

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<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>Name Top Datum |
|--|---|

| 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<br><input type="checkbox"/> Protect Casing<br><input type="checkbox"/> Plug Back TD<br><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:<br><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:<br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION:<br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5) (Submit ACO-4)</i> | PRODUCTION INTERVAL:<br>Top Bottom |
|---|--|------------------------------------|

| Shots Per Foot | Perforation Top | Perforation Bottom | Bridge Plug Type | Bridge Plug Set At | Acid, Fracture, Shot, Cementing Squeeze Record<br><i>(Amount and Kind of Material Used)</i> |
|----------------|-----------------|--------------------|------------------|--------------------|---|
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |

|                |       |         |            |  |
|----------------|-------|---------|------------|--|
| TUBING RECORD: | Size: | Set At: | Packer At: |  |
|----------------|-------|---------|------------|--|

|           |                               |
|-----------|-------------------------------|
| Form      | ACO1 - Well Completion        |
| Operator  | Satchell Creek Petroleum, LLC |
| Well Name | CATHEDRAL A-3                 |
| Doc ID    | 1677943                       |

All Electric Logs Run

|                          |
|--------------------------|
|                          |
| Sonic Log                |
| Density / Neutron PE Log |
| Micro Log                |
| Dual Induction Log       |

|           |                               |
|-----------|-------------------------------|
| Form      | ACO1 - Well Completion        |
| Operator  | Satchell Creek Petroleum, LLC |
| Well Name | CATHEDRAL A-3                 |
| Doc ID    | 1677943                       |

Perforations

| Shots Per Foot | Perforation Top | Perforation Bottom | BridgePlugType | BridgePlugSet At | Material Record  |
|----------------|-----------------|--------------------|----------------|------------------|------------------|
| 4              | 3570            | 3588               |                |                  | 500 gal 15% INS  |
| 4              | 3530            | 3534               |                |                  | 1250 gal 15% INS |
| 4              | 3510            | 3516               |                |                  | 1250 gal 15% INS |
| 4              | 3308            | 3310               |                |                  |                  |
| 4              | 3332            | 3334               |                |                  |                  |
| 4              | 3464            | 3474               |                |                  |                  |
| 4              | 3484            | 3490               |                |                  |                  |
| 4              | 3520            | 3523               |                |                  |                  |
| 4              | 3538            | 3540               |                |                  |                  |



**MUD LOG**  
**WellSight Systems**  
Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Cathedral A 3  
API: 15-051-27053  
Location: E2 NW NE NE  
License Number: Region:  
Spud Date: 9/20/22 Drilling Completed: 9/29/22  
Surface Coordinates: 38.9429204, -99.1715318 (NAD 27)

Bottom Hole A/A  
Coordinates:  
Ground Elevation (ft): 2033 K.B. Elevation (ft): 2039  
Logged Interval (ft): 2970 To: 3655 Total Depth (ft): 3655  
Formation: Arbuckle  
Type of Drilling Fluid: Chemical based mud

Printed by MudLog from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

**OPERATOR**

Company: Satchel Creek Petroleum  
Address:

**GEOLOGIST**

Name: Chad Counts  
Company: MG Oil Inc.  
Address: P.O. Box 162  
Russell, Ks 67665

**DATE**  
September  
**25**  
2022

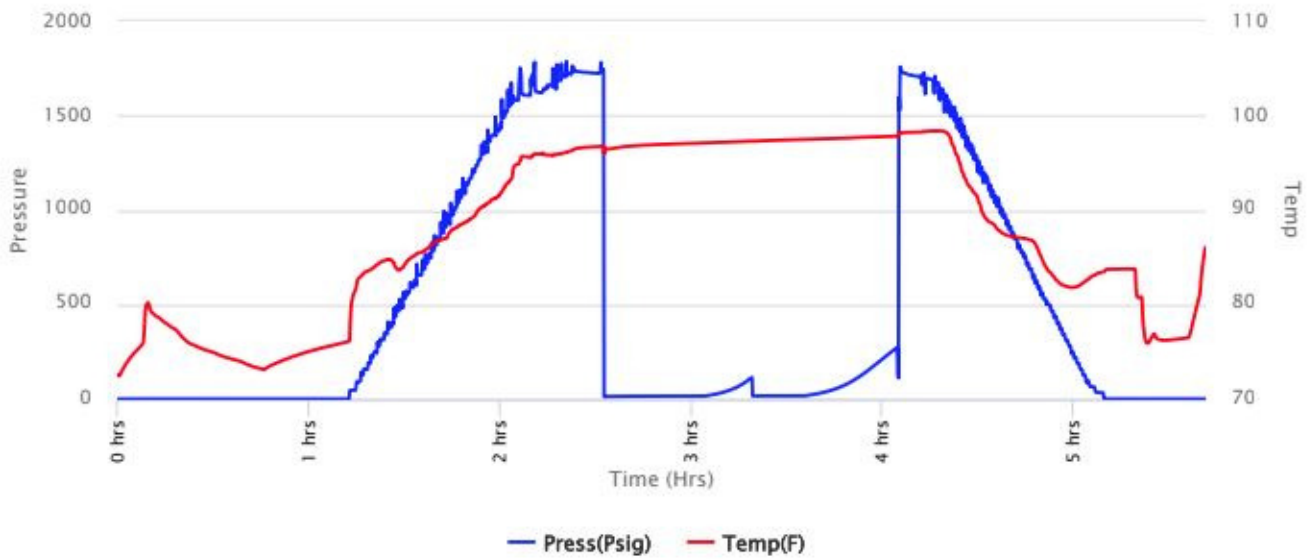
**DST #1**      **Formation: LKC L**      **Test Interval: 3474 - 3540'**      **Total Depth: 3540'**

Time On: 10:55 09/25      Time Off: 16:28 09/25  
Time On Bottom: 13:24 09/25      Time Off Bottom: 14:54 09/25

Electronic Volume Estimate:  
16'

| <u>1st Open</u>                | <u>1st Close</u>              | <u>2nd Open</u>               | <u>2nd Close</u>              |
|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Minutes: 30                    | Minutes: 15                   | Minutes: 15                   | Minutes: 30                   |
| Current Reading: .5" at 30 min | Current Reading: 0" at 15 min | Current Reading: 0" at 15 min | Current Reading: 0" at 30 min |
| Max Reading: .6"               | Max Reading: 0"               | Max Reading: 0"               | Max Reading: 0"               |

Inside Recorder



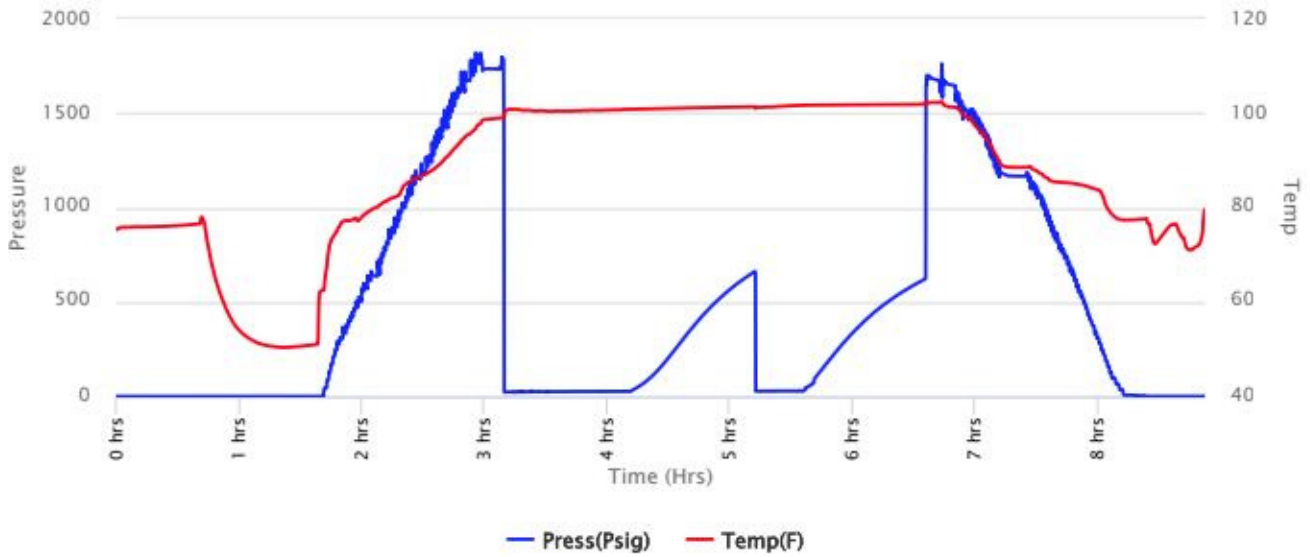
**DATE**  
September  
**28**  
2022

**DST #2**      **Formation: Conglomerate**      **Test Interval: 3550 - 3600'**      **Total Depth: 3655'**  
 Time On: 06:30 09/28      Time Off: 15:08 09/28  
 Time On Bottom: 09:34 09/28      Time Off Bottom: 12:54 09/28

Electronic Volume Estimate:  
22'

| <u>1st Open</u>                 | <u>1st Close</u>              | <u>2nd Open</u>               | <u>2nd Close</u>              |
|---------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Minutes: 60                     | Minutes: 60                   | Minutes: 20                   | Minutes: 60                   |
| Current Reading: 1.6" at 60 min | Current Reading: 0" at 60 min | Current Reading: 0" at 20 min | Current Reading: 0" at 60 min |
| Max Reading: 2.2"               | Max Reading: 0"               | Max Reading: .1"              | Max Reading: 0"               |

Inside Recorder





**DATE**  
September  
**29**  
2022

**DST #4**      **Formation: Topeka**      **Test Interval: 3036 - 3100'**      **Total Depth: 3655'**

Time On: 08:29 09/29      Time Off: 15:04 09/29  
Time On Bottom: 11:16 09/29      Time Off Bottom: 13:16 09/29

Electronic Volume  
Estimate:  
23'

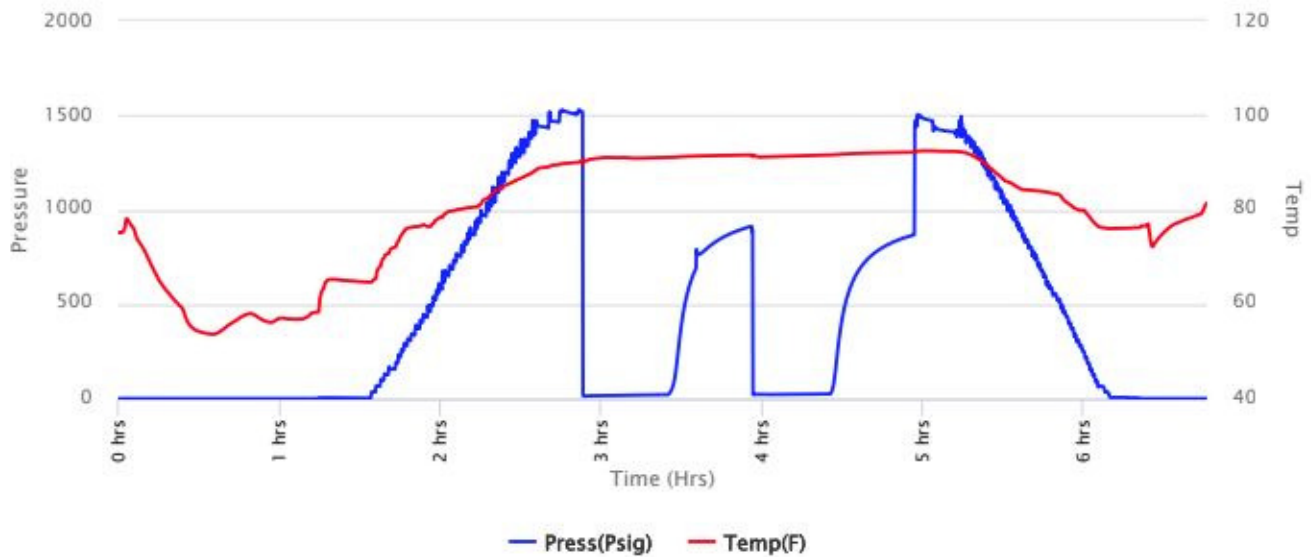
1st Open  
Minutes: 30  
Current Reading:  
2.1" at 30 min  
Max Reading: 2.1"

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

2nd Open  
Minutes: 30  
Current Reading:  
.8" at 30 min  
Max Reading: .8"

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

Inside Recorder



**DATE**  
September  
**29**  
2022

**DST #5**    **Formation: Toronto - Platts**    **Test Interval: 3209 - 3298'**    **Total Depth: 3655'**

Time On: 16:09 09/29    Time Off: 22:03 09/29  
Time On Bottom: 18:31 09/29    Time Off Bottom: 19:06 09/29

Electronic Volume Estimate:  
763'

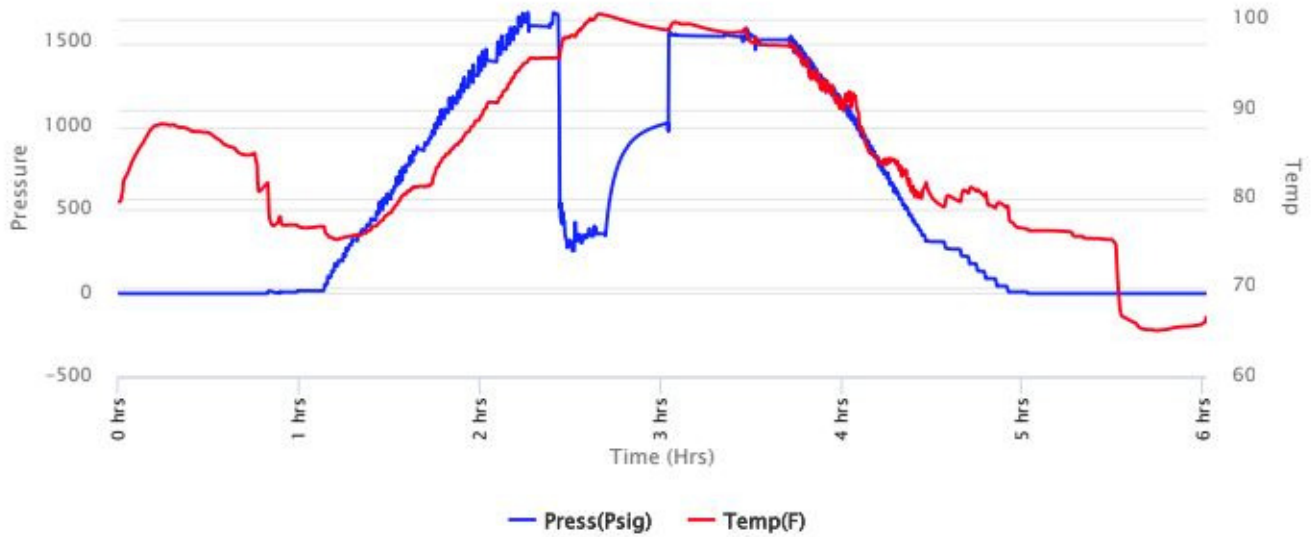
1st Open  
Minutes: 15  
Current Reading:  
90" at 15 min  
Max Reading: 90"

1st Close  
Minutes: 20  
Current Reading:  
0" at 20 min  
Max Reading: 0"

2nd Open  
N/A

2nd Close  
N/A

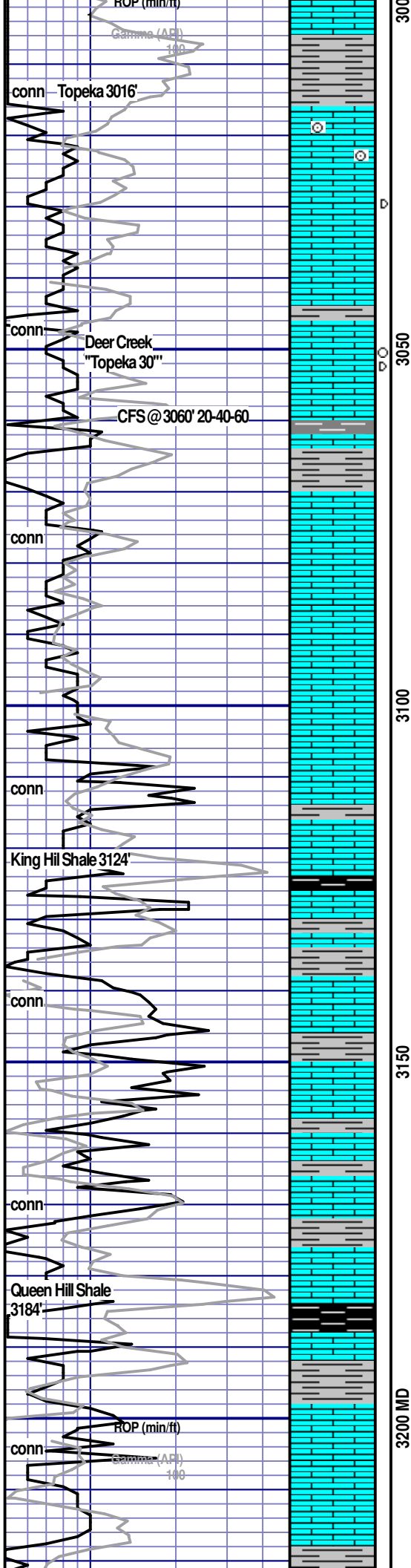
Inside Recorder



**ROCK TYPES**

|  |              |  |                          |  |                        |  |                   |  |              |
|--|--------------|--|--------------------------|--|------------------------|--|-------------------|--|--------------|
|  | <b>Anhy</b>  |  | <b>Coal</b>              |  | <b>Igne</b>            |  | <b>Mrlst</b>      |  | <b>Shgy</b>  |
|  | <b>Bent</b>  |  | <b>Oolitic limestone</b> |  | <b>Dark grey shale</b> |  | <b>Salt</b>       |  | <b>Sltst</b> |
|  | <b>Brec</b>  |  | <b>Congl</b>             |  | <b>Black shale</b>     |  | <b>New symbol</b> |  | <b>Ss</b>    |
|  | <b>Cht</b>   |  | <b>Dol</b>               |  | <b>Lmst</b>            |  | <b>Shale</b>      |  | <b>Till</b>  |
|  | <b>Clyst</b> |  | <b>Gyp</b>               |  | <b>Meta</b>            |  | <b>Shcol</b>      |  |              |

| Curve Track 1<br>ROP (min/ft)<br>Gamma (API) |  | Lithology | Oil Shows | MD | DST | Straddle DST | Porosity Type | Image | Geological Descriptions   | Remarks   |
|--|--|-----------|-----------|----|-----|--------------|---------------|-------|---|---|
|  |  |           |           |    |     |              |               |       |   |   |
| <p>conn. →</p>                               |  |           |           |    |     |              |               |       | <p>Sh: light grey-med grey, mod firm, sub platy, sl. micaceous, trc org mat. 10% LS: cream-beige, micro xln, no vis por, NSOC.</p> <p>Sh: lt grey, mod firm-soft, occ. sl calc, sub platy 20% Ls: cream, beige, mod arg, brittle, no vis por, trc fossil frag, NSOC.</p> <p>Sh: med-lt grey, sub platy, mod firm-soft, sl. calc, sl micaceous, trc or mat. 30% Ls: mudstone, shly, arg, micro</p> | <p>Mud check:<br/>MW 9.0<br/>VIS 38<br/>FILTRATE: 7.2<br/>CHLORIDES: 10000<br/>1.5# LCM</p> |



xln, soft, no vis por, NSOC.

Sh: med grey, sub platy-platy, mod firm, sl calc., occ org mat. 25% Ls: cream, buff, micro xln, mud stone, occ fossil frag (crinoids), no vis por, NSOC.

50% Ls: cream, lt grey, sl-mod arg, micro xln, ms, occ. scat fossil frag, no vis por, NSOC. 50% shale: med grey, sub platy, calc.

90% Ls: cream-beige, micro xln, mudstone, poor vis por, few w/ granular tex, brittle, mod marl cont, 1 cutting w/ questionable strn, no odor.

40' smpl: Ls: cream-grey, buff, micro xln, mod marl, v poor-no vis por, 2-3 cutting w/ sl edge stain, one with rare scat pp vugs, sub sat, no free oil or odor.

Ls: grey, cream, micro xln, sl ag, sl-mod marl, trc granular-earthy tex, trc fossil frag (fus), NSOC. 10% grey shale, sub platy, non carb.

Ls: lt grey, beige, cream, micro xln-occ fn xln (gmy tex), sl-mod arg, occ fossil frag, trc plant matter, poor-no vis por, dense, NSOC. 25% calcareous shale, med grey sub platy-non carb.

Ls: lt grey-cream, beige, micro xln-fn xln, sl-mod arg, scat fossil frag, rare scat pp vug, trc org mat, no vis matrix por, dense, NSOC. 5-10% lt-med grey shale, sub platy.

Ls: cream, beige, mottled, occ. packstone, 250-350micron clasts, no sec. por, very dense, mod marl, NSOC. 5% dk grey-black shale, firm sub platy, mod carb.

Ls: cream, beige, lt grey, micro xln, no vis por, dense. Trc packstone a/a, brittle, occ mottled w/ plant mat, NSOC. 25% sh: light-med grey, smooth, sub platy-platy, non carb.

Ls: off white-cream, micro xln, v dense, sharp cleavage, no vis por, trc scat fossil frag, NSOC. <10% sh: grey subplaty, non carb.

Ls: cream, lt grey, micro xln, dense, occ arg, no vis por, trc fossil frag, most sharp fracture, NSOC. 5-10% Black shale, firm, platy, mod-hvy carb, few w/silica cement.

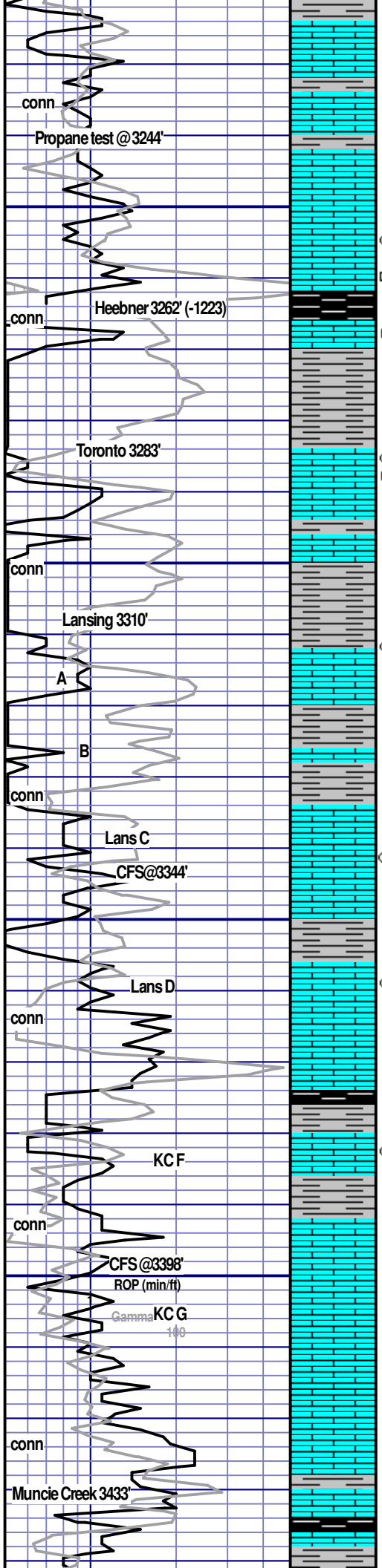
Ls: lt grey-cream, micr xln-v fn xln (arg), mod arg, few w/granular text, mod marl, earthy-litho text, no vis por. NSOC. 5% Black shale a/a

Ls: cream-off white, micro xln, sl mod arg, dense, trc crinoid frag, occ poorly scat oolitic ls 250-350-microns, marl matrix

DST #4  
Topeka  
IFP:15-22psi  
ISIP:911  
FFP:23-26psi  
FSIP: 867psi  
Rec: 30' OSM  
(Oil spots in tool)

MW9.1  
Vis 47  
1.5# LCM

DST #5  
Plattsmout-Toronto  
\*Bottom pack failed



3250  
3300  
3350  
3400 MD

mag, 500 poorly sorted calcite, 200-300 microns, main matrix, no vis sec por, NSOC.

Ls: cream, lt grey, off white, micro xln, v dense-brittle, occ. mod hvy marl, no vis por, trc pyrite, trc mottled plant mat, NSOC.

Ls: cream, micro xln, poor-no vis por, very dense. <5% w/ scattered, poorly connected vuggy porosity, scattered hvy black stain, 2-3 cuttings w hvy black scat free oil. SSFO, no odor.

Ls: beige, lt brown, micro xln-vfn, poor-no vis por, scat rpp por, abndt org mat, earth gran text, abndt marl, svrl dead oil stn, NSFO 5% black shale: firm, platy, v carb.

Sh: dov grey, non platy soft, easily washed, occ firm. Ls: cream, scattered fn xln edge por, mostly dense, non arg, sl marl trace dead oil stn, no odor or free oil.

Ls: beige-cream, micro xln, dense, sharp cleavage, no vis por. Toronto por-<5% partial gs w/v poor sec por, mod marl, scattered black oil stn in pores, no sat, no odor or free oil.

Ls: cream, off white, micro xln, very dense, sharp even cleavage, 3-4 cuttings scat fn xln matrix, r random pores, w sl sat, no free oil or odor. Abndt red-brown shale, easily washed, soft.

Lansing C por- <20 cuttings oolitic grainstone, well std, 500-700 microns, poor-fair intergranular por, svrl w poor connectivity, spotty sl stain (occ dark) and sat, weak gassy odor, few light brown oil droplets.

Lans D por: <5% Ls, crem, beige, fn xln, scat pp vuggy por, mod marl cont, poor-fair inxl por, non arg, scattered dark stain, vssfo, sso on crush, questionable odor. 95% Ls cream, micro xln, dense, no vis por.

Ls: cream, white, micro xln dense, trc oolitic gs, 450-550 microns, w. std, no sec por, 1-2 cuttings a/a, NSOC. 2% black sh: platy, firm, mod carb.

F porosity: sub oolitic-oolitic, castic and moldic porosity, 350-500 microns, uneven scat vugs, dense, hard crush, scat dk oil stain, in vugs, poor stauration, vssfo, faint odor.

Ls: cream, off white, micro xln, sharp cleavage, non arg. 10% oolitic, well std, 350-500 microns, v poor-no vis sec por, dense, hard, NSOC.

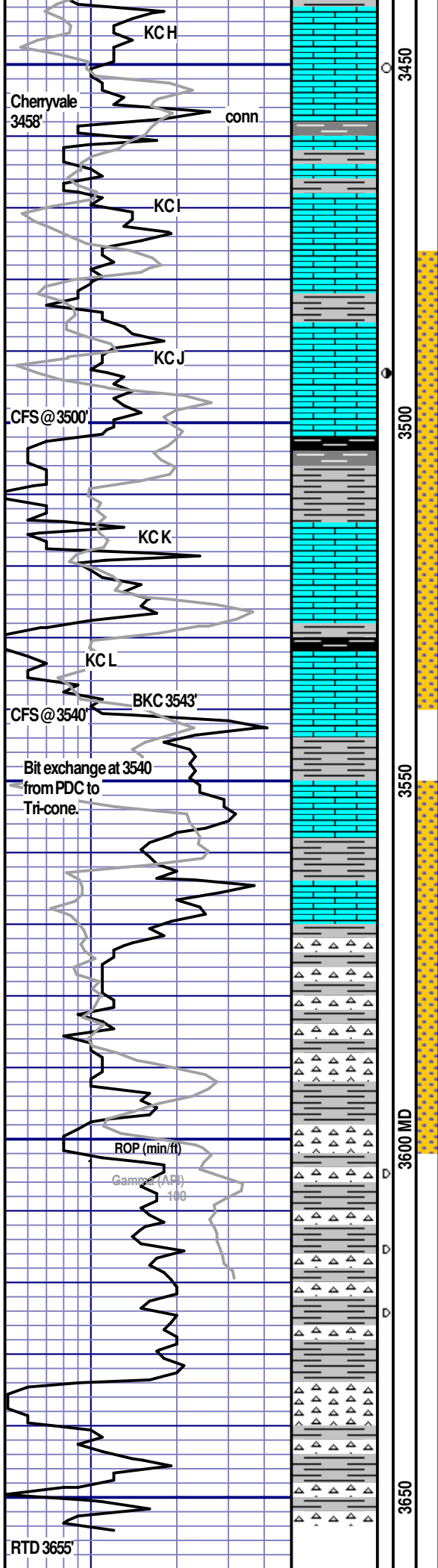
Ls: cream, off white, micro xln, non arg, sl marl, dense, sharp cleavage, no vis por, trc crinoid frag, NSOC.

Ls: cream, beige, lt brown, micro xln, sl-mod arg, dense, r pp vug, occ fossil frag, poor-no vis por, 3 cutting w dead edge stn, NSFO. 5% Black shale: firm, platy, carb. 10% Light-med grey shale, subplaty, soft, smooth, non carb, sl

DST #3  
LKC C-D  
IFP: 17-28psi  
ISIP: 527  
FFP: 33-37psi  
FSIP: 491psi  
Rec: 50' SOCHWCM  
(2%O, 48%W)

MW 9.2  
Vis 47  
1# LCM

MW 9.1  
Vis 47  
1# LCM



calc.

MW92  
Vis 48  
1# LCM

Ls: cream, beige, micro xln, v dens, sharp cleavage, sl cherty (grey-beige), 3 cutting scat fn xln, sl spotty stain and sat, v poor por, vssfo upon crush, no odor.

Ls: cream, beige micro xln, dense, no vis por, sharp cleavage, sl cherty. <1% oolitic Ls: cream, 350-500 microms, castic and partial vuggy por, tight, fair amnt marl, scat stain and sat, ssofo upon crush, questionable odor.

DST #1  
KC-KC L  
3474'-3540'  
IFP 14-17psi  
ISIP 115 psi  
FFP 17-18 psi  
FSIP 269 psi  
Rec: 10' OSM

Ls: cream, micro xln, no vis por, very dense, sl marl, non arg. 1 cutting oolitic a/a, and three found with edge staing, no odor.

Black shale: firm, platy, carb.  
Sh: light grey, v soft, non platy, gummy, hvy grey wash. Trc med grey shale, sub platy, non silty, sl firm.

Ls: cream, off white, micro xln, occ fn xln whvy marl filled por, brittle, non arg, NSOC, no odor.

Mud check:  
MW 9.0  
Vis 64  
Filtrate 10  
Chlorides 14000  
1.5# LCM

10% dark grey-black sh: firm subplaty-platy, sl-mod carb.  
Ls: cream, off white, micro xln, no vis por, dense, mod marl, trc fossil frag, trc chert, NSOC, no odor.

\*While tripping in hole after DST bit became stuck at 3340' owing to bit being out of gauge. Jars were used to free bit. Hole was reamed and continued to be drilled with tri cone.

Sh: med grey, grey green, sub platy-platy, mod firm, non carb, sl calc. 1-2% ss, white, frosted, vfg-silt, w std, w cons, no vis por, NSOC. 10% Ls: grey-white, micro xln, no vis por, NSOC.

70% sh: med grey, brick red, maroon, sub platy-platy, non carb. 30% Ls: cream-white grey, micro xln, dns, no vis por, NSOC.

70% various colored shales. 30% Ls: cream, micro xln, occ mtlid, weathered, abdnt pyrite, no vis por, NSOC.

80% Various colored shale. Ls: cream, off white, few w/ yellow-orange stn, micro xln-fn xln, occ. scat pp vugs, poor por, NSOC.

DST 2  
3550-3600'  
Conglomerate  
IFP:23-28psi  
ISIP:663psi  
FFP:28-30psi  
FSIP: 624psi  
Rec:30' mud (no show oil)

50% chert. white, yellow, brwn, transparent, no edgestaining 10% ls, cream, white, micro xln, dense. 40% sh: grey, teal, grey green, maroon.

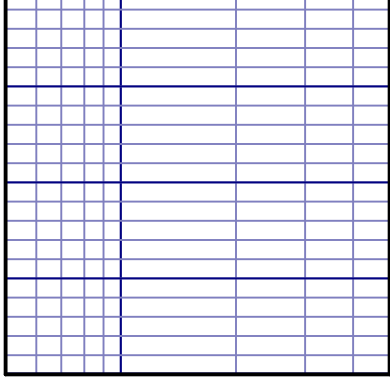
50% chert a/a, 10% Ls cream, mottled w/ maroon shale, dense, micro xln, no vis por. 40% various colored shales.

75% chert, white, beige, opaque, few w/spotted dead asphaltic oil stain, no free oil or odor. 15% sh: grey green, subplaty. 10% dolomitic limestone and ls, micro xln, dense, NSOC.

Chert, shale, and dolomitic ls a.a. Abundant red shale, soft, smooth, easily washed.

75% shale: light grey green, grey, platy, firm and soft. 25% chaert a/a NSOC.

50% chert, bony white, opaque, no vis stain or odor. 50% grey, maroon, and grey-green shale, sub platy-platy, soft and firm, non silty, sl calc.

|   |  |    |  |  |  |  |
|---|--|----|--|--|--|--|
|  |  | 00 |  |  |  |  |
|---|--|----|--|--|--|--|



**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**

Uploading recovery &  
pressures

**DATE**

September  
**28**  
2022

**DST #2**

**Formation:  
Conglomerate**

**Test Interval: 3550 -  
3600'**

**Total Depth: 3655'**

Time On: 06:30 09/28

Time Off: 15:08 09/28

Time On Bottom: 09:34 09/28

Time Off Bottom: 12:54 09/28

Electronic Volume  
Estimate:

22'

1st Open

Minutes: 60

Current Reading:

1.6" at 60 min

Max Reading: 2.2"

1st Close

Minutes: 60

Current Reading:

0" at 60 min

Max Reading: 0"

2nd Open

Minutes: 20

Current Reading:

0" at 20 min

Max Reading: .1"

2nd Close

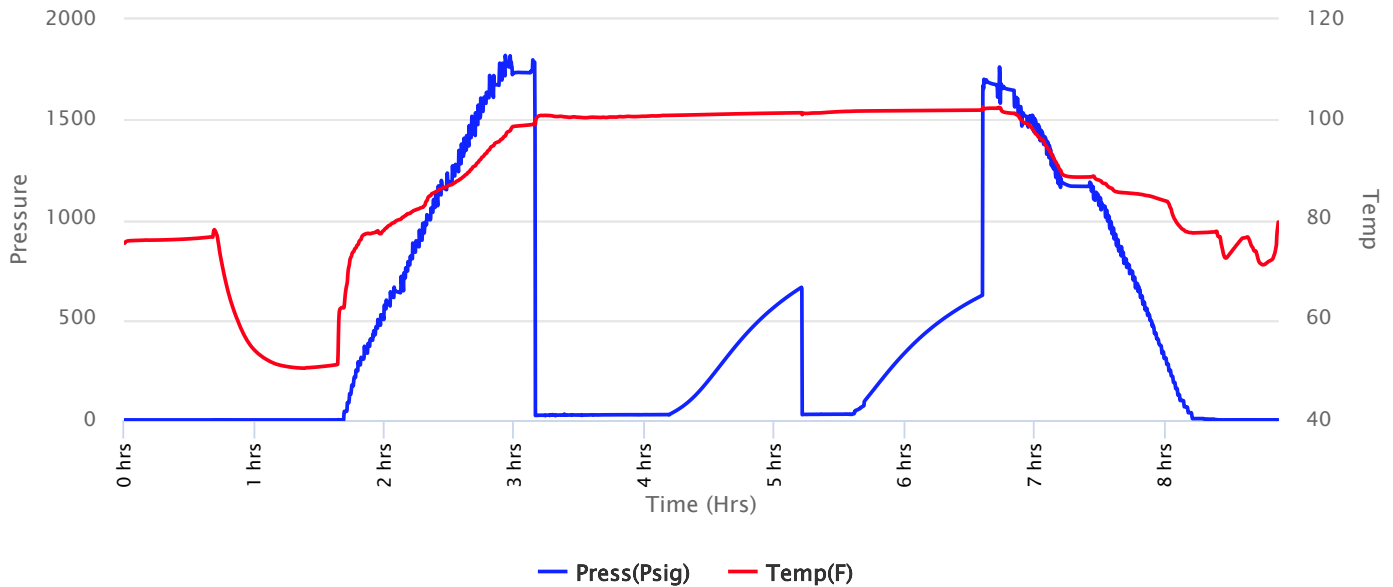
Minutes: 60

Current Reading:

0" at 60 min

Max Reading: 0"

Inside Recorder





**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
September  
**28**  
2022

**DST #2**      **Formation: Conglomerate**      **Test Interval: 3550 - 3600'**      **Total Depth: 3655'**  
Time On: 06:30 09/28      Time Off: 15:08 09/28  
Time On Bottom: 09:34 09/28      Time Off Bottom: 12:54 09/28

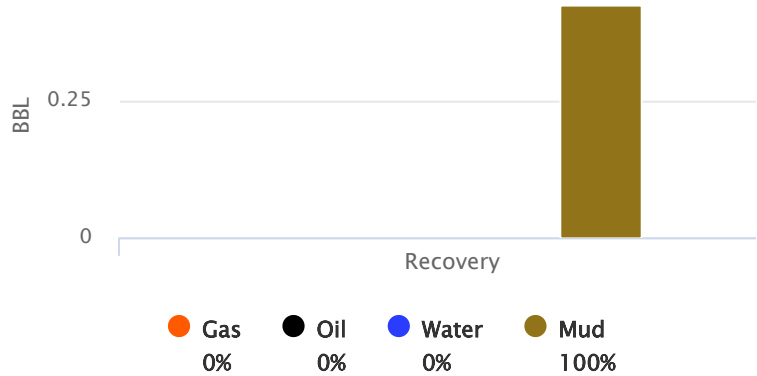
| Recovered |        | Description of Fluid | Gas % | Oil % | Water % | Mud % |
|-----------|--------|----------------------|-------|-------|---------|-------|
| Foot      | BBLs   |                      |       |       |         |       |
| 30        | 0.4269 | M                    | 0     | 0     | 0       | 100   |

Total Recovered: 30 ft  
Total Barrels Recovered: 0.4269

Reversed Out  
NO

|  |            |            |
|--|------------|------------|
| Initial Hydrostatic Pressure                   | 1791       | PSI        |
| Initial Flow                                   | 23 to 28   | PSI        |
| <b>Initial Closed in Pressure</b>              | <b>663</b> | <b>PSI</b> |
| Final Flow Pressure                            | 28 to 30   | PSI        |
| <b>Final Closed in Pressure</b>                | <b>624</b> | <b>PSI</b> |
| Final Hydrostatic Pressure                     | 1687       | PSI        |
| Temperature                                    | 102        | °F         |
| Pressure Change Initial<br>Close / Final Close | 6.0        | %          |

**Recovery at a glance**



GIP cubic foot volume: 0



**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**

Uploading recovery &  
pressures

**DATE**

September  
**28**  
2022

**DST #2**

**Formation:  
Conglomerate**

**Test Interval: 3550 -  
3600'**

**Total Depth: 3655'**

Time On: 06:30 09/28

Time Off: 15:08 09/28

Time On Bottom: 09:34 09/28

Time Off Bottom: 12:54 09/28

**BUCKET MEASUREMENT:**

*Diesel in Bucket*

1st Open: 2 blow built to 2.25 died back to 1.5

1st Close: No return

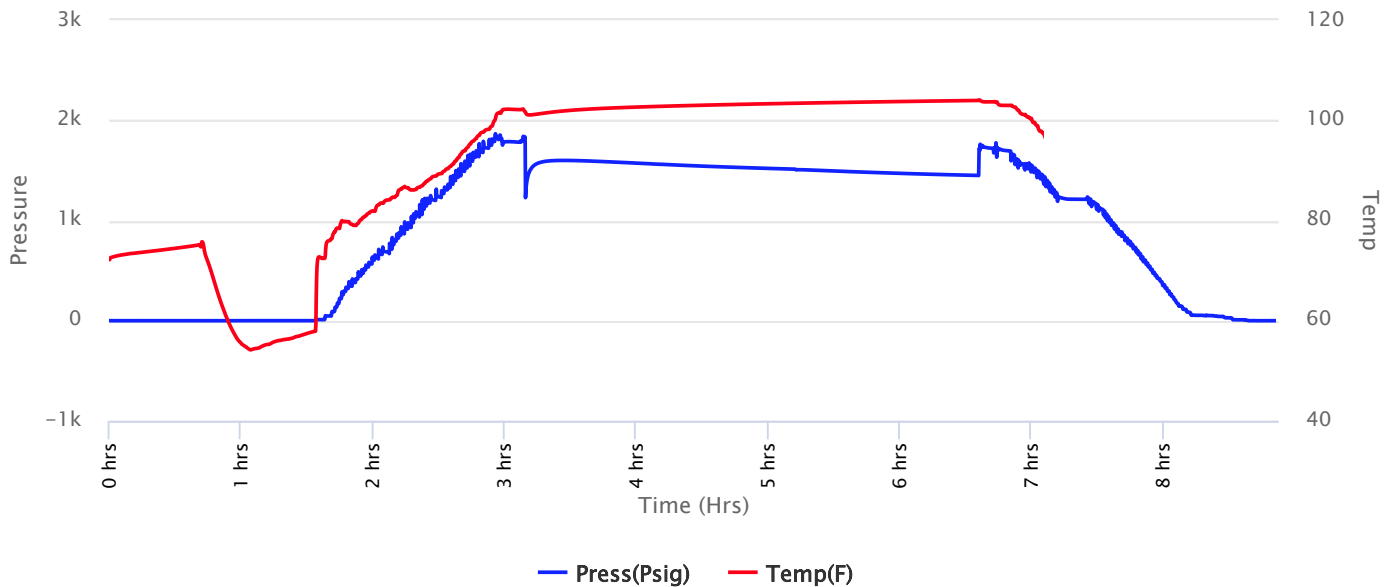
2nd Open: Weak surface blow died at 8.5 mins

2nd Close: No return

**REMARKS:**

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

**Below Straddle Recorder**





Change Over: 1 FT

Perforations (in tail pipe): 21 FT  
4 1/2-FH



**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**

Uploading recovery &  
pressures

**DATE**

September

**28**

2022

**DST #2      Formation: Conglomerate      Test Interval: 3550 - 3600'      Total Depth: 3655'**  
Time On: 06:30 09/28      Time Off: 15:08 09/28  
Time On Bottom: 09:34 09/28      Time Off Bottom: 12:54 09/28

**Mud Properties**

**Mud Type:** Chem

**Weight:** 9.2

**Viscosity:** 48

**Filtrate:** 8.0

**Chlorides:** 12000 ppm





















**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
September  
**29**  
2022

**DST #4      Formation: Topeka      Test Interval: 3036 - 3100'      Total Depth: 3655'**

Time On: 08:29 09/29      Time Off: 15:04 09/29  
Time On Bottom: 11:16 09/29      Time Off Bottom: 13:16 09/29

Electronic Volume  
Estimate:  
23'

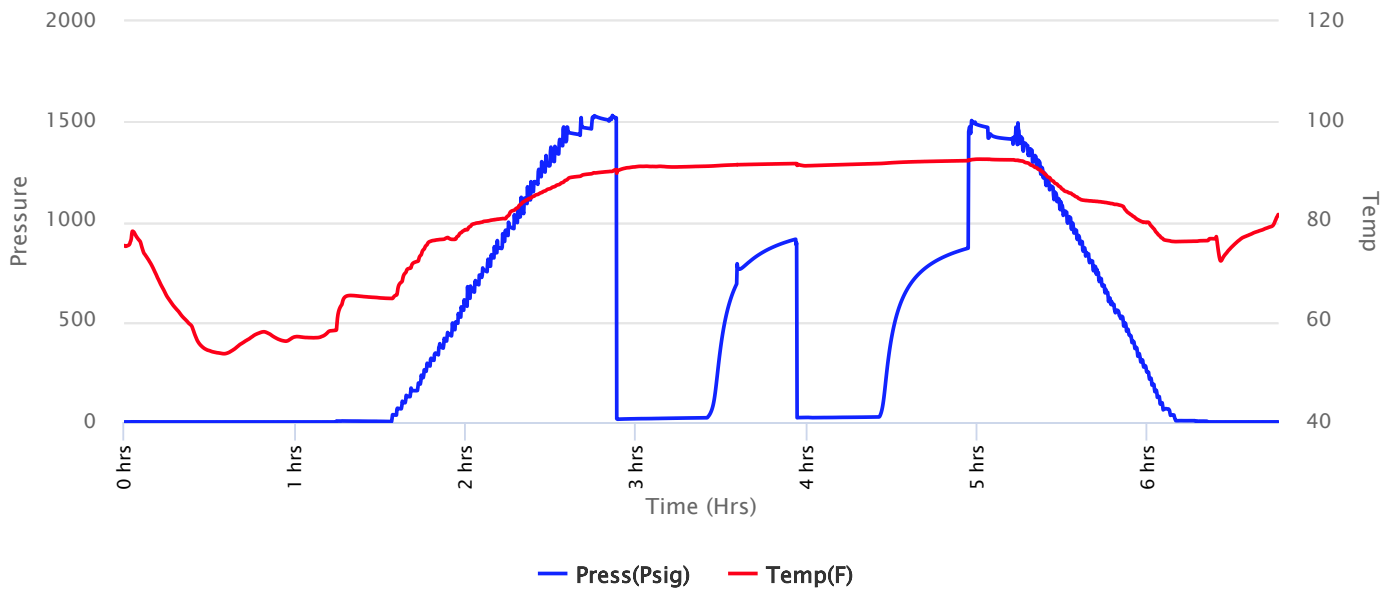
1st Open  
Minutes: 30  
Current Reading:  
2.1" at 30 min  
Max Reading: 2.1"

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

2nd Open  
Minutes: 30  
Current Reading:  
.8" at 30 min  
Max Reading: .8"

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

Inside Recorder





**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
September  
**29**  
2022

**DST #4      Formation: Topeka      Test Interval: 3036 - 3100'      Total Depth: 3655'**  
Time On: 08:29 09/29      Time Off: 15:04 09/29  
Time On Bottom: 11:16 09/29      Time Off Bottom: 13:16 09/29

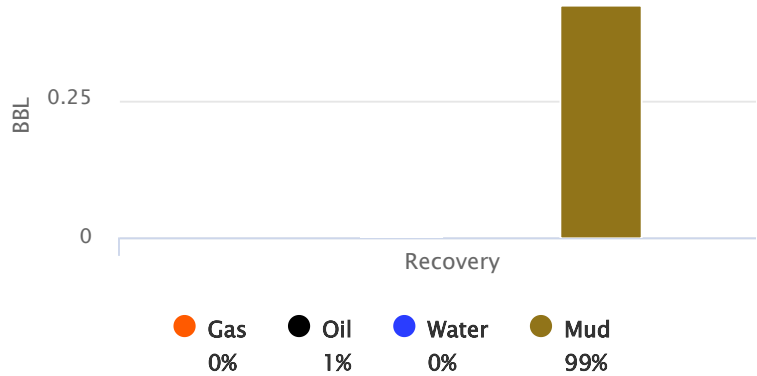
| Recovered |        | Description of Fluid | Gas % | Oil % | Water % | Mud % |
|-----------|--------|----------------------|-------|-------|---------|-------|
| Foot      | BBLs   |                      |       |       |         |       |
| 30        | 0.4269 | SLOCM                | 0     | 1     | 0       | 99    |

Total Recovered: 30 ft  
Total Barrels Recovered: 0.4269

Reversed Out  
NO

|  |            |            |
|--|------------|------------|
| Initial Hydrostatic Pressure                   | 1519       | PSI        |
| Initial Flow                                   | 15 to 22   | PSI        |
| <b>Initial Closed in Pressure</b>              | <b>911</b> | <b>PSI</b> |
| Final Flow Pressure                            | 23 to 26   | PSI        |
| <b>Final Closed in Pressure</b>                | <b>867</b> | <b>PSI</b> |
| Final Hydrostatic Pressure                     | 1506       | PSI        |
| Temperature                                    | 93         | °F         |
| Pressure Change Initial<br>Close / Final Close | 4.9        | %          |

**Recovery at a glance**



GIP cubic foot volume: 0



**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**

Uploading recovery &  
pressures

**DATE**

September  
**29**  
2022

**DST #4      Formation: Topeka      Test Interval: 3036 - 3100'      Total Depth: 3655'**

Time On: 08:29 09/29      Time Off: 15:04 09/29

Time On Bottom: 11:16 09/29      Time Off Bottom: 13:16 09/29

**BUCKET MEASUREMENT:**

1st Open: .25 blow built to 2"

1st Close: No return

2nd Open: Surface blow built to .5

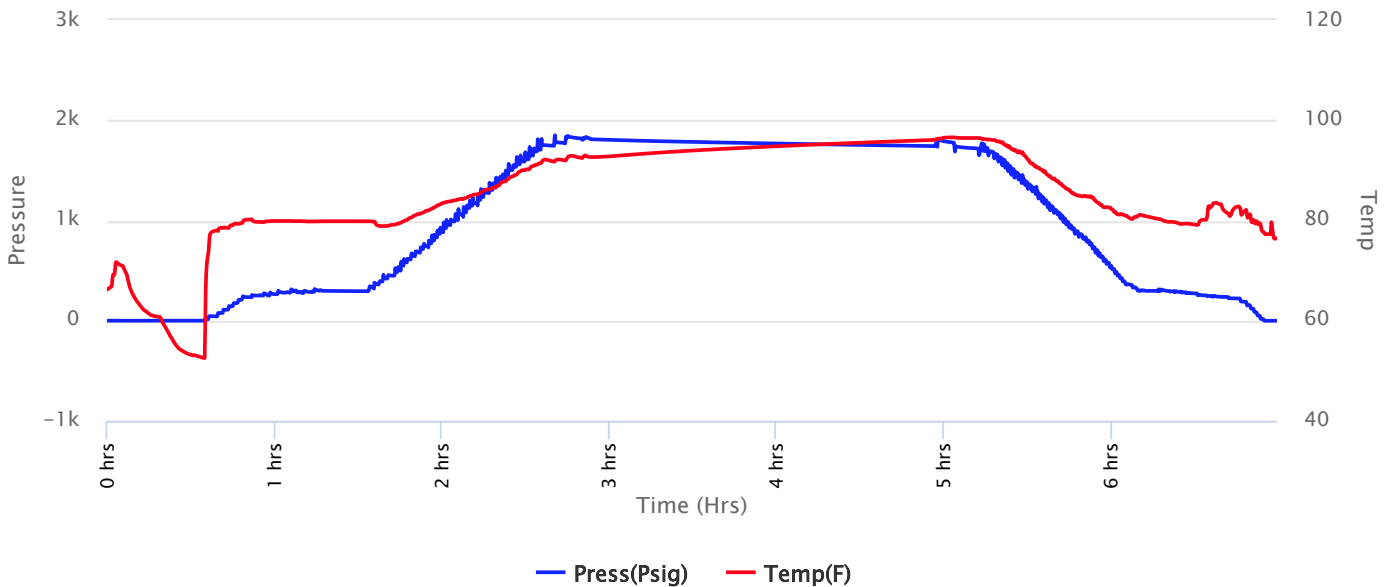
2nd Close: No return

**REMARKS:**

Pit mud sample = 100%M with a skim of oil

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

**Below Straddle Recorder**





**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
September  
**29**  
2022

**DST #4      Formation: Topeka      Test Interval: 3036 -      Total Depth: 3655'**  
**3100'**  
Time On: 08:29 09/29      Time Off: 15:04 09/29  
Time On Bottom: 11:16 09/29      Time Off Bottom: 13:16 09/29

**Down Hole Makeup**

|                                     |   |
|-------------------------------------|---|
| <b>Heads Up:</b> 8.4000000000002 FT | <b>Packer 1:</b> 3030.5 FT              |
| <b>Drill Pipe:</b> 3010.83 FT       | <b>Packer 2:</b> 3036 FT                |
| <i>ID-3 1/2</i>                     | <b>Packer 3:</b> 3100 FT                |
| <b>Weight Pipe:</b> FT              | <b>Top Recorder:</b> 3019.42 FT         |
| <b>Collars:</b> FT                  | <b>Bottom Recorder:</b> 3073 FT         |
| <i>ID-2 1/4</i>                     | <b>Below Straddle Recorder:</b> 3640 FT |
| <b>Test Tool:</b> 34.57 FT          | <b>Well Bore Size:</b> 7 7/8            |
| <i>ID-3 1/2-FH</i>                  | <b>Surface Choke:</b> 1"                |
| <i>Jars</i>                         | <b>Bottom Choke:</b> 5/8"               |
| <i>Safety Joint</i>                 |   |
| <b>Total Anchor:</b> 64             |   |

**Anchor Makeup**

**Packer Sub:** 1 FT

**Perforations: (top):** 3 FT  
    *4 1/2-FH*

**Change Over:** .5 FT

**Drill Pipe: (in anchor):** 31 FT  
    *ID-3 1/2*

**Change Over:** .5 FT

**Perforations: (below):** 28 FT  
    *4 1/2-FH*

**STRADDLE**

**Straddle Packer(s):** 1 FT

**Change Over:** 1 FT

**Drill Pipe:** 504.61 FT  
    *ID-3 1/2"*

Change Over: 1 FT

Perforations (in tail pipe): 16 FT

4 1/2-FH



**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**

Uploading recovery &  
pressures

**DATE**

September

**29**

2022

**DST #4      Formation: Topeka      Test Interval: 3036 -      Total Depth: 3655'**  
**3100'**

Time On: 08:29 09/29

Time Off: 15:04 09/29

Time On Bottom: 11:16 09/29

Time Off Bottom: 13:16 09/29

**Mud Properties**

**Mud Type:**

**Weight:**

**Viscosity:**

**Filtrate:**

**Chlorides: ppm**



**Company: Satchell Creek  
Petroleum, LLC  
Lease: Cathedral #A-3**

SEC: 11 TWN: 13S RNG: 17W  
County: ELLIS  
State: Kansas  
Drilling Contractor: Feature Drilling  
LLC - Rig 1  
Elevation: 2033 EGL  
Field Name: Catharine East  
Pool: Infield  
Job Number: 606  
API #: 15-051-27053

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
September  
**29**  
2022

**DST #4      Formation: Topeka      Test Interval: 3036 -      Total Depth: 3655'**  
**3100'**  
Time On: 08:29 09/29      Time Off: 15:04 09/29  
Time On Bottom: 11:16 09/29      Time Off Bottom: 13:16 09/29

**Gas Volume Report**

1st Open

2nd Open

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

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



















**CEMENT TREATMENT REPORT**

|                                    |                      |                  |
|------------------------------------|----------------------|------------------|
| Customer: Satchell Creek Petroleum | Well: Cathedral A #2 | Ticket: WP-3457  |
| City, State: Hays KS               | County: Ellis KS     | Date: 10/1/2022  |
| Field Rep: Jesse                   | S-T-R: 11-13S-17W    | Service: 2 Stage |

| Downhole Information |            |
|----------------------|------------|
| Hole Size:           | 7 7/8 in   |
| Hole Depth:          | ft         |
| Casing Size:         | 5 1/2 in   |
| Casing Depth:        | 3651 ft    |
| Tubing / Liner:      | in         |
| Depth:               | ft         |
| Tool / Packer:       | D.V        |
| Tool Depth:          | 1234 ft    |
| Displacement:        | 228.7 bbls |

| Calculated Slurry - Lead |                      |
|--------------------------|----------------------|
| Blend:                   |                      |
| Weight:                  | ppg                  |
| Water / Sx:              | gal / sx             |
| Yield:                   | ft <sup>3</sup> / sx |
| Annular Bbls / Ft.:      | bbs / ft.            |
| Depth:                   | ft                   |
| Annular Volume:          | 0.0 bbls             |
| Excess:                  |                      |
| Total Slurry:            | 0.0 bbls             |
| Total Sacks:             | 0 sx                 |

| Calculated Slurry - Tail |                      |
|--------------------------|----------------------|
| Blend:                   |                      |
| Weight:                  | ppg                  |
| Water / Sx:              | gal / sx             |
| Yield:                   | ft <sup>3</sup> / sx |
| Annular Bbls / Ft.:      | bbs / ft.            |
| Depth:                   | ft                   |
| Annular Volume:          | 0 bbls               |
| Excess:                  |                      |
| Total Slurry:            | 0.0 bbls             |
| Total Sacks:             | 0 sx                 |

| TIME   | RATE | PSI     | BBLs  | STAGE | TOTAL BBLs | REMARKS                                  |
|--------|------|---------|-------|-------|------------|--|
| 9:40a  |      |         | -     |       | -          | Arrival                                  |
| 9:45a  |      |         |       |       | -          | Safety meeting                           |
| 9:50a  |      |         |       |       | -          | Rig up                                   |
| 10:30a |      |         |       |       | -          | Drop ball                                |
| 10:35a | 3.6  | 220.0   | 5.0   |       | 5.0        | H2O ahead                                |
| 10:37a | 5.0  | 300.0   | 12.0  |       | 17.0       | Mixed 500 gallons of mud flush           |
| 10:42a | 4.0  | 260.0   | 5.0   |       | 22.0       | H2O behide                               |
| 10:50a | 4.0  | 300.0   | 41.6  |       | 63.6       | Mixed 225 sks of H-BT @ 15.5 ppg @ 3651' |
| 11:03a |      |         |       |       | 63.6       | Shut down and washed up pump & lines     |
| 11:05a |      |         |       |       | 63.6       | Drop plug                                |
| 11:09a | 6.6  | 230.0   | 85.8  |       | 149.4      | Displaced H2O                            |
| 11:25a | 3.5  | 1,300.0 |       |       |            | Land plug                                |
| 11:30a |      |         |       |       |            | Drop bomb                                |
| 12:05p | 1.0  | 820.0   | 1.0   |       |            | Open D.V.                                |
| 12:25p |      |         |       |       |            | Circulated for 2 hrs                     |
| 2:20p  | 5.0  | 150.0   | 5.0   |       |            | H2O ahead                                |
| 2:22p  | 6.6  | 300.0   | 142.9 |       |            | Mixed 325 sks of H-con @ 12 ppg @ 1234'  |
| 2:43p  |      |         |       |       |            | Shut down and washed up pump & lines     |
| 2:46p  |      |         |       |       |            | Dropped plug                             |
| 2:50p  | 6.0  | 330.0   | 29.3  |       |            | Displaced H2O                            |
| 3:00p  | 3.0  | 1,790.0 |       |       |            | Land plug                                |
| 3:05p  |      |         |       |       |            | Wash up                                  |
| 3:12p  |      |         |       |       |            | Rig down                                 |
| 3:45p  |      |         |       |       |            | Depart location                          |
|        |      |         |       |       |            |  |
|        |      |         |       |       |            | Circulated 20 sks to pit                 |

| CREW           |           | UNIT    | SUMMARY      |                  |             |
|----------------|-----------|---------|--------------|------------------|-------------|
| Cementer:      | Jesse     | 78      | Average Rate | Average Pressure | Total Fluid |
| Pump Operator: | Michael   | 230     | 4.4 bpm      | 545 psi          | 328 bbls    |
| Bulk #1:       | Tyler     | 194-235 |              |                  |             |
| Bulk #2:       | Christian | 205     |              |                  |             |

Satchell Creek  
Cathedral A 2

