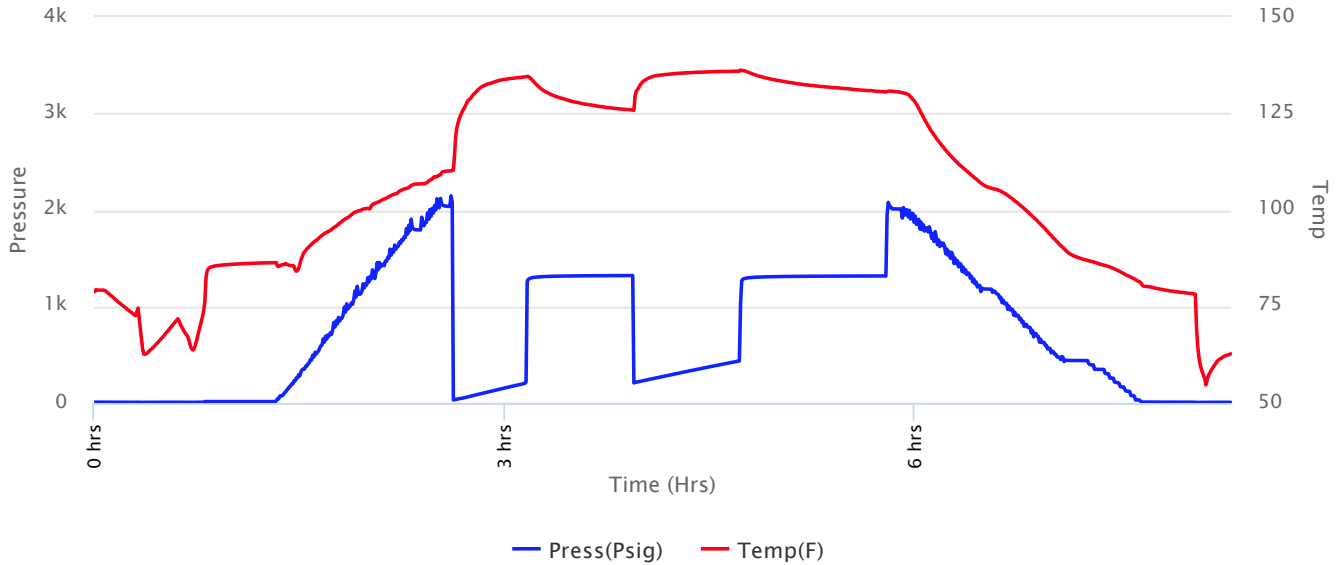
1st Open
 Minutes: 30
 Current Reading: 36.2" at 30 min
 Max Reading: 36.2"

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

2nd Open
 Minutes: 45
 Current Reading: 50.3" at 45 min
 Max Reading: 50.3"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

DATE
 January
18
 2021

DST #2 Formation: LKC "H" Test Interval: 4201 - 4230' Total Depth: 4230'
 Time On: 08:40 01/18 Time Off: 16:44 01/18
 Time On Bottom: 11:13 01/18 Time Off Bottom: 14:13 01/18

Recovered

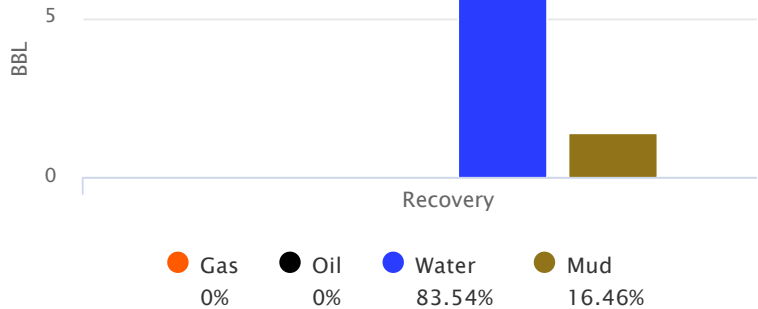
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
194	1.99044	HMCW	0	0	65	35
315	3.2319	SLMCW	0	0	85	15
310	3.1806	SLMCW	0	0	95	5
5	0.0513	M	0	0	0	100

Total Recovered: 824 ft
 Total Barrels Recovered: 8.45424

Reversed Out
 NO

Initial Hydrostatic Pressure	2036	PSI
Initial Flow	41 to 192	PSI
Initial Closed in Pressure	1319	PSI
Final Flow Pressure	215 to 428	PSI
Final Closed in Pressure	1316	PSI
Final Hydrostatic Pressure	1951	PSI
Temperature	136	°F
Pressure Change Initial Close / Final Close	0.3	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery &
pressures

DATE
January
18
2021

DST #2 Formation: LKC "H" Test Interval: 4201 - Total Depth: 4230'
4230'

Time On: 08:40 01/18 Time Off: 16:44 01/18
Time On Bottom: 11:13 01/18 Time Off Bottom: 14:13 01/18

BUCKET MEASUREMENT:

1st Open: BoB in 8 min. 43 sec.
1st Close: No Return Blow.
2nd Open: BoB in 10 min.
2nd Close: No Return Blow

REMARKS:

Show if oil spots in tool

Tool Sample: 0% Gas .1% Oil 74.9% Water 25% Mud

Ph: 7

Measured RW: .14 @ 64 degrees °F

RW at Formation Temp: 0.069 @ 136 °F

Chlorides: 62000 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Test Complete

DATE
January
19
2021

DST #3 Formation: L/KC "I&J" Test Interval: 4238 - 4285' Total Depth: 4285'
Time On: 02:10 01/19 Time Off: 10:16 01/19
Time On Bottom: 04:38 01/19 Time Off Bottom: 07:38 01/19

Electronic Volume Estimate:
507'

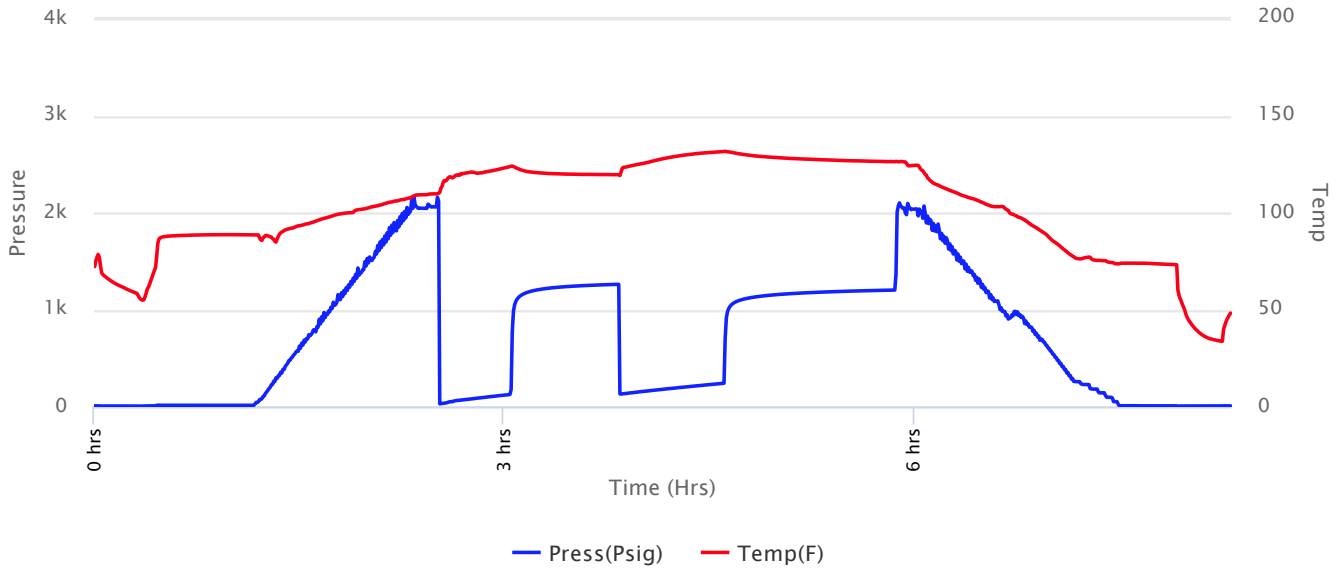
1st Open
Minutes: 30
Current Reading:
19.5" at 30 min
Max Reading: 19.5"

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

2nd Open
Minutes: 45
Current Reading:
25.1" at 45 min
Max Reading: 25.1"

2nd Close
Minutes: 60
Current Reading:
.1" at 60 min
Max Reading: .1"

Inside Recorder





Company: L. D. Drilling, Inc Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Test Complete

DATE
January
19
2021

DST #3 Formation: L/KC "I&J" Test Interval: 4238 - 4285' Total Depth: 4285'
Time On: 02:10 01/19 Time Off: 10:16 01/19
Time On Bottom: 04:38 01/19 Time Off Bottom: 07:38 01/19

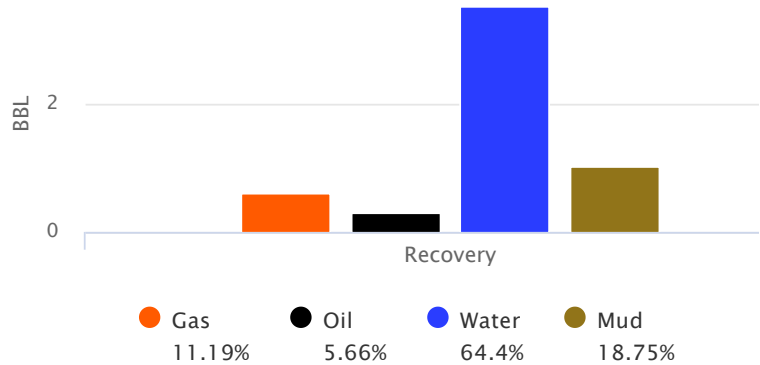
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
60	0.6156	G	100	0	0	0
20	0.2052	O	0	100	0	0
204	2.09304	SLOCHMCW	0	5	50	45
126	1.29276	SLMCW (trace oil)	0	.1	95	4.9
126	1.29276	SLMCW	0	0	98	2

Total Recovered: 536 ft
Total Barrels Recovered: 5.49936

Reversed Out
NO

Recovery at a glance



Initial Hydrostatic Pressure	2118	PSI
Initial Flow	31 to 117	PSI
Initial Closed in Pressure	1260	PSI
Final Flow Pressure	136 to 232	PSI
Final Closed in Pressure	1200	PSI
Final Hydrostatic Pressure	2062	PSI
Temperature	132	°F
 Pressure Change Initial	 4.8	 %
Close / Final Close		

GIP cubic foot volume: 3.45629



Company: L. D. Drilling, Inc

Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Test Complete

DATE January 19 2021

DST #3	Formation: L/KC "I&J"	Test Interval: 4238 - 4285'	Total Depth: 4285'
	Time On: 02:10 01/19	Time Off: 10:16 01/19	
	Time On Bottom: 04:38 01/19	Time Off Bottom: 07:38 01/19	

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: BOB in 9 mins. 28 secs.

1st Close: Surface blow back in 6 mins. 15 secs. Did not build or die.

2nd Open: BOB in 11 mins. 25 secs.

2nd Close: Weak, surface blow back in 4 mins. Did not build or die.

REMARKS:

Tool Sample: 0% Gas .1% Oil 98% Water 1.9% Mud

Gravity: 37.1 @ 60 °F

Ph: 7

Measured RW: .22 @ 32 degrees °F

RW at Formation Temp: 0.061 @ 132 °F

Chlorides: 70,200 ppm



Company: L. D. Drilling, Inc Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Test Complete

DATE
January
19
2021

DST #3 **Formation: L/KC "I&J"** **Test Interval: 4238 - 4285'** **Total Depth: 4285'**
Time On: 02:10 01/19 Time Off: 10:16 01/19
Time On Bottom: 04:38 01/19 Time Off Bottom: 07:38 01/19

Down Hole Makeup

Heads Up: 16.3 FT	Packer 1: 4233.49 FT
Drill Pipe: 4222.22 FT <i>ID-3 1/4</i>	Packer 2: 4238.49 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4222.91 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4283 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: 46.51	Surface Choke: 1"
Anchor Makeup	
Packer Sub: 1 FT	Bottom Choke: 5/8"
Perforations: (top): 10 FT <i>4 1/2-FH</i>	
Change Over: .5 FT	
Drill Pipe: (in anchor): 31.51 FT <i>ID-3 1/4</i>	
Change Over: .5 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc

Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Test Complete

DATE
January
19
2021

DST #3	Formation: L/KC "I&J"	Test Interval: 4238 - 4285'	Total Depth: 4285'
	Time On: 02:10 01/19	Time Off: 10:16 01/19	
	Time On Bottom: 04:38 01/19	Time Off Bottom: 07:38 01/19	

Mud Properties

Mud Type: Chemical **Weight:** 9.4 **Viscosity:** 57 **Filtrate:** 9.6 **Chlorides:** 3,600 ppm



Company: L. D. Drilling, Inc Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery & pressures

DATE
January
19
2021

DST #4 **Formation: LKC** **Test Interval: 4283 -** **Total Depth: 4340'**
 "K,L" **4340'**
Time On: 20:28 01/19 Time Off: 04:45 01/20
Time On Bottom: 23:26 01/19 Time Off Bottom: 02:26 01/20

Electronic Volume Estimate: 139'

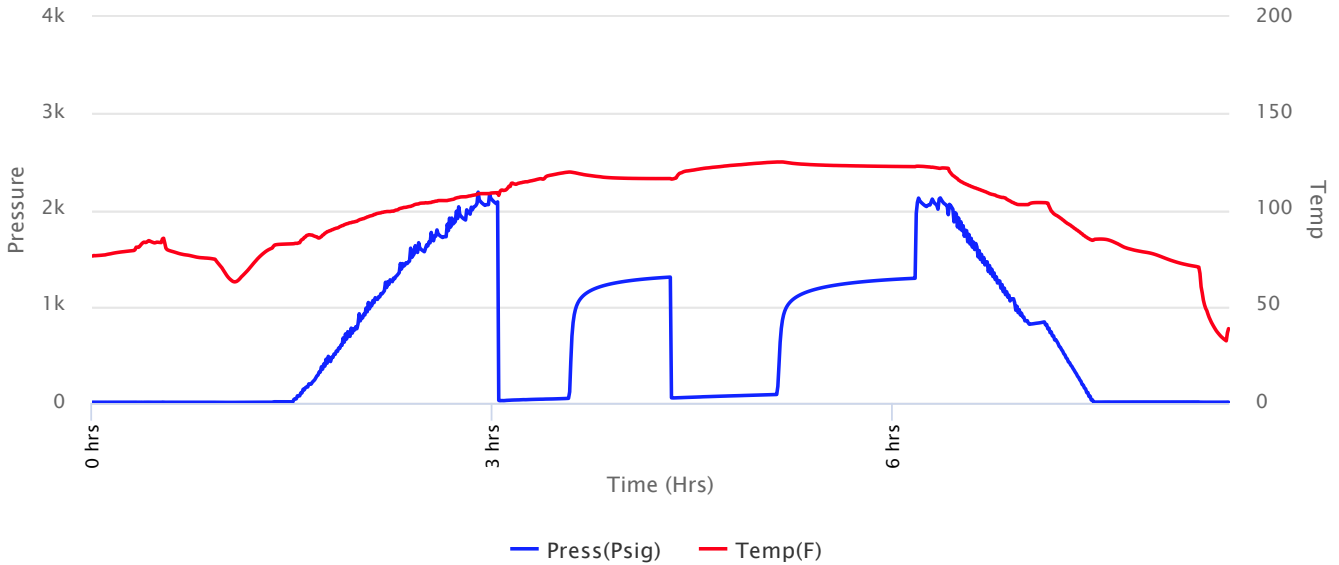
1st Open
Minutes: 30
Current Reading: 6.2" at 30 min
Max Reading: 6.2"

1st Close
Minutes: 45
Current Reading: .2" at 45 min
Max Reading: .2"

2nd Open
Minutes: 45
Current Reading: 5.2" at 45 min
Max Reading: 5.2"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

DATE
 January
19
 2021

DST #4 **Formation: LKC "K,L"** **Test Interval: 4283 - 4340'** **Total Depth: 4340'**
 Time On: 20:28 01/19 Time Off: 04:45 01/20
 Time On Bottom: 23:26 01/19 Time Off Bottom: 02:26 01/20

Recovered

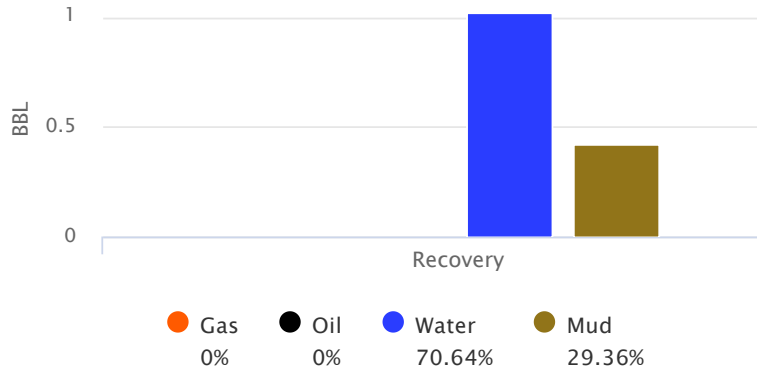
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
15	0.1539	HMCW	0	0	55	45
63	0.64638	HMCW	0	0	70	30
63	0.64638	MCW	0	0	75	25

Total Recovered: 141 ft
 Total Barrels Recovered: 1.44666

Reversed Out
 NO

Initial Hydrostatic Pressure	2054	PSI
Initial Flow	24 to 47	PSI
Initial Closed in Pressure	1302	PSI
Final Flow Pressure	53 to 87	PSI
Final Closed in Pressure	1290	PSI
Final Hydrostatic Pressure	2049	PSI
Temperature	125	°F
Pressure Change Initial Close / Final Close	0.9	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:

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DST #4

**Formation: LKC
"K,L"**

**Test Interval: 4283 -
4340'**

Total Depth: 4340'

Time On: 20:28 01/19

Time Off: 04:45 01/20

Time On Bottom: 23:26 01/19 Time Off Bottom: 02:26 01/20

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 1/4" Blow built to 8-1/4" over 30 min.

1st Close: Weak surface Return started at 4 min. Built to 1/2" over 45 min.

2nd Open: Surface Blow built to 7-1/2" over 45 min.

2nd Close: Surface Return started at 2 min. 42 sec. Built to 1/2" over 60 min.

REMARKS:

Tool Sample: 0% Gas 0% Oil 70% Water 30% Mud

Ph: 7

Measured RW: .21 @ 28 degrees °F

RW at Formation Temp: 0.055 @ 125 °F

Chlorides: 83800 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
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DST #4 **Formation: LKC** **Test Interval: 4283 -** **Total Depth: 4340'**
 "**K,L**" **4340'**
Time On: 20:28 01/19 Time Off: 04:45 01/20
Time On Bottom: 23:26 01/19 Time Off Bottom: 02:26 01/20

Down Hole Makeup

Heads Up:	34.4 FT	Packer 1:	4278.4 FT
Drill Pipe:	4285.23 FT	Packer 2:	4283.4 FT
<i>ID-3 1/4</i>		Top Recorder:	4267.82 FT
Weight Pipe:	0 FT	Bottom Recorder:	4338 FT
<i>ID-2 7/8</i>		Well Bore Size:	7 7/8
Collars:	0 FT	Surface Choke:	1"
<i>ID-2 1/4</i>		Bottom Choke:	5/8"
Test Tool:	33.57 FT		
<i>ID-3 1/2-FH</i>			
<i>Jars</i>			
<i>Safety Joint</i>			
Total Anchor:	56.6		
<u>Anchor Makeup</u>			
Packer Sub:	1 FT		
Perforations: (top):	20 FT		
<i>4 1/2-FH</i>			
Change Over:	.5 FT		
Drill Pipe: (in anchor):	31.6 FT		
<i>ID-3 1/4</i>			
Change Over:	.5 FT		
Perforations: (below):	3 FT		
<i>4 1/2-FH</i>			



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
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DST #4 **Formation: LKC** **Test Interval: 4283 -** **Total Depth: 4340'**
 "K,L" **4340'**
Time On: 20:28 01/19 Time Off: 04:45 01/20
Time On Bottom: 23:26 01/19 Time Off Bottom: 02:26 01/20

Mud Properties

Mud Type: Chem.

Weight: 9.4

Viscosity: 57

Filtrate: 9.6

Chlorides: 3600 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

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DST #5 **Formation: Marmaton** **Test Interval: 4341 - 4434'** **Total Depth: 4434'**
 Time On: 22:09 01/20 Time Off: 05:36 01/21
 Time On Bottom: 00:35 01/21 Time Off Bottom: 03:35 01/21

Electronic Volume Estimate:
 19'

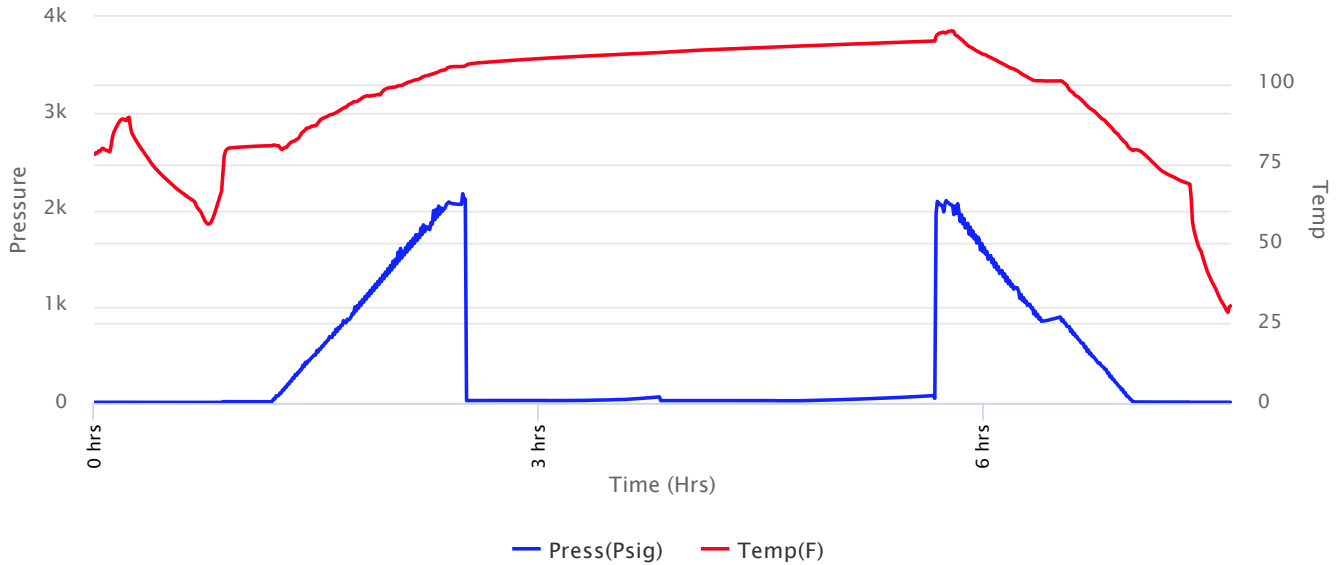
1st Open
 Minutes: 30
 Current Reading: 1.2" at 30 min
 Max Reading: 1.2"

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

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

2nd Close
 Minutes: 60
 Current Reading: .1" at 60 min
 Max Reading: .1"

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

DATE
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20
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DST #5 **Formation: Marmaton** **Test Interval: 4341 - 4434'** **Total Depth: 4434'**
 Time On: 22:09 01/20 Time Off: 05:36 01/21
 Time On Bottom: 00:35 01/21 Time Off Bottom: 03:35 01/21

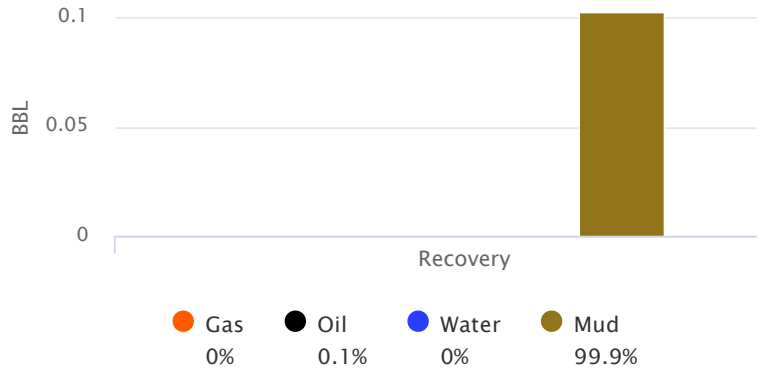
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
10	0.1026	M (trace O)	0	.1	0	99.9

Total Recovered: 10 ft
 Total Barrels Recovered: 0.1026

Reversed Out
NO

Initial Hydrostatic Pressure	2059	PSI
Initial Flow	25 to 25	PSI
Initial Closed in Pressure	63	PSI
Final Flow Pressure	24 to 24	PSI
Final Closed in Pressure	75	PSI
Final Hydrostatic Pressure	2049	PSI
Temperature	113	°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 #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery &
pressures

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DST #5	Formation: Marmaton	Test Interval: 4341 - 4434'	Total Depth: 4434'
	Time On: 22:09 01/20	Time Off: 05:36 01/21	
	Time On Bottom: 00:35 01/21	Time Off Bottom: 03:35 01/21	

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 1/4" Blow built to 2" over 30 min.

1st Close: Weak surface Return started at 4 min. Did not build or die.

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

2nd Close: Weak surface return started at 3 min. Did not build or die.

REMARKS:

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



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc - Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery & pressures

DATE
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DST #5 **Formation: Marmaton** **Test Interval: 4341 - 4434'** **Total Depth: 4434'**
Time On: 22:09 01/20 Time Off: 05:36 01/21
Time On Bottom: 00:35 01/21 Time Off Bottom: 03:35 01/21

Down Hole Makeup

Heads Up: 8.34999999999996 FT	Packer 1: 4336 FT
Drill Pipe: 4316.78 FT <i>ID-3 1/4</i>	Packer 2: 4341 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4325.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4432 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: 93	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 25 FT <i>4 1/2-FH</i>	
Change Over: .5 FT	
Drill Pipe: (in anchor): 63 FT <i>ID-3 1/4</i>	
Change Over: .5 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery &
pressures

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DST #5 **Formation:** **Test Interval: 4341 -** **Total Depth: 4434'**
Marmaton **4434'**
Time On: 22:09 01/20 Time Off: 05:36 01/21
Time On Bottom: 00:35 01/21 Time Off Bottom: 03:35 01/21

Mud Properties

Mud Type: Chem. **Weight:** 9.1 **Viscosity:** 58 **Filtrate:** 7.2 **Chlorides:** 2500 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery &
pressures

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DST #5 **Formation:** Marmaton **Test Interval: 4341 - 4434'** **Total Depth: 4434'**
Time On: 22:09 01/20 Time Off: 05:36 01/21
Time On Bottom: 00:35 01/21 Time Off Bottom: 03:35 01/21

Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

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DST #6 Formation: Pawnee Test Interval: 4440 - 4487' Total Depth: 4487'
 Time On: 17:07 01/21 Time Off: 01:40 01/22
 Time On Bottom: 19:45 01/21 Time Off Bottom: 22:45 01/21

Electronic Volume Estimate:
 853'

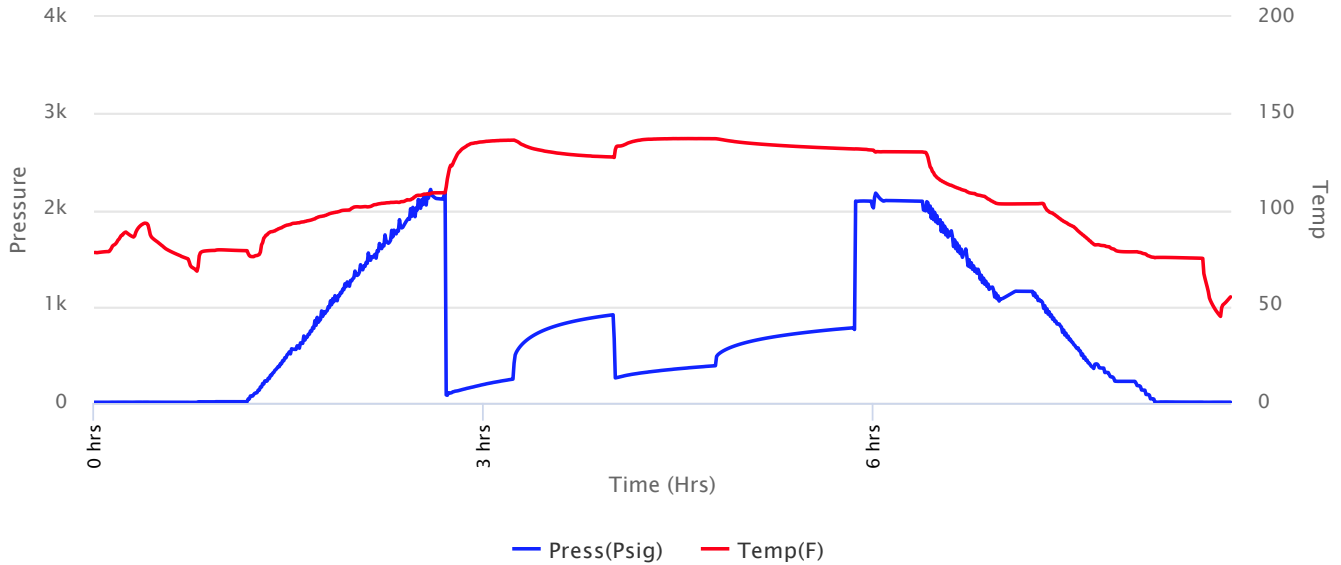
1st Open
 Minutes: 30
 Current Reading: 44.4" at 30 min
 Max Reading: 44.4"

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

2nd Open
 Minutes: 45
 Current Reading: 28.5" at 45 min
 Max Reading: 28.5"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

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DST #6 **Formation: Pawnee** **Test Interval: 4440 - 4487'** **Total Depth: 4487'**
 Time On: 17:07 01/21 Time Off: 01:40 01/22
 Time On Bottom: 19:45 01/21 Time Off Bottom: 22:45 01/21

Recovered

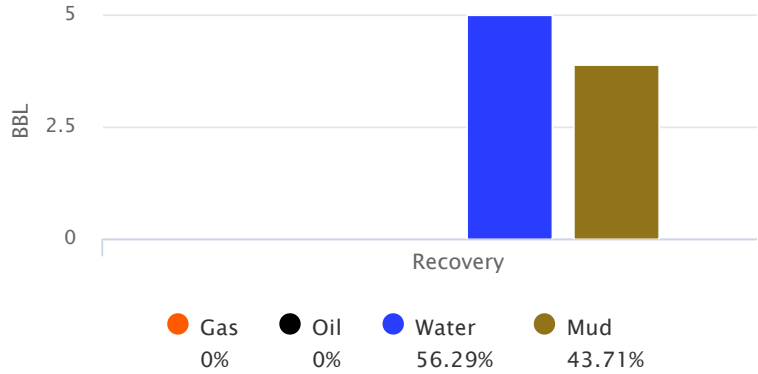
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
297	3.04722	SLWCM	0	0	14	86
252	2.58552	HMCW	0	0	64	36
315	3.2319	SLMCW	0	0	90	10

Total Recovered: 864 ft
 Total Barrels Recovered: 8.86464

Reversed Out
 NO

Initial Hydrostatic Pressure	2112	PSI
Initial Flow	79 to 241	PSI
Initial Closed in Pressure	913	PSI
Final Flow Pressure	259 to 382	PSI
Final Closed in Pressure	776	PSI
Final Hydrostatic Pressure	2092	PSI
Temperature	137	°F
Pressure Change Initial Close / Final Close	15.0	%

Recovery at a glance



GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery &
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DATE
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DST #6 Formation: Pawnee Test Interval: 4440 - Total Depth: 4487'
4487'

Time On: 17:07 01/21 Time Off: 01:40 01/22
Time On Bottom: 19:45 01/21 Time Off Bottom: 22:45 01/21

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: BoB in 2 min. 44 sec.

1st Close: No Return Blow.

2nd Open: BoB in 5 min. 41 sec.

2nd Close: No Return Blow

REMARKS:

Tool Sample: 0% Gas 0% Oil 95% Water 5% Mud

Ph: 7

Measured RW: .13 @ 42 degrees °F

RW at Formation Temp: 0.044 @ 137 °F

Chlorides: 98400 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
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pressures

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DST #6 Formation: Pawnee Test Interval: 4440 - Total Depth: 4487'
4487'
Time On: 17:07 01/21 Time Off: 01:40 01/22
Time On Bottom: 19:45 01/21 Time Off Bottom: 22:45 01/21

Down Hole Makeup

Heads Up: 34.81 FT	Packer 1: 4435.49 FT
Drill Pipe: 4442.73 FT <i>ID-3 1/4</i>	Packer 2: 4440.49 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4424.91 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4485 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: 46.51	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 10 FT <i>4 1/2-FH</i>	
Change Over: .5 FT	
Drill Pipe: (in anchor): 31.51 FT <i>ID-3 1/4</i>	
Change Over: .5 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
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DST #6 Formation: Pawnee Test Interval: 4440 - Total Depth: 4487'
4487'
Time On: 17:07 01/21 Time Off: 01:40 01/22
Time On Bottom: 19:45 01/21 Time Off Bottom: 22:45 01/21

Mud Properties

Mud Type: Chem. **Weight:** 9.0 **Viscosity:** 53 **Filtrate:** 8.0 **Chlorides:** 2400 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

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DST #6 Formation: Pawnee Test Interval: 4440 - 4487' Total Depth: 4487'
 Time On: 17:07 01/21 Time Off: 01:40 01/22
 Time On Bottom: 19:45 01/21 Time Off Bottom: 22:45 01/21

Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

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DST #7 **Formation: Cherokee / Johnson** **Test Interval: 4546 - 4604'** **Total Depth: 4604'**
 Time On: 18:55 01/22 Time Off: 23:08 01/22
 Time On Bottom: 18:56 01/22 Time Off Bottom: 20:56 01/22

Electronic Volume Estimate:
 11'

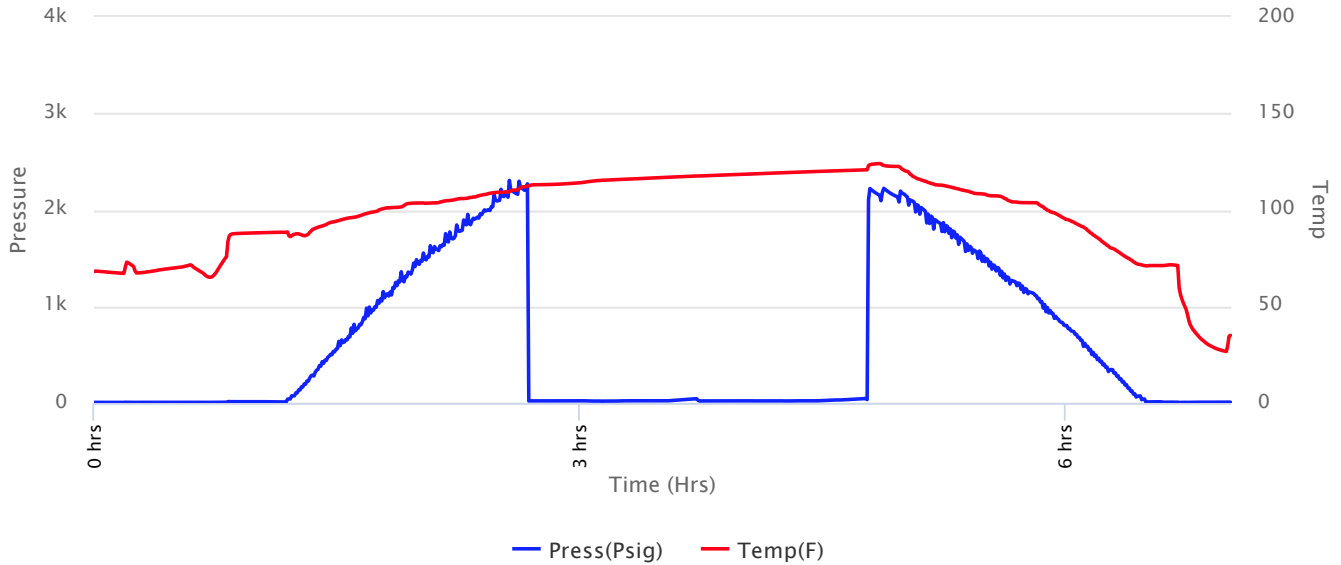
1st Open
 Minutes: 30
 Current Reading: .7" at 30 min
 Max Reading: .7"

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

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

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
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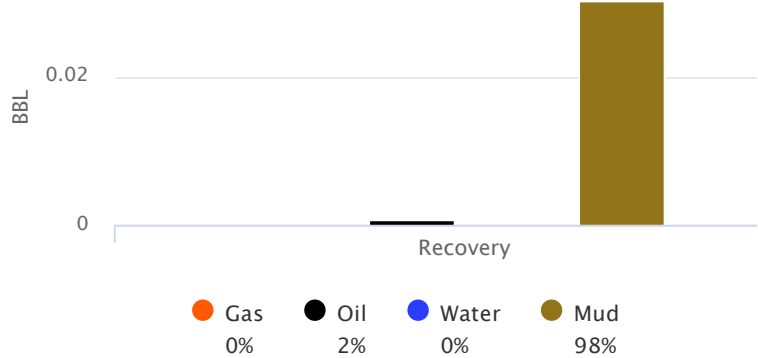
DST #7 **Formation: Cherokee / Johnson** **Test Interval: 4546 - 4604'** **Total Depth: 4604'**
 Time On: 18:55 01/22 Time Off: 23:08 01/22
 Time On Bottom: 18:56 01/22 Time Off Bottom: 20:56 01/22

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
3	0.03078	SLOCM	0	2	0	98

Total Recovered: 3 ft
 Total Barrels Recovered: 0.03078

Reversed Out
NO

Recovery at a glance



Initial Hydrostatic Pressure	2270	PSI
Initial Flow	20 to 21	PSI
Initial Closed in Pressure	44	PSI
Final Flow Pressure	21 to 21	PSI
Final Closed in Pressure	46	PSI
Final Hydrostatic Pressure	2152	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	0.0	%

GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
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DST #7 **Formation:** **Test Interval: 4546 -** **Total Depth: 4604'**
Cherokee / Johnson **4604'**
Time On: 18:55 01/22 Time Off: 23:08 01/22
Time On Bottom: 18:56 01/22 Time Off Bottom: 20:56 01/22

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: Surface Blow built to 1-1/2" over 30 min

1st Close: No Return Blow.

2nd Open: Surface Blow built 1/8" to over 30 min

2nd Close: No Return Blow

REMARKS:

approx 3" free oil.

Tool Sample: 0% Gas 5% Oil 0% Water 95% Mud



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery &
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DST #7 **Formation:** **Test Interval: 4546 -** **Total Depth: 4604'**
 Cherokee / Johnson **4604'**
 Time On: 18:55 01/22 Time Off: 23:08 01/22
 Time On Bottom: 18:56 01/22 Time Off Bottom: 20:56 01/22

Down Hole Makeup

Heads Up: 23.5 FT	Packer 1: 4541.38 FT
Drill Pipe: 4537.31 FT <i>ID-3 1/4</i>	Packer 2: 4546.38 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4530.8 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4602 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: 57.62	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 21 FT <i>4 1/2-FH</i>	
Change Over: .5 FT	
Drill Pipe: (in anchor): 31.62 FT <i>ID-3 1/4</i>	
Change Over: .5 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
County: THOMAS
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 3217 EGL
Field Name: Morgan
Pool: Infield
Job Number: 466
API #: 15-193-21081

Operation:
Uploading recovery &
pressures

DATE
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DST #7 **Formation:** **Test Interval: 4546 -** **Total Depth: 4604'**
Cherokee / Johnson **4604'**
Time On: 18:55 01/22 Time Off: 23:08 01/22
Time On Bottom: 18:56 01/22 Time Off Bottom: 20:56 01/22

Mud Properties

Mud Type: Chem. **Weight:** 9.1 **Viscosity:** 55 **Filtrate:** 8.8 **Chlorides:** 3000 ppm



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery &
 pressures

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DST #7 **Formation:** **Test Interval: 4546 -** **Total Depth: 4604'**
 Cherokee / Johnson **4604'**
 Time On: 18:55 01/22 Time Off: 23:08 01/22
 Time On Bottom: 18:56 01/22 Time Off Bottom: 20:56 01/22

Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

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 2021

DST #8 **Formation: Johnson / Morrow** **Test Interval: 4583 - 4614'** **Total Depth: 4614'**
 Time On: 07:20 01/23 Time Off: 15:51 01/23
 Time On Bottom: 10:12 01/23 Time Off Bottom: 13:12 01/23

Electronic Volume Estimate:
 11'

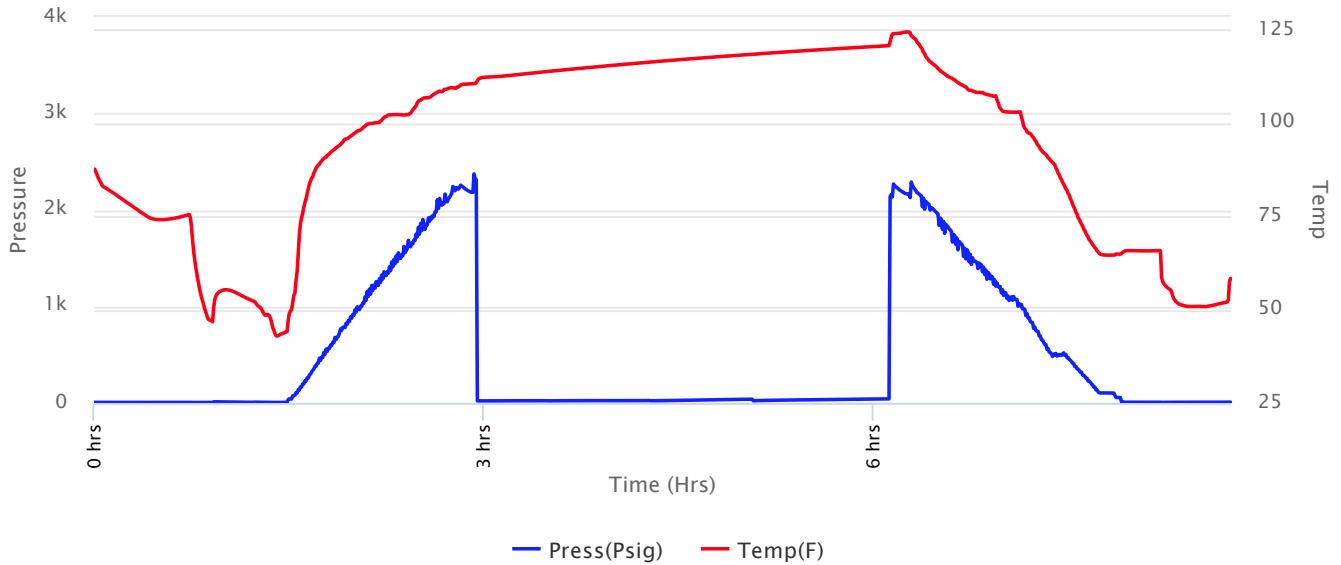
1st Open
 Minutes: 30
 Current Reading: .8" at 30 min
 Max Reading: .8"

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

2nd Open
 Minutes: 45
 Current Reading: .1" at 45 min
 Max Reading: .1"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Kauk #3-17

SEC: 17 TWN: 8S RNG: 34W
 County: THOMAS
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 3217 EGL
 Field Name: Morgan
 Pool: Infield
 Job Number: 466
 API #: 15-193-21081

Operation:
 Uploading recovery & pressures

DATE
 January
23
 2021

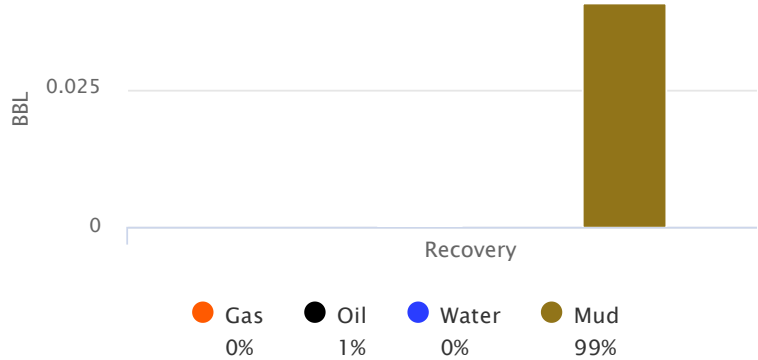
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Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
4	0.04104	SLOCM	0	1	0	99

Total Recovered: 4 ft
 Total Barrels Recovered: 0.04104

Reversed Out
NO

Recovery at a glance



Initial Hydrostatic Pressure	2324	PSI
Initial Flow	21 to 24	PSI
Initial Closed in Pressure	23	PSI
Final Flow Pressure	25 to 31	PSI
Final Closed in Pressure	41	PSI
Final Hydrostatic Pressure	2167	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	0.0	%

GIP cubic foot volume: 0



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:
L D DRILLING, INC.
7 SW 26TH AVE
GREAT BEND, KS 67530

Invoice Date: 1/28/2021
Invoice #: 0351360
Lease Name: Kauk
Well #: 3-17 (New)
County: Thomas, Ks
Job Number: WP1098
District: Oakley

Date/Description	HRS/QTY	Rate	Total
Longstring	0.000	0.000	0.00
Cement Pump Service	1.000	1,200.000	1,200.00
Heavy Eq Mileage	24.000	3.200	76.80
Light Eq Mileage	24.000	1.600	38.40
Ton Mileage	628.000	1.200	753.60
5 1/2" LD Plug & Baffle	1.000	280.000	280.00
5 1/2" Turbolizers	8.000	64.000	512.00
Cement baskets 5 1/2"	5.000	240.000	1,200.00
Type B basket shoe 5 1/2"	1.000	1,172.800	1,172.80
Cement plug container	1.000	200.000	200.00
H-CON	450.000	16.800	7,560.00
H-CON with 2% CC	75.000	16.800	1,260.00
H-Plug	30.000	10.400	312.00
Sugar	100.000	2.400	240.00
Mud flush	1,000.000	0.800	800.00

Total 15,605.60

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

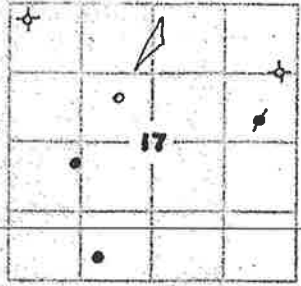
DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.
 LEASE 3-17 KAUK
 FIELD MORGAN
 LOCATION 1915' FNL & 1650' FWL
 SEC 17 TWP 8s RGE 34w
 COUNTY THOMAS STATE KANSAS
 CONTRACTOR L. D. DRILLING, INC.
 START 1-11-2021 COMP 1-28-21
 WELL ID 5324 LTD 5325
 MUD NO. 3529 TYPE MUD CHEMICAL

ELEVATIONS
 KB 3221
 DF _____
 GI 3216
 Measurements Are All
 From 3221 KB
 CASING
 SURFACE 8 5/8" @ 326'
 PRODUCTION 5 1/2" @ 484'
 ELECTRICAL SURVEYS
 DUAL IND., DENS-N., MICRO

SAMPLES SAVED FROM 3600 TO 5324
 DRILLING TIME KEPT FROM 3500 TO 5324
 SAMPLES EXAMINED FROM 3600 TO 5324
 GEOLOGICAL SUPERVISION FROM 3800 TO 5324
 GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2746+475	2745+476
B/ANL	2775+446	2779+442
STOTLER	3635-414	3637-416
HEEBNER	4040-819	4041-820
LANSING	4081-860	4081-860
B/KC	4343-1122	4341-1120
PAWNEE	4462-1241	4463-1242
FORT SCOT	4526-1305	4521-1300
CHEROKEE	4555-1334	4552-1331
MISSISSIPPI	4671-1450	4669-1448
ARBUCKLE	5022-1802	5021-1800

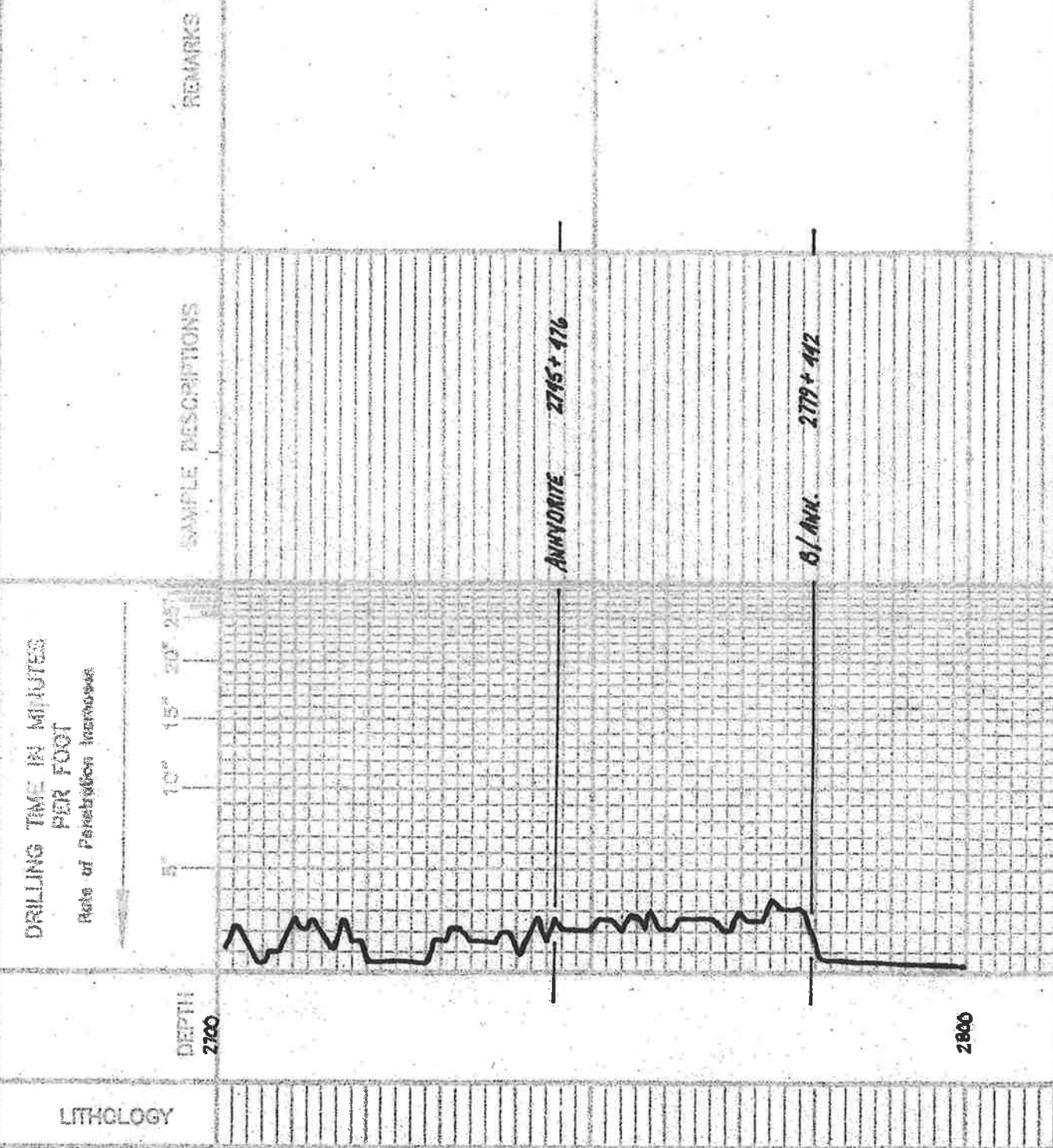


REMARKS
 1-11-21 5200' 1-24 @ 4970'
 1-12 @ 529' 1-25 @ 5027'
 1-13 @ 1495' 1-26 @ 5187' Sawkin hole
 1-14 @ 2275' 1-27 @ 5305'
 1-15 @ 3065' 1-28 @ 5324'
 1-16 @ 3640'
 1-17 @ 4155'
 1-18 @ 4230'
 1-19 @ 4285'
 1-20 @ 4340'
 1-21 @ 4434'
 1-22 @ 4510'
 1-23 @ 4614'

ARI: 15-193-21081

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Coal
- Dolomite



3500

3600

3700

Samples are lagged



Sh. Ltg. Sky

Sh. Ltg. Fin. Sub. Rd.

STOTLER 3637-416

LS. wt. Ltg. Sh. Foss. w/ Blk. Sh. T. Fd. No odor

Sh. Rd.

LS. Ltg. Sh. Foss. w/ Blk. Sh. T. Fd. No odor

LS. wt. Ltg. Foss. vs. chly.

Sh. Ltg. G.

LS

Dol. G. Fish. Soc. w/ Blk. Sh. T. Fd.

Sh. Rd.

Vis: 67 Wt: 8.7
Wt: 7.2 Cal: 2500

LS. T. Bl. Sh. Foss.

LS. Ltg. Sh. Foss.

Sh. Blk. Sh.

Sh. Ltg.

LS. wt. Sh. Foss. Blk. Sh. T. Fd. No odor

Sh. Ft. Blvch

LS. wt. Sh. Foss. Sh. Chly.

Sh. Rd

Ls with Micro-foss. St. A

Sh. Tg. L. Blue

Ls. wt. Fa. out.

Sh. L. Bl. Silty

Ls. L. G. Sh. Foss

Sh. Rd

Ls. wt. Sh. Foss. Calcitic

Ls. wt. ool. Sh. Chly

Ls. Thut. St. Foss. w/ Bl. ool. Sh. Noddy

Sh. Rd

Ls. wt. Fa

Ls. wt. ool. - Sil. Foss

Ls. wt. V. Chly

Sh. D. G. Blue

Sh. L. G. Silty. S. G.

Ls. wt. Foss. St. A

Sh. Bl. L. Blue

Ls. L. G. V. Sil. Foss

Ls. wt. Sh. Foss. St. A

Sh. L. Rd

Ls. Fa. Foss.

Ls. L. Bl. V. Fa. w/ V. Sil. Foss.

HEESNER 4041-820

Sh. Blue Carb.

Sh. L. G. G.

Sh. L. G. Blue

Ls. wt. Sh. Foss. w/ D. E. Sh. T. P. Noddy

Sh. Rd

LANSING 4081-860

Ls. wt. Sh. Foss. D. E. Sh. T. P. Noddy

Ls. wt. Sh. Foss. St. A

Sh. Rd

3800

3900

4000

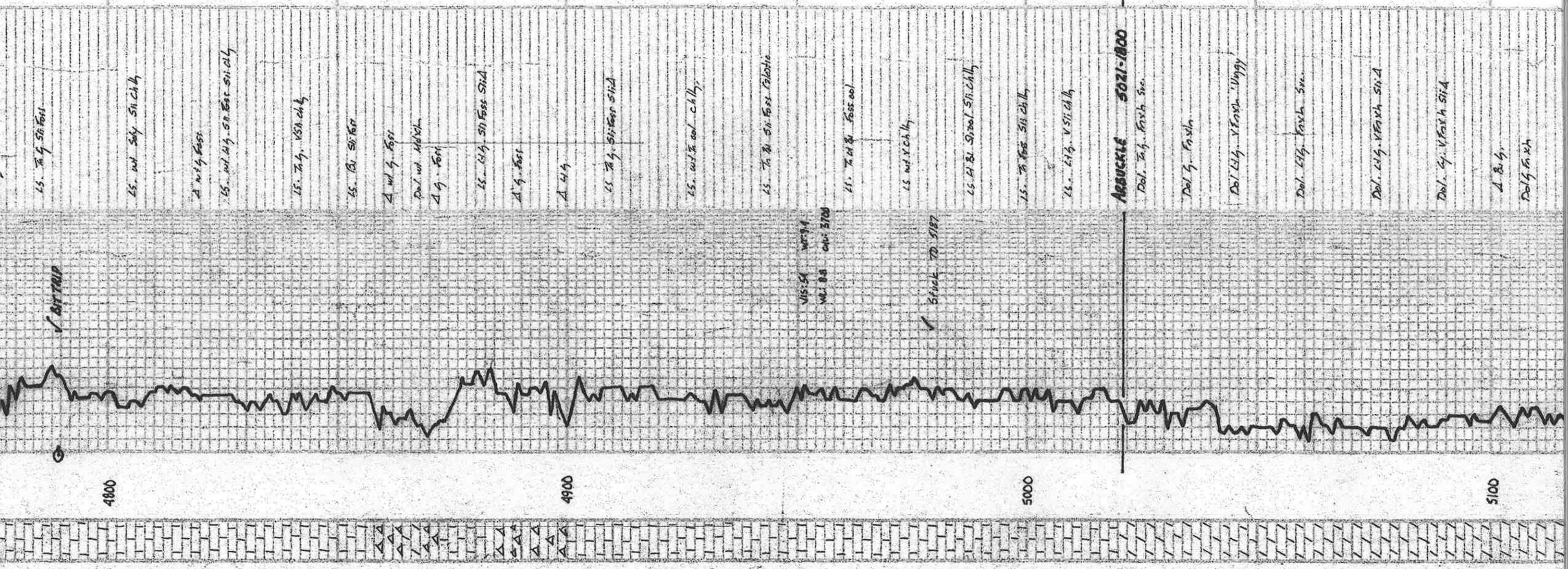
4100

TORONTO

Vis: 54 W.T.: 91

W.L.: 7.2 CHL: 2000

⊙



LS. 78 ft. 50' Foss

LS. wt. sil. sh. ch. lly

A wt. g. Foss

LS. wt. sil. sh. Foss. sil. ch. lly

LS. 78 ft. 50' ch. lly

LS. 131 sh. Foss

A wt. g. Foss

Dol. wt. Med. sh.

A g. Foss

LS. 141 sh. 50' Foss. Sil. A

A g. Foss

A 44 sh

LS. 78 ft. 50' Foss. Sil. A

LS. wt. 78' ool. ch. lly

LS. 78 ft. 50' Foss. Caliche

Vis. 54 wt. 94
wt. 88 ch. 3708

LS. 78 ft. 50' Foss. ool.

LS. wt. 78' ch. lly

LS. A 81. 50' ool. Sil. ch. lly

LS. 78' Foss. Sil. ch. lly

LS. 141 sh. V. Sil. ch. lly

ARBUCKLE 5021-1800

Dol. 78 ft. Foss. Sil.

Dol. 78 ft. Foss. Sil.

Dol. 141 sh. V. Foss. 'Uggy'

Dol. 141 sh. Foss. Sil.

Dol. 141 sh. V. Foss. Sil. A

Dol. 78 ft. V. Foss. Sil. A

A 81 sh

Dol. 78 ft. Foss. Sil.

4800

4900

5000

5100

✓ AIR TRIP

✓ Street to 5187

Dol. G. V. F. v. h. Si: A

Dol. G. V. F. v. h.

Dol. G. V. F. v. h. Si: A

Dol. G. V. F. v. h. Si: A

BIT TRIP @ 5187

@ 5187

Spore in hole @ 1977 ft.

Spd: 80 ft

Vis: 59

WT: 93

Wt: 7.2

CM: 4200

@ 5199

Vis: 63

WT: 89

Wt: 6.4

CM: 5000

5200

C

Dol. G. V. F. v. h. Si: A

Dol. T. H. H. H. M. H. H.

Dol. G. V. F. v. h.

Dol. G. V. F. v. h.

Dol. T. H. H. H. M. H. H. - 504

Dol. G. V. F. v. h. Si: A

Dol. G. V. F. v. h. Si: A

Dol. G. V. F. v. h. Si: A

Chauconite

RTD 5324-2103

5300

C