

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) (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	Stewart Producers, Inc.
Well Name	VOGEL 1
Doc ID	1451937

Tops

Name	Top	Datum
Anhydrite	1856	746
Base Anhydrite	1896	706
Heebner	3912	-1310
Lansing	3956	-1354
BKC	4292	-1690
Ft. Scott	4474	-1872
Cherokee	4496	-1894
Miss.	4570	-1968





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Stewart Producers, Inc.

**23 19s 26w Ness, Ks**

PO Box 546  
Mt Vernon, IL 62864

**Vogel #1**

Job Ticket: 64443

**DST#: 1**

ATTN: Dave Goldak

Test Start: 2018.12.13 @ 01:49:00

## GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:55:45

Time Test Ended: 10:19:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

**Interval: 4514.00 ft (KB) To 4577.00 ft (KB) (TVD)**

Reference Elevations: 2602.00 ft (KB)

Total Depth: 4577.00 ft (KB) (TVD)

2597.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8522 Inside**

Press@RunDepth: 163.23 psig @ 4515.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.12.13

End Date:

2018.12.13

Last Calib.: 2018.12.13

Start Time: 01:49:05

End Time:

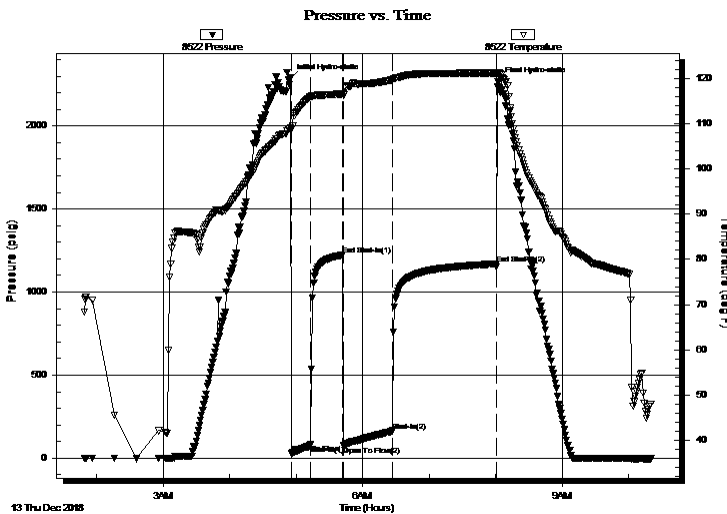
10:19:44

Time On Btm: 2018.12.13 @ 04:55:00

Time Off Btm: 2018.12.13 @ 08:02:00

**TEST COMMENT:** 15- IF: BOB @ 11min. built to 12".  
30- IS: No return.  
45- FF: BOB @ 15 min. built to 32".  
90- FSI: 1/2" return, died @ 45 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2284.21	109.02	Initial Hydro-static
1	26.98	108.57	Open To Flow (1)
18	76.30	115.92	Shut-In(1)
47	1223.19	116.54	End Shut-In(1)
48	73.91	116.32	Open To Flow (2)
92	163.23	119.70	Shut-In(2)
186	1170.27	121.16	End Shut-In(2)
187	2266.99	121.30	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
330.00	gmco 30g 20m 50o	4.63
30.00	oil 100o	0.42
0.00	180' GIP	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Stewart Producers, Inc.

23 19s 26w Ness, Ks

PO Box 546  
Mt Vernon, IL 62864

**Vogel #1**

Job Ticket: 64443

**DST#: 1**

ATTN: Dave Goldak

Test Start: 2018.12.13 @ 01:49:00

## GENERAL INFORMATION:

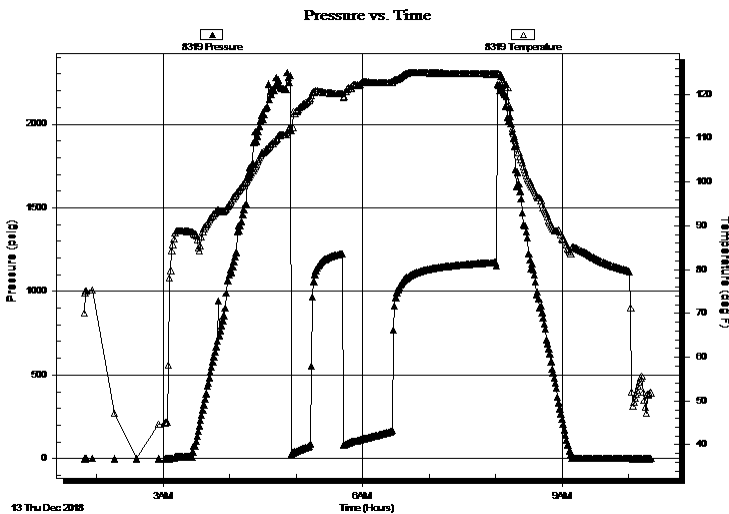
Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 04:55:45  
 Time Test Ended: 10:19:45  
 Interval: **4514.00 ft (KB) To 4577.00 ft (KB) (TVD)**  
 Total Depth: 4577.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 2602.00 ft (KB)  
 2597.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8319 Outside**

Press@RunDepth: psig @ 4515.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.12.13 End Date: 2018.12.13 Last Calib.: 2018.12.13  
 Start Time: 01:49:05 End Time: 10:19:44 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 15- IF: BOB @ 11min. built to 12".  
 30- IS: No return.  
 45- FF: BOB @ 15 min. built to 32".  
 90- FSI: 1/2" return, died @ 45 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
330.00	gmco 30g 20m 50o	4.63
30.00	oil 100o	0.42
0.00	180' GIP	0.00

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Stewart Producers, Inc.

**23 19s 26w Ness, Ks**

PO Box 546  
Mt Vernon, IL 62864

**Vogel #1**

Job Ticket: 64443

**DST#: 1**

ATTN: Dave Goldak

Test Start: 2018.12.13 @ 01:49:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
330.00	gmco 30g 20m 50o	4.629
30.00	oil 100o	0.421
0.00	180' GIP	0.000

Total Length: 360.00 ft      Total Volume: 5.050 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8522

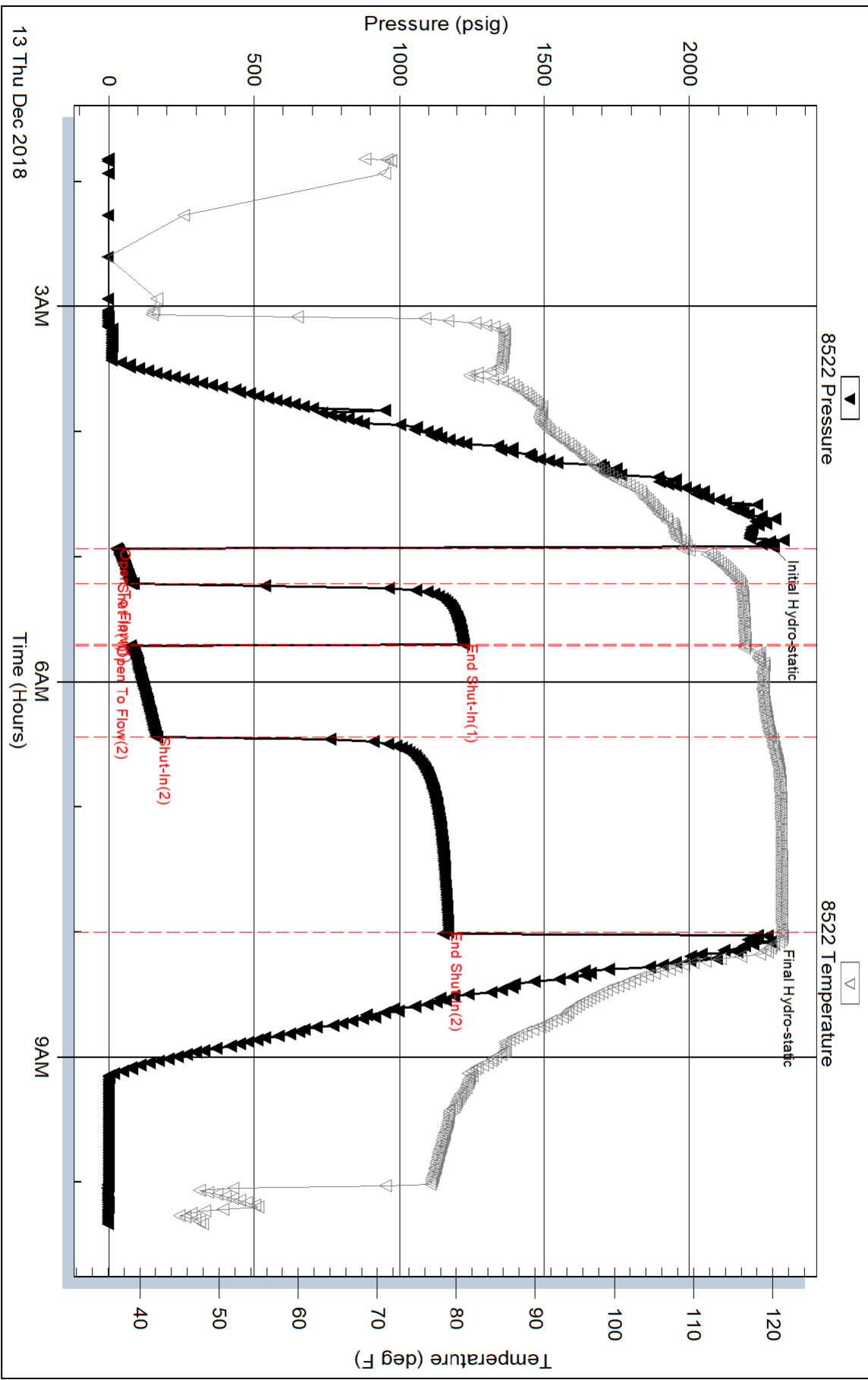
Inside

Stewart Producers, Inc.

Vogel #1

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 64443

Printed: 2018.12.13 @ 10:59:04



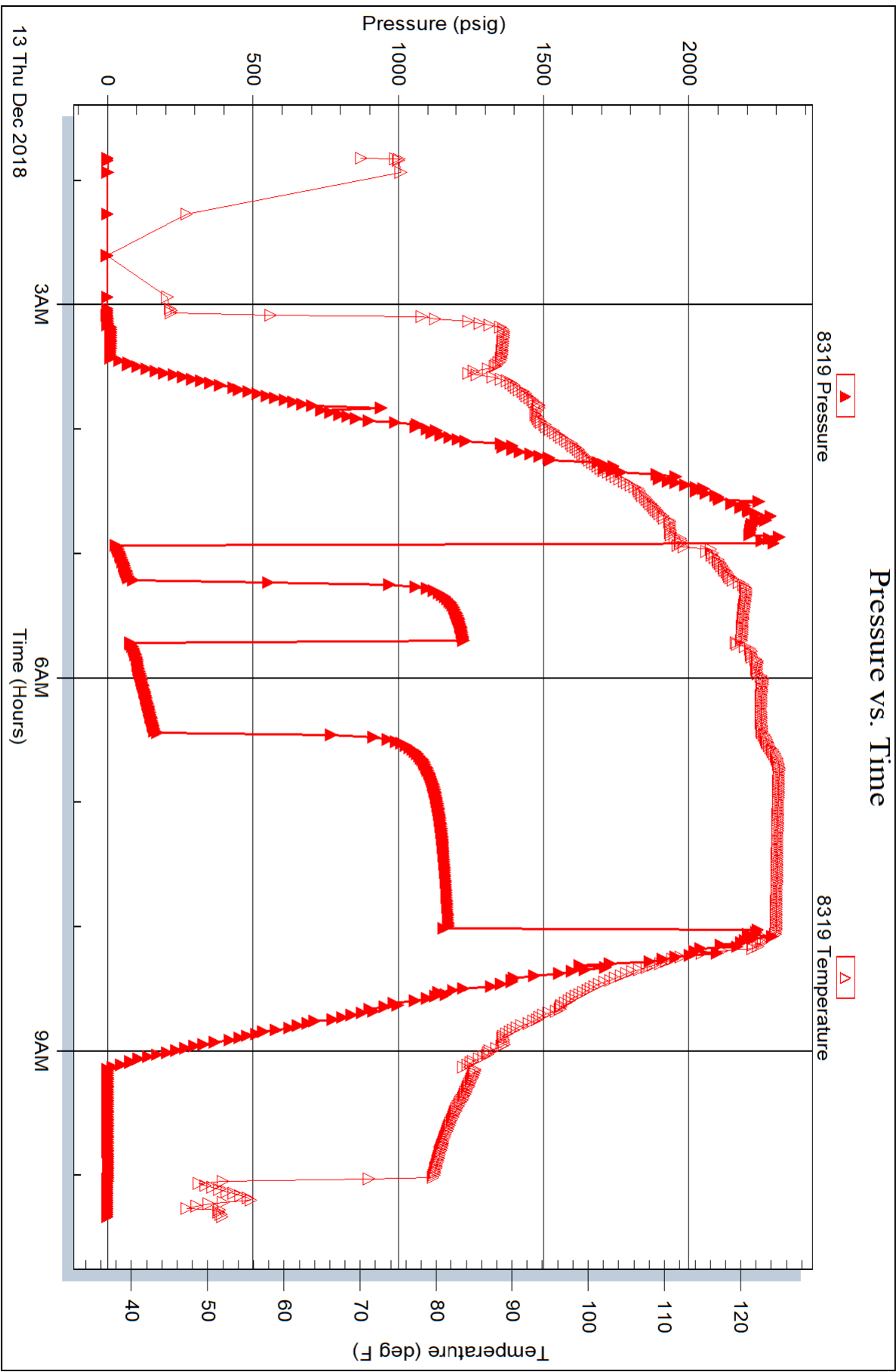
Serial #: 8319

Outside

Stewart Producers, Inc.

Vogel #1

DST Test Number: 1



# GEOLOGIC REPORT

## DAVID J. GOLDAK

WICHITA, KANSAS  
Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Vogel #1  
API: 15-135-26033-0000  
Location: Section 23 - T19S - R26W  
License Number: \_\_\_\_\_  
Spud Date: 12 / 06 / 2018  
Surface Coordinates: 335' FSL and 2305' FWL  
NW - SE - SE - SW  
Region: Ness Co., KS  
Drilling Completed: 12 / 13 / 2018  
Bottom Hole Coordinates: \_\_\_\_\_  
Ground Elevation (ft): 2597' K.B. Elevation (ft): 2602'  
Logged Interval (ft): 3700' To: 4640' Total Depth (ft): 4640'  
Formation: Mississippian  
Type of Drilling Fluid: Chemical - Mud Co

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

### OPERATOR

Company: Stewart Producers, Inc.  
Address: PO Box 546  
Mt Vernon, IL 62864

### GEOLOGIST

Name: David J. Goldak  
Company: D. J. GOLDAK, INC.  
Address: 12427 W Ridgepoint Cir  
Wichita, Kansas 67235

### General Info

CONTRACTOR: LD Drilling, Rig #1

#### BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	Varel-?	3-15s	223	223	2.50
2	7-7/8	Varel-HE29	14-14-15	4577	4354	104.50
3	7-7/8	Varel-HE29	14-14-15	4640	63	2.50

SURVEYS: 223'-0.75', 4577'-1.00

#### GENERAL DRILLING & PUMP INFORMATION:

Drilling with 16 collars (6.25"x2.25"): 495.79

Drilling with 36,000-38,000 lbs on bit and 60-70 RPM.

Pumping 52-56 S/M; 7.2-7.7 B/M; and 700-900 psi at standpipe.

## Daily Status

12/06/18 - Spud at 6:00 PM; Set 8-5/8" Csg at 220'  
 12/07/18 - 223' WOC; DP @ 4:30 PM  
 12/08/18 - 1,725' Drilling  
 12/09/18 - 2,695' Drilling  
 12/10/18 - 3,345' Drilling; Displace @ 3,563'  
 12/11/18 - 3,960' Drilling  
 12/12/18 - 4,420' Drilling; Wiper trip @ 4,435'  
 12/13/18 - 4,577' DST #1 in progress; TD @ 4,640'; Log well

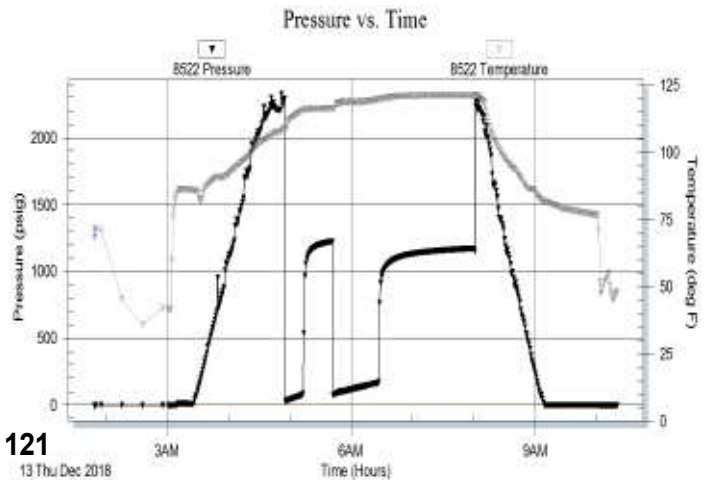
	Log Tops	Sample Tops
Anhydrite	1856 (+746)	1857 (+745)
Base/Anhy	1896 (+706)	1896 (+706)
Heebner	3912 (-1310)	3913 (-1311)
Lansing	3956 (-1354)	3954 (-1352)
Stark Sh	4225 (-1623)	4218 (-1616)
BKC	4292 (-1690)	4294 (-1692)
Pawnee	4418 (-1816)	4410 (-1808)
Ft Scott	4474 (-1872)	4470 (-1868)
Cherokee	4496 (-1894)	4492 (-1890)
Mississippian	4570 (-1968)	4565 (-1963)
Total Depth	4643 (-2041)	4640 (-2038)

**DST #1: 4,518' - 4,571' (Mississippian)**  
 15" - 30" - 45" - 90"

**IF: Good blow building to BOB in 11 minutes**  
**ISI: No blow back**  
**FF: Good blow building to BOB in 15 minutes**  
**FSI: Weak blow back building to 0.5 inches**

**RECOVERY: 180' GIP & 360' Total Fluid:**  
 30' CO (100% O); Gravity: 36 API  
 330' GMCO (30% G, 50% O, 20% M)

**SIP: 1223-1170; FP: 27-76, 74-163; HP: 2284-2267; BHT: 121**



### ROCK TYPES

	Anhy		Gyp		Shgy		Sandylms
	Bent		Igne		Slstst		Shale
	Brec		Lmst		Ss		Slststn
	Cht		Meta		Till		Shlyslts
	Clyst		Mrlst		Carb sh		Sltysh
	Coal		Salt		Dol		Lms
	Congl		Shale		Dtd		
	Dol		Shcol		Gry sh		

### ACCESSORIES

#### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr

- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Sltly

#### FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram

- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

#### STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh

- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

#### TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

### OTHER SYMBOLS

#### POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

#### SORTING

- Well
- Moderate
- Poor

#### ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

#### OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

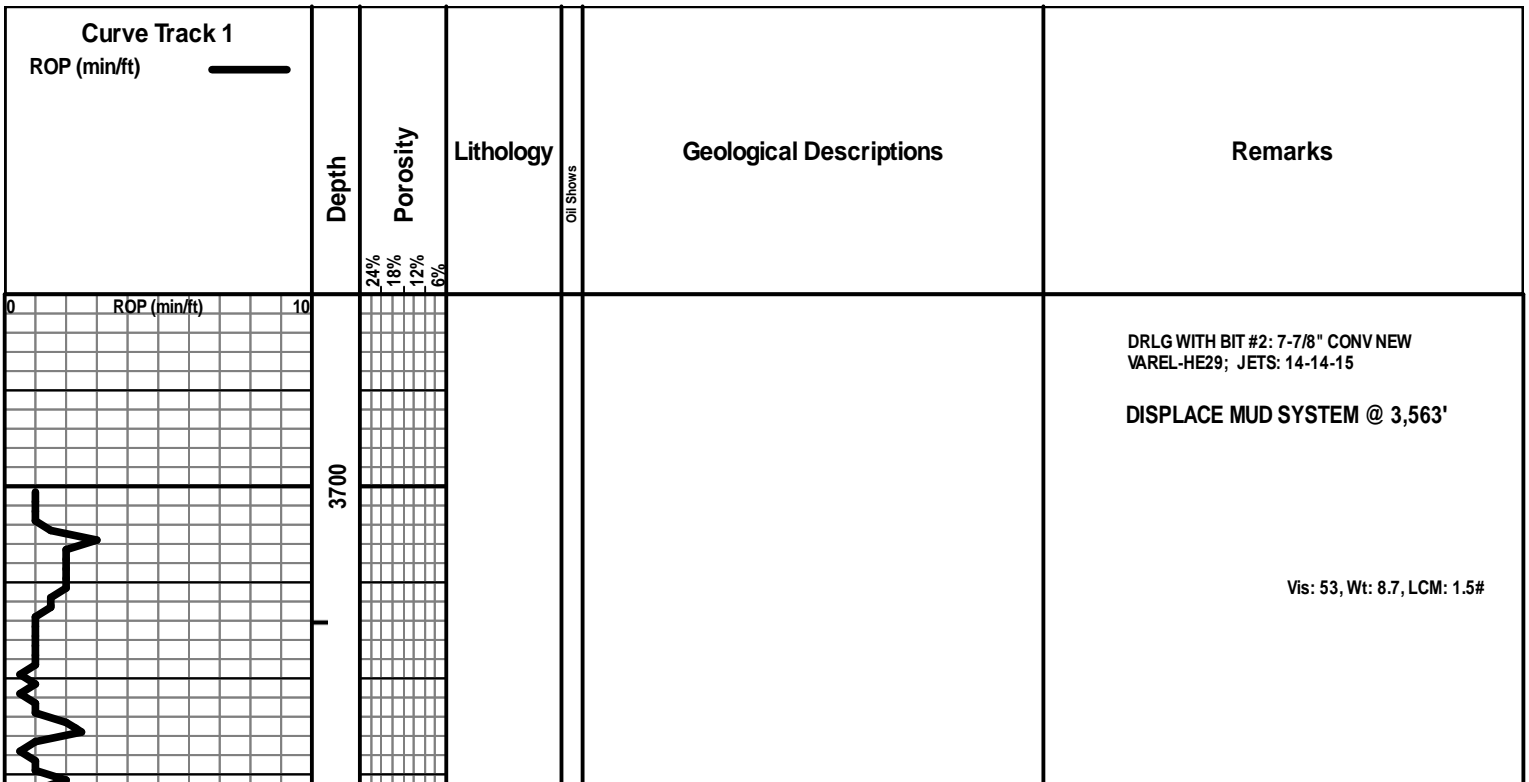
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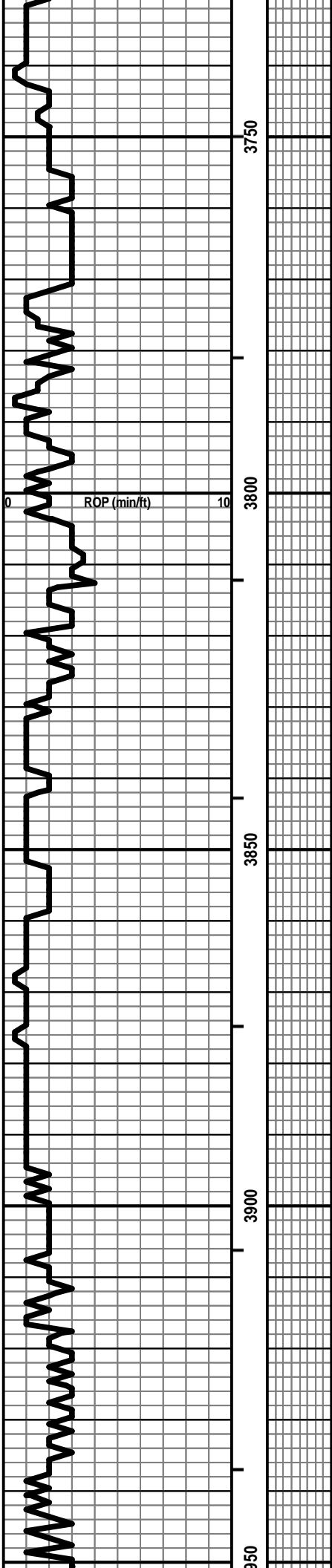
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- Dst

- Dst\_1\_t
- Dst\_1\_b
- Dst

#### EVENTS

- Rft
- Sidewall
- Conn

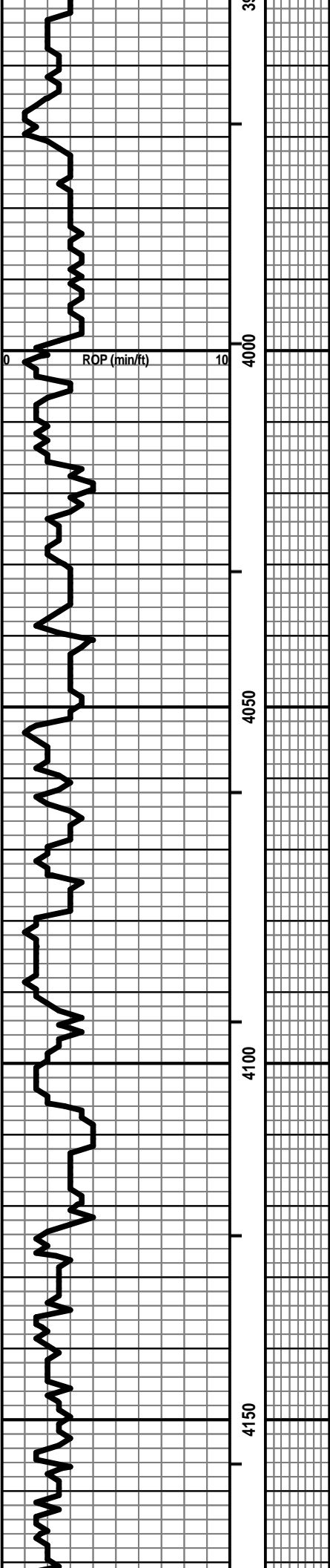




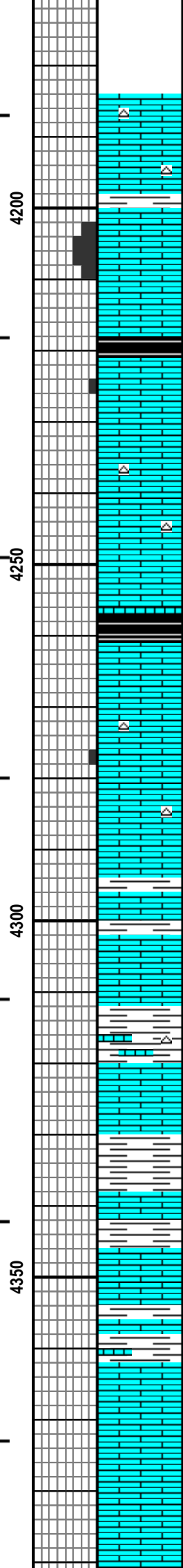
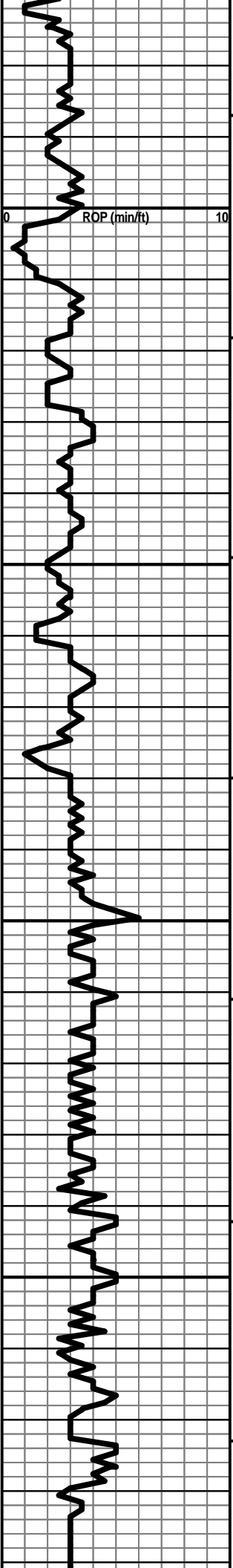
HEEBNER 3913 (-1311)

LANSING 3954 (-1352)

Vis: 55, Wt: 8.9, YP: 15,  
GeS: 10/27, pH: 9.5, WL: 8.0,  
Chl: 2,100, Sol: 4.3, LCM: 1#



Vis: 55, Wt: 9.0, LCM: 1#



LS - CRM / TAN, F XLN, OOL + FOSS, TR P INTXLN POR IN PT, PRED DNS, NS W/ CHT - LT GY / WHT W/ SH - GY / BLK

LS - CRM / TAN, F / VF XLN, OOL, F / G OOM POR, NS W/ LS - TAN / CRM, VF XLN, PRED DNS, NS

SH - BLK, CARB W/ LS - CRM / TAN / BRN, MOT IN PT, VF / F XLN, TR FOSS, CHKY IN PT, PRED DNS, NS

LS - TAN / BRN / GY, MOT IN PT, VF / F XLN, FOSS + OOL IN PT, PRED DNS, NS W/ CHT - GY

LS - ASABOVE, NS W/ SH - BLK, CARB W/ LS - TAN / CRM, F / VF XLN, SCAT REXLN CALC, SL FOSS, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN / SCAT BRN, F / VF XLN, OOL + FOSS IN PT, SCAT P / F OOM POR, SCAT PINTXLN POR, PRED DNS, NS W/ SCAT CHT - LT GY

LS - TAN / BRN, F / VF XLN, SL FOSS, PRED DNS, NS W/ SH - GY / GRN / BLK

LS - TAN / CRM / SCAT BRN, F / VF XLN, SCAT REXLN CALC, SL FOSS + OOL, PRED DNS, NS W/ SH - GY / BLK W/ SCAT CHT - GY / TAN

LS - CRM / TAN, VF / F XLN, TR FOSS, SCAT CHKY, PRED DNS, NS

SH - GY / BLK / SCAT GRN W/ LS - TAN / CRM, MOT IN PT, F / VF XLN, OOL, PRED DNS, NS

LS - CRM / TAN / SCAT GY, MOT IN PT, PRED VF / F XLN, SCAT CRYPTO XLN, SCAT OOL, PRED DNS, NS W/ SH - GY

LS - CRM / TAN, VF / F XLN, SCAT REXLN CALC, FOSS + OOL IN PT, PRED DNS, NS

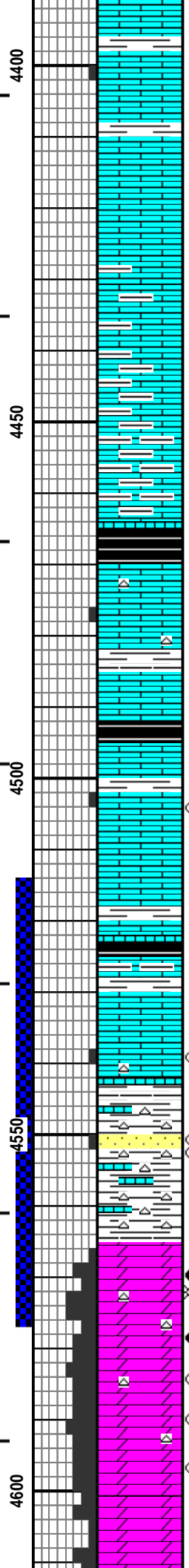
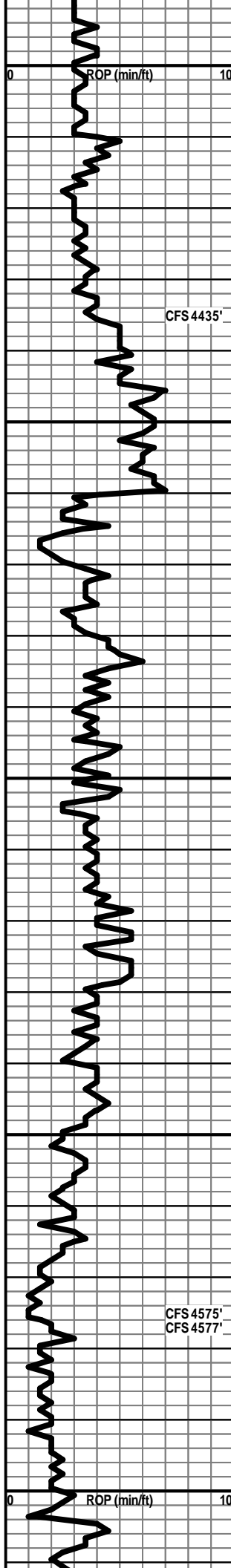
LS - CRM / TAN, VF / F XLN, SCAT CRYPTO XLN, FOSS + OOL IN PT, CHKY IN PT, PRED DNS, NS

**STARK SHALE 4218 (-1616)**

Vis: 53, Wt: 9.0, LCM: 1#

**BASE OF KC 4294 (-1692)**

Vis: 60, Wt: 9.0, LCM: Tr



IN PT, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN / SCAT GY, F / VF XLN, SCAT FOSS + OOL, TR P INTXLN POR, PRED DNS, NS W/ SH - GY / BLK

LS - TAN / CRM, VF / F XLN, PRED DNS, NS

LS - TAN / SCAT GY / SCAT BRN, F / VF XLN, TR FOSS, PRED DNS, NS W/ SCAT SH - PRED GY

LS - TAN / CRM, VF / F XLN, DNS / ARGIL, NS W/ ABNT SH - PRED GY / SCAT GRN

LS - AS ABOVE, NS W/ ABNT SH - PRED GY / BLK

AS ABOVE W/ SH - BLK, CARB

LS - TAN / BRN / SCAT CRM, MOT IN PT, F / VF XLN, SCAT REXLN CALC, OOL IN PT, SL FOSS, TR P INTPART / INTXLN POR, SCAT CHKY, PRED DNS, NS W/ SCAT CHT - LT GY

LS - AS ABOVE, NO VIS POR, NS W/ SCAT CHT

SH - GY / BLK, CARB IN PT W/ LS - CRM / TAN, MOT IN PT, F XLN, FOSS + OOL, PRED DNS, NS

LS - CRM / GY / TAN, VF / F XLN, FOSS IN PT, SCAT OOL, TR FO IN VP INTXLN POR, CHKY IN PT, PRED DNS, PRED NS, NO ODOR

LS - CRM / TAN / GY, V SIM TO ABOVE, NO VIS POR, NS W/ SH - GY / BLK, CARB IN PT

LS - TAN / CRM, MOT IN PT, VF / F XLN, TR FOSS, V SCAT P INTXLN POR, SCAT CHKY, PRED DNS, TR FO + GILS, NO ODOR W/ SCAT CHT - VARICOL

CHT & SH - VARICOL W/ LS - TAN, CRYPTO / VF XLN, DNS, ARGIL IN PT, NS W/ SS - LT GY / TAN, PRED VF QTZ GR, W SRD, SA / SR, ABNT OVRGRWTHS, SIL CEM, ABNT WHT CLAY IN PT, PRED P / NO INTGR POR, SSFO, V FT ODOR, SPTY STN, F / G FLUOR, P / F CUT W/ SCAT LRG QTZ GR, SR

DOLO - CRM / TAN / SCAT LT GY, F / SCAT M XLN, P / G VUG + FOSSMOLD POR, P / G INTXLN POR, SCAT SUCR, F / G SFO, SSGB, G ODOR, G FLUOR + CUT W/ SCAT CHT - WHT

DOLO - CRM / TAN, PRED F XLN, P / F VUG + FOSS MOLD + INTXLN POR, SOME G POR, MOD AMT VOID FILL QTZ + LRG QTZ GR, SCAT CHKY, FSFO, SCAT GILS, F ODOR

DOLO - CRM / TAN / SCAT GY, F / M XLN, P / F VUG POR, P / SCAT G INTXLN POR, SCAT CHKY, SSFO IN PT, ABNT BARR POR, F ODOR W/ SCAT CHT

DOLO - CRM / TAN / SCAT GY, F / M XLN, P / SCAT F INTXLN POR, P / NO VUG POR, SCAT CHKY, SSFO IN PT, ABNT BARR POR, V FT ODOR

DOLO - CRM / TAN / SCAT GY, F / M XLN, P / NO VIS POR

**PAWNEE 4410 (-1808)**

**WIPER TRIP @ 4,435' - 30 STANDS**

Vis: 75, Wt: 9.3, YP: 20,  
GeIS: 17/79, pH: 9.5, WL: 9.2,  
Chl: 5,700, Sol: 6.8, LCM: 1#

WORK ON MUD PUMP @ 4,460'

**FT SCOTT 4470 (-1868)**

Vis: 63, Wt: 9.2, LCM: 0.5#

**CHEROKEE SH 4492 (-1890)**

**DST #1: 4,514' - 4,577' (Mississippian)**  
15" - 30" - 45" - 90"

IF: Good blow - BOB in 11 minutes  
ISI: No blow back  
FF: Good blow - BOB in 15 minutes  
FSI: Blow back building to 0.5 inches

RECOVERY: 180' GiP & 360' Total Fluid:  
30' CO (100% O); Gravity: 36 API  
330' GMCO (30% G, 50% O, 20% M)

SIP: 1223-1170      HP: 2284-2267  
FP: 27-76, 74-163      BHT: 121

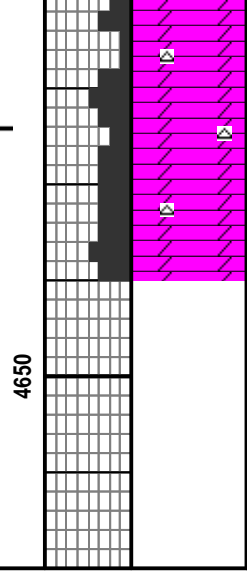
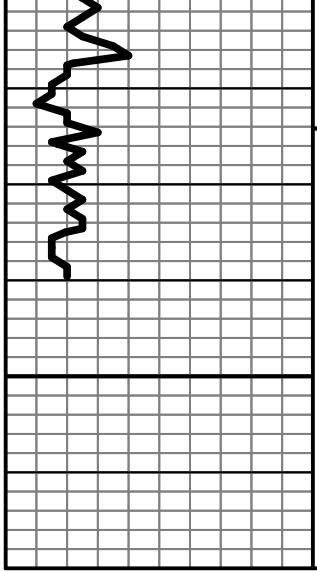
**MISSISSIPPIAN 4565 (-1963)**

Vis: 56, Wt: 9.5, YP: 18,  
GeIS: 11/41, pH: 9.5, WL: 8.0,  
Chl: 4,100, Sol: 8.3, LCM: 1#

PIPE STRAP @ 4,577': SHORT 0.50'

DRLG WITH BIT #3 @ 4,577': 7-7/8" CONV USED  
VAREL-HE29; JETS: 14-14-15





DOLO - CRM / TAN / SCAT GY, F / M XLN, P / F NO VIS POR,  
VSSFO, NO ODOR

DOLO - CRM / TAN / SCAT GY, F / M XLN, P / F VUG + INTXLN  
POR, SCAT G POR, NS W / LRG QTZ / CHT - CLR / WHT

DOLO - CRM / TAN / SCAT GY, F / M XLN, P / F VUG + INTXLN  
POR, SCAT G POR, MOD CHKY, NS W / QTZ / CHT - CLR /  
WHT

**TOTAL DEPTH 4640 (-2038)**



PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1009931	1718	12/10/2018
INVOICE NUMBER			
92864882			

Pratt (620) 672-1201  
 B STEWART WELL SERVICES INC  
 I PO BOX 546  
 L MOUNT VERNON  
 L IL US 62864  
 T  
 O ATTN: STEWART

J LEASE NAME Vogel 1  
 O LOCATION  
 B COUNTY Ness  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T  
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41149073	20920		Net - 30 days	01/09/2019

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 12/07/2018 to 12/07/2018</i>				
0041149073				
171817583A Cement-New Well Casing/Pi 12/07/2018				
8 5/8" Surface Casing				
60/40 POZ	175.00	EA	6.60	1,155.00 T
453 Lbs. - Calcium Chloride	1.00	EA	261.61	261.61 T
44 Lbs. - Celloflake	1.00	EA	89.54	89.54 T
100 Miles/Unit Mileage Chg	1.00	MI	247.50	247.50
200 Miles/Heavy Equipment Mileage	1.00	MI	825.00	825.00
755 Tn/M - Proppant & Bulk Del. Chgs	1.00	EA	1,038.12	1,038.12
Depth Charge; 0-500'	1.00	EA	550.00	550.00
Blending & Mixing Service Charge	175.00	BAG	0.77	134.75
"Service Supervisor, first 8 hrs on loc.	1.00	EA	96.25	96.25

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	4,397.77
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	97.90
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	4,495.67
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

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

TTHH  
~~321~~ 45

0041149073  
**FIELD SERVICE TICKET**  
**1718 17583 A**

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

DATE OF JOB <b>12-7-18</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>Stewart well Service</b>		LEASE <b>Vogel</b> WELL NO. <b>1</b>						
ADDRESS		COUNTY <b>Ness</b> STATE <b>KS</b>						
CITY _____ STATE _____		SERVICE CREW <b>MATTAI MA'LUZET RUVENCIO</b>						
AUTHORIZED BY _____		JOB TYPE: <b>2-42 8 5/8 SUKMC</b>						
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	TIME
<b>20920 #</b>	<b>.5</b>						<b>12-6</b>	<b>6:00 PM</b>
<b>19862</b>	<b>.5</b>							
ARRIVED AT JOB								<b>4:00 PM</b>
START OPERATION							<b>12-7</b>	<b>12:08 PM</b>
FINISH OPERATION								<b>12:25 PM</b>
RELEASED								<b>1:15 PM</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)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP103	60/40 P02	SH	175	✓	2,100 00
CC109	CALcium chloride	lb	453	✓	475 65
CC102	CELLOFLEX	lb	44	✓	162 80
EL00	P.U. Miles	Mi	100	•	450 00
EL01	HEAVY eq Miles	Mi	200	•	1,500 00
EL13	PROP + bulk del	TG	755	•	1,887 50
CE20D	DEPTH charge 0-500'	uhr	1	•	1,000 00
CE20W	blend + mix	SH	175	•	245 00
S003	SUPERVISOR	OA	1	•	175 00
SUB TOTAL					<b>7,995 95</b>

CHEMICAL / ACID DATA:			

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

TOTAL **4,397 77**

SERVICE REPRESENTATIVE <b>Mike Mattai</b>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
---	---

FIELD SERVICE ORDER NO.

Customer <i>Stewart Well Serv</i>	Lease No.	Date <i>12-7-18</i>
Lease <i>Vogel</i>	Well # <i>1</i>	
Field Order # <i>17583</i>	Station <i>Pratt</i>	Casing <i>8 5/8</i> Depth <i>223</i>
Type Job <i>2-42 8 5/8 SURFACE</i>	Formation	County <i>MOSS</i> State <i>KS</i>
		Legal Description <i>23-195-26w</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME	
Casing Size <i>8 5/8</i>	Tubing Size	Shots/Ft		Acid <i>175 SWS 60/40 P02</i>	RATE	PRESS	ISIP
Depth <i>223</i>	Depth	From	To	Pre Pad <i>390 cc</i>	Max		5 Min.
Volume <i>14.2</i>	Volume	From	To	Pad <i>.25 IPS c</i>	Min		10 Min.
Max Press <i>300</i>	Max Press	From	To	Frac	Avg		15 Min.
Well Connection <i>SV</i>	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth <i>230</i>	Packer Depth	From	To	Flush <i>12.7</i>	Gas Volume		Total Load

Customer Representative <i>Rick Wilson</i>	Station Manager <i>WESTERMAN</i>	Treater <i>MATTAL</i>
--	----------------------------------	-----------------------

Service Units	<i>83353</i>	<i>84980</i>	<i>20920</i>	<i>19889</i>	<i>19862</i>				
Driver Names	<i>MATTAL</i>	<i>MARQUEZ</i>		<i>FLORENCIO</i>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>4:00</i>					<i>ON LOCATION / STAFF meeting</i>
<i>11:05</i>					<i>RUN 8 5/8 CSNG</i>
<i>11:50</i>					<i>CSNG ON BOTTOM</i>
<i>12:00</i>					<i>HOOK TO CSNG / BREAK CIR w. Rig</i>
<i>12:08</i>	<i>100</i>		<i>3</i>	<i>3</i>	<i>PUMP 3 bbl water</i>
<i>12:10</i>	<i>150</i>		<i>38</i>	<i>4</i>	<i>MIX 175 SWS 60/40 P02</i>
<i>12:20</i>	<i>100</i>		<i>-</i>	<i>3.6</i>	<i>START displacement</i>
<i>12:25</i>	<i>150</i>		<i>12.7</i>		<i>PLUG DOWN / shut in well</i>
					<i>CMT TO SURFACE</i>

JOB COMPLETE  
 THANK YOU!  
 MIKE MATTAL  
 EDUARDO +  
 FLORENCIO



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

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

102 48

**FIELD SERVICE TICKET**  
1718 17588 A

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

DATE OF JOB 12-14-18	DISTRICT Pratt	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 Stewart Well Service		LEASE Vogel				WELL NO. 1			
ADDRESS		COUNTY Ness		STATE KS					
CITY		STATE		SERVICE CREW MATTI Madhooz Trovino					
AUTHORIZED BY		JOB TYPE: Cement 242 Logging							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE 12-18	AM PM	TIME
20920	1								3:30
						ARRIVED AT JOB		AM PM	7:10
						START OPERATION		AM PM	12:13
73768	.5					FINISH OPERATION		AM PM	1:00
						RELEASED		AM PM	2:00
						MILES FROM STATION TO WELL			100

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: *Ruby Papp*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 105	AA-2 cmr	SK	200		3,400.00
CP 103	60/40 Poz	SK	30		360.00
CC 102	Cellulose	lb	50		185.00
CC 105	C-41 P	lb	94		376.00
CC 111	SALT	lb	1043		521.50
CC 148	C-17	lb	104		2,080.00
CC 201	Silicone	lb	999		669.33
CC 113	Sybsum	lb	940		705.00
CF 1251	Anchor float shoe	EA	1		360.00
CF 607	TAICH DOWN PING + Baffle	EA	1		400.00
CF 481	PUR collar	EA	1		3,500.00
CF 1901	BANDER	EA	3		870.00
CF 1651	Turbolizer	EA	12		1,320.00
CC 151	MUD Flush	SAI	500		750.00
C 704	KCL	SAI	3		105.00
SUB TOTAL					

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		<i>2211</i>

SERVICE REPRESENTATIVE: *Mike Motta* THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *Ruby Papp*  
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.



Customer Stewart Well Service	Lease No.	Date 12-14-18
Lease V09-01	Well # 1	
Field Order # 17588	Station Pratt	Casing 5 1/2
		Depth 4640
Type Job 2-42 5 1/2" long string w port collar	Formation LTU 4643	County Ness
	50' 30.99'	State KS
		Legal Description 23-195-26W

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2	Tubing Size	Shots/Ft		Acid 200 sacks AA-2	RATE Stewart	PRESS 151.000	ISIP	
Depth 4638	Depth	From	To	Pre Pad 30 sacks 60	Max 70 P02	29.94	5 Min.	
Volume 110.4	Volume	From	To	Pad	Min		10 Min.	
Max Press 1,500	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection P	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 4607	Packer Depth	From	To	Flush 109.6	Gas Volume		Total Load	

Customer Representative Rick Popp	Station Manager Westerman	Treater MATTAI
--------------------------------------	------------------------------	-------------------

Service Units 83353	84981	70920	70959	73768				
Driver Names MATTAI	MATTAI							

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
7:10					ON LOCATION / SAKS M casing
8:30					Run 5 1/2 15.5" casing port collar @ 1901 J1 68
					BASKETS on 7, 67, 68,
					7 tubes, 1, 2, 3, 4, 7, 9, 11, 13, 15, 17, 19, 69
10:20					Casing on bottom
10:48					Hook to casing / BREAK wire w. Rig
12:13	200		12	5.5	Pump 12 bbl <del>water</del> mud flush
12:17	200		5	5.5	<del>Pump</del> Pump 5 bbl water
12:18	375		43	6.7	SMIT 200T321 AA-2
12:27			4	4	DROP Plug / WASH Pump + Line
12:31	200		-	6.5	STAIL 2% HCL Displacement
12:43	300		73	6.25	LIFT Pressure
12:50	650		99	3	SLOW RATE / STOP ROTATION
12:52	1,500		109.6		Plug DOWN, released + hold
1:00			7		Plug RAT hole
					Circulation thru JOB
					JOB COMPLETE
					THANK YOU!
					Mike Mattai
					EDMUNDO + JOSE