





Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	MARIAH 1-14
Doc ID	1489043

#### Tops

Name	Top	Datum
Anhydrite	2168	+613
Base Anhydrite	2200	+581
Stotler	3462	-681
Heebner	3842	-1061
Lansing	3876	-1095
Stark	4144	-1363
Marmaton	4258	-1477
Fort Scott	4401	-1620
Cherokee	4425	-1644
Mississippi	4514	-1733

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#### 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	285	60/40 Pozmix	230	3%CC, 2%Gel



# Company: L. D. Drilling, Inc

## Lease: Mariah #1-14

SEC: 14 TWN: 16S RNG: 30W  
County: LANE  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 2772 EGL  
Field Name: Wildcat  
Pool: Infield  
Job Number: 407  
API #: 15-101-22637-00-00

### Operation:

Uploading recovery &  
pressures

### DATE

October  
**25**  
2019

DST #1      Formation: Johnson      Test Interval: 4433 - 4475'      Total Depth: 4475'

Time On: 06:23 10/25

Time Off: 13:45 10/25

Time On Bottom: 08:45 10/25      Time Off Bottom: 11:45 10/25

Electronic Volume  
Estimate:  
11'

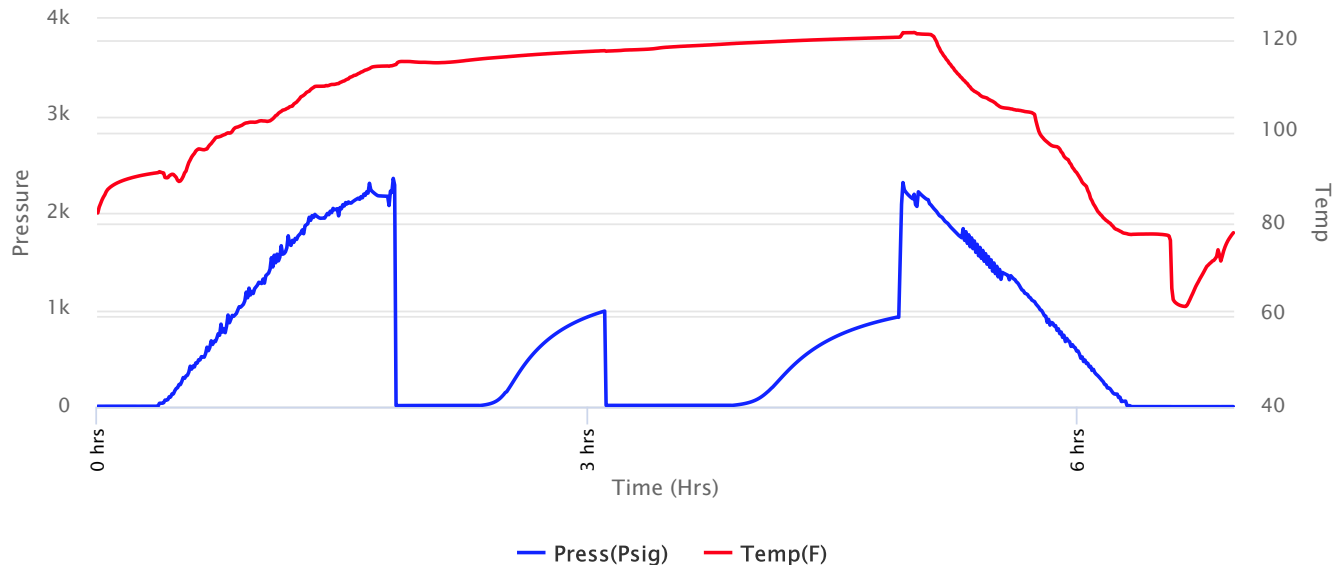
1st Open  
Minutes: 30  
Current Reading:  
.9" at 30 min  
Max Reading: .9"

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





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### Recovered

Foot

10

BBLs

0.1026

Description of Fluid

M

Gas %

0

Oil %

0

Water %

0

Mud %

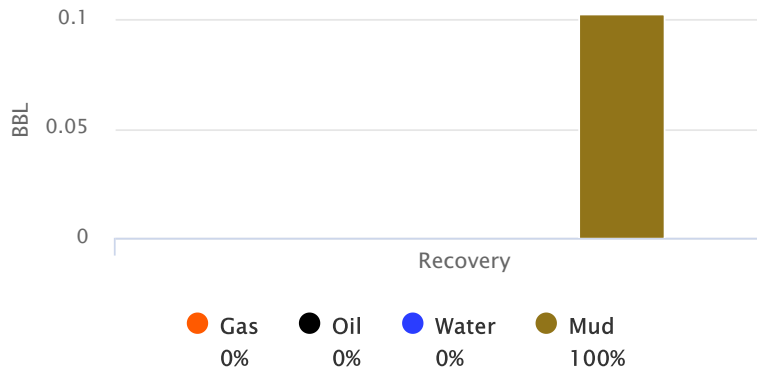
100

Total Recovered: 10 ft

Total Barrels Recovered: 0.1026

Reversed Out  
 NO

### Recovery at a glance



Initial Hydrostatic Pressure	2209	PSI
Initial Flow	11 to 13	PSI
<b>Initial Closed in Pressure</b>	<b>986</b>	<b>PSI</b>
Final Flow Pressure	13 to 15	PSI
<b>Final Closed in Pressure</b>	<b>922</b>	<b>PSI</b>
Final Hydrostatic Pressure	2197	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	6.5	%

GIP cubic foot volume: 0



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**BUCKET MEASUREMENT:**

1st Open: Surface blow building to 1/2"

1st Close: No BB

2nd Open: Very weak surface blow

2nd Close: No BB

**REMARKS:**

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



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**Down Hole Makeup**

**Heads Up:** 8.95 FT

**Packer 1:** 4428 FT

**Drill Pipe:** 4409.38 FT

**Packer 2:** 4433 FT

*ID-3 1/4*

**Top Recorder:** 4417.42 FT

**Weight Pipe:** 0 FT

**Bottom Recorder:** 4438 FT

*ID-2 7/8*

**Collars:** 0 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:** 42

**Anchor Makeup**

**Packer Sub:** 1 FT

**Perforations: (top):** 3 FT

*4 1/2-FH*

**Change Over:** 0 FT

**Drill Pipe: (in anchor):** 0 FT

*ID-3 1/4*

**Change Over:** 0 FT

**Perforations: (below):** 38 FT

*4 1/2-FH*





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**Mud Properties**

**Mud Type:** Chemical

**Weight:** 9.4

**Viscosity:** 54

**Filtrate:** 9.6

**Chlorides:** 2,500 ppm



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**Gas Volume Report**

**1st Open**

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

**2nd Open**

Time	Orifice	PSI	MCF/D
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# KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 \* WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE \* 1-14 MARIAH

FIELD WILDCAT

LOCATION 2095' FSL : 1305' FWL

SEC 14 TWP 16s RGE 30w

COUNTY LANE STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 10-17-19 COMP 10-26-19

RTD 4600 LTD 4600

MUD UP 3431 TYPE MUD CHEMICAL

### ELEVATIONS

KB 2781

DF

GL 2776 \*

Measurements Are All  
From 2781 KB

### CASING

SURFACE 8 5/8" @ 285'

PRODUCTION

### ELECTRICAL SURVEYS

DUAL IND., DENS-N., MICROS

SAMPLES SAVED FROM 3600 TO 4600

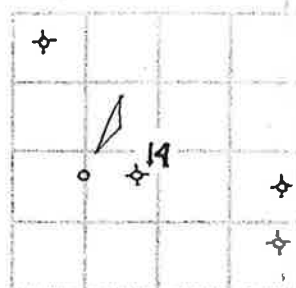
DRILLING TIME KEPT FROM 3400 TO 4600

SAMPLES EXAMINED FROM 3600 TO 4600

GEOLOGICAL SUPERVISION FROM 3800 TO 4600

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2168-613	2170-611
B/ANH.	2200-581	2200-581
STOTLER	3462-681	3463-682
HEEBNER	3842-1061	3844-1063
LANSING	3876-1095	3878-1097
STARK	4144-1363	4144-1363
MARMATON	4258-1477	4250-1469
FORT SCOTT	4401-1620	4391-1610
CHEROKEE	4425-1644	4414-1633
MISSISSIPPI	4514-1733	4514-1733



### REMARKS

10-17-19 SPUD  
10-18 @ 288'  
10-19 @ 1482'  
10-20 @ 2435'  
10-21 @ 3180'  
10-22 @ 3550'  
10-23 @ 3980'  
10-24 @ 4280'  
10-25 @ 4475'  
10-26 @ 4600'

API: 15-101-22637

\*: Location raised 18"

Shot Elev. 2775 GL

### LEGEND

	Dolomite
	Chert
	Oil Lime
	Limestone
	Carb. sh
	Shale
	Sandstone
	Salt
	Anhydrite

DRILLING TIME IN MINUTES  
PER FOOT

Ratio of Penetration Increases

DEPTH  
2100

LITHOLOGY

SAMPLE DESCRIPTIONS

REMARKS

ANHYDRITE 2170-611

B/ANN. 2200-581

2200

3400

STOTLER 3463-682

3500

3600

Vis: 45 WT: 8.8  
Vol: 7.2 CIL: 2000

Samples are Layed

15 g. Sil Foss

15 wt % Foss. Calcitic

Sh Lig.

25 wt % Lig. Sil Foss. KSi. Chly.







10. In the vicinity of the

15. Lt. Sh. Foss. Sil. Δ

Δ R. T.

15. Tn. Lt. R. Ool. Sil. ool.

15. Tn. Gp. V. Sil. Foss. Sil. Δ

15. Lt. Gp. Dol.

VIS. 67 WT. 91  
W. 8.0 C. 2400

Δ Tn. Ool.

15. Lt. Gp. V. Sil. ch. lly.

**MUNCIE CREEK 1099-1268**

Sh. Ool. Cong.

15. R. DE R. V. Sil. Foss.

Sh. Lt. Gp.

Δ 100 Lt. Gp.

15. Gp. Sil. Foss. Sil. Δ

15. Tn. Gp. Dol.

Sh. Dol. R. L.

15. R. V. Sil. Foss.

Sh. Lt. Gp.

15. Lt. Sil. Foss. Sil. Δ

15. Wt. Sh. Foss. V. Sil. ch. lly.

Sh. Lt. Gp. Sil.

15. R. Lt. Gp. ool. 100. 8  
No Ool. No Ool.

**STARK 1194-1363**  
Sh. R. L. Cong. 15. DE R. V. Sil. Foss.

Sh. Lt. Gp.

15. Wt. V. ch. lly.

15. Wt. Lt. Gp. Sh. Foss. ch. lly.

Δ Gp.

15. Lt. Gp. V. Sil. Δ

**HUSH PUCKNEY 1176-1395**

Sh. R. L. Cong.

15. DE R. Sil. Δ

15. Tn. Lt. Gp. Sh. Foss. Sil. Δ

15. Wt. Sh. Foss. Sil. Δ

Δ Gp.

**1319-1438**  
Dol. Wt. Tn. V. Foss. Sil. Δ

15. Gp. Sil. Δ

15. Lt. Gp. Foss. Sil. Δ

Sh. Lt. Gp. Sil. ch. lly.

**MARMATON 1250-1469**

15. Wt. Lt. Gp. Foss. Sil. Δ Dol.

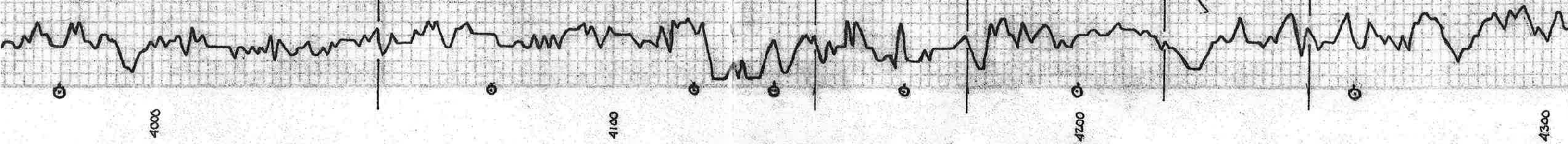
Sh. R. L. Cong.

15. Wt. Lt. Gp. Sil. Foss. dol. Sil. ch. lly.

15. Gp. Yellow Sil. Foss.

Sh. R. L. Cong.

15. Wt. Sh. Foss. w/ R. L. shale.





Sh. Rd Pak  
 LS Lt. Sil. Foss w/ Rd shale  
 LS. Th. V. Sil. Foss Sil. A. Sh. chly.  
 Sh. Rd  
 LS. Gp. Sil. Foss  
 LS. Gp. Sil. Foss

VIS: 51 WT: 94  
 VIL: 9.6 CW: 2500

PAWNEE 4436-1555  
 Sh. Red, dk. Gg  
 LS. Gp. V. Sil. Foss Sil. A. Caliche

LS. Gp. V. Sil. Foss Sil. A. Caliche

LS. Lt. Rd. Sil. A

Sh. Blue Gg  
 LS. Rd. Sil. Foss

Sh. Lt. Gg  
 LS. Lt. Sil. Foss Sil. A

FORT SCOTT 4391-1610  
 Sh. Blue Gg

LS. B. Th. cool Sil. A. V. Sil. Rystite

LS. Tan. Sil. Foss Sil. chly.

CHEROKEE 4414-1633  
 LS. w/ Lt. chly. cool w/ dk. Gg cool.

Sh. Blue Gg

LS. w/ cool w/ Gg cool.

LS. Gp. V. Sil. Foss Sil. A

Sh. Red

JOHNSON 4457-1676  
 Sh. Red

LS. Gg. Sil. A

LS. w/ Lt. V. Sil. Foss Sil. chly. P. V. chly.  
 V. Sil. Rd. Sil. A. V. Sil. Foss  
 LS. Lt. Gg. Sil. Foss Sil. A. F. Th. Rd  
 Rd. Sil. A. Bleeding oil. Cool. No. Rd. No. Rd.

LS. w/ Th. Sil. Foss Sil. chly.

Sh. Lt. Gg. Blue Gg. sil. chly. Foss. Rd. w/ Sil. chly. Foss.

sd. ch. cool. Foss. Gg. Sil. Rd. Dn.

sd. w/ ch. Foss. Gg. Sil. Rd.

sd. w/ Lt. Gg. sil. chly. Rd. Sil. Rd.

MISSISSIPPI 4514-1733

LS. Th. V. Sil. Foss. V. Sil. chly. V. Sil. A.

LS. Yellow V. Sil. Foss Sil. A.

A. Orange

LS. Th. Gg. cool Sil. cool.

Sh. Lt. Gg. sil. chly. Foss. Gg. Sil. Rd. Sil. chly.

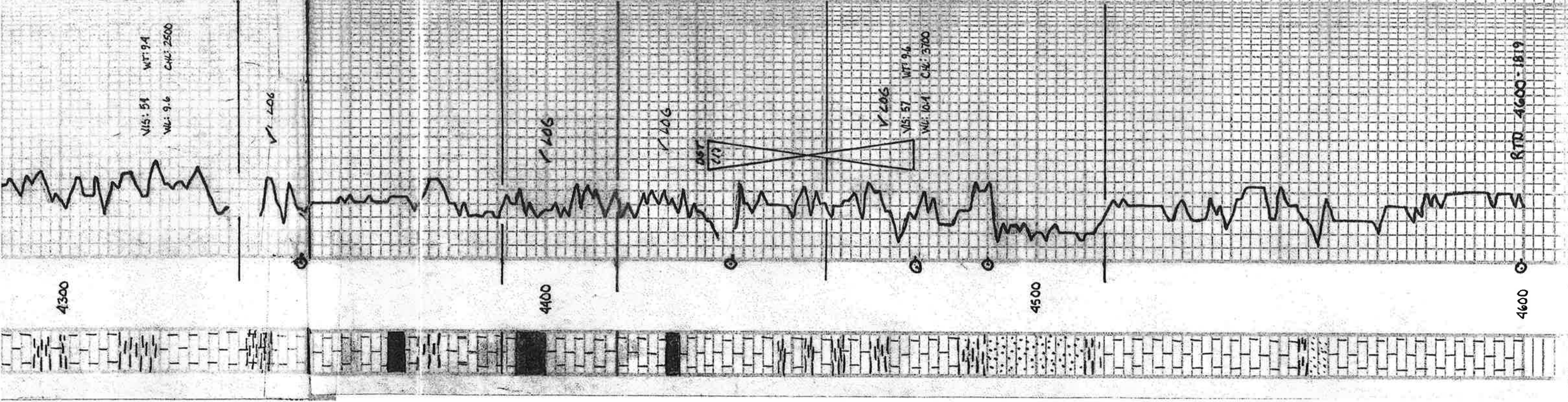
LS. Th. Sil. A

LS. Th. Lt. Rd. Sil. A

LS. Th. Lt. Gg. Sil. A

LS. Lt. Gg. V. Sil. chly. V. Sil. Caliche

DST (1) 4433-4475  
 1st 024: Blow built to 1/2" h  
 2nd 024: Surface Blow  
 30-45-60  
 Rec. 10' Mud w/ Oil Spikes  
 Temp. 120°F  
 FP: 11/13 13/15  
 SIP: 986-922









Customer <b>L D Drilling</b>	Lease No.	Date <b>10/27/2019</b>
Lease <b>W9+E Mariah</b>	Well # <b>4-10-1-14</b>	
Field Order # <b>18363</b>	Station <b>Pratt, KS</b>	Casing
Type Job <b>227/PJA</b>	Formation	Legal Description <b>16-16s-30w</b>
Depth	County <b>Latre</b>	State <b>KS</b>

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
<b>4 1/2 Drill Pipe</b>							
Depth <b>2190</b>	Depth	From	To	Pre Pad	Max		5 Min.
Volume	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>Water, mud</b>	Gas Volume		Total Load

Customer Representative <b>Rick Wilson</b>	Station Manager <b>Justin Westerman</b>	Treater <b>Devin Franklin</b>
Service Units <b>92911</b>	<b>78982</b>	<b>19843</b>
Driver Names <b>Devin</b>	<b>Brett</b>	<b>Brett</b>
	<b>Devin</b>	<b>Devin</b>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<b>2:30pm</b>					on location / safety meetings
					270 SK 60/40 P02+4% Gel
					13,78 pps, 1.43 vpd, 6.92 water
<b>6:00pm</b>	<b>200</b>		<b>8</b>	<b>5</b>	Pump 8 water 2190'
	<b>200</b>		<b>13</b>	<b>5</b>	mix 50 SK
	<b>200</b>		<b>24</b>	<b>5</b>	Displace 3 water & 21 mud
	<b>200</b>		<b>8</b>	<b>5</b>	Pump 8 water 1450'
	<b>200</b>		<b>20</b>	<b>5</b>	mix 80 SK
	<b>200</b>		<b>35</b>	<b>5</b>	Displace 3 water, 12 mud
	<b>200</b>		<b>9</b>	<b>5</b>	Pump 9 bbls water 700'
	<b>200</b>		<b>13</b>	<b>5</b>	mix 50 SK cement
	<b>200</b>		<b>3</b>	<b>5</b>	Displace 3 bbls water
	<b>100</b>		<b>3</b>	<b>5</b>	Pump 3 bbls water 330'
	<b>100</b>		<b>10</b>	<b>5</b>	mix 40 SK cement
	<b>100</b>		<b>1</b>	<b>5</b>	Displace 1 bbl water
	<b>50</b>		<b>5</b>	<b>3</b>	mix 20 SK cement 60'
	<b>0</b>		<b>7</b>	<b>3</b>	mix 30 SK cement RH
<b>11:00pm</b>					Job complete / Perm screen
					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 18354 A

$$\lim_{t \rightarrow \infty} f(t) = 30$$

14-16s-30w

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

DATE OF JOB <b>10/18/2019</b>		DISTRICT <b>Pratt, ks</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>m9rsh</b> WELL NO. <b>1-14</b>					
ADDRESS				COUNTY <b>Lane</b> STATE <b>ks</b>					
CITY STATE				SERVICE CREW <b>Dgrn, Brera, Trevino</b>					
AUTHORIZED BY				JOB TYPE: <b>242/8 5/8 sulfate</b>					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED <b>10/17 AM 5:00</b> ARRIVED AT JOB <b>10/17 AM 10:30</b> START OPERATION <b>10/18 AM 12:00</b> FINISH OPERATION <b>10/18 AM 12:30</b> RELEASED <b>10/18 AM 1:00</b> MILES FROM STATION TO WELL <b>173</b>			
<b>19843</b>	<b>1/2</b>								
<b>19860</b>	<b>1/4</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: \_\_\_\_\_  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

[illegible]

CHEMICAL / ACID DATA:			

SUB TOTAL		10,038	00
SERVICE & EQUIPMENT	%TAX ON \$		
MATERIALS	%TAX ON \$		
Discounted TOTAL		3,897	64

SERVICE REPRESENTATIVE 	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:  (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
--	--

FIELD SERVICE ORDER NO.



Customer <b>LD Drilling</b>	Lease No.	Date <b>10/18/2019</b>	
Lease <b>M919B</b>	Well # <b>1-14</b>		
Field Order # <b>18354</b>	Station <b>Pratt, KS</b>	Casing <b>85/8</b>	Depth <b>285</b>
		County <b>Leone</b>	State <b>KS</b>
Type Job <b>242/85/8 Surface</b>	Formation <b>TD-288</b>	Legal Description <b>14-16s-30W</b>	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size <b>8 5/8</b>	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth <b>285</b>	Depth	From	To	Pre Pad	Max		5 Min.
Volume <b>18</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 <b>212.5</b>	Packer Depth	From	To	Flush <b>WATER</b>	Gas Volume		Total Load

Customer Representative <i>LICK Wilson</i>				Station Manager <i>Justin Westerman</i>				Treater <i>Darin Franklin</i>			
Service Units	<i>92911</i>	<i>78982</i>	<i>19843</i>	<i>70955</i>	<i>19860</i>						
Driver Names	<i>Daria</i>	<i>Brett</i>	<i>Brett</i>	<i>Trevino</i>	<i>Trevino</i>						

[illegible]