





Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	RIEMANN 1-4
Doc ID	1431086

#### Tops

Name	Top	Datum
ANHYDRITE	2120	+599
BASE ANHYDRITE	2149	+570
STOTLER	3532	-813
HEEBNER	3930	-1211
LANSING	3970	-1251
STARK	4230	-1511
MARMATON	4328	-1609
FORT SCOTT	4480	-1761
CHEROKEE	4504	-1785
MISSISSIPPI	4591	-1872

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	RIEMANN 1-4
Doc ID	1431086

#### 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	23	330	60/40 POZMIX	300	3%CC, 1/4 #Celloflake



# Company: L. D. Drilling, Inc

## Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: NA  
Pool: Infield  
Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November  
**18**  
2018

DST #1 Formation: Lansing E Test Interval: 4040 - 4057' Total Depth: 4057'

Time On: 05:17 11/18

Time Off: 12:19 11/18

Time On Bottom: 07:38 11/18

Time Off Bottom: 10:38 11/18

Electronic Volume  
Estimate:  
44'

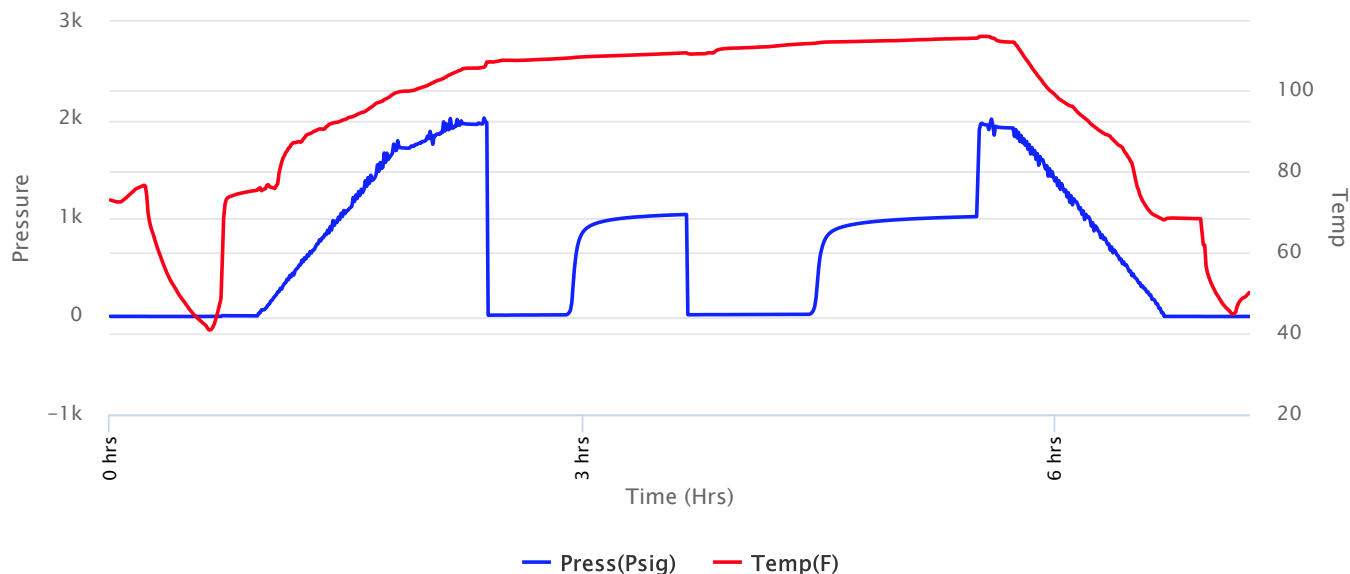
1st Open  
Minutes: 30  
Current Reading:  
2.2" at 30 min  
Max Reading: 2.2"

1st Close  
Minutes: 45  
Current Reading:  
0" at 45 min  
Max Reading: .5"

2nd Open  
Minutes: 45  
Current Reading:  
1.3" at 45 min  
Max Reading: 1.3"

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

Inside Recorder





# Company: L. D. Drilling, Inc

## Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
 County: LANE  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc -  
 Rig 1  
 Elevation: 2719 EGL  
 Field Name: NA  
 Pool: Infield  
 Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November

**18**

2018

DST #1

Formation: Lansing  
E

Test Interval: 4040 -  
4057'

Total Depth: 4057'

Time On: 05:17 11/18

Time Off: 12:19 11/18

Time On Bottom: 07:38 11/18

Time Off Bottom: 10:38 11/18

### Recovered

Foot

25

BBLs

0.2565

Description of Fluid

SLOCM

Gas %

0

Oil %

2

Water %

0

Mud %

98

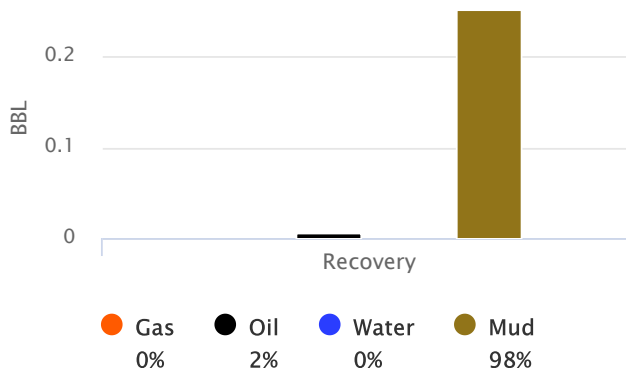
Total Recovered: 25 ft

Total Barrels Recovered: 0.2565

Reversed Out  
NO

Initial Hydrostatic Pressure	1956	PSI
Initial Flow	10 to 14	PSI
<b>Initial Closed in Pressure</b>	<b>1037</b>	<b>PSI</b>
Final Flow Pressure	15 to 20	PSI
<b>Final Closed in Pressure</b>	<b>1015</b>	<b>PSI</b>
Final Hydrostatic Pressure	1951	PSI
Temperature	113	°F
Pressure Change Initial	2.1	%
Close / Final Close		

### Recovery at a glance





**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: NA  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November

**18**

2018

<b>DST #1</b>	<b>Formation: Lansing E</b>	<b>Test Interval: 4040 - 4057'</b>	<b>Total Depth: 4057'</b>
	Time On: 05:17 11/18	Time Off: 12:19 11/18	
	Time On Bottom: 07:38 11/18	Time Off Bottom: 10:38 11/18	

**BUCKET MEASUREMENT:**

1st Open: Wsb built to 2.2"

1st Close: Nobb

2nd Open: Wsb built to 1.3"

2nd Close: Nobb

**REMARKS:**

Tool Sample: 10% Gas 8% Oil 2% Water 80% Mud

**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**



**Mud Type:** Chemical      **Weight:** 8.9      **Viscosity:** 48      **Filtrate:** 8.8      **Chlorides:** 2800 ppm

2nd Open			
Time	Orifice	PSI	MCF/D





# Company: L. D. Drilling, Inc

## Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November  
**19**  
2018

DST #2 Formation: Lansing H and J Test Interval: 4124 - 4219' Total Depth: 4219'

Time On: 03:30 11/19

Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19

Time Off Bottom: 08:48 11/19

Electronic Volume  
Estimate:  
47'

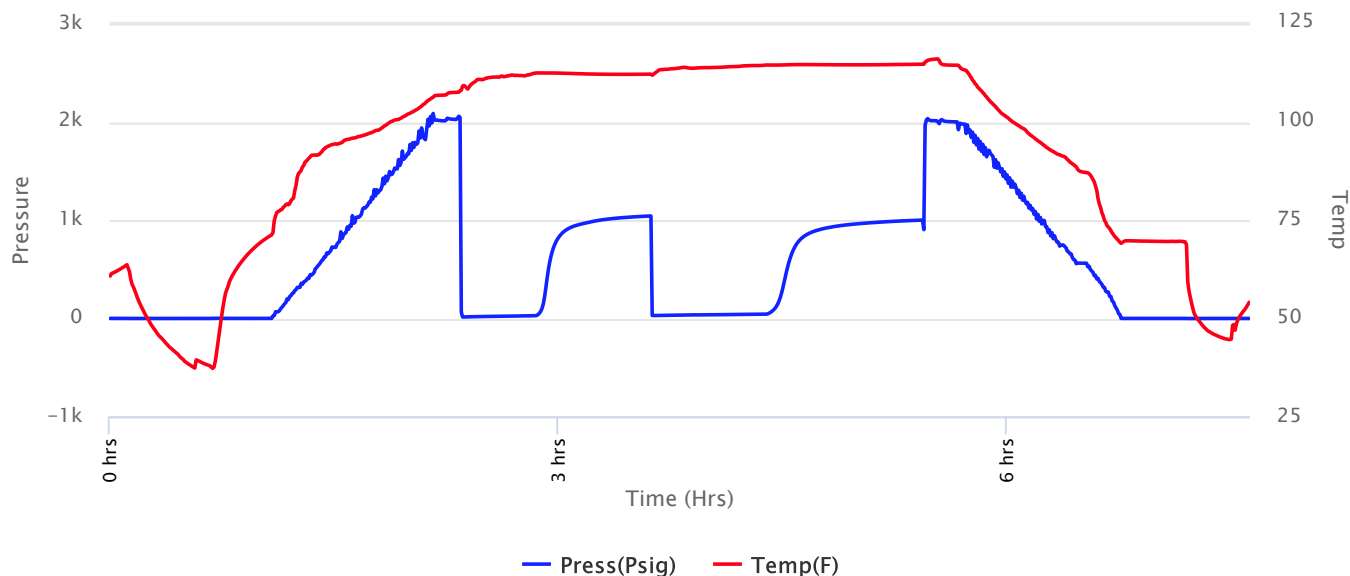
1st Open  
Minutes: 30  
Current Reading:  
2.4" at 30 min  
Max Reading: 2.4"

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

2nd Open  
Minutes: 45  
Current Reading:  
1.8" at 45 min  
Max Reading: 1.8"

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

Inside Recorder





# Company: L. D. Drilling, Inc

## Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
 County: LANE  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc -  
 Rig 1  
 Elevation: 2719 EGL  
 Field Name: Wildcat  
 Pool: Infield  
 Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November

**19**

2018

DST #2 Formation: Lansing H and J Test Interval: 4124 - 4219' Total Depth: 4219'

Time On: 03:30 11/19

Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19

Time Off Bottom: 08:48 11/19

### Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
2	0.02052	O	0	100	0	0
62	0.63612	SLOCM	0	10	0	90

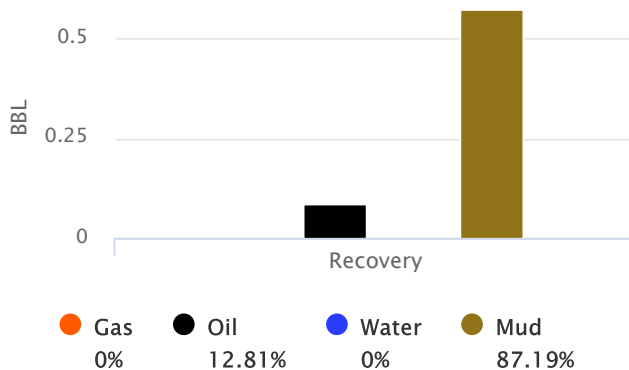
Total Recovered: 64 ft

Total Barrels Recovered: 0.65664

Reversed Out  
NO

Initial Hydrostatic Pressure	2026	PSI
Initial Flow	13 to 26	PSI
<b>Initial Closed in Pressure</b>	<b>1042</b>	<b>PSI</b>
Final Flow Pressure	28 to 42	PSI
<b>Final Closed in Pressure</b>	<b>1000</b>	<b>PSI</b>
Final Hydrostatic Pressure	2013	PSI
Temperature	115	°F
Pressure Change Initial	4.0	%
Close / Final Close		

### Recovery at a glance





**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November  
**19**  
2018

<b>DST #2</b>	<b>Formation: Lansing H and J</b>	<b>Test Interval: 4124 - 4219'</b>	<b>Total Depth: 4219'</b>
	Time On: 03:30 11/19	Time Off: 10:56 11/19	
	Time On Bottom: 05:48 11/19	Time Off Bottom: 08:48 11/19	

**BUCKET MEASUREMENT:**

1st Open: Wsb built to 2.4"

1st Close: Nobb

2nd Open: Wsb built to 1.8"

2nd Close: Nobb

**REMARKS:**

2 ft slide to btm

Tool Sample: 0% Gas 15% Oil 5% Water 80% Mud

Gravity: 33.4 @ 60 °F

**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**



**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November

**19**

2018

**DST #2**

**Formation: Lansing  
H and J**

**Test Interval: 4124 -  
4219'**

**Total Depth: 4219'**

Time On: 03:30 11/19

Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19 Time Off Bottom: 08:48 11/19

**Mud Properties**

**Mud Type:** Chemical

**Weight:** 93

**Viscosity:** 52

**Filtrate:** 8.0

**Chlorides:** 3000 ppm





# Company: L. D. Drilling, Inc

## Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November  
**20**  
2018

DST #3

Formation:  
Marmaton

Test Interval: 4305 -  
4340'

Total Depth: 4340'

Time On: 02:08 11/20

Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20

Time Off Bottom: 07:22 11/20

Electronic Volume  
Estimate:  
32'

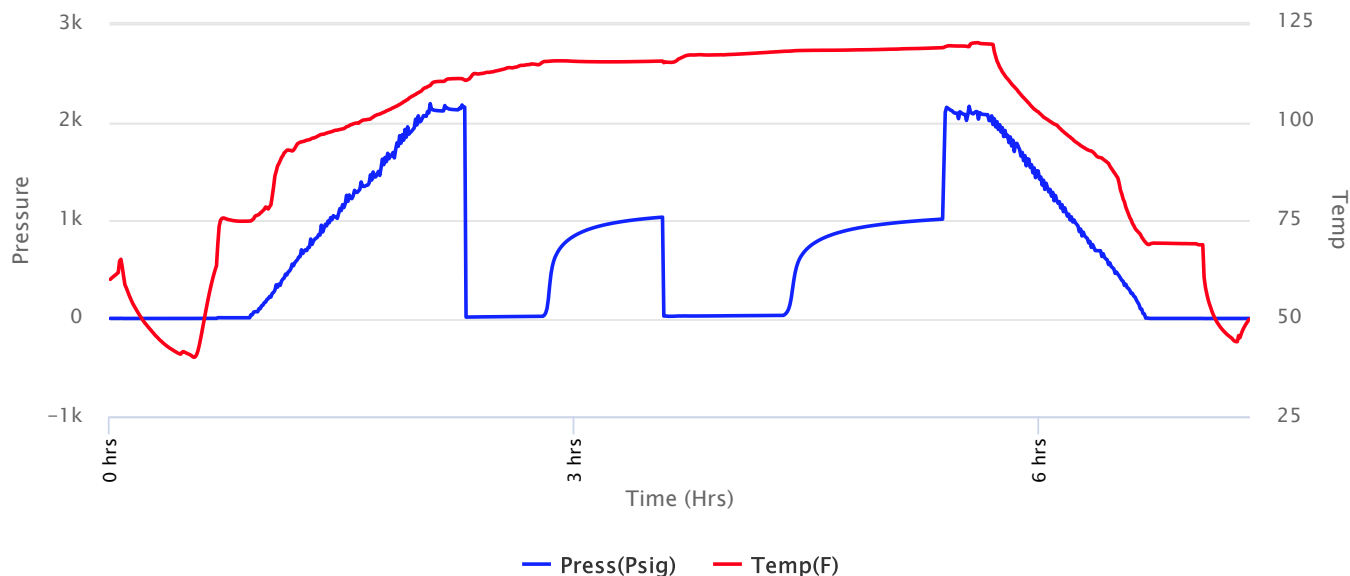
1st Open  
Minutes: 30  
Current Reading:  
1.8" at 30 min  
Max Reading: 1.8"

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

2nd Open  
Minutes: 45  
Current Reading:  
.9" at 45 min  
Max Reading: .9"

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

Inside Recorder





# Company: L. D. Drilling, Inc

## Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
 County: LANE  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc -  
 Rig 1  
 Elevation: 2719 EGL  
 Field Name: Wildcat  
 Pool: Infield  
 Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November  
**20**  
2018

DST #3

Formation:  
Marmaton

Test Interval: 4305 -  
4340'

Total Depth: 4340'

Time On: 02:08 11/20

Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20

Time Off Bottom: 07:22 11/20

### Recovered

Foot	BBLs
45	0.4617

Description of Fluid  
SLWCHMCG

Gas %  
0

Oil %  
0

Water %  
15

Mud %  
85

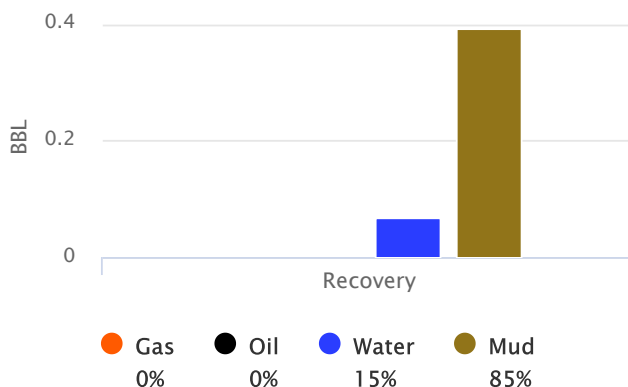
Total Recovered: 45 ft

Total Barrels Recovered: 0.4617

Reversed Out  
NO

Initial Hydrostatic Pressure	2124	PSI
Initial Flow	11 to 21	PSI
<b>Initial Closed in Pressure</b>	<b>1030</b>	<b>PSI</b>
Final Flow Pressure	22 to 29	PSI
<b>Final Closed in Pressure</b>	<b>1010</b>	<b>PSI</b>
Final Hydrostatic Pressure	2120	PSI
Temperature	119	°F
Pressure Change Initial	2.0	%
Close / Final Close		

### Recovery at a glance





**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November  
**20**  
2018

**DST #3**

**Formation:**  
**Marmaton**

**Test Interval: 4305 -**  
**4340'**

**Total Depth: 4340'**

Time On: 02:08 11/20

Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20

Time Off Bottom: 07:22 11/20

**BUCKET MEASUREMENT:**

1st Open: Wsb built to 1.8"

1st Close: Nobb

2nd Open: Wsb built to .9"

2nd Close: Nobb

**REMARKS:**

Tool Sample: 0% Gas 1% Oil 49% Water 50% Mud

Ph: 7

Measured RW: .6 @ 33 degrees °F

RW at Formation Temp: 0.19 @ 119 °F

Chlorides: 25000 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November  
**20**  
2018

**DST #3**

**Formation:**  
**Marmaton**

**Test Interval: 4305 -**  
**4340'**

**Total Depth: 4340'**

Time On: 02:08 11/20

Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20

Time Off Bottom: 07:22 11/20

**Down Hole Makeup**

**Heads Up:** 36.48 FT

**Packer 1:** 4300 FT

**Drill Pipe:** 4308.91 FT

**Packer 2:** 4305 FT

*ID-3 1/4*

**Top Recorder:** 4289.42 FT

**Weight Pipe:** FT

**Bottom Recorder:** 4309 FT

*ID-2 7/8*

**Collars:** FT

**Well Bore Size:** 7 7/8

*ID-2 1/4*

**Surface Choke:** 1"

**Test Tool:** 33.57 FT

**Bottom Choke:** 5/8"

*ID-3 1/2-FH*

*Jars*

*Safety Joint*

**Total Anchor:** 35

**Anchor Makeup**

**Packer Sub:** 1 FT

**Perforations: (top):** 2 FT

*4 1/2-FH*

**Change Over:** FT

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

*ID-3 1/4*

**Change Over:** FT

**Perforations: (below):** 32 FT

*4 1/2-FH*



**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November

**20**

2018

**DST #3**

**Formation:**  
**Marmaton**

**Test Interval: 4305 -**  
**4340'**

**Total Depth: 4340'**

Time On: 02:08 11/20

Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20 Time Off Bottom: 07:22 11/20

**Mud Properties**

**Mud Type:** Chemical

**Weight:** 9.4

**Viscosity:** 49

**Filtrate:** 7.2

**Chlorides:** 3600 ppm



# Company: L. D. Drilling, Inc

## Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November  
**21**  
2018

DST #4

Formation:  
Altamonte, fortscott

Test Interval: 4390 -  
4500'

Total Depth: 4500'

Time On: 05:14 11/21

Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21

Time Off Bottom: 09:59 11/21

Electronic Volume  
Estimate:  
18'

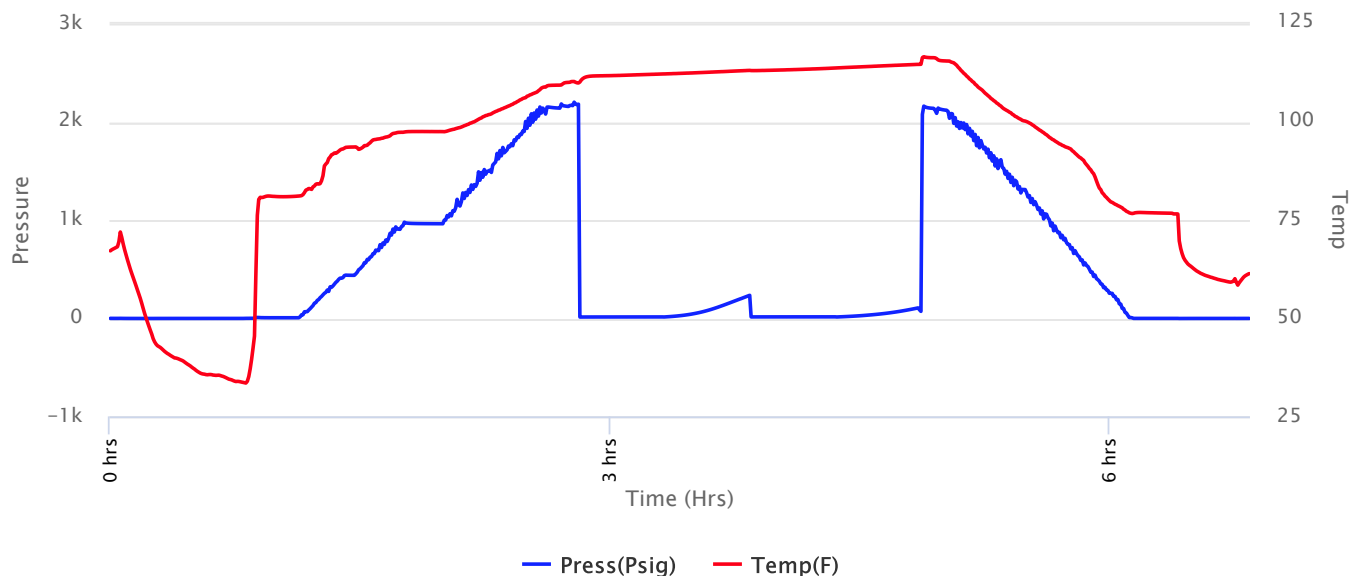
1st Open  
Minutes: 30  
Current Reading:  
1.5" at 30 min  
Max Reading: 1.5"

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

2nd Open  
Minutes: 30  
Current Reading:  
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: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W  
 County: LANE  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc -  
 Rig 1  
 Elevation: 2719 EGL  
 Field Name: Wildcat  
 Pool: Infield  
 Job Number: 247

### Operation:

Uploading recovery &  
pressures

### DATE

November

**21**

2018

DST #4

Formation:  
Altamonte, fortscott

Test Interval: 4390 -  
4500'

Total Depth: 4500'

Time On: 05:14 11/21

Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21

Time Off Bottom: 09:59 11/21

### Recovered

Foot

BBLs

10

0.1026

Description of Fluid

M

Gas %

0

Oil %

0

Water %

0

Mud %

100

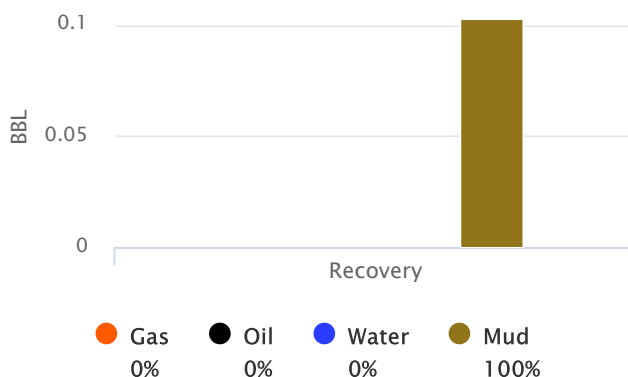
Total Recovered: 10 ft

Total Barrels Recovered: 0.1026

Reversed Out  
NO

Initial Hydrostatic Pressure	2142	PSI
Initial Flow	12 to 14	PSI
<b>Initial Closed in Pressure</b>	<b>234</b>	<b>PSI</b>
Final Flow Pressure	14 to 14	PSI
<b>Final Closed in Pressure</b>	<b>105</b>	<b>PSI</b>
Final Hydrostatic Pressure	2142	PSI
Temperature	115	°F
Pressure Change Initial	55.0	%
Close / Final Close		

### Recovery at a glance





**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November

**21**

2018

**DST #4**

**Formation:**  
**Altamonte, fortscott**

**Test Interval: 4390 -**  
**4500'**

**Total Depth: 4500'**

Time On: 05:14 11/21

Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21

Time Off Bottom: 09:59 11/21

**BUCKET MEASUREMENT:**

1st Open: 1/4" built to 1.5"

1st Close: Nobb

2nd Open: No blow no build

2nd Close: Nobb

**REMARKS:**

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





**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November  
**21**  
2018

**DST #4**

**Formation:**  
**Altamonte, fortscott**

**Test Interval: 4390 -  
4500'**

**Total Depth: 4500'**

Time On: 05:14 11/21

Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21

Time Off Bottom: 09:59 11/21

**Down Hole Makeup**

**Heads Up:** 13.88 FT

**Packer 1:** 4385 FT

**Drill Pipe:** 4371.31 FT  
*ID-3 1/4*

**Packer 2:** 4390 FT

**Weight Pipe:** FT  
*ID-2 7/8*

**Top Recorder:** 4374.42 FT

**Collars:** FT  
*ID-2 1/4*

**Bottom Recorder:** 4489 FT

**Test Tool:** 33.57 FT  
*ID-3 1/2-FH*  
*Jars*  
*Safety Joint*

**Well Bore Size:** 7 7/8

**Surface Choke:** 1"

**Bottom Choke:** 5/8"

**Total Anchor:** 110

**Anchor Makeup**

**Packer Sub:** 1 FT

**Perforations: (top):** 2 FT  
*4 1/2-FH*

**Change Over:** 1 FT

**Drill Pipe: (in anchor):** 94 FT  
*ID-3 1/4*

**Change Over:** 1 FT

**Perforations: (below):** 11 FT  
*4 1/2-FH*



**Company: L. D. Drilling, Inc**  
**Lease: Riemann #1-4**

SEC: 4 TWN: 18S RNG: 28W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2719 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 247

**Operation:**

Uploading recovery &  
pressures

**DATE**

November

**21**

2018

**DST #4**

**Formation:**  
**Altamonte, fortscott**

**Test Interval: 4390 -**  
**4500'**

**Total Depth: 4500'**

Time On: 05:14 11/21

Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21

Time Off Bottom: 09:59 11/21

**Mud Properties**

**Mud Type:** Chemical

**Weight:** 9.5

**Viscosity:** 50

**Filtrate:** 7.2

**Chlorides:** 3900 ppm

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

118-434-9709 • WICHITA, KS

GEOLOGIST'S REPORT

WELL NO. 2719

COMPANY L.D. DRILLING, INC.

WELL NO. 1-4 RIEMANN

WELL NO. WILDCAT

LOCATION 2122' FNL 1/4 1848' FEL

SEC. 4 18s 28w

COUNTY LANE STATE KANSAS

CONTRACTOR L.D. DRILLING, INC.

DATE 11-5-18 11-22-18

WELL NO. 4687 4690

WELL NO. 3407 CHEMICAL

SAMPLES SAVED FROM 3500 TO 4687

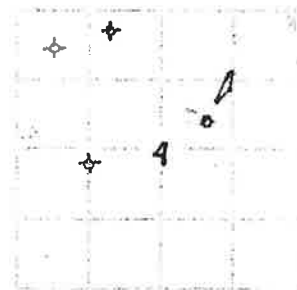
DRILLING TIME - REST FROM 3400 TO 4687

SAMPLES EXAMINED FROM 3500 TO 4687

GEOLOGICAL SUPERVISION FROM 3800 TO 4687

GEOLOGIST ON WELL KIM B. SHOEMAKER

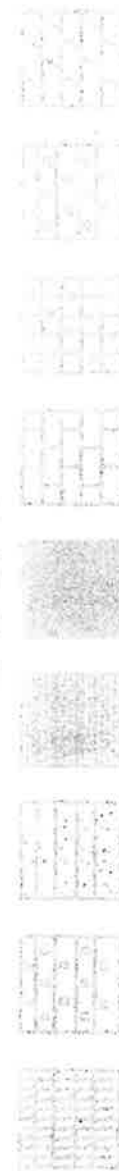
FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2120+599	2123+596
B/ANH.	2149+570	2153+566
STOTLER	3532-813	3531-812
HEEBNER	3930-1211	3928-1209
LANSING	3970-1251	3969-1250
STARK	4230-1511	4228-1509
MARMATON	4328-1609	4326-1607
FORT SCOT	4480-1761	4476-1757
CHEROKEE	4504-1785	4499-1780
MISSISSIPPI	4591-1872	4586-1867



API: 15-101-22614

11-5-18 5700 11-18 @ 4057'  
11-6 @ 417' 11-19 @ 4219'  
11-7 @ 2015' 11-20 @ 4340'  
11-8 @ 2800' 11-21 @ 4500'  
11-9 Down Repairs 11-22 @ 4687'  
11-10 "  
11-12 "  
11-13 "  
11-14 "  
11-15 "  
11-16 3155'  
11-17 3710'

LEGEND



DRILLING TIME IN MINUTES  
PER FOOT

Scale of 1/2 inch = 1 foot

2050

2100

ANHYDRITE 2123+596

B/ANK. 2153 + 566

2200

3400

Samples are Lagged

Sh Lt Blue Gy. Silty.

STOTLER 3531 - 812

ls. Th. Br. Silty Foss.

ls. Th. wt. Foss. Crin. etc.

ls. Gy. Silty Foss.

ls. Th. wt. Silty Foss. Sh. chly.

ls. Th. wt. Silty Foss. Silty

Sh Gy.

3500

3600



Sh. Gy.

LS. Tn. Br. Sh. Foss.

Sh. Gy. Clay.

LS. Tn. Sh. Foss.

Sh. Gy.

LS. Tn. wh. Sh. Foss. vs. ch. clay.

Sh. Gy.

Sh. Gy. clay. Silty.

LS. Gy. clay. vs. Sh. Foss.

LS. Tn. wh. Sh. Foss. Sil. clay.

Sh. Gy. Clay.

LS. wh. Foss. Calcitic

LS. clay. vs. Sh. A

LS. Tn. wh. ool. Sh. ore. vs. ch. clay.

Sh. Gy.

Δ wh.

LS. Tn. Foss. Sil. Calcitic

LS. clay. Sh. Foss. vs. ch. clay.

Sh. clay.

Sh. clay. Silty.

LS. wh. Foss. Sil. A vs. Calcitic

LS. Tn. ool. Foss. Calcitic

Sh. Gy. Silty.

LS. Br. vs. Sh. Foss.

LS. Tn. Foss. Sil. A

LS. Tn. wh. Foss. Sil. Calcitic

Sh. Gy.

Δ clay.

LS. Tn. wh. Foss. Calcitic

LS. Br. Sh. Foss. clay.

HEEBNER 3928-1209

Sh. Br. Clay.

LS. Br. Sh. Foss.

Sh. H. Blue Gy.

VIS: 48 Wt: 8.9  
WC: 8.8 CMC: 2800

3800

3900





LS. Tn. Bl. Sil. A. Sil. Calcitic

LS. G. VSS. A. VSS. Calcitic

LS. Tn. wt. Sil. A. Sil. Calcitic

**B/KC** 4306-1587  
Sh. G.

LS. G. Sil. Foss. VSS. A.

Silly Sh. Lt. Blue G.

**MARMATON** 4326-1607

LS. Tn. G. Sil. Foss. Sil. A. Foss. F. G. G.  
Spld. Bl. d. Sh. Tn. Fd. No Foss. No odor

Sh. Lt. Blue.

LS. Tn. Bl. VSS. A.

LS. G. VSS. Calcitic

LS. G. VSS. Silty. Calcitic

Sh. G. G.

LS. G. Bl. VSS. Foss.

A. G. G.

LS. wt. Lt. Sil. Foss. Sil. A. P. VSS. No odor.  
D. Bl. Sil. Sil. VSS. No odor.

LS. G. VSS. A. VSS. Calcitic

Sh. Bl.

**PAWNEE** 4422-1703

LS. Tn. Bl. Sil. Foss. Sil. A. P. VSS. No odor.  
V. Bl. Sil. VSS. F. Tn. V. F. odor

**DST (3)** 4305-4340

1500 ft. Blow built to 18"  
2nd OPEN: " " 19"

30-45-95-60

Tool Sample:  
11-61  
18-11  
50-11

Rec. 15' SWCH

(15' 14" 85-1-1)

FP: 11-21 22-29\*

SIP: 1030-1000\*

Temp. 119°F

PM: 7

FW: 60-330\*

FW: 19-18 119°F

CM: 25000



**DST (4)**

4400

**DST (4)** 4390-4500

1500 ft. Blow built to 1 1/2"  
2nd OPEN: No Blow

30-30-30-30

Tool Sample:  
100-1-11

Rec. 10' Mid

FP: 12-19 14-14\*

SIP: 234-105\*

Temp. 115°F

A. Bl. G. G.

Sh. Bl. G. G.

LS. Bl. G. G. VSS. Foss.

Sh. G. G.

LS. Lt. Bl. VSS. Foss.

Sh. Bl. G. G.

**FORT SCOTT** 4476-1757

LS. Bl. G. Sil. Calcitic

A. Bl. G. G.

A. Wh.

LS. Tn. wt. Sil. Foss. Sil. Calcitic

**CHEROKEE** 4499-1780

Sh. Bl. G. G.

LS. Tn. Foss. Calcitic

LS. Bl. G. G.

LS. Tn. Sil. Foss. Sil. A.

Sh. G. G.

LS. Tn. Bl. Foss. Sil. A. P. VSS. No odor

LS. Bl. VSS. Sil. Calcitic

Sh. Bl. G. G.

LS. Tn. Bl. Foss. Sil. A. P. VSS. No odor

LS. Bl. VSS. Sil. Calcitic

Sh. Bl. G. G.

LS. Tn. Bl. Foss.

Sh. Bl. G. G.

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor (4570)

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

LS. Bl. G. G. Foss. Sil. A. P. VSS. No odor

MISSISSIPPI 4586-1867

ES. Tan. w. cool. Sil. Ch. h.

ES. Dol. Yellow. Fresh. Sue.

Dol. Tan. w. Fresh. Sil. Less. Vuggy

ES. Tan. Foss. Sil. A

ES. w. Tan. cool. Foss. Ch. h.

Dol. Tan. h. Fresh. Sue.

Dol. Be. V. Fresh. Sil. Foss. w. Del. Foss.

Dol. Tan. h. Fresh. Sue.

Δ w. L. h. Foss.

ES. L. h. V. Sil. Foss. Dol. Tan. h. Fresh. Sue.

Dol. Tan. h. Fresh. Sue.

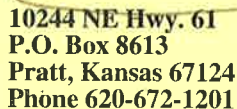
KTU 9687-1968



4600

4700





1718 17487 A

DATE                      TICKET NO.

CLOUD LITHO - Abilene, TX

Customer <b>LD Drilling</b>	Lease No.	Date <b>11/22/2018</b>
Lease <b>Piemen</b>	Well # <b>1-4</b>	
Field Order # <b>17487</b>	Station <b>Pratt, KS</b>	Casing
Type Job <b>2421 PTA</b>	Depth	County <b>Leone</b> State <b>KS</b>
Formation		Legal Description <b>4-183-284</b>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
Depth <b>2700</b>	Depth	From	To	Pre Pad	Max			5 Min.
Volume <b>31</b>	Volume	From	To	Pad	Min			10 Min.
Max Press	Max Press	From	To	Frac	Avg			15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush <b>WGR, mud</b>	Gas Volume			Total Load

Customer Representative <b>Rick Wilson</b>	Station Manager <b>Justin Wesicrman</b>	Treater <b>Darin Frnklin</b>
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Service Units <b>92911</b>	<b>84980</b>	<b>20920</b>	<b>90959</b>	<b>73768</b>					
Driver Names <b>Darin</b>	<b>Ed</b>	<b>Ed</b>	<b>Darin</b>	<b>Darin</b>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
7:30pm					On location / Safety meeting
					280 SK 60/40 Poz, 4% Gel, 1/4" x Cellulose
					13.78 pps, 1.43 vials, 6.92 water
8:00pm	200		8	5	Pump 8 bbl's water 2700'
	200		13	5	mix 50 SK Cement
	200		3	5	Displace 3 bbl's water
	200		22	5	22 bbl's mud
	200		21	5	Pump 21 bbl's water 1350'
	200		20	5	mix 80 SK Cement
	200		7	5	Displace 7 bbl's water
	200		12	5	Pump 12 bbl's water 700'
	200		13	3	mix 50 SK Cement
	200		4	3	Displace 4 bbl's water
	100		3	5	Pump 3 bbl's water 370'
	100		13	5	mix 50 SK Cement
	100		1	5	Displace 1 bbl water
	0		3	3	mix 20 SK Cement 60'
	0		7	3	mix 30 SK Cement RH
12:00pm					Job complete / Drilling crew
					Thank you!!



**BASIC**<sup>SM</sup>  
ENERGY SERVICES

## PRESSURE PUMPING & WIRELINE

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

## FIELD SERVICE TICKET

1718 17463 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <b>11-5-18</b> DISTRICT <b>Pratt</b>				NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:			
CUSTOMER <b>LD Drilling</b>				LEASE <b>Rieman</b> WELL NO. <b>104</b>			
ADDRESS				COUNTY <b>Lane</b> STATE <b>KS</b>			
CITY STATE				SERVICE CREW <b>MATTAI HANSEN DAVID</b>			
AUTHORIZED BY				JOB TYPE: <b>2-42 8 5/8 SURFAC</b>			
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED <b>11-5-18</b>	DATE <b>11-5-18</b> AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> TIME <b>3:00</b>
<b>19843</b>	<b>1</b>					ARRIVED AT JOB	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> <b>7:40</b>
<b>73768</b>	<b>.5</b>					START OPERATION	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> <b>8:28</b>
						FINISH OPERATION	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> <b>8:58</b>
						RELEASED	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> <b>9:45</b>
						MILES FROM STATION TO WELL	<b>100</b>

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

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

SIGNED: [Signature]  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

[illegible]

CHEMICAL / ACID DATA:			

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

TOTAL	7,219	93
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SERVICE REPRESENTATIVE <i>Mike Mattar</i>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY <i>X Phil White</i>
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FIELD SERVICE ORDER NO.



Customer <b>LA Drilling</b>		Lease No.		Date <b>11-5-18</b>	
Lease <b>Rixman</b>		Well # <b>1-4</b>			
Field Order # <b>17463</b>	Station <b>Pratt</b>	Casing <b>8 7/8</b>	Depth	County <b>Lane</b>	State <b>KS</b>
Type Job <b>Z-42 8 7/8 SURKAL</b>		Formation		Legal Description <b>4-185-28w</b>	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 8 7/8	Tubing Size	Shots/Ft		Acid 300 SA, 60/40 PCE	RATE PRESS	ISIP	
Depth 330	Depth	From	To	Pre Pad 37 CC	Max 25 PPS C.F.	5 Min.	
Volume 21	Volume	From	To	Pad	Min	10 Min.	
Max Press 300	Max Press	From	To	Frac	Avg	15 Min.	
Well Connection 54V	Annulus Vol.	From	To		HHP Used	Annulus Pressure	
Plug Depth 310	Packer Depth	From	To	Flush 19.5	Gas Volume	Total Load	

Customer Representative <b>RICH</b>				Station Manager <b>WESTERMAN</b>				Treater <b>MATTAL</b>			
Service Units	<b>83353</b>		<b>33703</b>	<b>19847</b>		<b>1996</b>	<b>73768</b>				
Driver Names	<b>MATTAL</b>		<b>HANSEN</b>			<b>DAVID</b>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
8:40					ON Location / SAFETY meeting
					RUN CASING
8:05					CSNG ON BOTTOM
8:20					HOUR TO CSNG / Break core w- rig
					PUMP 3 bbl water
8:28	200		65	4	MIX 300 SNG 60/40 POZ
8:51	200			4.5	START displacement
8:56	200		19.5		Plug down / Shut in well
					CMT TO SURFACE
					JOB complete
					Thank You!
					Mike Mattai
					Josh + David