

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	DEBRA 1-16
Doc ID	1645720

Tops

Name	Top	Datum
Anhydrite	2763	+470
Base Anhydrite	2792	+441
Stotler	3650	-417
Heebner	4052	-819
Lansing	4097	-864
Base Kansas City	4353	-1120
Pawnee	4478	-1245
Fort Scott	4536	-1303
Cherokee	4568	-1335
Mississippi	4678	-1445







**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**11**  
 2022

**DST #1**      **Formation: L/Kk C "E"**      **Test Interval: 4163 - 4178'**      **Total Depth: 4178'**  
 Time On: 12:26 02/11      Time Off: 18:32 02/11  
 Time On Bottom: 14:38 02/11      Time Off Bottom: 16:38 02/11

Recovered

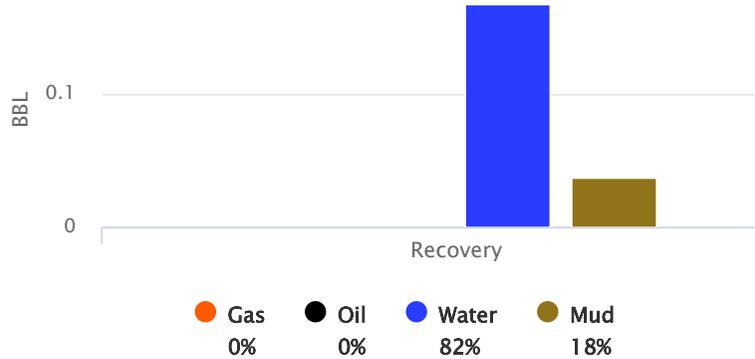
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
20	0.2052	SLMCW	0	0	82	18

Total Recovered: 20 ft  
 Total Barrels Recovered: 0.2052

Reversed Out  
 NO

Initial Hydrostatic Pressure	2045	PSI
Initial Flow	10 to 14	PSI
<b>Initial Closed in Pressure</b>	<b>1190</b>	<b>PSI</b>
Final Flow Pressure	15 to 19	PSI
<b>Final Closed in Pressure</b>	<b>1145</b>	<b>PSI</b>
Final Hydrostatic Pressure	2041	PSI
Temperature	119	°F
Pressure Change Initial Close / Final Close	3.7	%

**Recovery at a glance**



GIP cubic foot volume: 0











**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**12**  
 2022

**DST #2    Formation: L/KC "I"    Test Interval: 4250 - 4277'    Total Depth: 4277'**

Time On: 09:04 02/12    Time Off: 16:09 02/12  
 Time On Bottom: 11:14 02/12    Time Off Bottom: 14:14 02/12

Electronic Volume Estimate:  
 19'

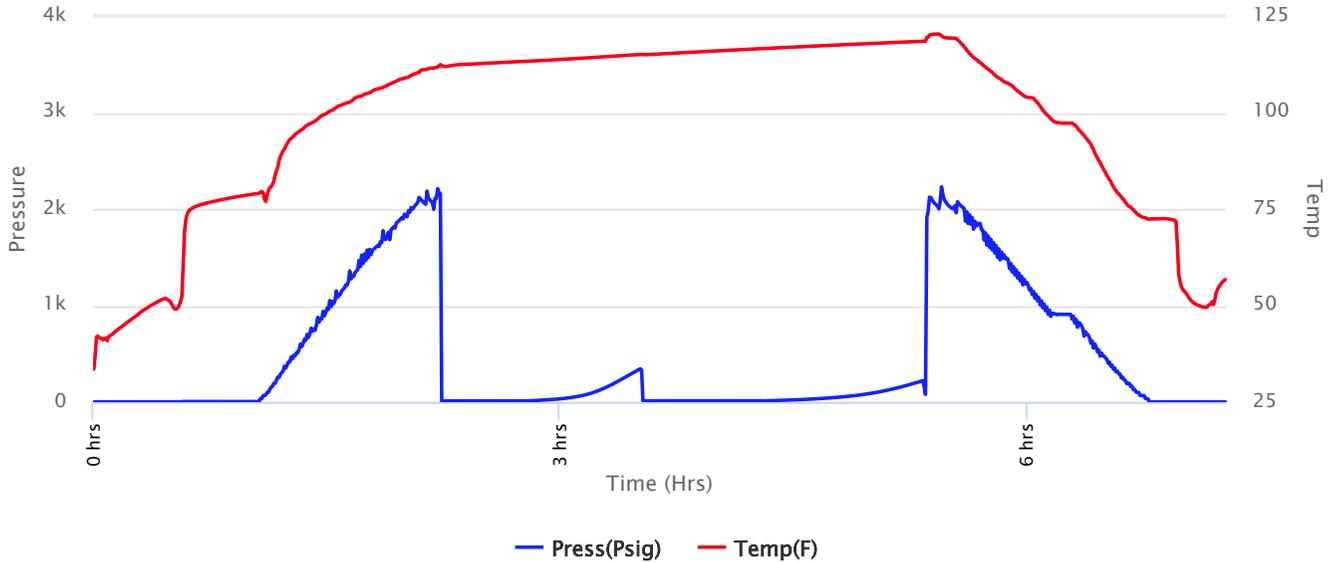
1st Open  
 Minutes: 30  
 Current Reading:  
 1.5" at 30 min  
 Max Reading: 1.6"

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

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

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

Inside Recorder





**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**12**  
 2022

**DST #2**    **Formation: L/KC "I"**    **Test Interval: 4250 - 4277'**    **Total Depth: 4277'**  
 Time On: 09:04 02/12    Time Off: 16:09 02/12  
 Time On Bottom: 11:14 02/12    Time Off Bottom: 14:14 02/12

Recovered

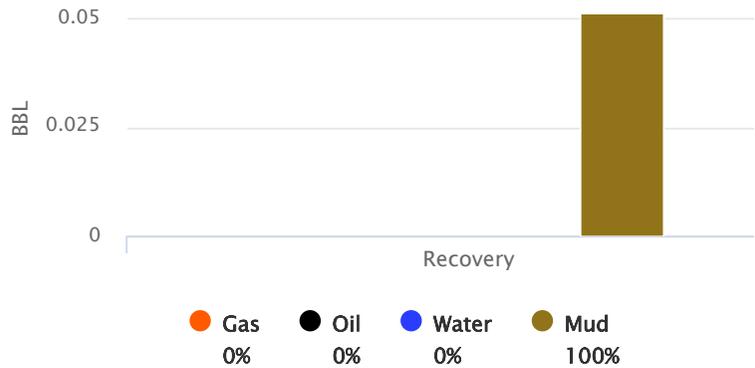
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
5	0.0513	M	0	0	0	100

Total Recovered: 5 ft  
 Total Barrels Recovered: 0.0513

Reversed Out  
 NO

Initial Hydrostatic Pressure	2108	PSI
Initial Flow	10 to 12	PSI
<b>Initial Closed in Pressure</b>	<b>345</b>	<b>PSI</b>
Final Flow Pressure	12 to 13	PSI
<b>Final Closed in Pressure</b>	<b>221</b>	<b>PSI</b>
Final Hydrostatic Pressure	2094	PSI
Temperature	119	°F
Pressure Change Initial Close / Final Close	35.9	%

**Recovery at a glance**



GIP cubic foot volume: 0



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling &  
Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
February  
**12**  
2022

**DST #2      Formation: L/KC "I"      Test Interval: 4250 -      Total Depth: 4277'**  
**4277'**

Time On: 09:04 02/12      Time Off: 16:09 02/12  
Time On Bottom: 11:14 02/12      Time Off Bottom: 14:14 02/12

**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 7% Oil 0% Water 93% Mud



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**12**  
 2022

**DST #2      Formation: L/KC "I"      Test Interval: 4250 - 4277'      Total Depth: 4277'**  
 Time On: 09:04 02/12      Time Off: 16:09 02/12  
 Time On Bottom: 11:14 02/12      Time Off Bottom: 14:14 02/12

**Down Hole Makeup**

<b>Heads Up:</b> 4.98000000000004 FT	<b>Packer 1:</b> 4245 FT
<b>Drill Pipe:</b> 4222.41 FT <i>ID-3 1/4</i>	<b>Packer 2:</b> 4250 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 4234.42 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 4252 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 27	<b>Surface Choke:</b> 1"
<b>Anchor Makeup</b>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 0 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 0 FT	
<b>Drill Pipe: (in anchor):</b> 0 FT <i>ID-3 1/4</i>	
<b>Change Over:</b> 0 FT	
<b>Perforations: (below):</b> 26 FT <i>4 1/2-FH</i>	



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery & pressures

**DATE**  
February  
**12**  
2022

**DST #2      Formation: L/KC "I"      Test Interval: 4250 - 4277'      Total Depth: 4277'**

Time On: 09:04 02/12      Time Off: 16:09 02/12  
Time On Bottom: 11:14 02/12      Time Off Bottom: 14:14 02/12

**Mud Properties**

**Mud Type:** Chemical      **Weight:** 9.3      **Viscosity:** 65      **Filtrate:** 10.4      **Chlorides:** 4,000 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**12**  
 2022

**DST #2      Formation: L/KC "I"      Test Interval: 4250 - 4277'      Total Depth: 4277'**  
 Time On: 09:04 02/12      Time Off: 16:09 02/12  
 Time On Bottom: 11:14 02/12      Time Off Bottom: 14:14 02/12

**Gas Volume Report**

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



**Company: L. D. Drilling, Inc**  
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SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**12**  
 2022

**DST #3 Formation: L/KC "J" Test Interval: 4275 - 4293' Total Depth: 4293'**

Time On: 23:28 02/12 Time Off: 06:36 02/13  
 Time On Bottom: 01:29 02/13 Time Off Bottom: 04:29 02/13

Electronic Volume Estimate:  
 349'

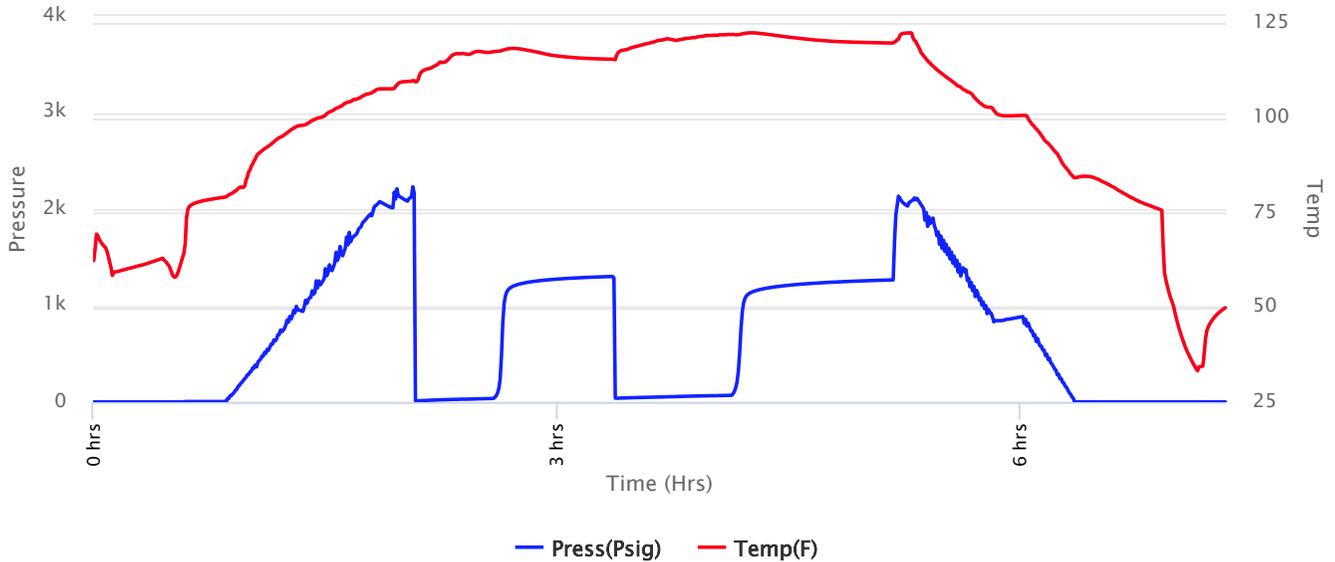
1st Open  
 Minutes: 30  
 Current Reading:  
 12.4" at 30 min  
 Max Reading: 12.4"

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

2nd Open  
 Minutes: 45  
 Current Reading:  
 17.9" at 45 min  
 Max Reading: 17.9"

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

Inside Recorder





**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**12**  
 2022

**DST #3 Formation: L/KC "J" Test Interval: 4275 - 4293' Total Depth: 4293'**

Time On: 23:28 02/12 Time Off: 06:36 02/13  
 Time On Bottom: 01:29 02/13 Time Off Bottom: 04:29 02/13

Recovered

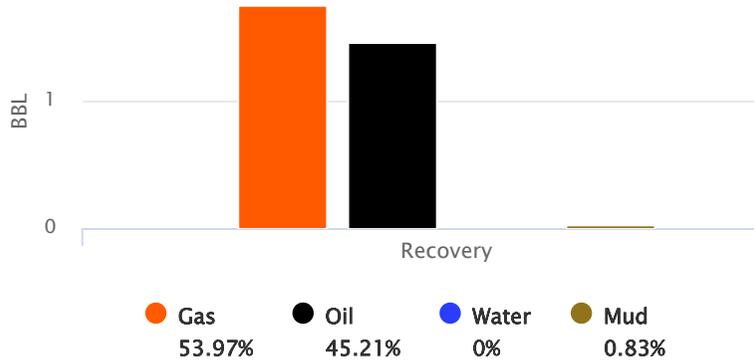
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
170	1.7442	G	100	0	0	0
125	1.2825	O	0	100	0	0
20	0.2052	SLMCO	0	87	0	13

Total Recovered: 315 ft  
 Total Barrels Recovered: 3.2319

Reversed Out  
 NO

Initial Hydrostatic Pressure	2127	PSI
Initial Flow	12 to 37	PSI
<b>Initial Closed in Pressure</b>	<b>1301</b>	<b>PSI</b>
Final Flow Pressure	40 to 69	PSI
<b>Final Closed in Pressure</b>	<b>1266</b>	<b>PSI</b>
Final Hydrostatic Pressure	2110	PSI
Temperature	123	°F
Pressure Change Initial Close / Final Close	2.7	%

**Recovery at a glance**



GIP cubic foot volume: 9.79281



**Company: L. D. Drilling, Inc**  
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SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling &  
Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
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pressures

**DATE**  
February  
**12**  
2022

**DST #3      Formation: L/KC "J"      Test Interval: 4275 -      Total Depth: 4293'**  
**4293'**

Time On: 23:28 02/12      Time Off: 06:36 02/13  
Time On Bottom: 01:29 02/13      Time Off Bottom: 04:29 02/13

**BUCKET MEASUREMENT:**

1st Open: 1/4" blow building to BOB 30 min.

1st Close: No BB

2nd Open: 1/4" blow building to BOB 29 min.

2nd Close: No BB

**REMARKS:**

Tool Sample: 0% Gas 99% Oil 0% Water 1% Mud

Gravity: 32.3 @ 60 °F



**Company: L. D. Drilling, Inc**  
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 Field Name: Morgan Ext  
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**DST #3      Formation: L/KC "J"      Test Interval: 4275 - 4293'      Total Depth: 4293'**  
 Time On: 23:28 02/12      Time Off: 06:36 02/13  
 Time On Bottom: 01:29 02/13      Time Off Bottom: 04:29 02/13

**Down Hole Makeup**

<b>Heads Up:</b> 11.5 FT	<b>Packer 1:</b> 4270 FT
<b>Drill Pipe:</b> 4253.93 FT <i>ID-3 1/4</i>	<b>Packer 2:</b> 4275 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 4259.42 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 4277 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 18	<b>Surface Choke:</b> 1"
<b><u>Anchor Makeup</u></b>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 0 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 0 FT	
<b>Drill Pipe: (in anchor):</b> 0 FT <i>ID-3 1/4</i>	
<b>Change Over:</b> 0 FT	
<b>Perforations: (below):</b> 17 FT <i>4 1/2-FH</i>	



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
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Field Name: Morgan Ext  
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Job Number: 541  
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**Operation:**  
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**DST #3      Formation: L/KC "J"      Test Interval: 4275 -      Total Depth: 4293'**  
**4293'**

Time On: 23:28 02/12      Time Off: 06:36 02/13  
Time On Bottom: 01:29 02/13      Time Off Bottom: 04:29 02/13

**Mud Properties**

**Mud Type:** Chemical      **Weight:** 9.3      **Viscosity:** 65      **Filtrate:** 10.4      **Chlorides:** 4,000 ppm







**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
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 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**13**  
 2022

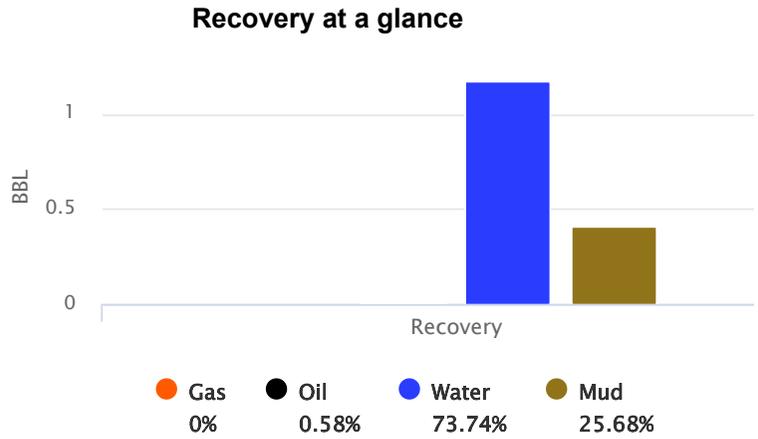
**DST #4**      **Formation: L/KC "K&L"**      **Test Interval: 4294 - 4346'**      **Total Depth: 4346'**  
 Time On: 18:45 02/13      Time Off: 02:06 02/14  
 Time On Bottom: 20:51 02/13      Time Off Bottom: 23:51 02/13

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
90	0.9234	SLOCHMCW	0	1	62	37
65	0.6669	SLMCW	0	0	90	10

Total Recovered: 155 ft  
 Total Barrels Recovered: 1.5903

Reversed Out  
 NO

Initial Hydrostatic Pressure	2085	PSI
Initial Flow	12 to 42	PSI
<b>Initial Closed in Pressure</b>	<b>1284</b>	<b>PSI</b>
Final Flow Pressure	44 to 81	PSI
<b>Final Closed in Pressure</b>	<b>1249</b>	<b>PSI</b>
Final Hydrostatic Pressure	2074	PSI
Temperature	126	°F
Pressure Change Initial Close / Final Close	2.7	%



GIP cubic foot volume: 0











**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**14**  
 2022

**DST #5      Formation: Pawnee      Test Interval: 4456 - 4490'      Total Depth: 4490'**

Time On: 21:59 02/14      Time Off: 05:59 02/15  
 Time On Bottom: 00:42 02/15      Time Off Bottom: 03:42 02/15

Electronic Volume Estimate:  
 26'

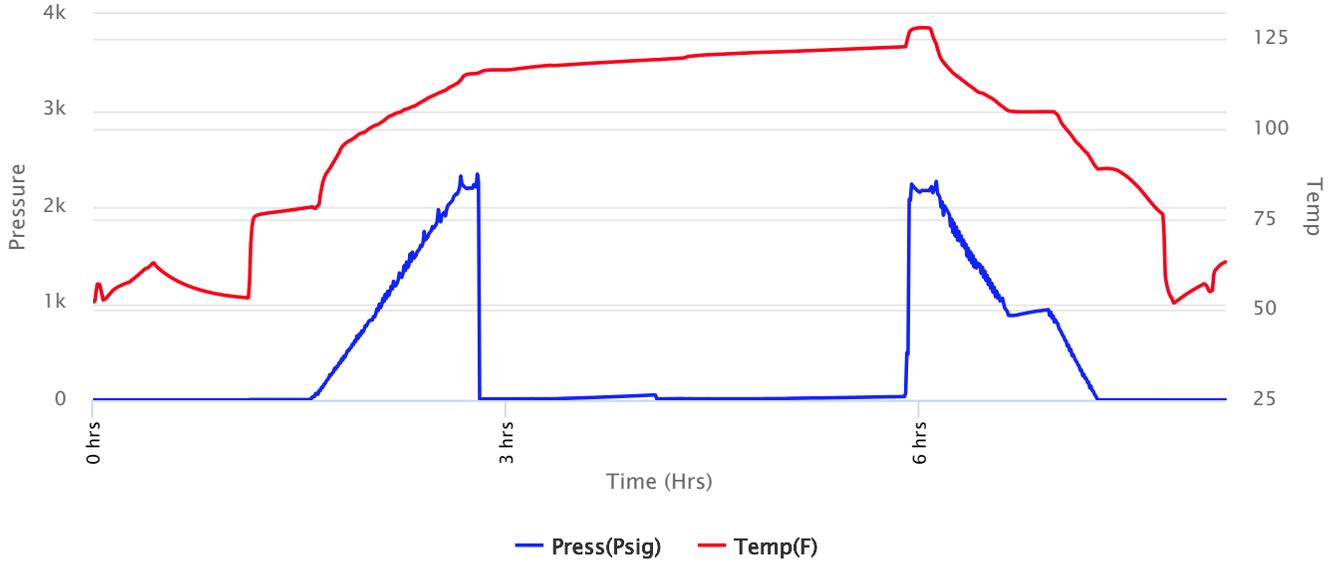
1st Open  
 Minutes: 30  
 Current Reading: 1.3" at 30 min  
 Max Reading: 1.3"

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

2nd Open  
 Minutes: 45  
 Current Reading: .8" at 45 min  
 Max Reading: .8"

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

Inside Recorder





**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**14**  
 2022

**DST #5**      **Formation: Pawnee**      **Test Interval: 4456 - 4490'**      **Total Depth: 4490'**  
 Time On: 21:59 02/14      Time Off: 05:59 02/15  
 Time On Bottom: 00:42 02/15      Time Off Bottom: 03:42 02/15

Recovered

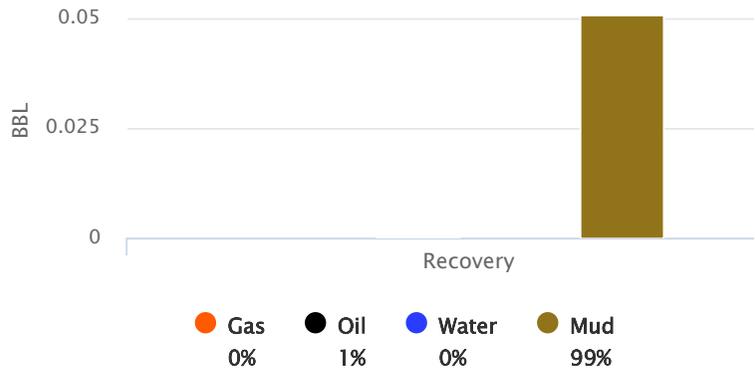
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
5	0.0513	SLOCM	0	1	0	99

Total Recovered: 5 ft  
 Total Barrels Recovered: 0.0513

Reversed Out  
 NO

Initial Hydrostatic Pressure	2207	PSI
Initial Flow	10 to 13	PSI
<b>Initial Closed in Pressure</b>	<b>53</b>	<b>PSI</b>
Final Flow Pressure	13 to 15	PSI
<b>Final Closed in Pressure</b>	<b>36</b>	<b>PSI</b>
Final Hydrostatic Pressure	2206	PSI
Temperature	123	°F
Pressure Change Initial Close / Final Close	32.4	%

**Recovery at a glance**



GIP cubic foot volume: 0



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling &  
Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
February  
**14**  
2022

**DST #5      Formation: Pawnee      Test Interval: 4456 -      Total Depth: 4490'**  
**4490'**

Time On: 21:59 02/14      Time Off: 05:59 02/15  
Time On Bottom: 00:42 02/15      Time Off Bottom: 03:42 02/15

**BUCKET MEASUREMENT:**

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

**REMARKS:**

Tool Sample: 0% Gas 12% Oil 0% Water 88% Mud



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**14**  
 2022

**DST #5      Formation: Pawnee      Test Interval: 4456 - 4490'      Total Depth: 4490'**  
 Time On: 21:59 02/14      Time Off: 05:59 02/15  
 Time On Bottom: 00:42 02/15      Time Off Bottom: 03:42 02/15

**Down Hole Makeup**

<b>Heads Up:</b> 19.78 FT	<b>Packer 1:</b> 4451 FT
<b>Drill Pipe:</b> 4443.21 FT <i>ID-3 1/4</i>	<b>Packer 2:</b> 4456 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 4440.42 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 4458 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 34	<b>Surface Choke:</b> 1"
<b><u>Anchor Makeup</u></b>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 0 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 0 FT	
<b>Drill Pipe: (in anchor):</b> 0 FT <i>ID-3 1/4</i>	
<b>Change Over:</b> 0 FT	
<b>Perforations: (below):</b> 33 FT <i>4 1/2-FH</i>	



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery & pressures

**DATE**  
February  
**14**  
2022

**DST #5**      **Formation: Pawnee**      **Test Interval: 4456 - 4490'**      **Total Depth: 4490'**

Time On: 21:59 02/14      Time Off: 05:59 02/15  
Time On Bottom: 00:42 02/15      Time Off Bottom: 03:42 02/15

**Mud Properties**

**Mud Type:** Chemical      **Weight:** 9.3      **Viscosity:** 67      **Filtrate:** 7.2      **Chlorides:** 4,500 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**14**  
 2022

**DST #5      Formation: Pawnee      Test Interval: 4456 - 4490'      Total Depth: 4490'**  
 Time On: 21:59 02/14      Time Off: 05:59 02/15  
 Time On Bottom: 00:42 02/15      Time Off Bottom: 03:42 02/15

**Gas Volume Report**

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**15**  
 2022

**DST #6**      **Formation: Myrick/Cherokee**      **Test Interval: 4519 - 4590'**      **Total Depth: 4590'**  
 Time On: 19:24 02/15      Time Off: 01:24 02/16  
 Time On Bottom: 21:29 02/15      Time Off Bottom: 23:29 02/15

Electronic Volume Estimate:  
 24'

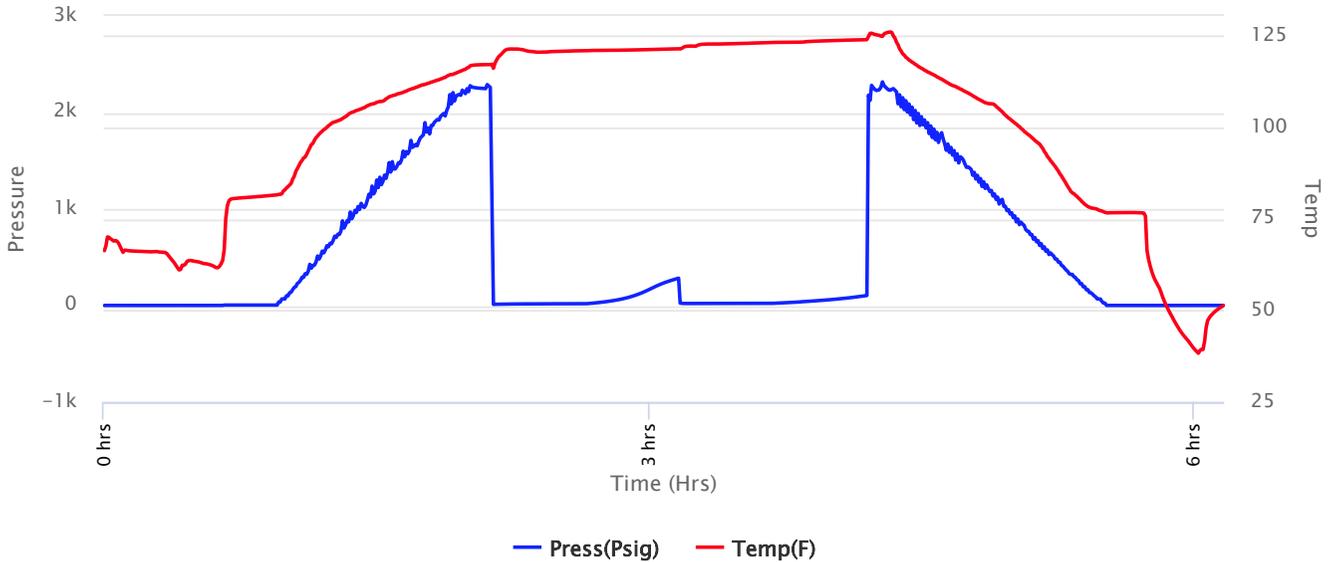
1st Open  
 Minutes: 30  
 Current Reading:  
 1.8" at 30 min  
 Max Reading: 1.9"

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

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

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

Inside Recorder





**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**15**  
 2022

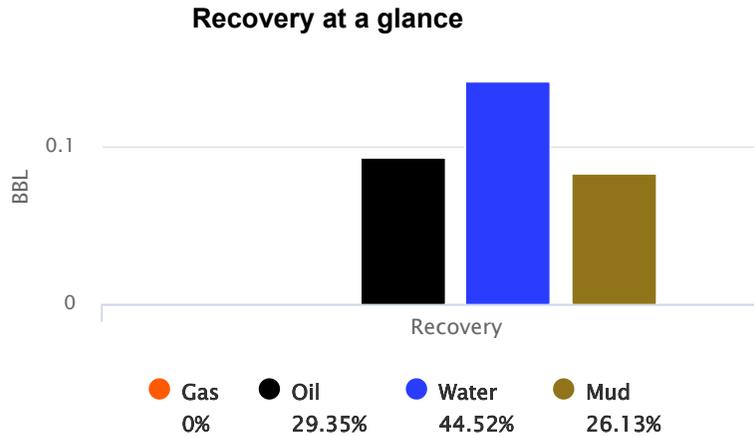
**DST #6**      **Formation: Myrick/Cherokee**      **Test Interval: 4519 - 4590'**      **Total Depth: 4590'**  
 Time On: 19:24 02/15      Time Off: 01:24 02/16  
 Time On Bottom: 21:29 02/15      Time Off Bottom: 23:29 02/15

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
1	0.01026	O	0	100	0	0
30	0.3078	MCOCW	0	27	46	27

Total Recovered: 31 ft  
 Total Barrels Recovered: 0.31806

Reversed Out  
 NO

Initial Hydrostatic Pressure	2247	PSI
Initial Flow	12 to 19	PSI
<b>Initial Closed in Pressure</b>	<b>283</b>	<b>PSI</b>
Final Flow Pressure	21 to 23	PSI
<b>Final Closed in Pressure</b>	<b>104</b>	<b>PSI</b>
Final Hydrostatic Pressure	2241	PSI
Temperature	125	°F
Pressure Change Initial Close / Final Close	63.5	%



GIP cubic foot volume: 0



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery & pressures

**DATE**  
February  
**15**  
2022

**DST #6**      **Formation: Myrick/Cherokee**      **Test Interval: 4519 - 4590'**      **Total Depth: 4590'**  
Time On: 19:24 02/15      Time Off: 01:24 02/16  
Time On Bottom: 21:29 02/15      Time Off Bottom: 23:29 02/15

**BUCKET MEASUREMENT:**

1st Open: Surface blow building to 2"  
1st Close: No BB  
2nd Open: Surface blow throughout period  
2nd Close: No BB

**REMARKS:**

Tool Sample: 0% Gas 14% Oil 39% Water 47% Mud  
Ph: 10.0  
Measured RW: .44 @ 67 degrees °F  
RW at Formation Temp: 0.246 @ 125 °F  
Chlorides: 17,000 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**15**  
 2022

**DST #6**      **Formation:** Myrick/Cherokee      **Test Interval: 4519 - 4590'**      **Total Depth: 4590'**  
 Time On: 19:24 02/15      Time Off: 01:24 02/16  
 Time On Bottom: 21:29 02/15      Time Off Bottom: 23:29 02/15

**Down Hole Makeup**

<b>Heads Up:</b> 19.37 FT	<b>Packer 1:</b> 4514.3 FT
<b>Drill Pipe:</b> 4506.1 FT <i>ID-3 1/4</i>	<b>Packer 2:</b> 4519.3 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 4503.72 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 4558 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 70.7	<b>Surface Choke:</b> 1"
<b>Anchor Makeup</b>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 3 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 1 FT	
<b>Drill Pipe: (in anchor):</b> 31.70 FT <i>ID-3 1/4</i>	
<b>Change Over:</b> 1 FT	
<b>Perforations: (below):</b> 33 FT <i>4 1/2-FH</i>	



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery & pressures

**DATE**  
February  
**15**  
2022

**DST #6**      **Formation: Myrick/Cherokee**      **Test Interval: 4519 - 4590'**      **Total Depth: 4590'**  
Time On: 19:24 02/15      Time Off: 01:24 02/16  
Time On Bottom: 21:29 02/15      Time Off Bottom: 23:29 02/15

**Mud Properties**

**Mud Type:** Chemical      **Weight:** 9.2      **Viscosity:** 53      **Filtrate:** 8.0      **Chlorides:** 4,000 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**15**  
 2022

**DST #6**      **Formation: Myrick/Cherokee**      **Test Interval: 4519 - 4590'**      **Total Depth: 4590'**  
 Time On: 19:24 02/15      Time Off: 01:24 02/16  
 Time On Bottom: 21:29 02/15      Time Off Bottom: 23:29 02/15

**Gas Volume Report**

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**16**  
 2022

**DST #7    Formation: Johnson    Test Interval: 4588 - 4630'    Total Depth: 4630'**

Time On: 10:47 02/16    Time Off: 18:22 02/16  
 Time On Bottom: 13:14 02/16    Time Off Bottom: 16:14 02/16

Electronic Volume Estimate:  
 394'

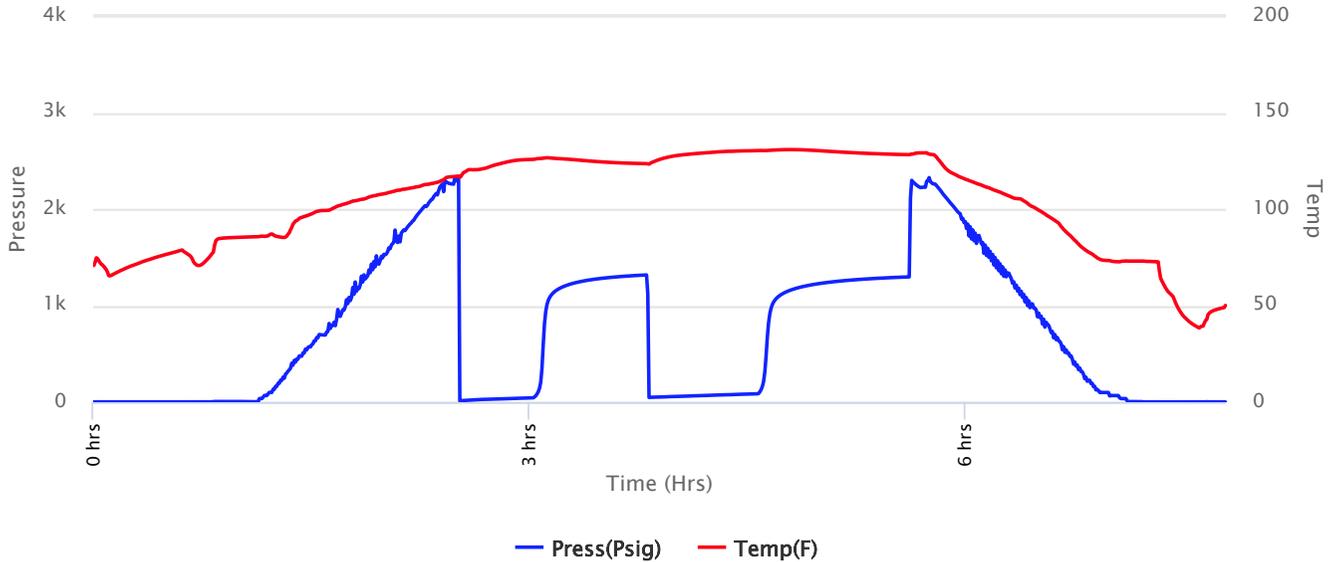
1st Open  
 Minutes: 30  
 Current Reading:  
 14.5" at 30 min  
 Max Reading: 14.5"

1st Close  
 Minutes: 45  
 Current Reading:  
 1.1" at 45 min  
 Max Reading: 1.1"

2nd Open  
 Minutes: 45  
 Current Reading:  
 14.9" at 45 min  
 Max Reading: 14.9"

2nd Close  
 Minutes: 60  
 Current Reading:  
 1.5" at 60 min  
 Max Reading: 1.5"

Inside Recorder





**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**16**  
 2022

**DST #7      Formation: Johnson      Test Interval: 4588 - 4630'      Total Depth: 4630'**

Time On: 10:47 02/16      Time Off: 18:22 02/16  
 Time On Bottom: 13:14 02/16      Time Off Bottom: 16:14 02/16

Recovered

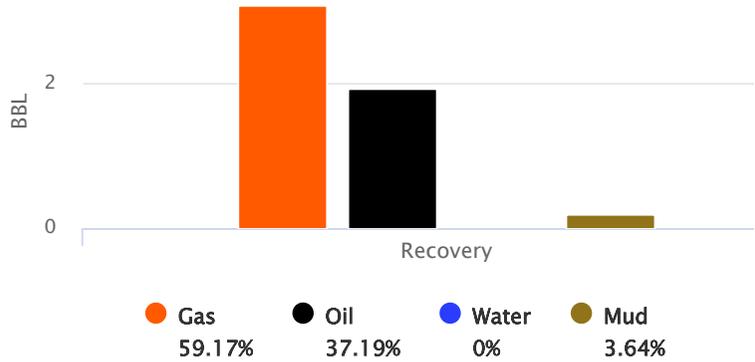
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
285	2.9241	G	100	0	0	0
180	1.8468	SLGCO	7	93	0	0
40	0.4104	SLGCHMCO	3	51	0	46

Total Recovered: 505 ft  
 Total Barrels Recovered: 5.1813

Reversed Out  
 NO

Initial Hydrostatic Pressure	2291	PSI
Initial Flow	12 to 44	PSI
<b>Initial Closed in Pressure</b>	<b>1317</b>	<b>PSI</b>
Final Flow Pressure	47 to 88	PSI
<b>Final Closed in Pressure</b>	<b>1296</b>	<b>PSI</b>
Final Hydrostatic Pressure	2281	PSI
Temperature	131	°F
Pressure Change Initial Close / Final Close	1.6	%

**Recovery at a glance**



GIP cubic foot volume: 17.21231



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling &  
Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
February  
**16**  
2022

**DST #7      Formation: Johnson      Test Interval: 4588 -      Total Depth: 4630'**  
**4630'**

Time On: 10:47 02/16      Time Off: 18:22 02/16  
Time On Bottom: 13:14 02/16      Time Off Bottom: 16:14 02/16

**BUCKET MEASUREMENT:**

1st Open: 1/4" blow building to BOB 26 min.  
1st Close: 3/4" BB  
2nd Open: Surface blow building to BOB 37 min  
2nd Close: 1 1/2" BB

**REMARKS:**

Tool Sample: 0% Gas 94% Oil 0% Water 6% Mud  
Gravity: 25.1 @ 60 °F



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**16**  
 2022

**DST #7      Formation: Johnson      Test Interval: 4588 - 4630'      Total Depth: 4630'**  
 Time On: 10:47 02/16      Time Off: 18:22 02/16  
 Time On Bottom: 13:14 02/16      Time Off Bottom: 16:14 02/16

**Down Hole Makeup**

<b>Heads Up:</b> 13.86 FT	<b>Packer 1:</b> 4583 FT
<b>Drill Pipe:</b> 4569.29 FT <i>ID-3 1/4</i>	<b>Packer 2:</b> 4588 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 4572.42 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 4593 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 42	<b>Surface Choke:</b> 1"
<b>Anchor Makeup</b>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 3 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 0 FT	
<b>Drill Pipe: (in anchor):</b> 0 FT <i>ID-3 1/4</i>	
<b>Change Over:</b> 0 FT	
<b>Perforations: (below):</b> 38 FT <i>4 1/2-FH</i>	



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
County: THOMAS  
State: KS  
Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
Elevation: 3228 EGL  
Field Name: Morgan Ext  
Pool: Infield  
Job Number: 541  
API #: 15-193-21099

**Operation:**  
Uploading recovery & pressures

**DATE**  
February  
**16**  
2022

**DST #7      Formation: Johnson      Test Interval: 4588 - 4630'      Total Depth: 4630'**

Time On: 10:47 02/16      Time Off: 18:22 02/16  
Time On Bottom: 13:14 02/16      Time Off Bottom: 16:14 02/16

**Mud Properties**

**Mud Type:** Chemical      **Weight:** 9.4      **Viscosity:** 67      **Filtrate:** 8.0      **Chlorides:** 4,500 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Debra #1-16**

SEC: 16 TWN: 8S RNG: 34W  
 County: THOMAS  
 State: KS  
 Drilling Contractor: L. D. Drilling & Exploration, LLC - Rig 1  
 Elevation: 3228 EGL  
 Field Name: Morgan Ext  
 Pool: Infield  
 Job Number: 541  
 API #: 15-193-21099

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 February  
**16**  
 2022

**DST #7      Formation: Johnson      Test Interval: 4588 - 4630'      Total Depth: 4630'**  
 Time On: 10:47 02/16      Time Off: 18:22 02/16  
 Time On Bottom: 13:14 02/16      Time Off Bottom: 16:14 02/16

**Gas Volume Report**

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D

# KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-884-9709 # WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE 1-16 DEBRA

FIELD WILDCAT

LOCATION 1634' FNL & 458' FWL

SEC 16 TWP 8s RGE 34w

COUNTY THOMAS STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 2-1-22 COMP 2-18-22

NO. 4780 LTD 4780

MUD UP 3495 TYPE MUD CHEMICAL

ELEVATIONS

NO. 3233

DF \_\_\_\_\_

CI 3228

Measurements Are All From 3233 KB

CASING SURFACE 8 5/8" @ 370'  
 (REDUCTION) 5 1/2" @

ELECTRICAL SURVEYS  
 DUAL IND., DENS-N., MICRO

SAMPLES SAVED FROM 3600 TO 4780

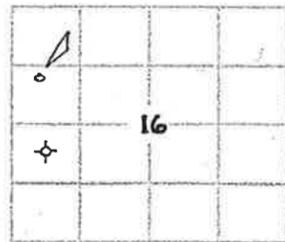
DRILLING TIME KEPT FROM 3500 TO 4780

SAMPLES EXAMINED FROM 3600 TO 4780

GEOLOGICAL SUPERVISION FROM 3700 TO 4780

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2763+ 470	2761+ 472
B/ANH.	2792+ 441	2794+ 439
STOTLER	3650+ 417	3644+ 411
HEEBNER	4052+ 819	4050+ 817
LANSING	4097+ 864	4094+ 861
B/KC	4353+ 1120	4354+ 1121
PAWNEE	4478+ 1245	4476+ 1243
FORT SCOTT	4536+ 1303	4534+ 1301
CHELDKEE	4568+ 1335	4565+ 1332
MISSISSIPPI	4678+ 1445	4676+ 1443



API: 15-193-21099

REMARKS

SPUD 2-1-22

2-2 @ 273'

2-5 @ 273'

2-6 @ 1150'

2-7 @ 2150'

2-8 @ 2955'

2-9 @ 3450'

2-10 @ 3800'

2-11 @ 4178'

2-12 @ 4277'

2-13 @ 4293'

2-14 @ 4375'

2-15 @ 4490'

2-16 @ 4612'

2-17 @ 4780'

### LEGEND

- Anhydrite
- B/ANH.
- Stotler
- Heebner
- Lansing
- B/KC
- Pawnee
- Fort Scott
- Cheldkee
- Mississippi
- Dolomite
- Shale
- Sandstone
- Salt
- Gypsum
- Oil shale
- Limestone
- Shell

DRILLING TIME IN MINUTES  
 PER FOOT  
 Rate of Penetration Diagram



DEPTH  
 2100

LITHOLOGY

SAMPLE DESCRIPTIONS

REMARKS

ANHYDRITE 2761+472

B/ANH. 2794+439

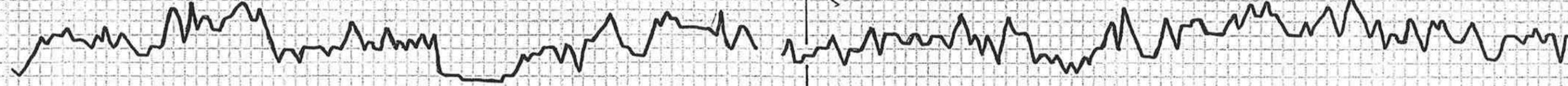
2800

3500

3600

3700

VIS: 59 WT: 8.6  
WL: 6.4 CHL: 3300 @ 3495



Samples are Logged

Sh. Ltg. V. F. G. Sub. R.

Sh. Rd

Sh. Ltg. V. F. G. Sub. R. w/ Blue Fossiliferous

STOTLER 3644-411

Ls. Bl. Deb. V. Sh. Foss.

Sh. Ltg.

Ls. Th. G. Sli. Foss.

Ls. Th. Ltg. V. F. G. Sub. R.

Sh. Ltg. Ls.

Sh. Ltg. Sily. Silty

Ls. Ltg. V. Sh. Foss.

Ls. w/ Sli. Foss. w/ Bl. Foss.

Ls. Bl. Du.

ls. B. DW.

Sh. G.

ls. wt. Foss w/ Tarry Blue Sh.

Sh. R1

ls. L4. Sh. R1

ls. UG. Sl. Foss.

Sh. R1

ls. wt. L4. Foss. w/ Blue Gray Sh.

ls. B4. Sl. A

Sh. B4. Sl. L4. Foss. w/ Blue Sh.

ls. T4. Sl. Foss. w/ Tarry Blue Sh.

ls. T4. Foss. Sl. A

ls. T4. Sl. Foss. Sl. Chly.

ls. T4. Sl. Foss. Sl. A

Sh. G. L4

Sh. UG.

ls. wt. Sl. Foss. Foss. Calcite

Sh. G. L4

ls. wt. VSl. Foss. Sh. Chly.

Sh. R1

ls. wt. Foss. Mer. wt. Sl. Chly.

ls. wt. Sh. Foss. Sl. Calcite

HEEBNER 4050-817

Sh. Blue Calc.

Sh. G. L4

Sh. L4 Blue. Fy

ls. wt. Sl. Foss. w/ Blue Gray Sh. Nodular

Sh. R1

LANSING 4094-861

ls. G. wt. Sl. Foss. w/ Blue Gray Sh. Nodular

HOWARD

VIS: 52 WT: 88

WL: 8.0 CHL: 3300

TOPEKA 3865 - 632

TORONTO

3800

3900

4000

4100

1206

1206







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: 2/2/2022  
 Invoice #: 0358668  
 Lease Name: Debra  
 Well #: 1-16 (New)  
 County: Thomas, Ks  
 Job Number: WP2372  
 District: Oakley

Date/Description	HRS/QTY	Rate	Total
Surface	0.000	0.000	0.00
H-325	260.000	18.400	4,784.00
Light Eq Mileage	30.000	1.840	55.20
Heavy Eq Mileage	30.000	3.680	110.40
Ton Mileage	368.000	1.380	507.84
Depth Charge 0'-500'	1.000	920.000	920.00
Cement Blending & Mixing	260.000	1.288	334.88

**Total** 6,712.32

**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!**







Customer	L.D. Drilling	Lease & Well #	Debra #1-16	Date	2/18/2022
Service District	Oakley KS	County & State	Thomas KS	Legals S/T/R	16-8-34
Job Type	Long String	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	Job #
				New Well?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No
					Ticket #
					WP-2435

Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
78	Jesse J	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
230	Michael R	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
194/235	Jose V	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input checked="" type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations
		<input checked="" type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

Comments	

Product/Service Code	Description	Unit of Measure	Quantity	Net Amount
CP025	H-Con	sack	250.00	\$4,830.00
CP014	H-LD Cement Blend	sack	150.00	\$6,658.50
M015	Light Equipment Mileage	ml	30.00	\$55.20
M010	Heavy Equipment Mileage	ml	30.00	\$110.40
M020	Ton Mileage	tm	564.00	\$778.32
D015	Depth Charge: 4001'-5000'	job	1.00	\$2,300.00
C035	Cement Data Acquisition	job	1.00	\$230.00
C050	Cement Plug Container	job	1.00	\$230.00
FE135	5 1/2 Turbolizer	ea	12.00	\$1,380.00
FE130	5 1/2" Cement Basket	ea	4.00	\$1,104.00
FE170	5 1/2" Latch Down Plug & Baffle	ea	1.00	\$322.00
FE145	5 1/2" Float Shoe - AFU Flapper Type	ea	1.00	\$345.00
C050	Cement Blending & Mixing Service	sack	400.00	\$515.20
CP170	Mud Flush	gal	1,000.00	\$920.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?		Net:	\$19,778.62
Total Taxable \$ - Tax Rate:		<del>XXXXXXXXXX</del>	
Based on this job, how likely is it you would recommend HSI to a colleague? <input type="checkbox"/> <input type="checkbox"/> Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely		Sale Tax: \$ -	
		Total:	\$ 19,778.62
		HSI Representative: <i>Jesse Jones</i>	

**TERMS:** Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/4% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X \_\_\_\_\_ **CUSTOMER AUTHORIZATION SIGNATURE**



CUSTOMER  
WELL\_NAME

