KOLAR Document ID: 1429278

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 # 6569
Name: Carmen Schmitt, Inc.
Address 1: PO BOX 47
Address 2:
City: GREAT BEND State: KS Zip: 67530 + 0047
Contact Person: Matt Suchy
Phone: (620) 793-5100
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Brad Rine
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 #:

09/11/2019 — Spud Date or Recompletion Date
9/18/2019 — Date Reached TD
9/19/2019 — Completion Date or Recompletion Date

API No.: 15-141-20479-00-00
Spot Description:
SE - SW - NE - SW Sec. 4 Twp. 8 S. R. 15 ☐ East ☑ West
1350 Feet from ☐ North / ☑ South Line of Section
1870 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Osborne
Lease Name: BRUMMER Well #: 1
Field Name:
Producing Formation: na
Elevation: Ground: 1875 Kelly Bushing: 1883
Total Vertical Depth: 3773 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 210 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: 4000 ppm Fluid volume: 500 bbls
Dewatering method used: Evaporated
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: 10/16/2019
☐ **Confidential Release Date:** 10/15/2021
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Karen Ritter **Date:** 10/17/2019

Operator Name: Carmen Schmitt, Inc. Lease Name: BRUMMER Well #: 1

Sec. 4 Twp. 8 S. R. 15 ☐ East ☑ West County: Osborne

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 *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☑ Yes	☐ No

List All E. Logs Run:

Dual Induction
Dual Comp
Micro

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	210	Common 60/40 Poz	195	3%CC2%gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Top / Bottom

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Carmen Schmitt, Inc.
Well Name	BRUMMER 1
Doc ID	1429278

Tops

Name	Top	Datum
Stone Corral	1170	713
Topeka	2820	-937
Heebner Sh.	3045	-1162
Toronto	3068	-1185
Lansing	3090	-1207
B/ Kansas City	3363	-1480
Marmaton	3400	-1517
Viola	3576	-1693
Simpson	3656	-1773
Arbuckle	3708	-1825

Form	ACO1 - Well Completion
Operator	Carmen Schmitt, Inc.
Well Name	BRUMMER 1
Doc ID	1429278

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	210	Common 60/40 Poz	195	3%CC2% gel

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

Well Name:	**Brummer #1 - Carmen Schmitt, Inc.**		
API:	**15-141-20479-00-00**		
Location:	**SE-SW-NE-SW, Section 04-08S-15W**		
License Number:	**KCC #6569**	**Region:**	**Osborne Co., Kansas**
Spud Date:	**September 11, 2019**	**Drilling Completed:**	**September 18, 2019**
Surface Coordinates:	**1350' FSL & 1870' FWL, of Section**	**Results:**	**P & A**
Bottom Hole Coordinates:	**Vertical Wellbore**	**Field:**	**Wildcat**
Ground Elevation (ft):	**1875 Ft.**	**K.B. Elevation (ft):**	**1883 Ft.**
Logged Interval (ft):	**2100 Ft. To: 3770 Ft.**	**Total Depth (ft):**	**RTD 3770 Ft. LTD 3773 Ft .**
Formation:	**Arbuckle**		
Type of Drilling Fluid:	**Chemical**		

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

Operator

Company: **Carmen Schmitt, Inc.**
Address: **PO Box 47**
Great Bend, Kansas 67530-0047

Geologist

Name: **M. Bradford Rine**
Company: **Consulting Geologist, Kansas Lic. #204, Wyo #189, AAPG Cert. #2647**
Address: **100 South Main, Suite #320A**
Wichita, Kansas 67202

Remarks

Based on sample observations, drill stem test results, and electric log evaluation, it was the decision of the Operator, to plug and abandon the "Brummer #1", on September 18, 2019.

Respectfully submitted,
M. Bradford Rine, geologist

Drilling Information

Rig: Southwind #3
Pump: Emsco D-375 6 x 14
Drawworks: Cardwell 350
Collars: 402' 2-1/4 x 6-1/4
Drillpipe: 4-1/2" 16.6# XH
Toolpusher: Jay Krier

Mud: Mudco (Gary Schmidtberger)
Gas Detector: None
Drill Stem Tests: Trilobite (Brannon Lonsdale)
Logs: Pioneer (Justin Henrickson)
Water: Pond North of Location (RPM Services)
Company Representatives:
Office: Carmen Schmitt
Field: None

Daily Drilling Status

Date:	Operations/Depth/Comments
09-11-19	MIRT, RU, Spud @ 0'
09-12-19	Waiting on Cement @ 210'
09-13-19	Drilling @ 1646'
09-14-19	Circulating for Samples @ 2650'
09-15-19	Circulating for Samples @ 2961'
09-16-19	Trip Out of Hole for DST #3 @ 3162'
09-17-19	Circulating for Samples @ 3352'
09-18-19	Circulating to Condition Hole for Logs @ 3770'
09-19-19	Finish Plugging @ 3770 ft
	At 2:00 AM, Septmeber 19, 2019

	Results:	D & A		(Well A)	D & A	(Well B)	D & A	(Well C)	D & A			
	Carmen Schmitt, Inc			N-B Co, Inc.		Anderson-Prichard		Anderson-Prichard				
	Brummer #1			Wilkenson #1		Gregory #1		Stephenson #1				
	1350'FSL & 1870'FWL			NE-NE-SE		SW-SW-NW		NE-NE-SE				
	Sec. 04-08S-15W			Sec. 05-08S-15W		Sec. 03-08S-15W		Sec. 32-07S-15W				
	KB	1883		KB	1859	KB	1901	KB	1870	Well A	Well B	Well C
Formations	Sample	E-Log	Datum	Sample	Datum	E-Log	Datum	E-Log	Datum	Comparisons		
Anhydrite	1169	1170	713	1192	667	1194	707	1147	723	46	6	-10
B/Anhydrite	1204	1204	679	1230	629	1227	674	1183	687	50	5	-8
Neva	2242	2240	-357			2233	-332	2212	-342		-25	-15
Tarkio	2658	2666	-783	2588	-729	2663	-762	2634	-764	-54	-21	-19
Topeka	2814	2820	-937	2788	-929	2820	-919	2788	-918	-8	-18	-19
Heebner Sh.	3041	3045	-1162	3014	-1155	3044	-1143	3010	-1140	-7	-19	-22
Toronto	3066	3068	-1185	3036	-1177	3066	-1165	3033	-1163	-8	-20	-22
Lansing	3084	3090	-1207	3057	-1198	3088	-1187	3054	-1184	-9	-20	-23
Muncie Creek Sh.	3223	3226	-1343			3225	-1324	3190	-1320		-19	-23
Stark Sh.	3302	3304	-1421	3336	-1477	3301	-1400	3270	-1400	56	-21	-21
B/Kansas City	3359	3363	-1480			3360	-1459	3328	-1458		-21	-22
Marmaton	3400	3400	-1517			3396	-1495	3368	-1498		-22	-19
B/Penn Lime	3487	3490	-1607			3492	-1591	3454	-1584		-16	-23
Viola	3572	3576	-1693	3523	-1664	3582	-1681	3506	-1636	-29	-12	-57
Simpson	3653	3656	-1773	3594	-1735	3680	-1779	3618	-1748	-38	6	-25
Arbuckle	3705	3708	-1825	3646	-1787	3732	-1831	3666	-1796	-38	6	-29
Total Depth	3770	3773	-1890	3670	-1811	3779	-1878	3721	-1851	-79	-12	-39

Casing Record, Bit Record, Deviation Surveys

CASING:

Conductor: None

Surface: Ran 5 jts new 8-5/8" 23# casing, set @ 210 ft. (Copeland) Cement with 195 sx Common 60/40 poz, 3%CC 2% gel. Plug down @ 2:15 a.m., on September 12, 2019. Cement did circulate.

Production: Plug and abandon as follows: (Quality) Plugged well with 280 sx Common, 60/40 POZ, 4% gel, 1/4# flo seal. 50 sx @ 3685', 50 sx @ 1190', 100 sx @ 790', 50 sx @ 260', 10 sx @ 40', 30 sx in Rat Hole. Job complete at 2:00 AM, September 19, 2019.

BITS:

No.	Size	Make	Model	Depth In	Depth Out	Hours
1	12-1/4	RR	RT	0	210	2.75
2	7-7/8	Varel	HE29	210	3162	47.25
3	7-7/8	Varel	HE29 RR	3162	3770	26.75

DEVIATION SURVEYS:

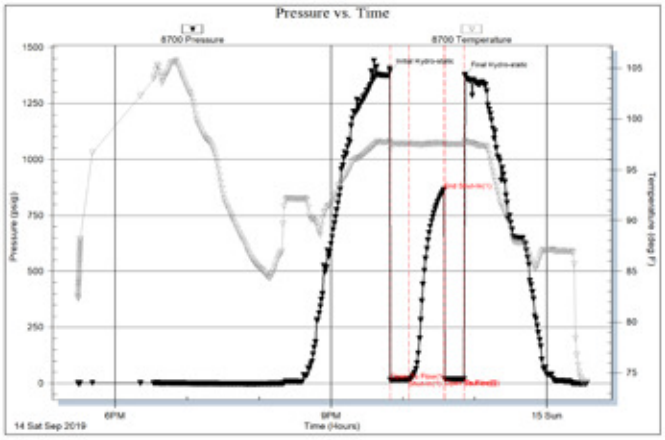
Deviation:	Depth:	Deviation:	Depth:
1.00*	210'	1.75*	3770'
1.25*	2855'		

PIPE STRAPS:

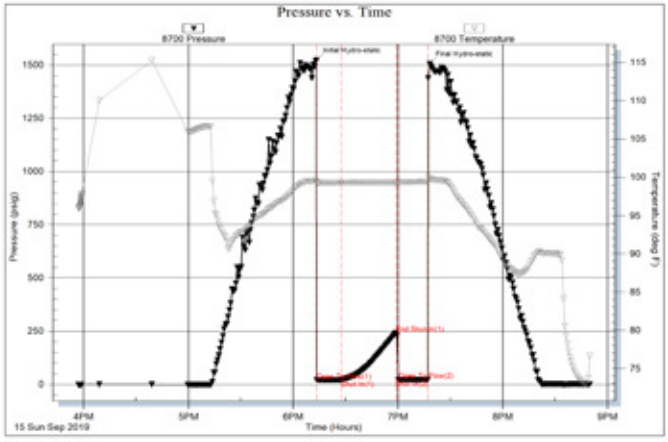
Difference:	depth:
2.84' long	2855'

Displace & Mudup:
begin @ 2278'
complete @ 2305'

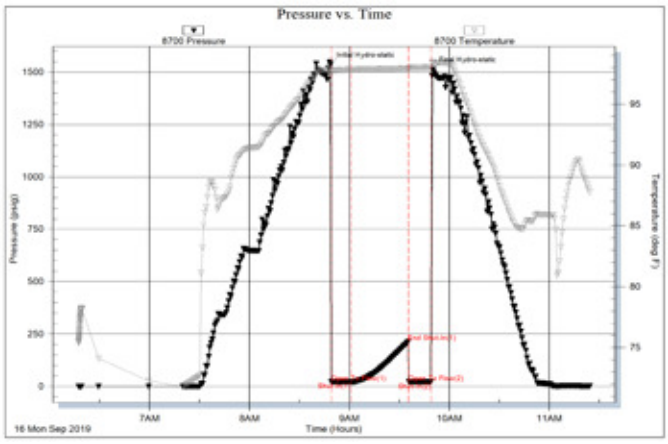
DST #1: 2835-2855 (Topeka B)
Times: 15-30-10-out
Initial Open: Wk surf blow, died in 4 min
Final Open: No blow
Rec: 3' mud
IHP: 1393 FHP: 1377
IFP: 15-17 FFP: 19-19
ISIP: 865 FSIP: NA
BHT: 98*F



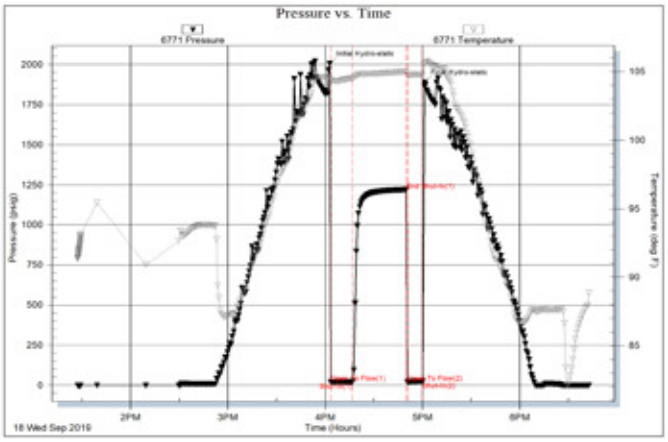
DST #2: 3037-3099 (Tor, Lsg A)
Times: 15-30-10-out
Initial Open: Wk Surf Blow, died 2 min.
Final Open: No Blow
Rec: 5' mud
IHP: 1521 FHP: 1505
IFP: 20-21 FFP: 22-22
ISIP: 242 FSIP: NA
BHT: 99*F



DST #3: 3075-3162 (Lsg A,B,C,D)
Times: 15-30-10-out
Initial Open: Wk Steady 1/2" blow
Final Open: No Blow
Rec: 5' mud with oil spots in tool
IHP: 1535 FHP: 1512
IFP: 21-20 FFP: 20-20
ISIP: 212 FSIP: NA
BHT: 98*F



DST #4: 3630-3651 (Lwr Viola)
Straddle (after logs) with 119' Tailpipe
Times: 15-30-10-out
Initial Open: Wk Blow,built to 1/2" i.b.
Final Open: No Blow
Rec: 10' mud
IHP: 2005 FHP: 1888
IFP: 20-20 FFP: 21-25
ISIP: 1220 FSIP: NA
BHT: 105*F
***Straddle packer held!**



Rock Types

- Congl granite wash
- dol ls limey dol
- New symbol
- Dolom ls limey dol
- New symbol
- Anhy
- Bent
- Brec
- Cht
- Clyst
- Black shale/coal
- Congl
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Sltysh
- Shlysiltst
- Sandyls

Accessories

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Anhy
- Shale
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE

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

Other Symbols

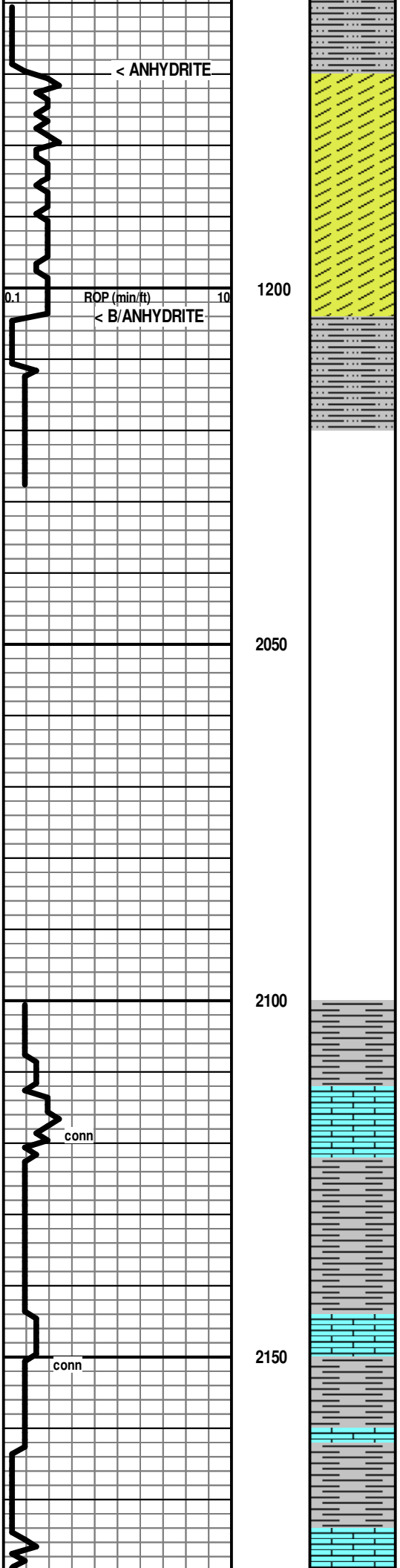
OIL SHOW

- Oil & gas show
- Gas show
- Even
- Spotted
- Trace or questionable
- Dead
- Gas

INTERVAL

- Core
- Dst

ROP (min/ft)	MD	Lithology	Shows	Geological Descriptions	Remarks
0.1 ROP (min/ft) 10	1100				
	50				



1200

2050

2100

2150

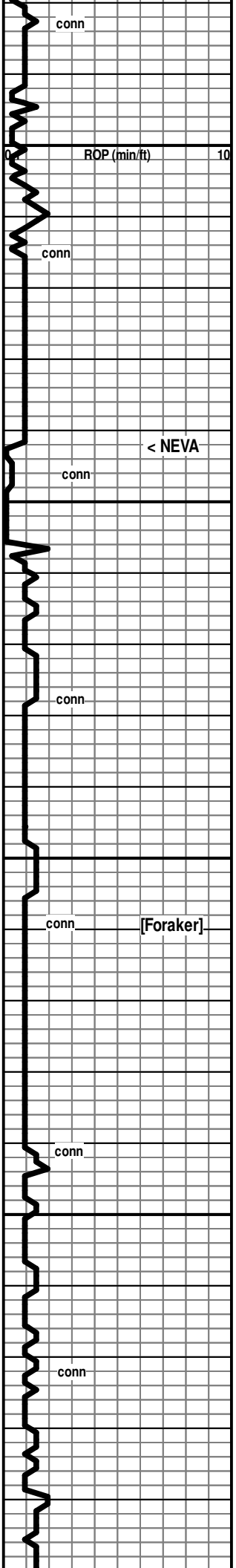
<---------- 1169 (+714)

Anhydrite Interval, based on drill time only!

<---------- 1204 (+679)

Sh gy-dk gy-blk-red; Ls wh-gy, fn xln subchalky to pr xln por-dns, foss in pt

Abund Ls wh-cr-gy, fn xln, pr xln por to dns, foss to abund foss, some gy shales



2200

As above with addition of grn shale, grn silty shale to grn shaley silstone

60% Ls wh, fn xln, pr-fr xln por, scatt pp pores, foss; 40% Shales gy-grnish, subsilty in pt

<---------- 2242 (-359)

2250

Mix of: Ls wh-gy, fn xln, chalky in pt, pr xln pr to dns in pt, foss; Shales mostly gy-red

Mostly Ls, wh-cr, fn xln, pr-fr xln por with pp pores, foss to abund foss (some weath'd to gy); Shales mostly gy some red

Mostly Ls, wh-cr, fn xln, pr-fr xln por with abund pp pores, foss to abund foss (some weath'd to gy); Shales mostly gy some red

2300

Abund siltstone wh-grn, shaley in pt; Abund Ls wh fn xln, pr-fr xn por, foss

Abund wh calc siltstone to silty Ls, some shales

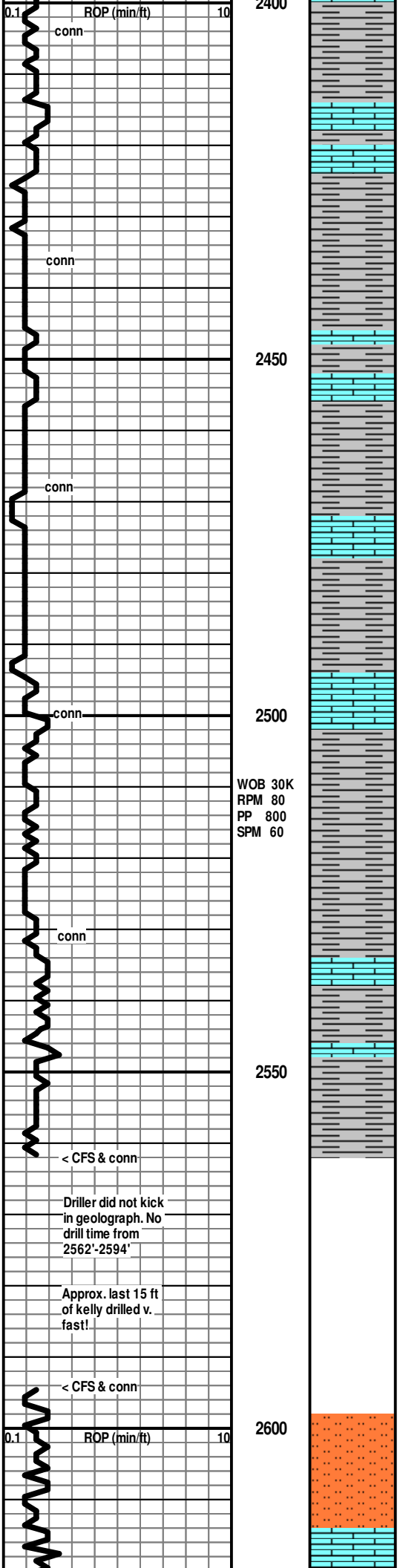
Shales, gy-grnish-whiteish, silty in pt; Ls wh-gy, fn xln, pr-fr xln por, silty in pt, foss

2350

Shales, gy-grnish-whiteish, silty in pt; Ls wh-gy, fn xln, pr-fr xln por, silty in pt, mushy & chalky inp, foss

Mostly wh-gy, silty Ls to limey siltstone, some gy silty shales

* Displace & Mudup:
begin @ 2278'
compete @ 2305'!



2400

Mostly gy shales, silty in pt, wh-gy, silty Ls to limey siltstone, some gy silty shales

2450

Mostly gy shales, silty in pt, wh-gy, silty Ls to limey siltstone, some gy silty shales

Mostly Ls wh-cr-pl gy, fn xln, dns, subchalky in pt With some pl gy shale, calc in pt

2500

Abund gy silty shale, with Ls wh-cr, fn xln, dns to pr xln por

WOB 30K
RPM 80
PP 800
SPM 60

Shales,gy, silty in pt, silty; Ls to limey siltstone, gy-wh, fn xln, dns

Shales,gy, silty in pt, silty; Ls to limey siltstone, cr-gy-wh, fn xln, dns, foss

2550

Ls to limey siltstone, cr-gy-wh, fn xln, dns, foss; with some gy shales

Abund gy shale, silty & mic text in pt

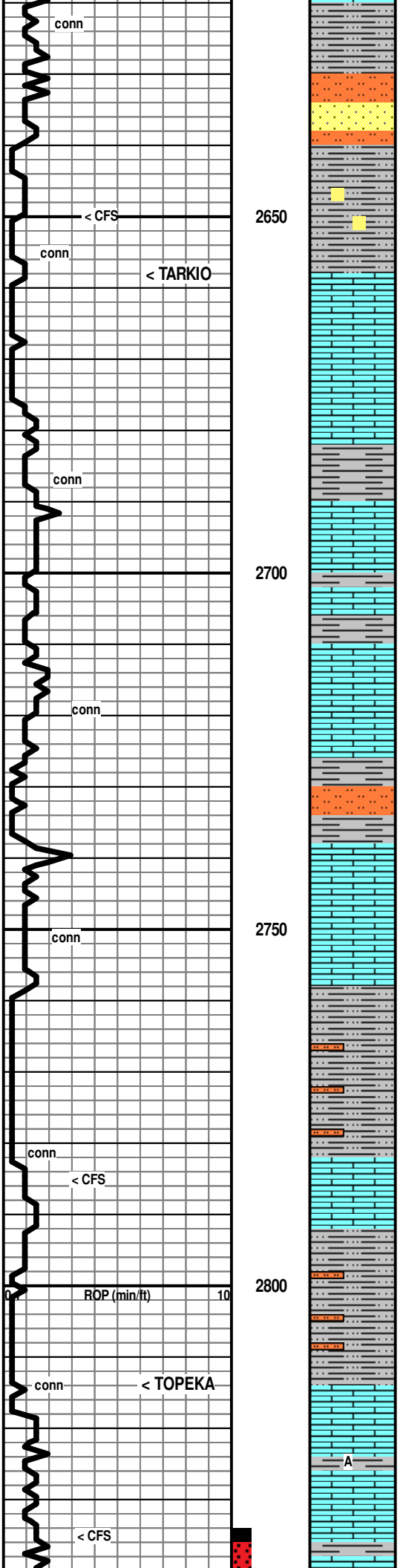
Siltstone-Sandstone, wh-gy, calc cem in pt, mic in pt, vfn grn, gd sort, fr-gd fri, pr vis intergrnlr por

2600

Mostly gy-grn shale, silty in pt, some Ls wh, dns

Ls wh-cr-pl gy, fn xln, dns, to subchalky

Sh gy-dk gy-grnish gy



Siltstone/Sandstone wh-gy, vfn grn, gd sort, fr-gd fri, pr vis intergrnlr por, shaley in pt; abund gy-dk gy-bk shale, silty to mic., some loose pyr pcs

<---------- 2658 (-775)

Sh & Siltstone & Sdst pl gy-gy, silty shales to shaley siltstone to vfn sd, cem in pt, mic in pt, some Ls cr-tan-gy, vfn-fn xln, dns to pr xln por

Ls cr-tan-pl gy, fn xln, dns

Ls cr-tan-gy-dk gy, fn xln, dns, foss; Shales gy-dk gy to grnish, subsilty-silty in pt, calc in pt, few loose pyr pcs

2740' spl: 90% Ls wh-cr-tan-gy, vfn-fn xln, dns to pr xln por, foss in pt, some gy shales, silty in pt

Siltstone and silty shale, wh-gy

Ls wh-cr, fn xln, dns, foss, silty in pt, scatt glauc speckling

2780' spl: 85% Ls wh-cr, fn xln, subchalky in pt, pr xln por in pt, foss in pt; 15% shales gy

2785' CFS: Sh pl gy-gy, mushy to grny text, fr-gd fri, silty in pt, vfnly sdy in pt, mic, cem in pt, pr vis gnrlr por, few pcs of loose pyr

Ls r-tan-gy, fn xln, pr xln por to dns, foss

Sh gy, silty in pt, mushy in pt, with shaley sitstone to mic siltstone

<---------- 2814 (-931)

Ls cr-tan-gy with scatt white chalky patches and edges, mostly dns-some por vis xln por, foss

Ls cr-tan-gy with scatt white chalky patches and edges, mostly dns-some por vis xln por, foss

Sh gy

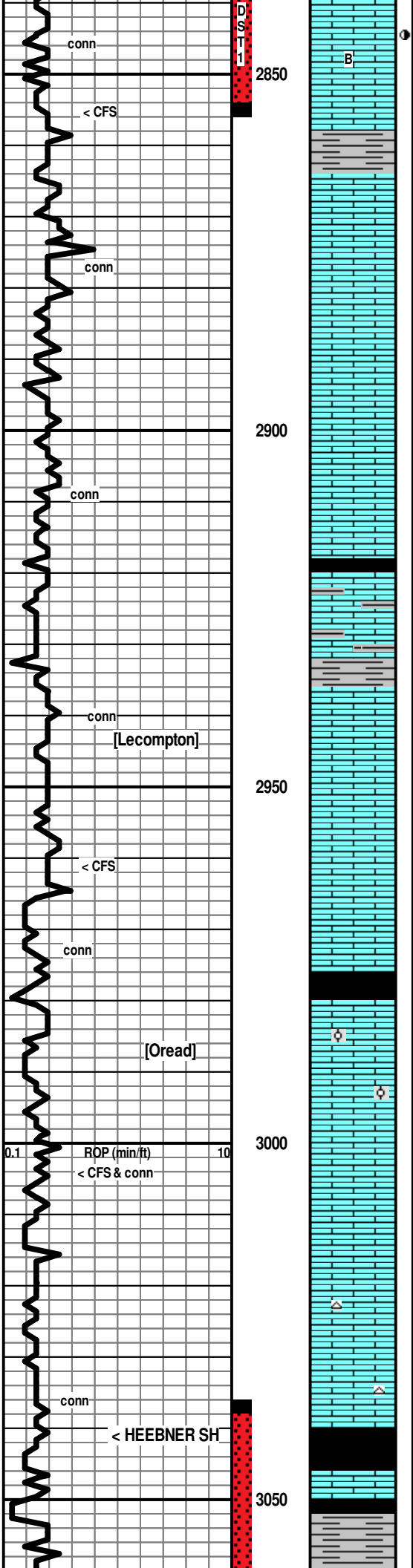
7:00 AM, September 14, 2019

Mud Check, Drilling at 2650':

Vis	Wt	WL	LCM	PV	YP
49	8.8	7.2	2	12	19

Chl	Hd	pH	Solids
3100	Tr	11.0	3.4

DST #1: 2835-2855 (Topeka B)
Times: 15-30-10-out



Ls cr-tan-gy, vfn-fn xln, dns in pt, low % pcs with pr vis xln por and scatt pp pores, subchalky in pt, foss

[Mod Odor, scatt dull-mod fluor, low-mod % of pcs with spotty brn stn-patchy brn stn in dry, with sli show of gassy FO on brk]

Sh gy-grnish

Ls cr-gy, fn xln, dns, si foss in pt

Ls cr-tan-gy-dk gy, vfn-fn xln, dns

Ls cr-tan-gy, fn xln, pr xln por to dns

Ls wh-cr, fn xln, pr-fr xln por in pt, subchalky in pt, abund foss

Sh black, carb (in 2940' spl)

Mostly Ls wh-cr, vfn-fn xln, chalky in pt, pr xln por in pt to dns, foss in pt; some dk shaley ls

Ls wh-cr, fn xln, pr xln por to dns, foss to abund foss

Ls wh-cr, fn xln, pr xln por with scatt pp pores, foss, ool in pt with scatt interool pores and weathering

Ls cr-tan-gy, fn xln, dns, shaley in pt, foss

Ls cr-tan, fn xln, fr-gd xln por in pt, foss

Sh back, carb

Ls wh-cr-tan, fn xln, dns in pt, chalky in pt, pr-fr xln por in pt with scatt pp pores, foss to abund foss, micro-ool in pt

Ls wh-cr-gy, fn xln, chalky in pt, dns in pt, some pr xln por, foss, scatt reddish brn flakes and bits

Ls wh-cr-gy, fn xln, chalky in pt, dns in pt, some pr xln por, foss, scatt reddish brn flakes and bits, chert:gy, fresh, opaq, sub grainy text in pt, foss

<---------- 3041 (-1158)

Sh black, carb

Ls wh-cr,fn xln, dns to chalky

Sh gy-grnish, calc in pt

Initial Open: Wk surf blow, died in 4 min
Final Open: No blow
Rec: 3' mud
IHP: 1393 FHP: 1377
IFP: 15-17 FFP: 19-19
ISIP: 865 FSIP: NA
BHT: 98*F

Mud Check, CFS at 2961':

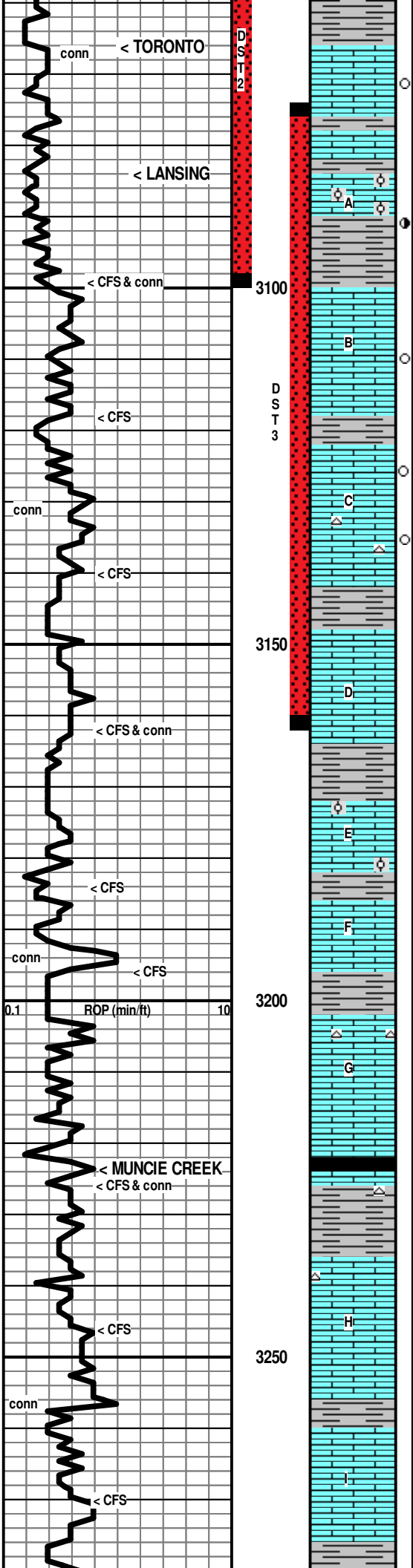
Vis	Wt	WL	LCM	PV	YP
44	9.4	8.0	1	12	17

Chl	Hd	pH	Solids
2700	Tr	11.0	7.7

7:00 AM, September 15, 2019

* Add Premix!

DST #2: 3037-3099 (Tor, Lsg A)
Times: 15-30-10-out
Initial Open: Wk Surf Blow, died 2 min.
Final Open: No Blow
Rec: 5' mud
IHP: 1521 FHP: 1505
IFP: 20-21 FFP: 22-22
ISIP: 242 FSIP: NA
BHT: 99*F



<---------- 3066 (-1183)

Ls cr, fn xln, dns to Rr pr xln por, foss-abund foss

Show Descr. ---------->

<---------- 3084 (-1201)

Ls wh-cr, fn xln, chalky in pt, scatt patchy pr xln por with scatt interool pores

Show Descr. ---------->

Sh gy

Ls cr, fn xln, dns, sli foss in pt

Ls cr-gy, vfn-fn xln, dns with a few pcs with patch of pr xln por, foss

[No Odor, No fluor, found a few pcs total with spot of stn, NSFO]

Sh gy-black

Ls cr-tan-gy, fn xln, some subchalky, mostly dns with Rr patches of pr xln por, foss in pt

[No Odor, V Rr spots of dull fluor, few pcs total with scant trace of brn microdrops of FO]

Ls cr-tan, fn xln, mostly dns with Rr pr xln por, foss, chert: fresh, cr-tan, subtr-transl, foss

[No Odor, V Rr patch of dull fluor, trace of spotty stn, a few pcs with patch of lt stn & Tr show FO]

Sh gy-grnish

Ls wh-cr, vfn-fn xln, mix of dns & firm to softer & subchalky, foss in pt

Ls wh-cr, vfn-fn xln, dns, scatt sm calcite patches, sli foss in pt, a few grn glauc patches

Sh gy-grnish-red, subsilty in pt

Ls wh-cr-gy, fn xln, chalky in pt, mostly dns, some pr xln por, foss, some finely ool

Sh gy-dk gy

Ls wh-cr, fn xln, subchalky to chalky in pt, dns in pt, foss

Sh gy

Ls wh-cr-tan, vfn-fn xln, mix of dns to chalky, foss in pt, chert: fresh, cr-tan, subtransl

<---------- 3223 (-1340)

Sh black, carb

Ls wh-cr-tan, fn xln, chalky in pt, dns in pt, foss, some chert: fresh, tan, transl

Ls wh-cr-tan-pl gy, vfn-fn xln, subchalky to dns, sli foss in pt

Sh gy-grn

Ls wh-cr-tan, fn-vfn xln, subchalky-chalky in pt, dns in pt, sli foss in pt, Rr scatt reddish shale/organic specks; some shale, gy-grnish, subsilty text in pt

Sh gy

Ls wh-cr-tan, fn-vfn xln, subchalky-chalky in pt, dns in pt, sli foss in pt; some grn-grnish gy silty/mic shale; some black shale

Sh gy-black

[No Odor, Rr pcs with spotty dull fluor, with lt tan spots & sm patches of stn,with spots of tan-brn microdrops of DO? vis on crush, no FO on crush]

[No Odor, scatt spotty-patchy dull fluor, mod % pcs with spotty-patchy tan-brn stn, with tr-v sli shows of brn, vsli gassy, NVL oil & FO on crush]

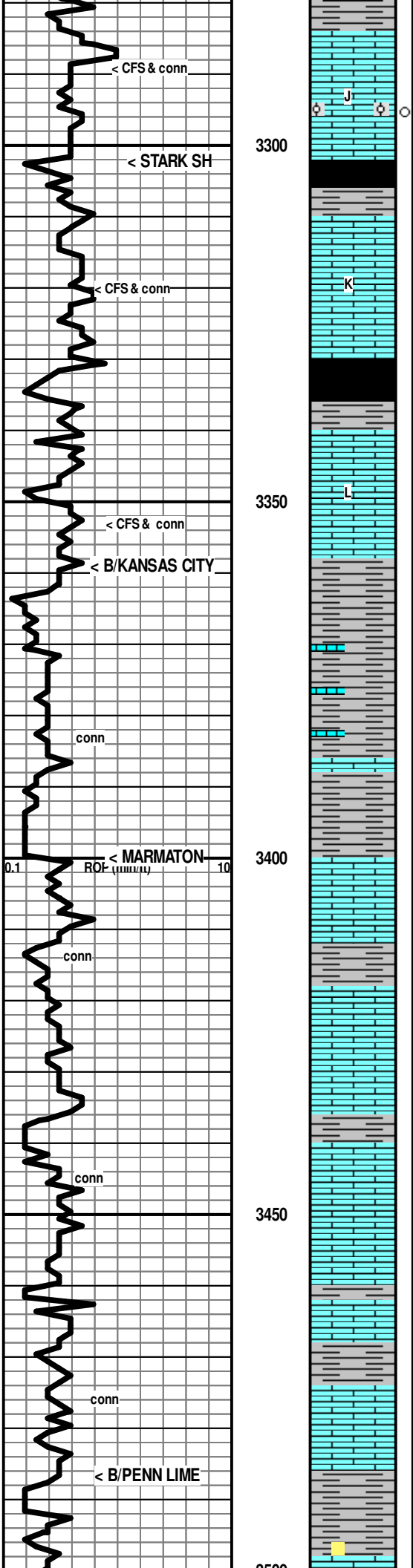
DST #3: 3075-3162 (Lsg A,B,C,D)
Times: 15-30-10-out
Initial Open: Wk Steady 1/2" blow
Final Open: No Blow
Rec: 5' mud with oil spots in tool
IHP: 1535 FHP: 1512
IFP: 21-20 FFP: 20-20
ISIP: 212 FSIP: NA
BHT: 98*F

Mud Check, TOOH for DST3 at 3162':

Vis	Wt	WL	LCM	PV	YP
54	9.2	7.6	1	12	19

Chl	Hd	pH	Solids
2700	Tr	11.0	6.3

7:00 AM, September 16, 2019



Sh gy-grnish

3310' spl: Ls wh-cr, fn xln, chalky in pt, mostly dns, Rr scatt pr xln por, foss, some fine ool

[No Odor, No fluor, found a few pcs total with a few scant spots of brn stain, NSFO]

<---------- 3302 (-1419)

Sh black, carb (mod am't in 3320' spl)

Sh gy-grn, foss in pt

Ls wh-cr, fn xln, dns in pt, chalky in pt, foss in pt

Ls wh-cr-tan-gy, fn xln, subchalky-chalky in pt, dns in pt, foss in pt

3350'spl: abund Shale gy-dk gy-black, carb in pt; Ls as above

3360' spl: 90% Ls wh-cr-gy, fn xln, chalky in pt, dns in pt, foss (some weath'd to gy)

Ls wh-cr-gy, fn xln, chalky in pt, dns in pt, foss (some weath'd to gy)

7:00 AM, September 17, 2019

<---------- 3359 (-1476)

Mud Check, Drlg @ 3358':

Vis	Wt	WL	LCM	PV	YP
50	9.3	7.6	1	12	19
Chl	Hd	pH	Solids		
2600	40	10.0	7.0		

Sh gy-dk gy-grnish gy-grn, silty in pt, mic in pt

3390' spl: 60% Shales, gy-dk gy-red-grnish, mushy to subfirm, silty & mic in pt; 40% Ls wh-cr-tan, fn xln, chalky to dns, foss in pt

3400' spl: 85% Shales, gy-dk gy-red-grnish, mushy to subfirm, silty & mic in pt; 15% Ls wh-cr-tan, fn xln, chalky to dns, foss in pt

Shale mostly gy-dk gy-black

<---------- 3400 (-1517)

Ls wh-cr, fn xln, chalky in pt, dns in pt, grainy in pt

Sh gy-grn-red, silty in pt

Ls wh-cr-tan, fn xln, chalky in pt, dns in pt, grainy in pt, foss in pt

Sh gy-grn-red-brn, silty in pt

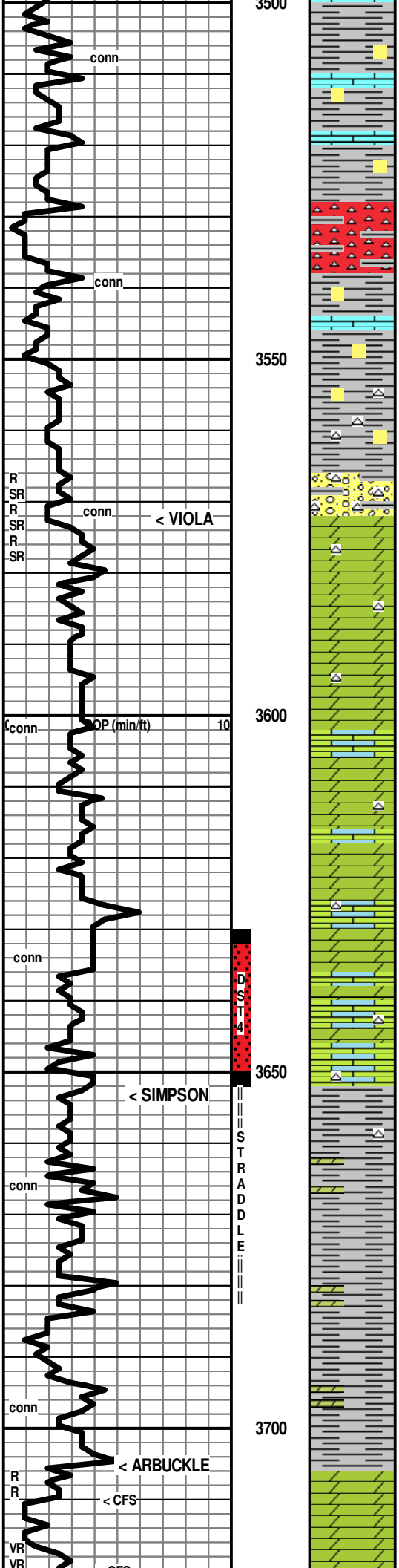
Ls wh-cr-tan, fn xln, chalky in pt, dns in pt, grainy in pt, foss in pt

Sh gy-red-grn-maroon, silty in pt

Ls wh-cr-tan, fn xln, chalky in pt, dns in pt, grainy in pt, foss in pt

<---------- 3487 (-1604)

Sh red-gy-grn, mushy to soft (washes deep red)



3500

90% Sh red-grn with some gy, soft to subfirm, silty to subwaxy, sdy in pt; 10% Ls wh-cr, grainy, dns

90% Sh red-grn-gy with some yellow, soft to subfirm, silty to subwaxy, sdy in pt; 10% Ls wh-cr, grainy, dns

Chert: fresh to subgrainy text, cr-tan-peach, subopaq-subtransl, foss in pt; abund shale as above with some mushy (washes pl red)

Sh mostly red, some gy-grn, silty-sdy, mushy to soft (washes deep red)

3550

Sh mostly red, some gy-grn, silty-sdy, mushy to soft, some chert: fresh to subgrainy, cr-tan-peach, (washes deep red)

Mix of: Sd fn-md-crs, pr sort, subrd-subanglr, abund red shaley, fresh cherts, red mushy shale (washes red)

<---------- 3572 (-1689)

Dol cr-pl gy, fn xln, sucrosic to suubsurcr., mostly pr vis xln por, some fr xln por, scatt vugs, cherty

Dol wh-cr, fn xln, subsucr to sucrosic, pr vis xln por, Rr chert

3600

Dol & Dol Ls wh-cr, fn xln, chalky in pt, sucr in pt, pr-fr xln por with fresh chert, cr-tan, transl

Dol & Dol Ls wh-cr, fn xln, chalky in pt, sucr in pt, pr-fr xln por with fresh chert, cr-tan, transl

3660' spl: Dol & Dol Ls wh-cr, fn xln, chalky in pt, sucr in pt, pr-fr xln por with fresh chert, cr-tan, transl; and, some pl grn-grn shale with yell-gy shales, foss in pt, silty to subwaxy text in pt

3670' spl: As above with less shales

3650

<---------- 3653 (-1770)

Dol & Dol Ls wh-cr, fn xln, chalky in pt, sucr in pt, pr-fr xln por with fresh chert, cr-tan, transl; and, some pl grn-grn shale with yell-gy shales, foss in pt, silty to subwaxy text in pt

3690' spl: Abund grn shale, mostly mushy, some suubwaxy to subsilty; some dol as above

3700' spl: Abund grn shale, mostly mushy, some suubwaxy to subsilty; some dol as above

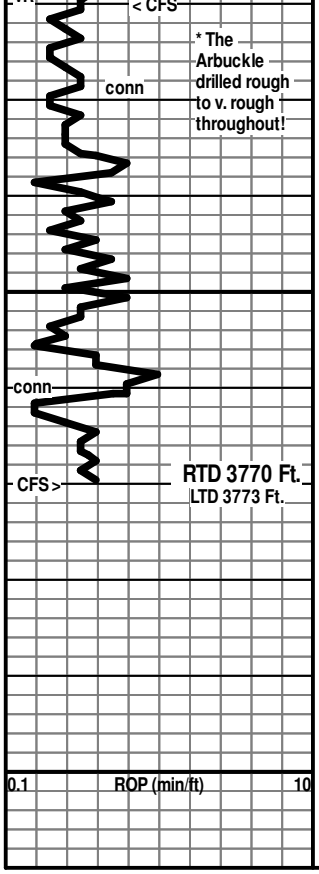
3700

3710' spl: Abund Dol, tan-gy, fn xln, subsucrosic-sucr, dns to pr-fr xln por; mixed with shales as above

<---------- 3705 (-1822)

3710' cfs: Abund Dol, cr-tan, fn xln, sucrosic, pr-fr xln por, scatt vugs; Some grn waxy shale, some loose pyr pcs

3720' cfs: Dol cr, fn-md xln, sucr-rhombic, pr-fr-gd xln por, abund vugs, scatt pyr



3750

3800

Dol cr, fn xln, sucr-subsucrosic, fr-gd xln por, vuggy in pt, chert: fresh, cr, transl-subtransl

Dol cr, fn xln, sucr-subsucrosic, fr-gd xln por, vuggy in pt, scatt pyritic, chert: fresh, cr, transl-subtransl

Dol cr, fn xln, sucr-subsucrosic,some rhombic, fr-gd xln por-some dns,, vuggy in pt, scatt pyritic, chert: fresh, cr, transl-subtransl

RTD @ 3770 ft., at 5:00 am, September 18, 2019!

Mud Check, Logging @ 3770':

Vis	Wt	WL	LCM	PV	YP
50	9.8	11.2	1	10	20

Chl	Hd	pH	Solids
4000	160	7.5	12.1

COPELAND
Acid & Cement

POST OFFICE BOX 438
HAYSVILLE, KS 67060
(316) 524-1225
(316) 524-1027 FAX

BURRTON, KS (620) 463-5161 FAX (620) 463-2104
GREAT BEND, KS (620) 793-3366 FAX (620) 793-3536

Invoice

INVOICE NUMBER:
C60005-IN

BILL TO:
CARMEN SCHMITT, INC.
PO BOX 47
GREAT BEND, KS 67530

LEASE: BRUMMER

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS
09/13/2019	60005		09/12/2019	BRUMMER	NET 30

QUANTITY	U/M	ITEM NO./DESCRIPTION	D/C	PRICE	EXTENSION
45.00	MI	MILEAGE CEMENT PUMP TRUCK	25.00	4.00	135.00
1.00	EA	PUMP CHARGE SURFACE	25.00	1,100.00	825.00
195.00	SK	60/40 POZ MIX 2% GEL	25.00	11.25	1,645.31
10.00	SK	CALCIUM CHLORIDE	25.00	40.00	300.00
205.00	EA	BULK CHARGE	25.00	1.25	192.19
405.90	MI	BULK TRUCK - TON MILES	25.00	1.10	334.87

7/9/19
195/5.0001
Well Site
Surface Cement

REMIT TO:
P.O. BOX 438
HAYSVILLE, KS 67060

RECEIVED BY

COP

FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.

NET 30 DAYS

	Net Invoice:	3,432.37
OSBCO	Sales Tax:	274.59
	Invoice Total:	**3,706.96**

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days pas

COPELAND Acid & Cement

BOX 438 - HAYSVILLE, KANSAS 67060
316-524-1225

FIELD ORDER N° C 60005

DATE 12-Sep 20 19

IS AUTHORIZED BY: CARMEN SCHMITT INC (NAME OF CUSTOMER)

Address _____ City _____ State _____

TO TREAT WELL AS FOLLOWS Lease BRUMMER Well No. 1 Customer Order No. _____

Sec. Twp. Range _____ County OSBORNE State KS

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may accrue in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED _____ By _____
Well Owner or Operator Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
20.0002	45	Mileage P.T.	$4.00	$180.00
20.0005	1	Pump Charge Surface	$1,100.00	$1,100.00
20.1002	195	60/40 Poz 2% Gel	$11.25	$2,193.75
20.1012	10	Calcium Chloride per 50 lb	$40.00	$400.00
20.0011	205	Bulk Charge	$1.25	$256.25
20.0012	405.9	Bulk Truck Miles	$1.10	$446.49
		Process License Fee on Gallons		
		TOTAL BILLING		$4,576.49

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below. $3432.36

Copeland Representative GREG CURTIS

Station GB MATT SUCHY
Well Owner, Operator or Agent

Remarks _____

NET 30 DAYS

COPELAND
Acid & Cement

TREATMENT REPORT

Acid Stage No. _____

Date 9/12/2019 District GB F.O. No. 60005
Company CARMEN SCHMITT INC
Well Name & No. BRUMMER #1
Location _____ Field _____
County OSBORNE State KS

Casing: Size 8 5/8 Type & Wt. _____ Set at _____ ft.
Formation: _____ Perf. _____ to _____
Formation: _____ Perf. _____ to _____
Formation: _____ Perf. _____ to _____
Liner: Size _____ Type & Wt. _____ Top at _____ ft. Bottom at _____ ft.
Cemented: Yes Perforated from _____ ft. to _____ ft.
Tubing: Size & Wt. _____ Swung at _____ ft.
Perforated from _____ ft. to _____ ft.

Open Hole Size _____ T.D. _____ ft. P.B. to _____ ft.

Type Treatment:	Amt.		Type Fluid	Sand Size	Pounds of Sand
Bkdown		Bbl./Gal.			
		Bbl./Gal.			
		Bbl./Gal.			
		Bbl./Gal.			
Flush		Bbl./Gal.			

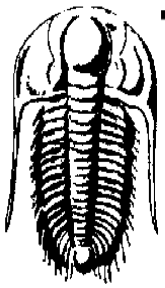
Treated from _____ ft. to _____ ft. No. ft. 0
from _____ ft. to _____ ft. No. ft. 0
from _____ ft. to _____ ft. No. ft. 0

Actual Volume of Oil / Water to Load Hole: _____ Bbl./Gal.

Pump Trucks. No. Used: Std. 320 Sp. _____ Twin _____
Auxiliary Equipment 327
Personnel GREG CLARENCE
Auxiliary Tools _____
Plugging or Sealing Materials: Type _____
_____ Gals. _____ lb.

Company Representative MATT SUCHY Treater GREG CURTIS

TIME a.m./p.m.	PRESSURES Tubing	PRESSURES Casing	Total Fluid Pumped	REMARKS
11:30				ON LOCATION
				RUN 210' OF 8 5/8
				PUMP 195 SKS 60/40 2% GEL 3% CC
				DISPLACE WITH 12.5 BBLS H20
				CEMENT CIRCULATED TO SURFACE
2:30				JOB COMPLETE
				THANK YOU!!!



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Brummer #1

4-8S-15W Osborne,KS

Start Date: 2019.09.14 @ 17:29:01
End Date: 2019.09.15 @ 00:33:22
Job Ticket #: 64494 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.09.19 @ 09:29:55

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64494 **DST#: 1**

Test Start: 2019.09.14 @ 17:29:01

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:49:22
Time Test Ended: 00:33:22

Test Type: Conventional Bottom Hole (Initial)
Tester: Brannan Lonsdale
Unit No: 73

Interval: 2835.00 ft (KB) To 2855.00 ft (KB) (TVD)
Total Depth: 2855.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

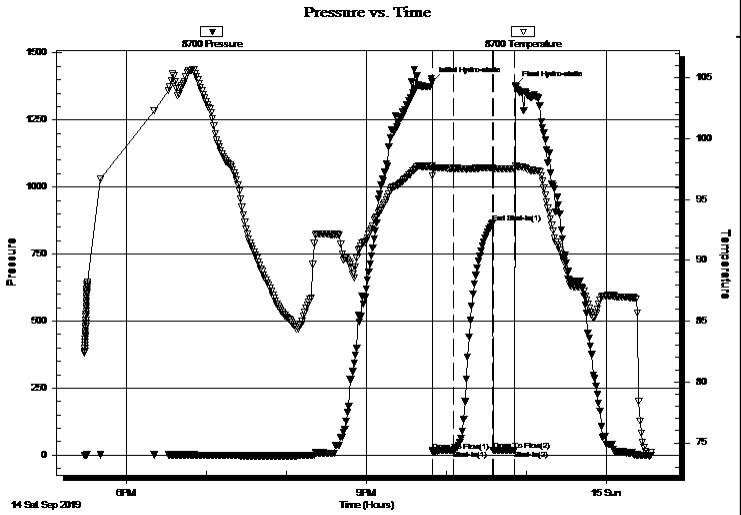
Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8700 **Outside**

Press@RunDepth: 16.89 psig @ 2836.00 ft (KB)
Start Date: 2019.09.14 End Date: 2019.09.15
Start Time: 17:29:02 End Time: 00:33:22

Capacity: 8000.00 psig
Last Calib.: 2019.09.15
Time On Btm: 2019.09.14 @ 21:49:07
Time Off Btm: 2019.09.14 @ 22:51:37

TEST COMMENT: 15- IF- Surface blow died 4 mins
30- ISI- No blow
10- FF- No blow . Pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1393.07	97.78	Initial Hydro-static
1	14.51	96.94	Open To Flow (1)
16	16.89	97.56	Shut-In(1)
46	865.16	97.62	End Shut-In(1)
46	19.23	97.46	Open To Flow (2)
62	18.64	97.54	Shut-In(2)
63	1377.18	97.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	M	0.01

Gas Rates

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

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64494 **DST#: 1**

Test Start: 2019.09.14 @ 17:29:01

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:49:22
Time Test Ended: 00:33:22

Test Type: Conventional Bottom Hole (Initial)
Tester: Brannan Lonsdale
Unit No: 73

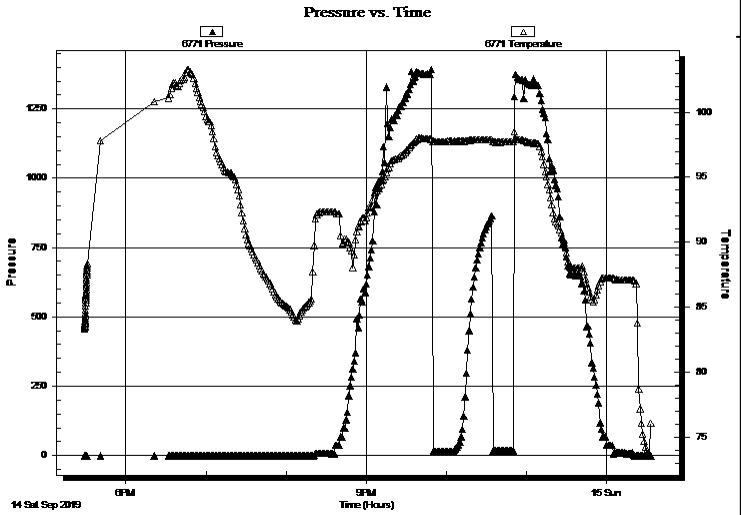
Interval: 2835.00 ft (KB) To 2855.00 ft (KB) (TVD)
Total Depth: 2855.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6771 **Inside**
Press@RunDepth: psig @ 2836.00 ft (KB)
Start Date: 2019.09.14 End Date: 2019.09.15
Start Time: 17:29:07 End Time: 00:33:27

Capacity: 8000.00 psig
Last Calib.: 2019.09.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF- Surface blow died 4 mins
30- ISI- No blow
10- FF- No blow . Pulled tool



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
3.00	M	0.01

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64494 **DST#: 1**

Test Start: 2019.09.14 @ 17:29:01

Tool Information

Drill Pipe:	Length:	2783.00 ft	Diameter:	3.82	inches	Volume:	39.45	bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:		inches	Volume:	-	bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	57.00 ft	Diameter:	2.25	inches	Volume:	0.28	bbl	Weight to Pull Loose:	32000.00 lb
						Total Volume:	-	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		33.00 ft							String Weight: Initial	29000.00 lb
Depth to Top Packer:		2835.00 ft							Final	29000.00 lb
Depth to Bottom Packer:		ft								
Interval betw een Packers:		20.00 ft								
Tool Length:		48.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			2808.00		
Shut In Tool	5.00			2813.00		
Hydraulic tool	5.00			2818.00		
Jars	5.00			2823.00		
Safety Joint	3.00			2826.00		
Packer	5.00			2831.00	28.00	Bottom Of Top Packer
Packer	4.00			2835.00		
Stubb	1.00			2836.00		
Recorder	0.00	6771	Inside	2836.00		
Recorder	0.00	8700	Outside	2836.00		
Perforations	16.00			2852.00		
Bullnose	3.00			2855.00	20.00	Bottom Packers & Anchor
Total Tool Length:	**48.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64494 **DST#: 1**

Test Start: 2019.09.14 @ 17:29:01

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3100.00 ppm				
Filter Cake:	inches				

Recovery Information

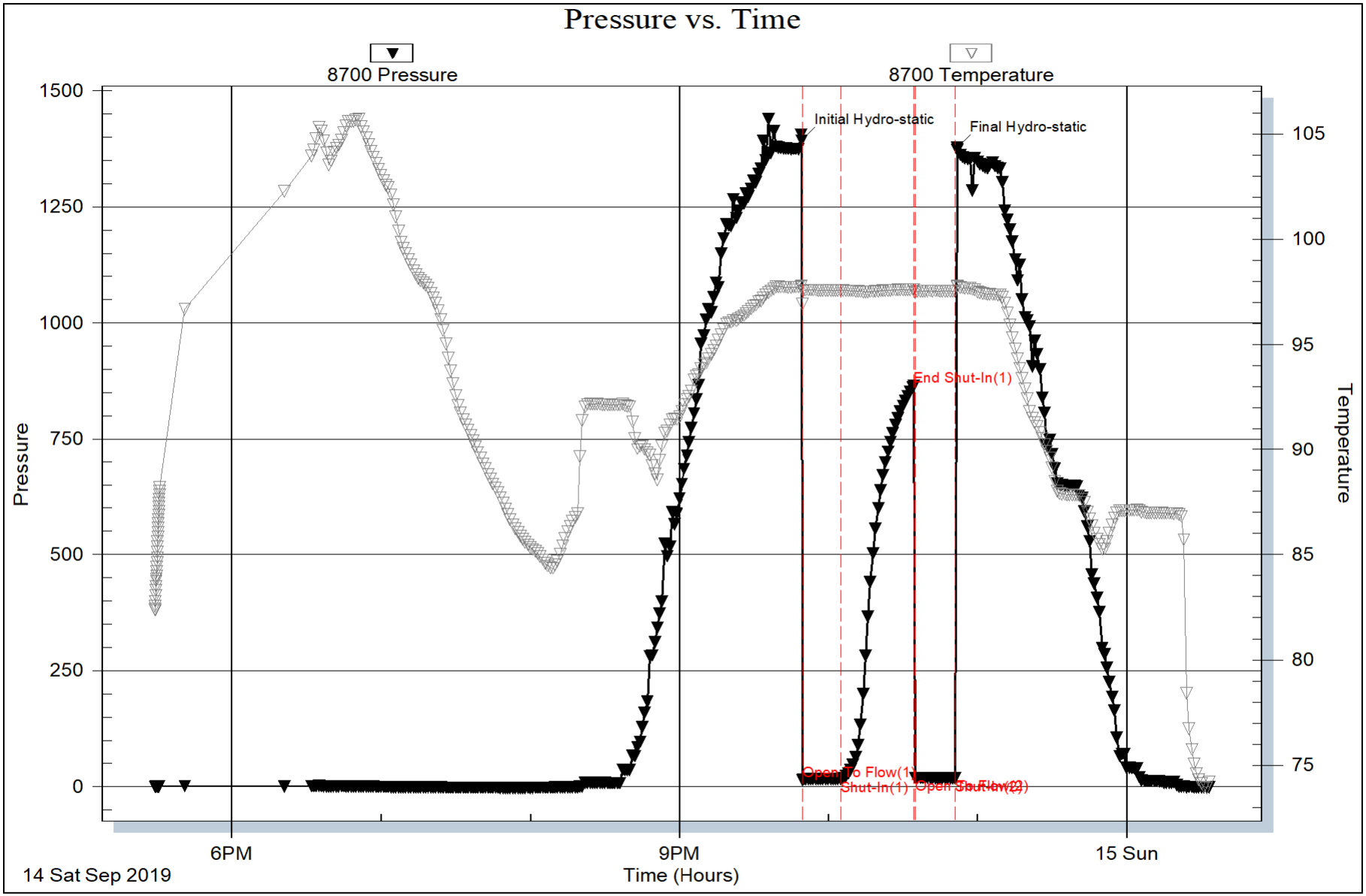
Recovery Table

Length ft	Description	Volume bbl
3.00	M	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl

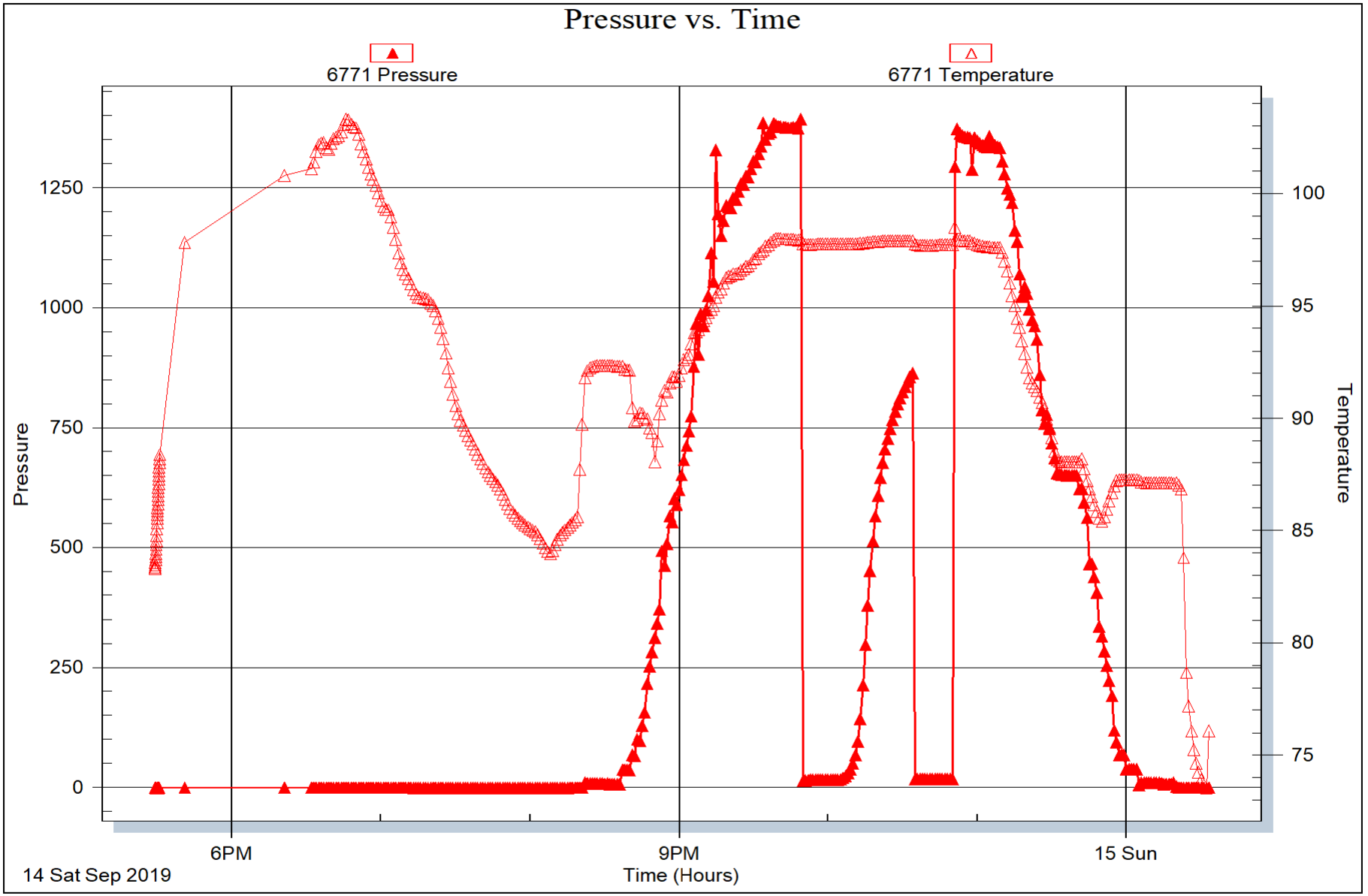
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8700 **Outside** Carmen Schmitt, Inc. Brummer #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 64494 Printed: 2019.09.19 @ 09:29:56

Serial #: 6771 **Inside** Carmen Schmitt, Inc. Brummer #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 64494 Printed: 2019.09.19 @ 09:29:56

DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Brummer #1

4-8S-15W Osborne,KS

Start Date: 2019.09.15 @ 15:57:04
End Date: 2019.09.15 @ 20:50:10
Job Ticket #: 64495 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.09.19 @ 09:27:34

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64495 **DST#: 2**

Test Start: 2019.09.15 @ 15:57:04

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:13:25
Time Test Ended: 20:50:10

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73

Interval: 3037.00 ft (KB) To 3099.00 ft (KB) (TVD)
Total Depth: 3099.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

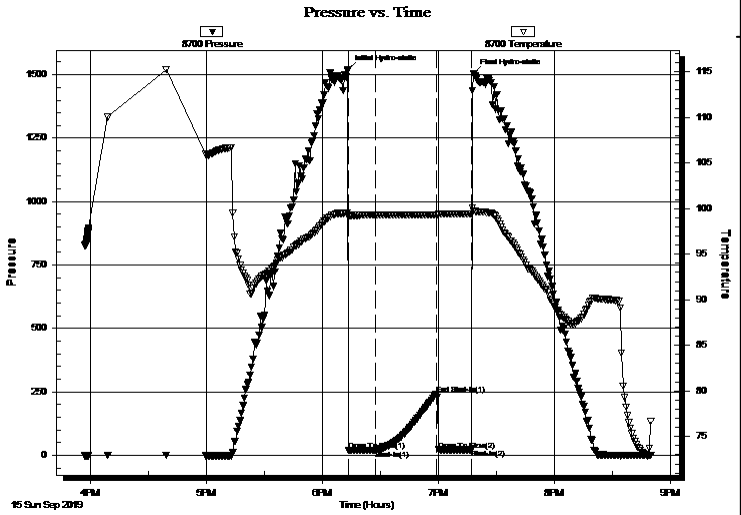
Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8700 **Outside**

Press@RunDepth: 20.83 psig @ 3038.00 ft (KB)
Start Date: 2019.09.15 End Date: 2019.09.15
Start Time: 15:57:05 End Time: 20:50:10

Capacity: 8000.00 psig
Last Calib.: 2019.09.15
Time On Btm: 2019.09.15 @ 18:13:10
Time Off Btm: 2019.09.15 @ 19:18:10

TEST COMMENT: 15- IF- Surface blow died 2 mins
30- ISI- No blow
10- FF- No blow Pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1520.81	99.53	Initial Hydro-static
1	20.11	99.04	Open To Flow (1)
15	20.83	99.31	Shut-In(1)
46	241.83	99.33	End Shut-In(1)
47	21.92	99.39	Open To Flow (2)
64	22.22	99.41	Shut-In(2)
65	1504.62	99.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64495 **DST#: 2**

Test Start: 2019.09.15 @ 15:57:04

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:13:25
Time Test Ended: 20:50:10

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73

Interval: 3037.00 ft (KB) To 3099.00 ft (KB) (TVD)
Total Depth: 3099.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

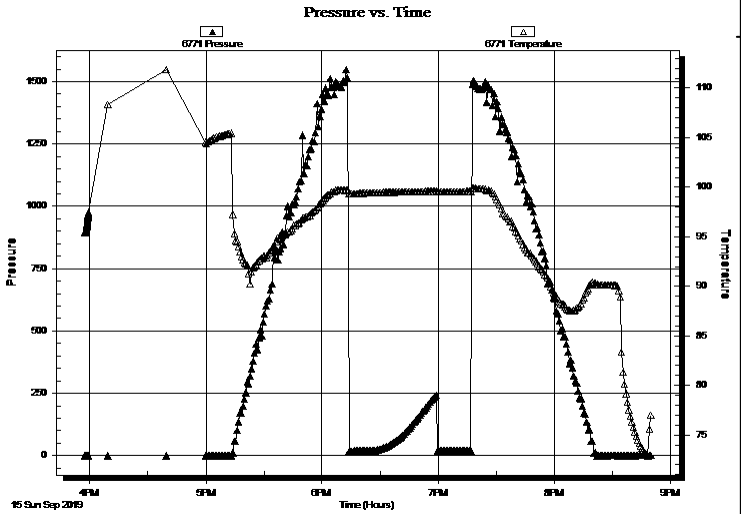
Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6771 **Inside**

Press@RunDepth: psig @ 3038.00 ft (KB)
Start Date: 2019.09.15 End Date: 2019.09.15
Start Time: 15:57:19 End Time: 20:50:24

Capacity: 8000.00 psig
Last Calib.: 2019.09.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF- Surface blow died 2 mins
30- ISI- No blow
10- FF- No blow Pulled tool



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64495 **DST#: 2**

Test Start: 2019.09.15 @ 15:57:04

Tool Information

Drill Pipe:	Length:	3036.00 ft	Diameter:	3.82	inches	Volume:	43.04	bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:		inches	Volume:	-	bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	Weight to Pull Loose:	32000.00 lb
						Total Volume:	-	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		27.00 ft							String Weight: Initial	29000.00 lb
Depth to Top Packer:		3037.00 ft							Final	29000.00 lb
Depth to Bottom Packer:		ft								
Interval betw een Packers:		62.00 ft								
Tool Length:		90.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3010.00		
Shut In Tool	5.00			3015.00		
Hydraulic tool	5.00			3020.00		
Jars	5.00			3025.00		
Safety Joint	3.00			3028.00		
Packer	5.00			3033.00	28.00	Bottom Of Top Packer
Packer	4.00			3037.00		
Stubb	1.00			3038.00		
Recorder	0.00	6771	Inside	3038.00		
Recorder	0.00	8700	Outside	3038.00		
Perforations	24.00			3062.00		
Change Over Sub	1.00			3063.00		
Drill Pipe	32.00			3095.00		
Change Over Sub	1.00			3096.00		
Bullnose	3.00			3099.00	62.00	Bottom Packers & Anchor
Total Tool Length:	**90.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64495 **DST#: 2**

Test Start: 2019.09.15 @ 15:57:04

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2700.00 ppm				
Filter Cake:	inches				

Recovery Information

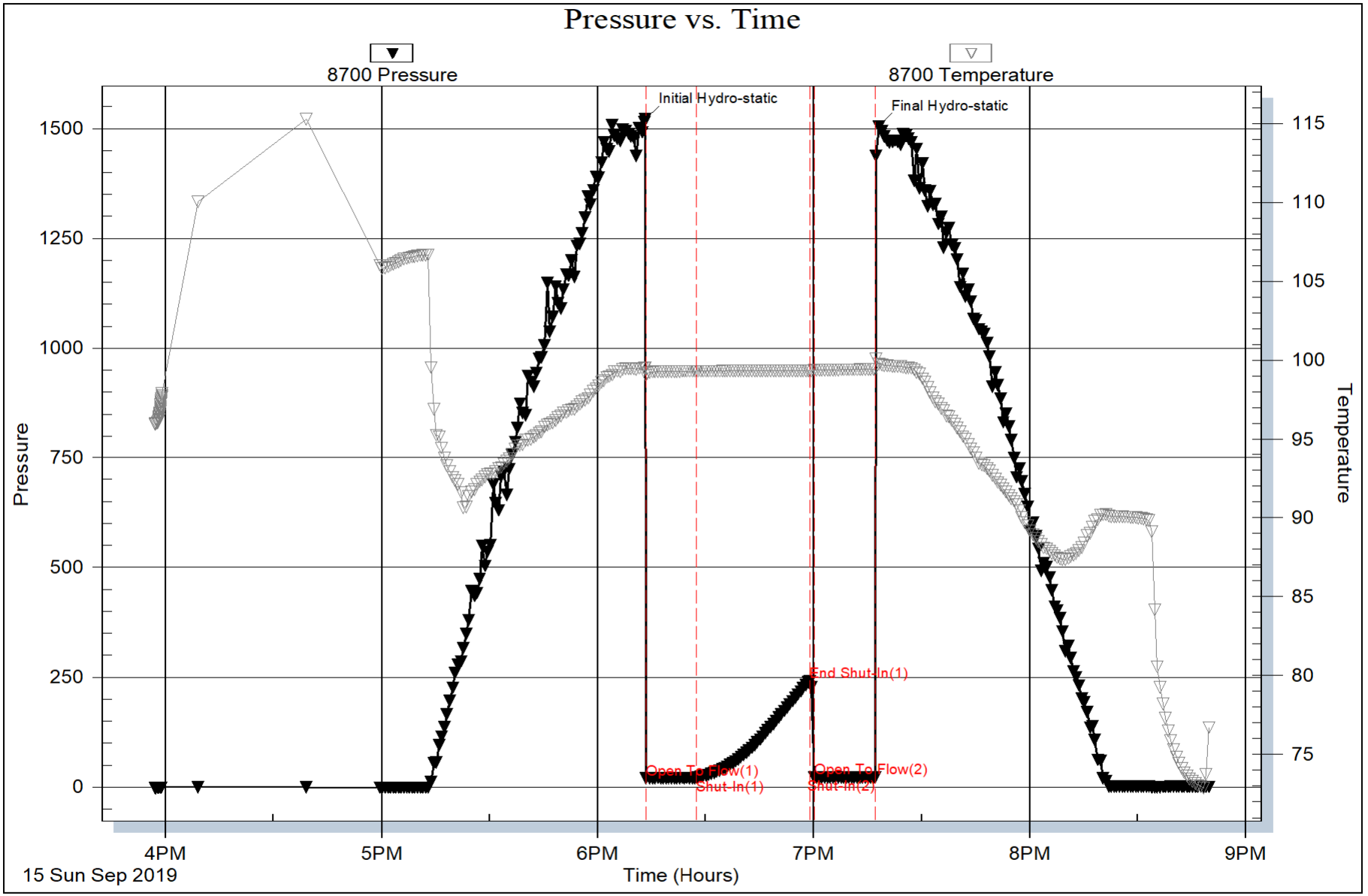
Recovery Table

Length ft	Description	Volume bbl
5.00	M	0.071

Total Length: 5.00 ft Total Volume: 0.071 bbl

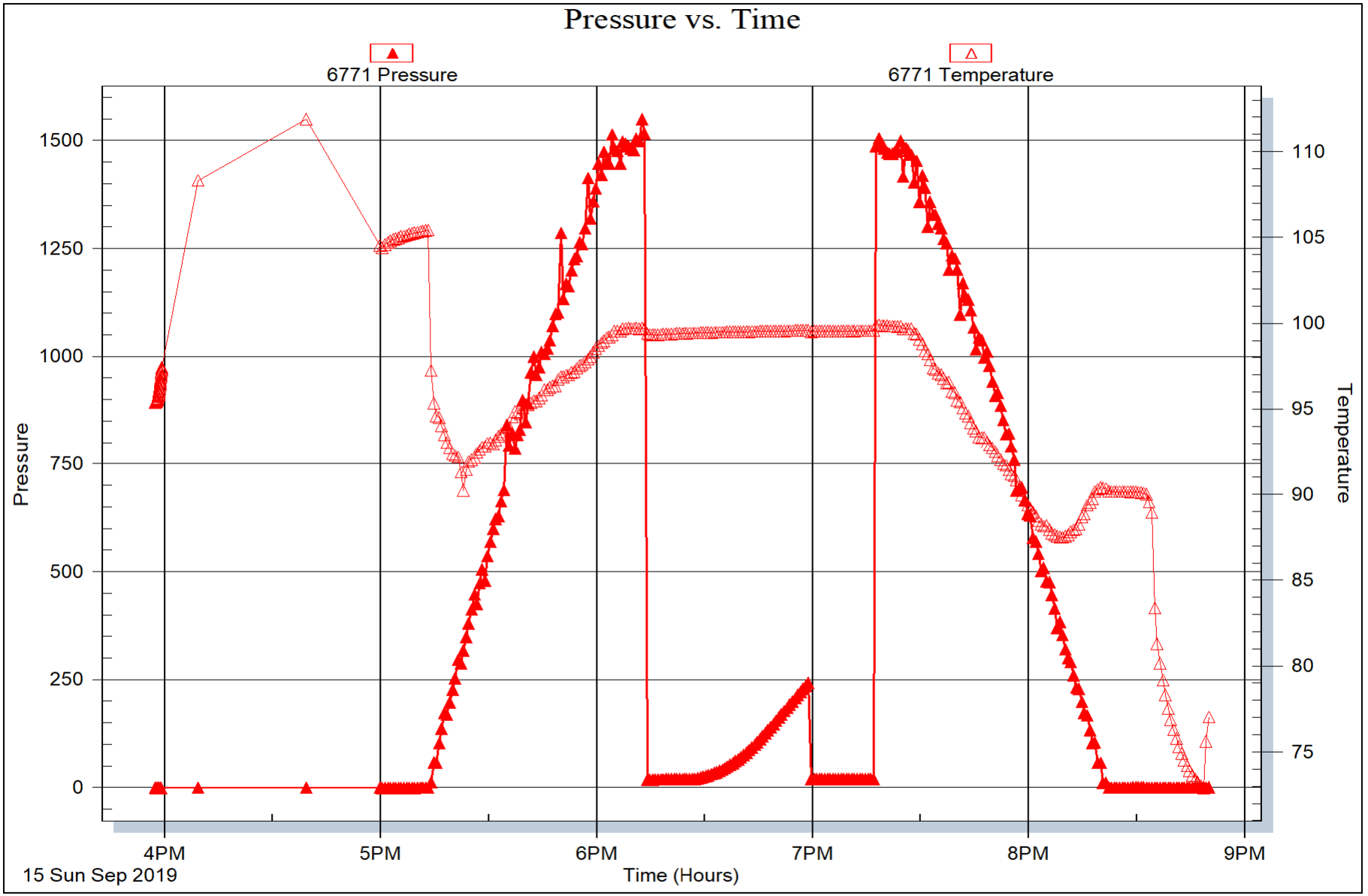
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8700 **Outside** Carmen Schmitt, Inc. Brummer #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 64495 Printed: 2019.09.19 @ 09:27:35

Serial #: 6771 **Inside** Carmen Schmitt, Inc. Brummer #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 64495 Printed: 2019.09.19 @ 09:27:36

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Brummer #1

4-8S-15W Osborne,KS

Start Date: 2019.09.16 @ 06:17:19
End Date: 2019.09.16 @ 11:24:25
Job Ticket #: 64496 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.09.19 @ 09:25:58

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64496 **DST#: 3**

Test Start: 2019.09.16 @ 06:17:19

GENERAL INFORMATION:

Formation: **LKC "A-D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:48:55
Time Test Ended: 11:24:25

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73

Interval: 3075.00 ft (KB) To 3162.00 ft (KB) (TVD)
Total Depth: 3162.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

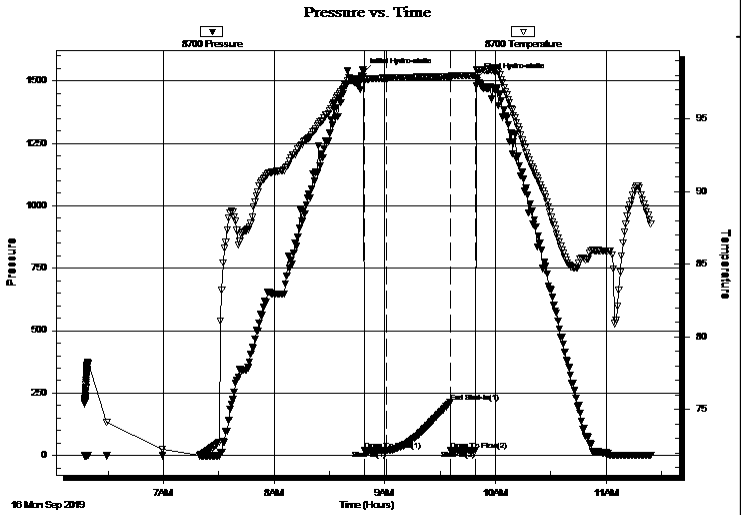
Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8700 **Outside**

Press@RunDepth: 20.32 psig @ 3076.00 ft (KB)
Start Date: 2019.09.16 End Date: 2019.09.16
Start Time: 06:17:20 End Time: 11:24:25

Capacity: 8000.00 psig
Last Calib.: 2019.09.16
Time On Btm: 2019.09.16 @ 08:48:25
Time Off Btm: 2019.09.16 @ 09:50:10

TEST COMMENT: 15- IF- 0.50" blow
30- ISI- No blow
10- FF- No blow Pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1534.60	97.93	Initial Hydro-static
1	20.90	97.57	Open To Flow (1)
13	20.32	97.83	Shut-In(1)
47	212.04	97.92	End Shut-In(1)
48	20.26	97.87	Open To Flow (2)
61	20.17	98.01	Shut-In(2)
62	1511.95	98.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	
0.00	Oil spots in tool	

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64496 **DST#: 3**

Test Start: 2019.09.16 @ 06:17:19

GENERAL INFORMATION:

Formation: **LKC "A-D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:48:55
Time Test Ended: 11:24:25

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73

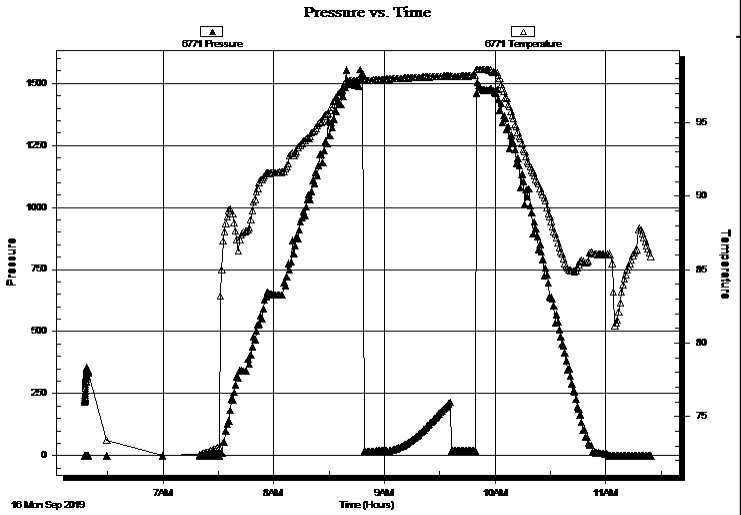
Interval: 3075.00 ft (KB) To 3162.00 ft (KB) (TVD)
Total Depth: 3162.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6771 **Inside**
Press@RunDepth: psig @ 3076.00 ft (KB)
Start Date: 2019.09.16 End Date: 2019.09.16
Start Time: 06:17:27 End Time: 11:24:17

Capacity: 8000.00 psig
Last Calib.: 2019.09.16
Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF- 0.50" blow
30- ISI- No blow
10- FF- No blow Pulled tool



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	
0.00	Oil spots in tool	

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64496 **DST#: 3**

Test Start: 2019.09.16 @ 06:17:19

Tool Information

Drill Pipe:	Length:	3068.00 ft	Diameter:	3.82	inches	Volume:	43.49	bbl	
Heavy Wt. Pipe:	Length:	ft	Diameter:		inches	Volume:	-	bbl	
Drill Collar:	Length:	ft	Diameter:	2.25	inches	Volume:	-	bbl	
						Total Volume:	-	bbl	

Drill Pipe Above KB:	21.00 ft
Depth to Top Packer:	3075.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	87.00 ft
Tool Length:	115.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		36000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	29000.00 lb
	Final	29000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3048.00		
Shut In Tool	5.00			3053.00		
Hydraulic tool	5.00			3058.00		
Jars	5.00			3063.00		
Safety Joint	3.00			3066.00		
Packer	5.00			3071.00	28.00	Bottom Of Top Packer
Packer	4.00			3075.00		
Stubb	1.00			3076.00		
Recorder	0.00	6771	Inside	3076.00		
Recorder	0.00	8700	Outside	3076.00		
Perforations	17.00			3093.00		
Change Over Sub	1.00			3094.00		
Drill Pipe	64.00			3158.00		
Change Over Sub	1.00			3159.00		
Bullnose	3.00			3162.00	87.00	Bottom Packers & Anchor
Total Tool Length:	**115.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64496 **DST#: 3**

Test Start: 2019.09.16 @ 06:17:19

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2700.00 ppm				
Filter Cake:	inches				

Recovery Information

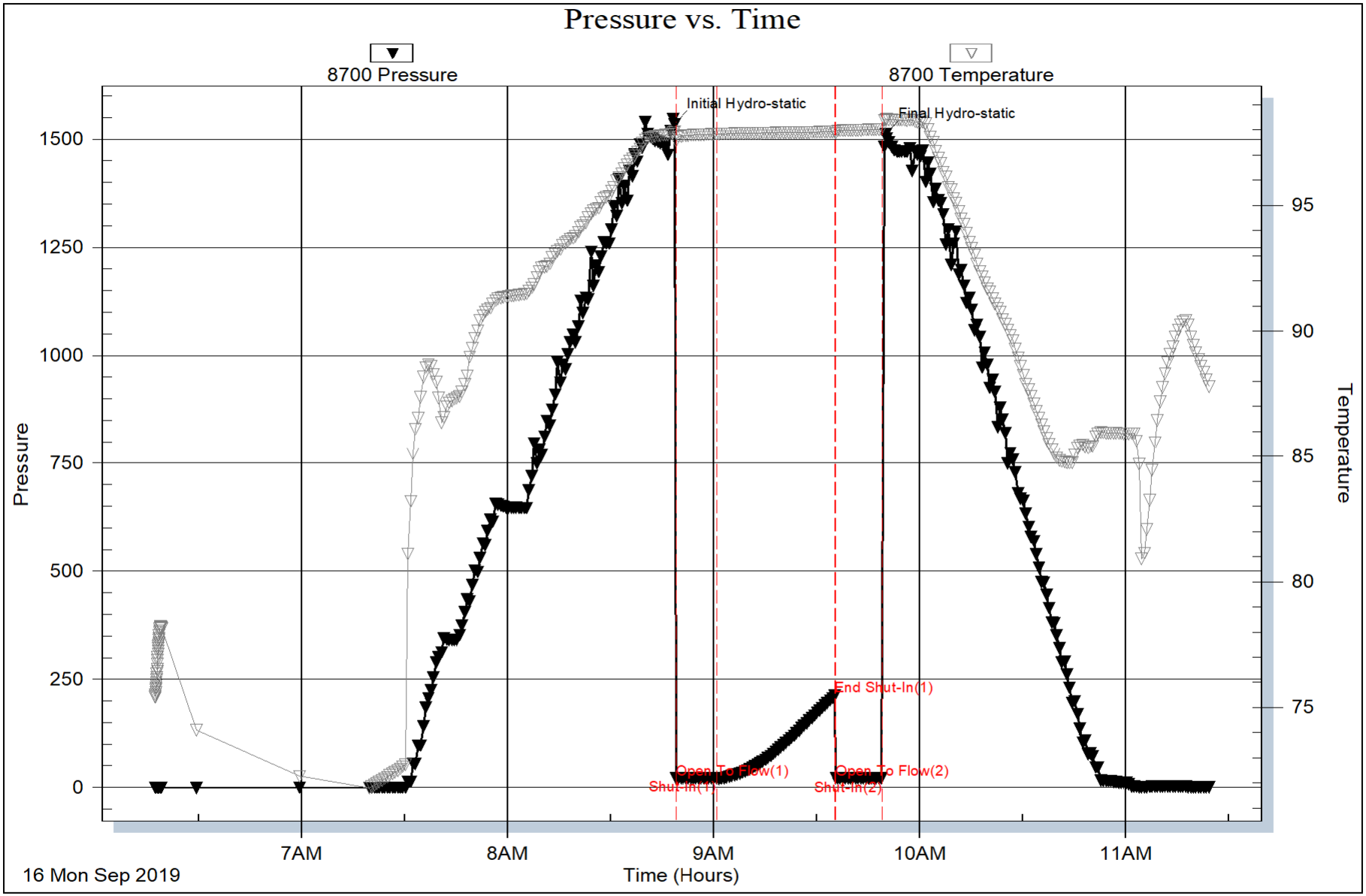
Recovery Table

Length ft	Description	Volume bbl
5.00	M	
0.00	Oil spots in tool	

Total Length: 5.00 ft Total Volume: bbl

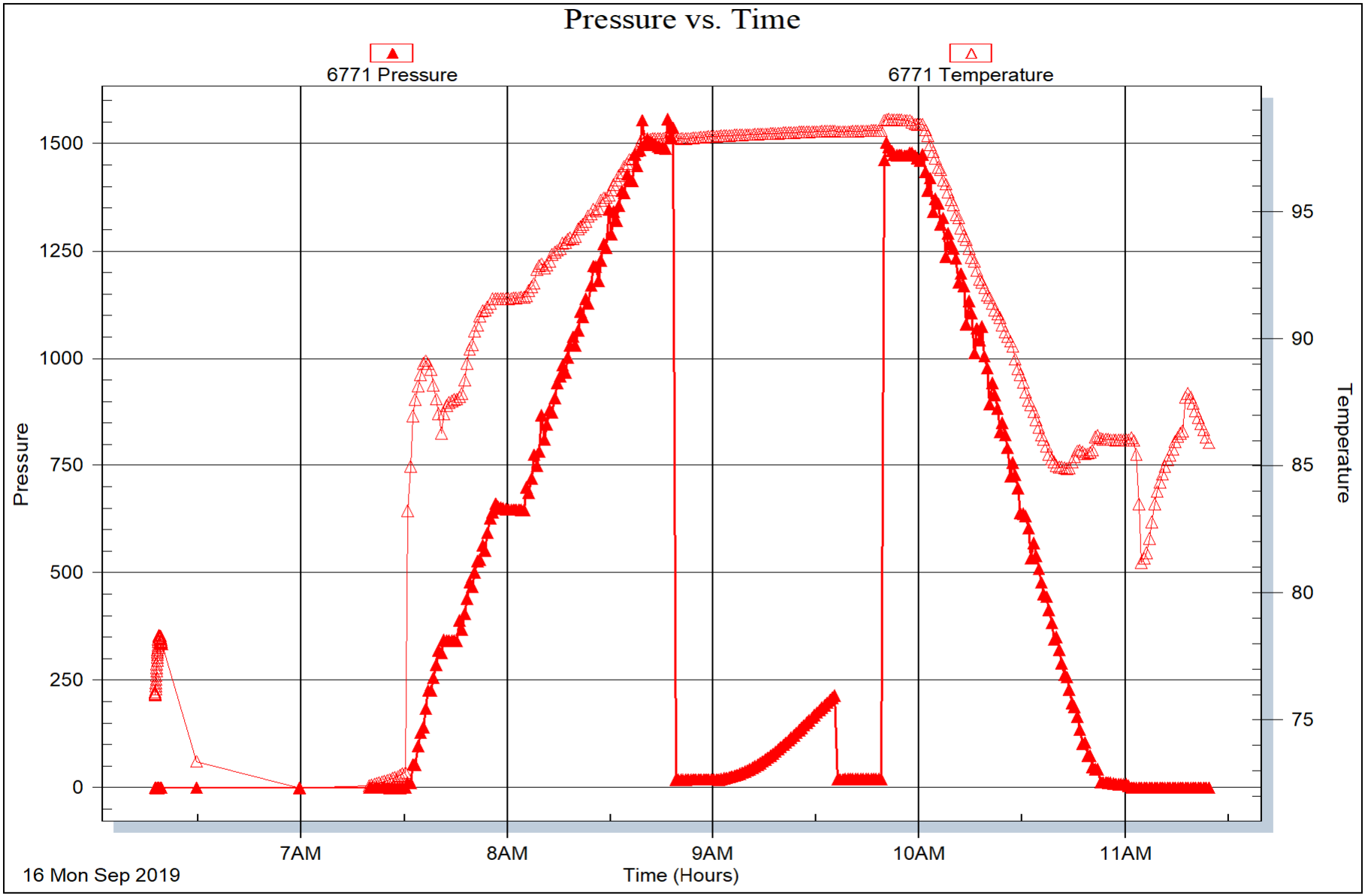
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

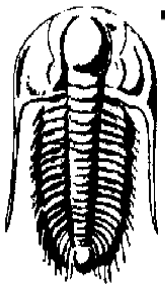
Serial #: 8700 **Outside** Carmen Schmitt, Inc. Brummer #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 64496 Printed: 2019.09.19 @ 09:25:59

Serial #: 6771 **Inside** Carmen Schmitt, Inc. Brummer #1 DST Test Number: 3





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Brummer #1

4-8S-15W Osborne,KS

Start Date: 2019.09.18 @ 13:27:17
End Date: 2019.09.18 @ 18:42:53
Job Ticket #: 64497 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.09.19 @ 09:25:28

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64497 **DST#: 4**

Test Start: 2019.09.18 @ 13:27:17

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:03:08
Time Test Ended: 18:42:53

Test Type: Conventional Straddle (Reset)
Tester: Brannan Lonsdale
Unit No: 73

Interval: 3630.00 ft (KB) To 3651.00 ft (KB) (TVD)
Total Depth: 3770.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

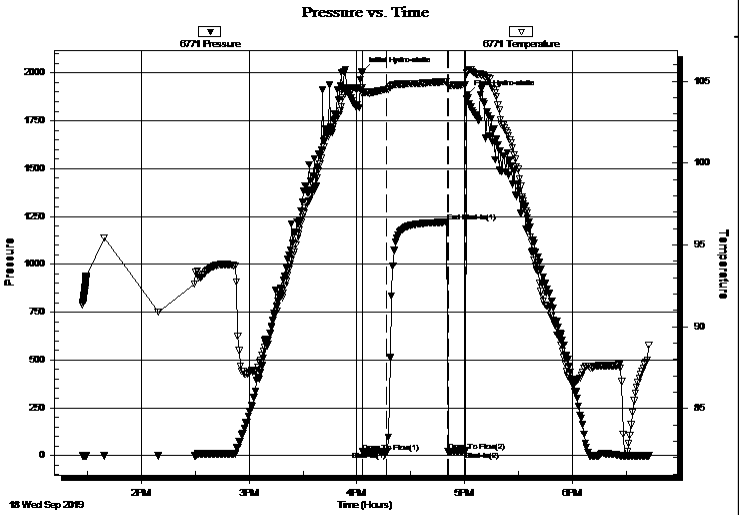
Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6771 **Inside**

Press@RunDepth: 20.01 psig @ 3631.00 ft (KB)
Start Date: 2019.09.18 End Date: 2019.09.18
Start Time: 13:27:18 End Time: 18:42:53

Capacity: 8000.00 psig
Last Calib.: 2019.09.18
Time On Btm: 2019.09.18 @ 16:02:53
Time Off Btm: 2019.09.18 @ 17:01:23

TEST COMMENT: 15- IF- Slow ly built to 0.50"
30- ISI- No blow
10- FF- No blow Pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2004.97	104.62	Initial Hydro-static
1	20.08	104.27	Open To Flow (1)
14	20.01	104.50	Shut-In(1)
48	1220.40	104.99	End Shut-In(1)
48	20.73	104.72	Open To Flow (2)
58	25.05	104.78	Shut-In(2)
59	1888.27	105.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	M	0.14

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64497 **DST#: 4**

Test Start: 2019.09.18 @ 13:27:17

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:03:08
Time Test Ended: 18:42:53

Test Type: Conventional Straddle (Reset)
Tester: Brannan Lonsdale
Unit No: 73

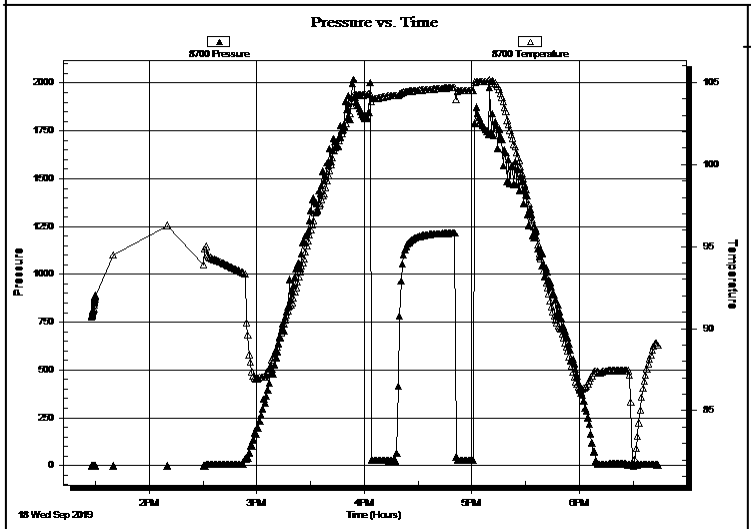
Interval: 3630.00 ft (KB) To 3651.00 ft (KB) (TVD)
Total Depth: 3770.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8700 **Outside**
Press@RunDepth: psig @ 3631.00 ft (KB)
Start Date: 2019.09.18 End Date: 2019.09.18
Start Time: 13:27:53 End Time: 18:43:43

Capacity: 8000.00 psig
Last Calib.: 2019.09.18
Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF- Slow ly built to 0.50"
30- ISI- No blow
10- FF- No blow Pulled tool



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	M	0.14

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64497 **DST#: 4**

Test Start: 2019.09.18 @ 13:27:17

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:03:08
Time Test Ended: 18:42:53

Test Type: Conventional Straddle (Reset)
Tester: Brannan Lonsdale
Unit No: 73

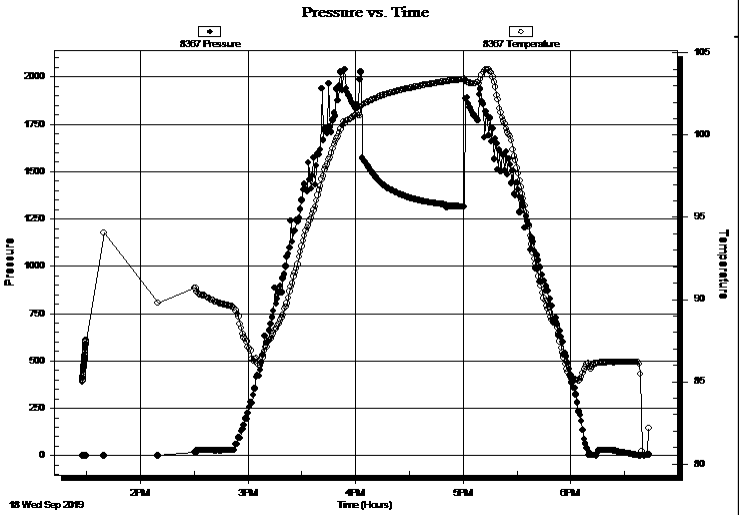
Interval: 3630.00 ft (KB) To 3651.00 ft (KB) (TVD)
Total Depth: 3770.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1883.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8367 **Below (Straddle)**
Press@RunDepth: psig @ 3671.00 ft (KB)
Start Date: 2019.09.18 End Date: 2019.09.18
Start Time: 13:27:43 End Time: 18:43:33

Capacity: 8000.00 psig
Last Calib.: 2019.09.18
Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF- Slow ly built to 0.50"
30- ISI- No blow
10- FF- No blow Pulled tool



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	M	0.14

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64497 **DST#: 4**

Test Start: 2019.09.18 @ 13:27:17

Tool Information

Drill Pipe:	Length:	3634.00 ft	Diameter:	3.82	inches	Volume:	51.51	bbl	
Heavy Wt. Pipe:	Length:	ft	Diameter:		inches	Volume:	-	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	-	bbl	

Drill Pipe Above KB:	32.00 ft
Depth to Top Packer:	3630.00 ft
Depth to Bottom Packer:	3651.00 ft
Interval betw een Packers:	21.00 ft
Tool Length:	168.00 ft
Number of Packers:	3 Diameter: 6.75 inches

Tool Weight:	2500.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	40000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	37000.00 lb
Final	37000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3603.00		
Shut In Tool	5.00			3608.00		
Hydraulic tool	5.00			3613.00		
Jars	5.00			3618.00		
Safety Joint	3.00			3621.00		
Packer	5.00			3626.00	28.00	Bottom Of Top Packer
Packer	4.00			3630.00		
Stubb	1.00			3631.00		
Recorder	0.00	6771	Inside	3631.00		
Recorder	0.00	8700	Outside	3631.00		
Perforations	16.00			3647.00		
Blank Off Sub	1.00			3648.00		
Blank Spacing	3.00			3651.00	21.00	Tool Interval
Packer	1.00			3652.00		
Stubb	1.00			3653.00		
Perforations	17.00			3670.00		
Change Over Sub	1.00			3671.00		
Recorder	0.00	8367	Below	3671.00		
Drill Pipe	95.00			3766.00		
Change Over Sub	1.00			3767.00		
Bullnose	3.00			3770.00	119.00	Bottom Packers & Anchor
Total Tool Length:	**168.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

4-8S-15W Osborne,KS

Brummer #1

Job Ticket: 64497 **DST#: 4**

Test Start: 2019.09.18 @ 13:27:17

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2600.00 ppm				
Filter Cake:	inches				

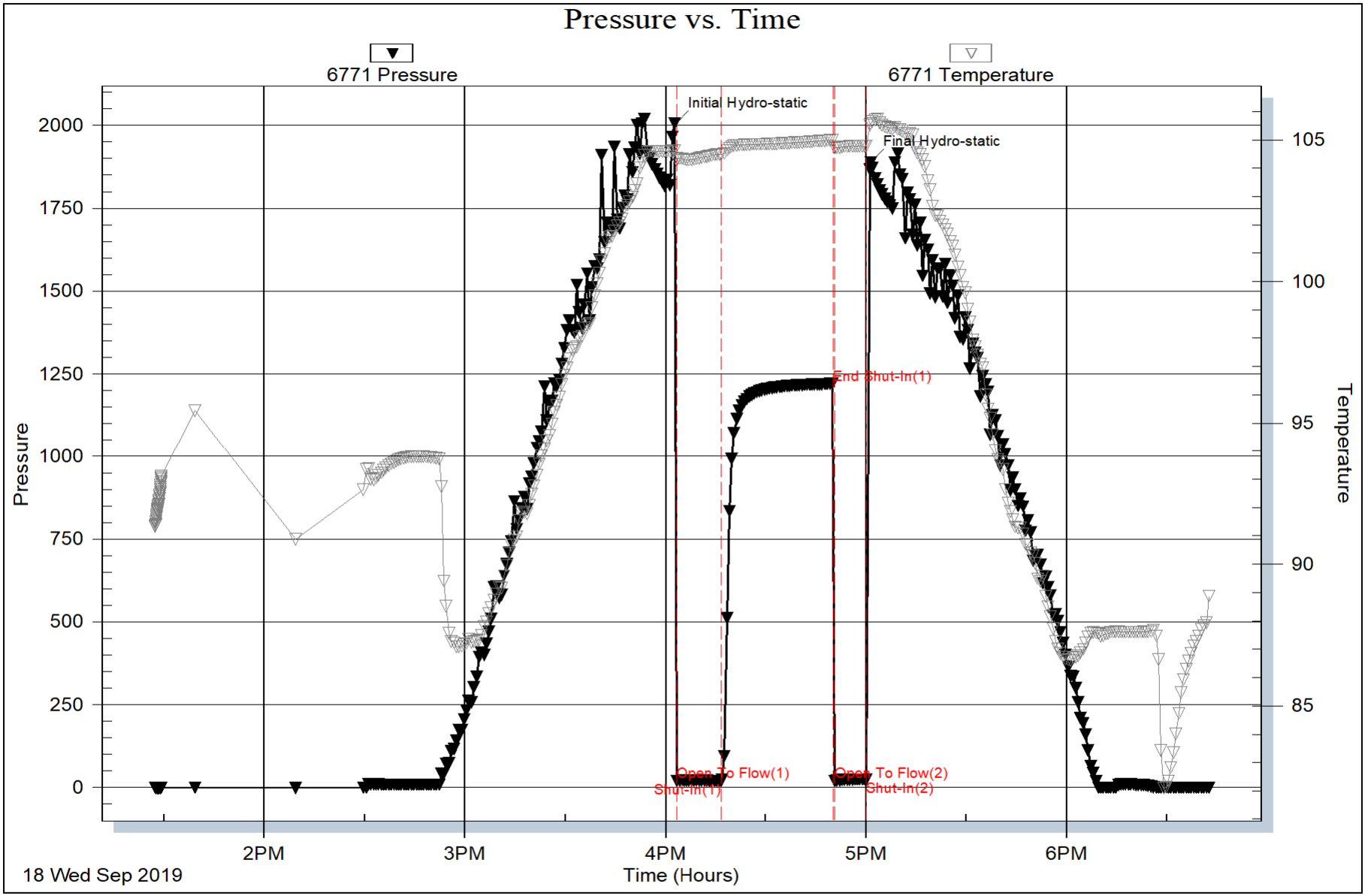
Recovery Information

Recovery Table

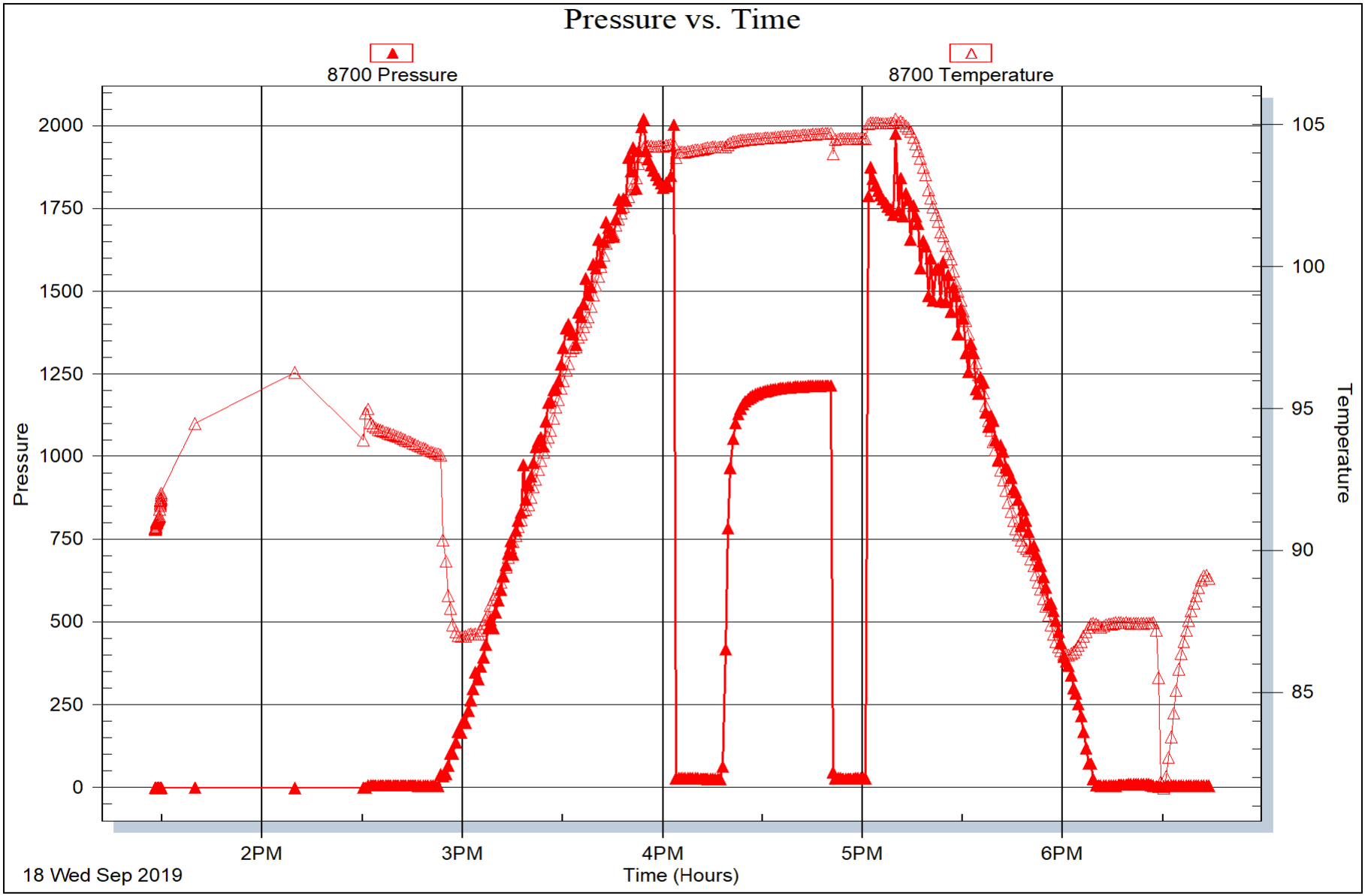
Length ft	Description	Volume bbl
10.00	M	0.142

Total Length: 10.00 ft Total Volume: 0.142 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

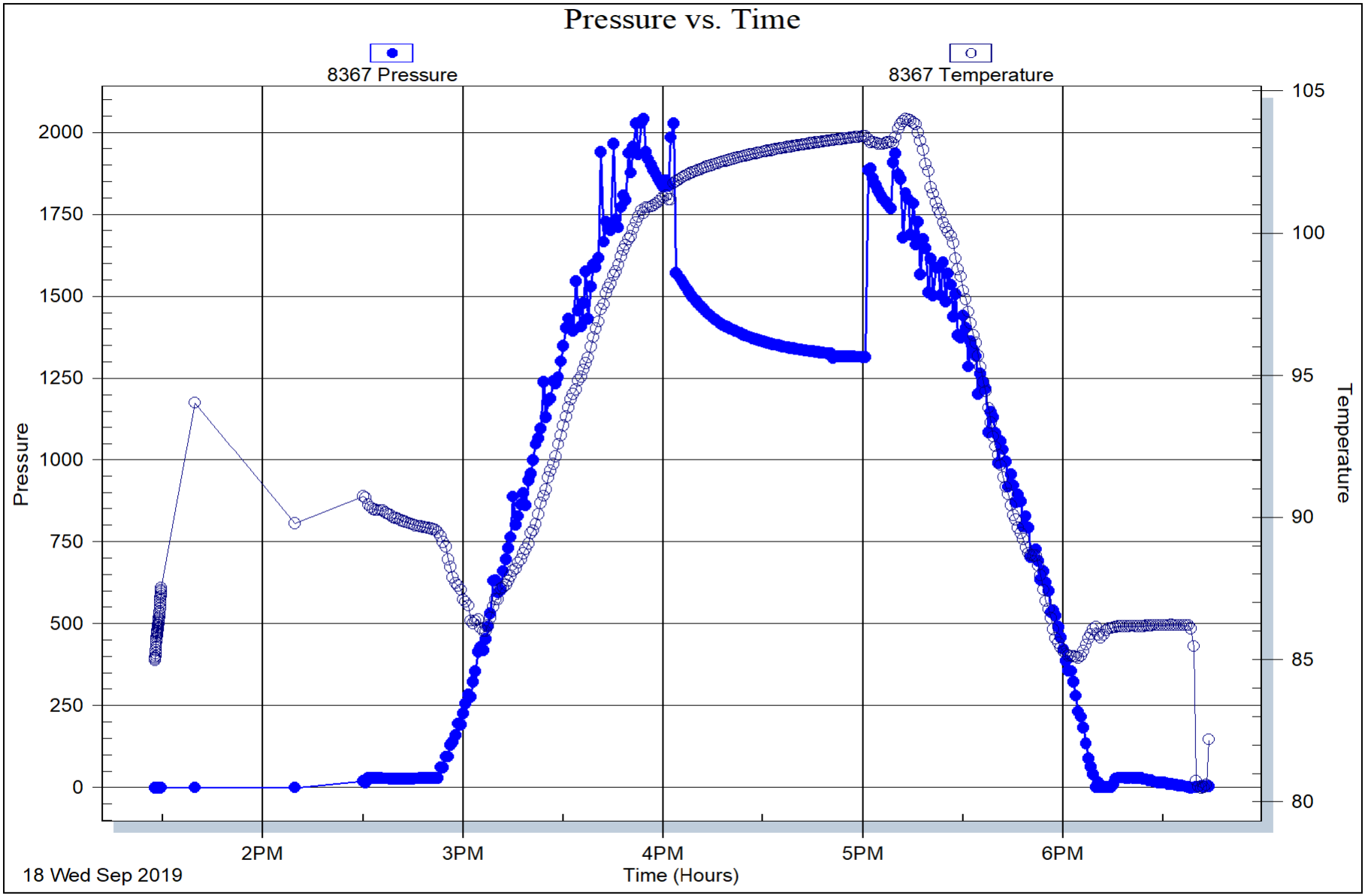

Pressure vs. Time
6771 Pressure
6771 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2000
1750
1500
1250
1000
750
500
250
0
105
100
95
90
85
2PM
3PM
4PM
5PM
6PM
18 Wed Sep 2019
Time (Hours)

Serial #: 8700 **Outside** Carmen Schmitt, Inc. Brummer #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 64497 Printed: 2019.09.19 @ 09:25:29

Serial #: 8367 **Below (Straddle)** Oehlman Schmitt, Inc. Brummer #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 64497 Printed: 2019.09.19 @ 09:25:29

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64494

Well Name & No. Brummer #1 Test No. 1 Date 9/14/19

Company Carmen Schmitt, Inc. Elevation 1883 KB 1875 GL

Address PO Box 47 Great Bend, KS 67530

Co. Rep / Geo. Brad Rine Rig Southwind 3.1

Location: Sec. 4 Twp 8 S Rge. 15 W Co. Osborne State KS

Interval Tested 2835-2855 Zone Tested Topeka

Anchor Length 20' Drill Pipe Run 2783 Mud Wt. 8.8

Top Packer Depth 2830 Drill Collars Run 57 Vis 49

Bottom Packer Depth 2835 Wt. Pipe Run — WL 7.2

Total Depth 2855 Chlorides 3,100 ppm System LCM 2#

Blow Description IF- Surface blow Died 4 mins

ISI- No blow

FF- No blow Pulled tool

FSI-

Rec 3	Feet of M	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 3' BHT 98° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1393	☒ Test 1200	T-On Location 1707
(B) First Initial Flow 15	☒ Jars 250	T-Started 1729
(C) First Final Flow 17	☒ Safety Joint 75	T-Open 2149
(D) Initial Shut-In 865	☐ Circ Sub	T-Pulled 2244
(E) Second Initial Flow 19	☐ Hourly Standby	T-Out 9/15 0035
(F) Second Final Flow 19	☒ Mileage 142 RT 142	Comments
(G) Final Shut-In	☐ Sampler	
(H) Final Hydrostatic 1377	☐ Straddle	☐ Ruined Shale Packer
	☒ Shale Packer 250	☐ Ruined Packer
Initial Open 15	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0
Final Flow 101	☐ Day Standby	Total 1917
Final Shut-In	☐ Accessibility	MP/DST Disc't
	Sub Total 1917	

Approved By Our Representative Brennan Lovsdale

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64495

Well Name & No. Brummer #1-2 Test No. 2 Date 9/15/19

Company Carmen Schmitt, Inc. Elevation 1883 KB 1875 GL

Address PO Box 47 Great Bend KS 67530

Co. Rep / Geo. Brad Rine Rig Southwind 3.1

Location: Sec. 4 Twp 8 S Rge. 15 W Co. Osborne State KS

Interval Tested 3037-3099 Zone Tested Toronto-LKC "A"

Anchor Length 62 Drill Pipe Run 8036 Mud Wt. 9.4

Top Packer Depth 3032 Drill Collars Run — Vis 44

Bottom Packer Depth 3037 Wt. Pipe Run — WL 8.0

Total Depth 3099 Chlorides 2,700 ppm System LCM 1#

Blow Description IF- Surface blow died 2 mins

ISI- No blow

FF- No blow Pulled tool

FSI-

Rec 5	Feet of M	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5' BHT 99° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1521	☒ Test	1200	T-On Location	1543
(B) First Initial Flow	20	☒ Jars	250	T-Started	1557
(C) First Final Flow	21	☒ Safety Joint	75	T-Open	1813
(D) Initial Shut-In	242	☐ Circ Sub		T-Pulled	1908
(E) Second Initial Flow	22	☐ Hourly Standby		T-Out	2052
(F) Second Final Flow	22	☒ Mileage	142 RT 142	Comments	
(G) Final Shut-In		☐ Sampler			
(H) Final Hydrostatic	1505	☐ Straddle		☐ Ruined Shale Packer	
		☒ Shale Packer	250	☐ Ruined Packer	
Initial Open	15	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	0
Final Flow	101	☐ Day Standby		Total	1917
Final Shut-In		☐ Accessibility		MP/DST Disc't	
		Sub Total	1917		

Approved By Our Representative Brennan Lansdale

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64496

Well Name & No. Brummer #1 Test No. 3 Date 9/16/19

Company Carmen Schmitt, Inc. Elevation 1883 KB 1875 GL

Address PO Box 47 Great Bend, KS 67530

Co. Rep / Geo. Brad Rine Rig Southwind 3

Location: Sec. 4 Twp 8 S Rge. 15 W Co. Osborne State KS

Interval Tested 3075-3162 Zone Tested LKC "A-D"

Anchor Length 87' Drill Pipe Run 3068 Mud Wt. 9.4

Top Packer Depth 3070 Drill Collars Run — Vis 44

Bottom Packer Depth 3075 Wt. Pipe Run — WL 8.0

Total Depth 3162 Chlorides 2,700 ppm System LCM 1#

Blow Description IF- 1/2" blow

ISI- No blow

FF- No blow Pulled tool

FSI-

Rec 5	Feet of M	%gas	%oil	%water	%mud
Rec	Feet of Oil spots in tool	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5' BHT 98° Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic	1535	☒ Test	1200	T-On Location	0603
(B) First Initial Flow	21	☒ Jars	250	T-Started	0617
(C) First Final Flow	20	☒ Safety Joint	75	T-Open	0848
(D) Initial Shut-In	212	☐ Circ Sub		T-Pulled	0943
(E) Second Initial Flow	20	☐ Hourly Standby		T-Out	1126
(F) Second Final Flow	20	☒ Mileage	142 RT 142	Comments	
(G) Final Shut-In		☐ Sampler			
(H) Final Hydrostatic	1512	☐ Straddle		☐ Ruined Shale Packer	
		☒ Shale Packer	250	☐ Ruined Packer	
Initial Open	15	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	0
Final Flow	101	☐ Day Standby		Total	1917
Final Shut-In		☐ Accessibility		MP/DST Disc't	
		Sub Total	1917		

Approved By _____ Our Representative Brennan Lonsdale

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64497

Well Name & No. Brummer #1 Test No. 4 Date 9/18/19

Company Carmen Schmitt, Inc. Elevation 1883 KB 1875 GL

Address PO Box 47 Great Bend, KS 67530

Co. Rep / Geo. Brad Rine Rig Southwind 3.1

Location: Sec. 4 Twp 8 S Rge. 15 W Co. Osborne State KS

Interval Tested 3630-3651 Zone Tested Viola

Anchor Length 21' Tail: 119' Drill Pipe Run 3634 Mud Wt. 9.3

Top Packer Depth 3625-3630 Drill Collars Run — Vis 50

Bottom Packer Depth 3651 Wt. Pipe Run — WL 8.0

Total Depth 3770 Chlorides 3,600 ppm System LCM 1#

Blow Description IF- Slowly built to 0.50"

ISI- No blow

FF- No blow Pulled tool

FSI-

Rec 10	Feet of M	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10' BHT 105° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2005	☒ Test 1200	T-On Location 1226
(B) First Initial Flow	20	☒ Jars 250	T-Started 1327
(C) First Final Flow	20	☒ Safety Joint 75	T-Open 1402
(D) Initial Shut-In	1220	☐ Circ Sub	T-Pulled 1457
(E) Second Initial Flow	21	☐ Hourly Standby	T-Out 1842
(F) Second Final Flow	25	☒ Mileage 142 RT 142	Comments
(G) Final Shut-In	1	☐ Sampler	
(H) Final Hydrostatic	1888	☒ Straddle 600	☐ Ruined Shale Packer
		☒ Shale Packer x2 500	☐ Ruined Packer
Initial Open	15	☐ Extra Packer	☐ Extra Copies
Initial Shut-In	30	☐ Extra Recorder	Sub Total 433.33
Final Flow	101	☒ Day Standby 1.5d 13h	Total 3200.33
Final Shut-In		☐ Accessibility	MP/DST Disc't
		Sub Total 2767	

Approved By Our Representative Brannan Lousdale