

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3267

Date	10-24-22	Sec.	2	Twp.	12	Range	19	County	Ellis	State	Ks	On Location		Finish	6:15PM
Lease								Location							
LEINMILLER								Well No. 4				Owner I F			
Contractor								To Quality Oilwell Cementing, Inc.							
Discovery								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Type Job								Charge To							
SURFACE								MUSTANG ENERGY							
Hole Size				T.D.				Street							
12 1/4				207											
Csg.				Depth				City							
8 5/8								State							
Tbg. Size				Depth				City							
								State							
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg.				Shoe Joint				Cement Amount Ordered							
15				1				1504 50/20 3-2							
Meas Line				Displace											
				16											
EQUIPMENT								Common							
								120							
Pumptrk				No.				Cementer				Poz. Mix			
17								Bill				30			
Bulktrk				No.				Driver				Gel.			
								NICK				3			
Bulktrk				No.				Driver				Calcium			
14								BRYANT				6			
JOB SERVICES & REMARKS								Hulls							
Remarks:								Salt							
Rat Hole								Flowseal							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
Set 267								Handling							
Cemt w/ 1507								159							
pump plug w/ 16 Bbls								Mileage							
Cemt did circ															
								FLOAT EQUIPMENT							
								Guide Shoe							
								Centralizer							
								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge							
								Surface							
								Mileage							
								15							
								Tax							
								Discount							
								Total Charge							
Signature								Thanks							
Ryan Joseph															

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 8188

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10-29-22	2	12	19	Ellis	Ks		3:30 AM

Lease: Leinmiller Location: Yocumville - N to Homestead Rd

Well No. 4 Owner: HUE S/1/2/4

Contractor: Discovery #4 To Quality Oilwell Cementing, Inc.

Type Job: Longs Run You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size: 7 7/8" T.D. 3501' Charge To: Mustang Energy

Csg. 5 1/2" 15.507' Depth 3792' Street:

Tbg. Size: Depth: City: State:

Tool Port Collar #41 Depth 2047' The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 42.41' Shoe Joint 42.41' Cement Amount Ordered 180 Com 10% Salt 5%

Meas Line Displace 89 1/4 Bcs Colgate - 500 gal mud Circ

EQUIPMENT

Pumptrk 16	No.	Cementer		Common
		Helper	David	Poz. Mix
Bulktrk 14	No.	Driver		Gel.
		Driver	Miss	
Bulktrk 14	No.	Driver		Calcium
		Driver	Rich	

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole 30.22	Salt
Mouse Hole 15.54	Flowseal
Centralizers 1, 3, 5, 7, 9, 42, 54	Kol-Seal
Baskets 2, 11, 41	Mud CLR 48
D/V or Port Collar #41 @ 2047'	CFL-117 or CD110 CAF 38
Plug on bottom break Circled	Sand
Pump 500 gal mud Clear Plug	Handling
Port + mouse hole's. Hook to 1550'	Mileage

FLOAT EQUIPMENT

Casing + Cement wt 135.5X. Shut down & work pump + lines. Displace plug w/ 89 1/2 Bcs. H2O Released + 1 hole.	Guide Shoe	Port Collar
	Centralizer	7
	Baskets	3
	AFU Inserts	
	Float Shoe	1
	Latch Down	1
lift pressure 700#		
land plug to 1500#		

Pumptrk Charge

Mileage

	Tax
	Discount
	Total Charge

X Signature

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3297

Date <i>11-23-22</i>	Sec.	Twp.	Range	County	State	On Location	Finish
				Location <i>YOC. 9170 SW 15E</i>			
Lease <i>Lein Miller</i>	Well No. <i>U</i>			Owner			
Contractor <i>OUTLAW</i>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job <i>Port collar</i>							
Hole Size	T.D.			Charge To <i>MUSTARD</i>			
Csg. <i>5 1/2</i>	Depth			Street			
Tbg. Size <i>2 3/8</i>	Depth			City		State	
Tool	Depth			The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.	Shoe Joint			Cement Amount Ordered <i>4000 QMDC</i>			
Meas Line	Displace			<i>4" Flt Seal 10W Gel</i>			
EQUIPMENT				Common			
Pumptrk <i>17</i>	No.	Cementer	<i>Bill</i>	Poz. Mix			
		Helper					
Bulktrk	No.	Driver	<i>Mick</i>	Gel.			
		Driver					
Bulktrk	No.	Driver		Calcium			
		Driver					
JOB SERVICES & REMARKS				Hulls			
Remarks:				Salt			
Rat Hole				Flowseal			
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
<i>P.C. e 205x</i>				Handling			
<i>Pump 10 W Gel. FOSTER CIRC</i>				Mileage			
<i>Cement of 275M</i>				FLOAT EQUIPMENT			
<i>Cement 10 W Gel</i>				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
<i>Used 275M</i>				Float Shoe			
<i>20 W Gel</i>				Latch Down			
				Pumptrk Charge			
				Mileage			
				Tax			
				Discount			
X Signature <i>[Signature]</i>				Total Charge			



MUSTANG

ENERGY CORPORATION

Scale 1:240 Imperial

Well Name: LEINMILLER #4
Surface Location: SE, SW, NE, NW, Sec. 2, T12S, R19W
Bottom Location:
API: 15-051-27061
License Number: 33922
Spud Date: 10/24/2022 Time: 12:15 PM
Region: ELLIS COUNTY
Drilling Completed: 10/29/2022 Time: 8:30 AM
Surface Coordinates: 1070' FNL & 1770' FWL
Bottom Hole Coordinates:
Ground Elevation: 2165.00ft
K.B. Elevation: 2173.00ft
Logged Interval: 3100.00ft To: 3800.00ft
Total Depth: 3800.00ft
Formation: ARBUCKLE
Drilling Fluid Type: CHEMICAL MUD

OPERATOR

Company: MUSTANG ENERGY CORPORATION
Address: PO BOX 1121

Contact Geologist: ROD BRIN
Contact Phone Nbr: 785-623-0533
Well Name: LEINMILLER #4
Location: SE, SW, NE, NW, Sec. 2, T12S, R19W
API: 15-051-27061
Pool: Field: LEINMILLER
State: KS Country:

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.401577
Latitude: 39.041982
N/S Co-ord: 1070' FNL
E/W Co-ord: 1770' FWL

LOGGED BY

Company: KEYSTONE CONSULTING, LLC
Address: 2511 E 19TH
HAYS, KS 67601
Phone Nbr: (785) 639-0721
Logged By: Geologist Name: CAMERON BRIN

CONTRACTOR

Contractor: DISCOVERY DRILLING
Rig #: 4
Rig Type: MUD ROTARY
Spud Date: 10/24/2022 Time: 12:15 PM
TD Date: 10/29/2022 Time: 8:30 AM

ELEVATIONS

K.B. Elevation: 2173.00ft
K.B. to Ground: 8.00ft

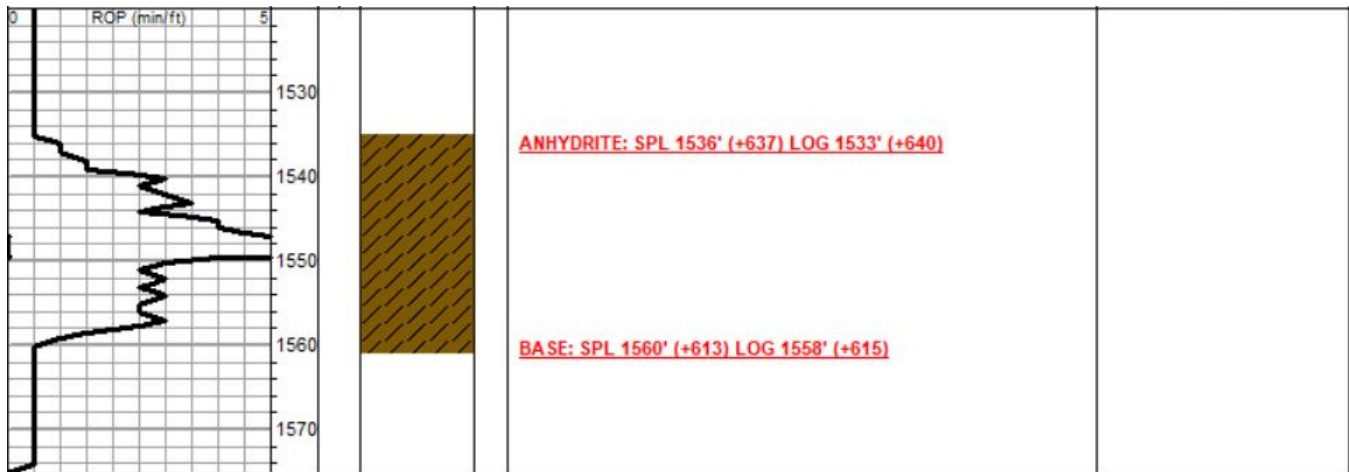
Ground Elevation: 2165.00ft


NOTES

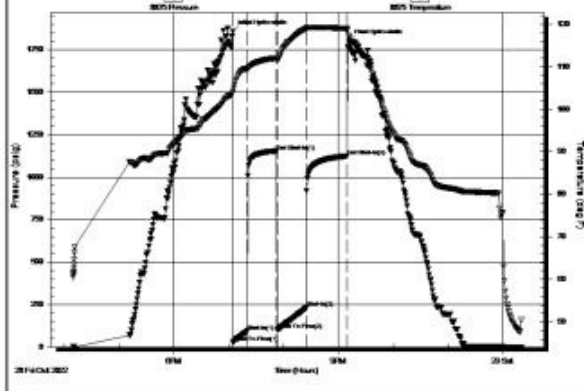
DUE TO POSITIVE RESULTS ON DST #1, DECISION WAS MADE TO RUN 5 1/2" PRODUCTION CASING TO FURTHER EVALUATE THE LEINMILLER #4 WELL.

TOPS COMPARISON

FORMATION	LEINMILLER #4				LEINMILLER #1				LEINMILLER #2				D&A 10-1-61				P&A 2-1-61											
	FRANCIS V WEIGEL				FRANCIS V WEIGEL				FRANCIS V WEIGEL				KEBERLEIN #1				LEINMILLER #3											
	NW, SE, NW, Sec 2-12-19				S2, S2, NW Sec 2-12-19				NW, SW, NE Sec 2-12-19				RAYMOND OIL				ALPINE OIL											
	KB	2173	GL	2165	KB	2176	KB	2149	KB	2141	KB	2172	KB	2172	KB	2172	KB	2172										
LOG TOPS	SAMPLE TOPS			COMP CARD		LOG	SMPL.	COMP. CARD		LOG	SMPL.	LOGS		LOG	SMPL.	COMP. CARD		LOG	SMPL.									
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM									
ANHYDRITE TOP	1533	640	1536	637	1528	648	-	8	-	11	1490	659	-	19	-	22												
BASE	1558	615	1560	613	1562	614	+	1	-	1	1531	618	-	3	-	5												
TOPEKA	3179	-1006	3180	-1007	3173	-997	-	9	-	10	3142	-993	-	13	-	14												
HEEBNER SHALE	3407	-1234	3406	-1233	3402	-1226	-	8	-	7	3370	-1221	-	13	-	12	3388	-1247	+	13	+	14	3403	-1231	-	3	-	2
TORONTO	3424	-1251	3423	-1250	3420	-1244	-	7	-	6	3389	-1240	-	11	-	10	3409	-1268	+	17	+	18	3420	-1248	-	3	-	2
LKC	3445	-1272	3446	-1273	3443	-1267	-	5	-	6	3411	-1262	-	10	-	11	3431	-1290	+	18	+	17	3445	-1273	+	1	+	0
BKC	3675	-1502	3679	-1506	3676	-1500	-	2	-	6	3645	-1496	-	6	-	10	3637	-1496	-	6	-	10	3675	-1503	+	1	-	3
CONGLOMERATE																	3697	-1556										
ARBUCKLE	3717	-1544	3718	-1545	3715	-1539	-	5	-	6	3685	-1536	-	8	-	9							3722	-1550	+	6	+	5
TOTAL DEPTH	3801	-1628	3800	-1627	3722	-1546	-	82	-	81	3690	-1541	-	87	-	86	3720	-1579	-	49	-	48	3730	-1558	-	70	-	69

ANHYDRITE**DST #1 3708'-3721' (ARBUCKLE)**

		DRILL STEM TEST REPORT	
Mustang Energy Corporation		2-12s-19w Ellis KS	
PO BOX 1121 Hays KS 67601+1121		Leinmiller #4	
ATTN: Cameron Brin		Job Ticket: 69824	DST# 1
		Test Start: 2022.10.28 @ 16:10:00	
GENERAL INFORMATION:			
Formation:	Arbuckle		
Deviated:	No	Whipstock:	ft (KB)
Time Tool Opened:	19:04:47	Test Type:	Conventional Bottom Hole (Initial)
Time Test Ended:	00:20:22	Tester:	Spencer J Staab
		Unit No:	84
Interval:	3708.00 ft (KB) To 3721.00 ft (KB) (TVD)	Reference Elevations:	2173.00 ft (KB)
Total Depth:	3721.00 ft (KB) (TVD)		2165.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition:	Fair
		KB to GR/CF:	8.00 ft
Serial #: 8875	Outside		
Press@RunDepth:	231.27 psig @ 3709.00 ft (KB)	Capacity:	psig
Start Date:	2022.10.28	End Date:	2022.10.29
Start Time:	16:10:01	End Time:	00:20:22
		Last Calib.:	2022.10.29
		Time On Btm:	2022.10.28 @ 19:04:32
		Time Off Btm:	2022.10.28 @ 21:11:37
TEST COMMENT: 15-F-BOB 14.5 mins Built to 12.5" 30-ISI-Very Weak Surface Died @ 2 mins 30-FF-BOB 13 mins Built to 25" 45-FSI-Very Weak Surface			
Pressure vs. Time		PRESSURE SUMMARY	



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1856.27	104.25	Initial Hydro-static
1	27.21	104.16	Open To Flow (1)
16	93.96	109.49	Shut-In(1)
48	1153.35	112.01	End Shut-In(1)
49	100.18	111.73	Open To Flow (2)
81	231.27	119.05	Shut-In(2)
125	1124.45	118.94	End Shut-In(2)
128	1801.72	116.96	Final Hydro-static

Length (ft)	Description	Volume (bbl)
10.00	MW 10% m 90% W	0.05
70.00	Water	0.81
470.00	GO 30% G 70% O	6.66

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

Triolite Testing, Inc

Ref. No: 69824

Printed: 2022.10.29 @ 00:40:01

ROCK TYPES

Dolprim
 Lmst fw7>
 shale, gry
 Carbon Sh

ACCESSORIES

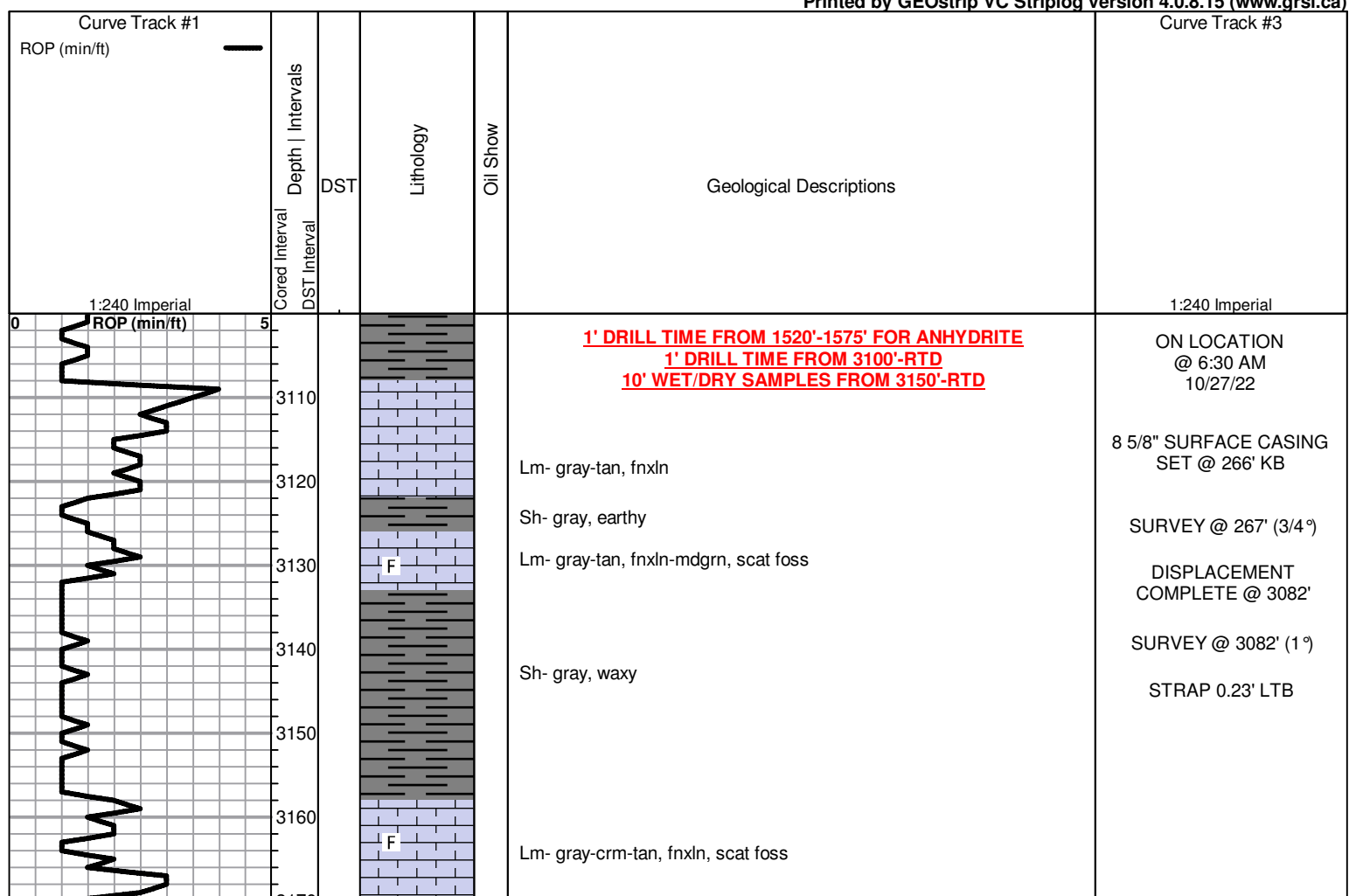
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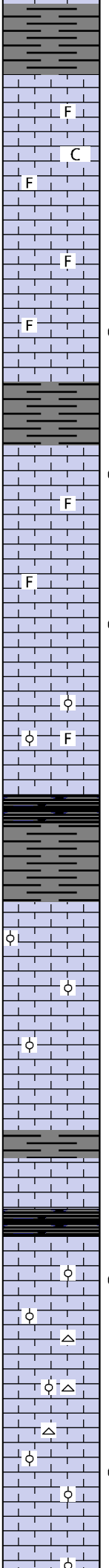
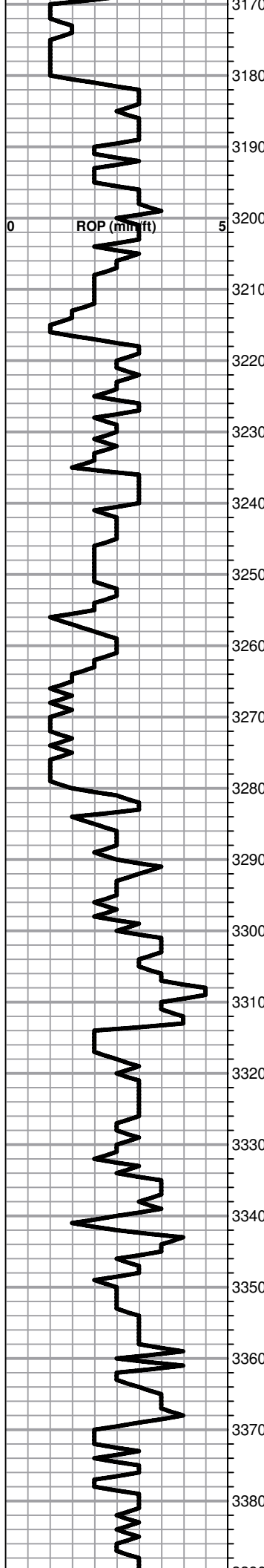
FOSSIL
 F Fossils < 20%
 ◊ Oolite

STRINGER
 ~~~ Chert

**TEXTURE**  
 C Chalky

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





Sh- gray, waxy

**TOPEKA: SPL 3180' (-1007) LOG 3179' (-1006)**

Lm- crm-gray-tan, fnxln, foss, chalky in prt

Lm- A/A

Lm- crm-tan-gray, v.fn-fnxln, scat foss, scat pr & tr fr ppt & sli vuggy por, scat brn stn in por, sli SFO upon crush & sheen in cup, faint odor

Sh- gray-blk, soft

Lm- crm-gray, v.fn-fnxln, scat foss, few scat pcs w/ pr ppt & tr vuggy por, v. few pcs w/ brn stn in por, sli sheen FO upon crush, no odor

Lm- crm-tan, v.fn-fnxln, cherty in prt, scat foss

Lm- crm, v.fn-fnxln, cherty in prt, scat pr ppt por, v. few scat pcs w/ brn spotty stn, .v sli SFO upon crush, no odor

Lm- crm-tan, fnxln-fngrn, foss, oolitic

Sh- blk, carb

Sh- gray

Lm- crm-tan, fnxln-fngrn, oolitic in prt

Lm- A/A

Lm- A/A, cherty in prt

Sh- gray, soft, earthy

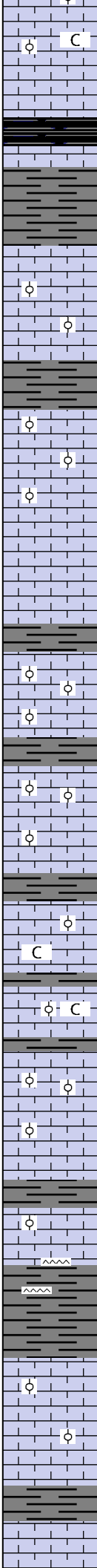
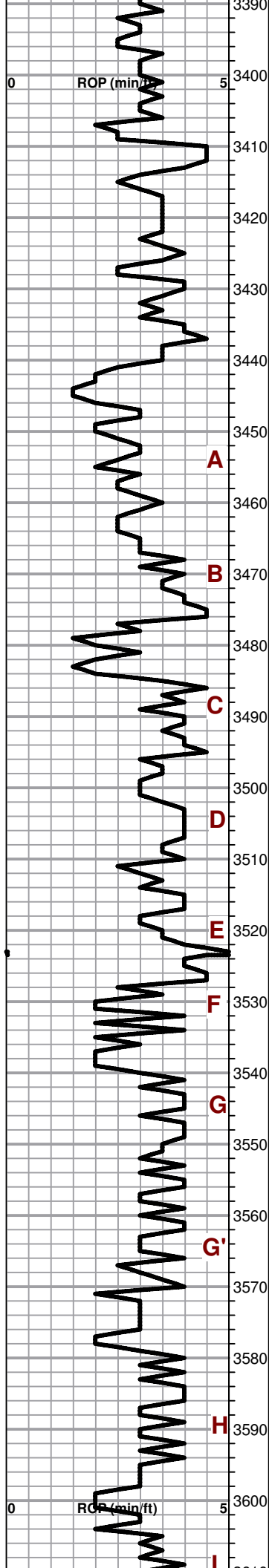
Lm- crm-tan, v.fnxln, cherty

Sh- blk, carb

Lm- crm-tan, v.fn-fnxln, scat foss, oolitic in prt, scat pr inxln-oolitic & tr fr vuggy por, few scat pcs w/ spotty brn stn in por, v. sli SFO upon crush, pr-no odor

Lm- crm-tan, v.fn-fnxln, oolitic in prt, scat tan-wt chert, subangular

Lm- crm, fnxln, oolitic, scat pr oolitic por, scat spotty brn stn in por, v. sli SFO upon crush, mod odor



**HEEBNER: SPL 3406' (-1233) LOG 3407' (-1234)**

Sh- blk, carb

Sh- gray

**TORONTO: SPL 3423' (-1250) LOG 3424' (-1251)**

Lm- crm, fnxln, oolitic in prt, scat pr inoolitic-ppt & tr fr-gd vuggy por, few scat pcs w/ spotty brn stn in por, sli sheen FO in cup, faint odor, scat wt-chert

Sh- gray-blk

**LANSING: SPL 3446' (-1273) LOG 3445' (-1272)**

Lm- crm, v.fn-fnxln, foss, oolitic in prt, scat pr ppt-inoolitic & tr vuggy por, few scat pcs w/ spotty brn stn in por, sli sheen FO in cup, no odor

Lm- crm-tan, v.fnxln, cherty

Sh- gray

Lm- crm, fnxln, oolitic, scat pr fr oolitic-oomoldic por, scat fairly spotty brn stn, sheen FO in cup & spl, faint odor

Sh- gray

Lm- crm, fnxln, oolitic, scat pr inxln-ppt & fr inoolitic-oomoldic por, scat spotty brn stn, few pcs mod sat, sli sheen FO in cup, faint odor

Lm- crm, fnxln, oolitic in prt, chalky, scat pr inxln-ppt-inoolitic por, few cat pcs w/ spotty brn stn, v. sli sheen & few FO drops in cup, mod odor

Lm- crm, v.fn-fnxln, oolitic in prt, chalky, scat pr ppt por, v. few scat pcs w/ v. spotty brn stn in por, NSFO, no odor

Lm- crm, v.fn-fnxln, oolitic in prt, cherty in prt, scat pr ppt-inxln-inoolitic & tr vuggy por, scat spotty brn stn in por, few FO drops in cup, faint odor

Lm- crm, v.fn-fnxln, oolitic in prt, barren, cherty

Chert- brn-wt-tan, blocky, subangular

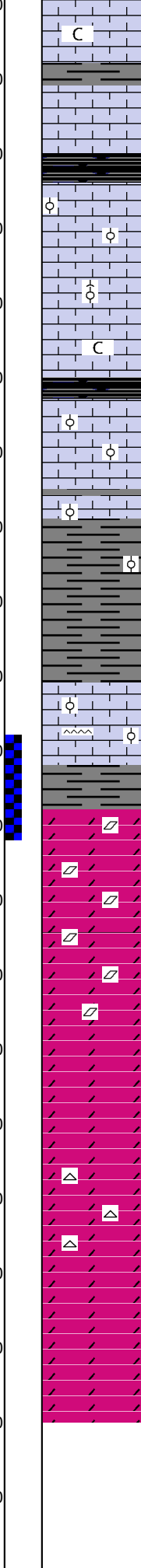
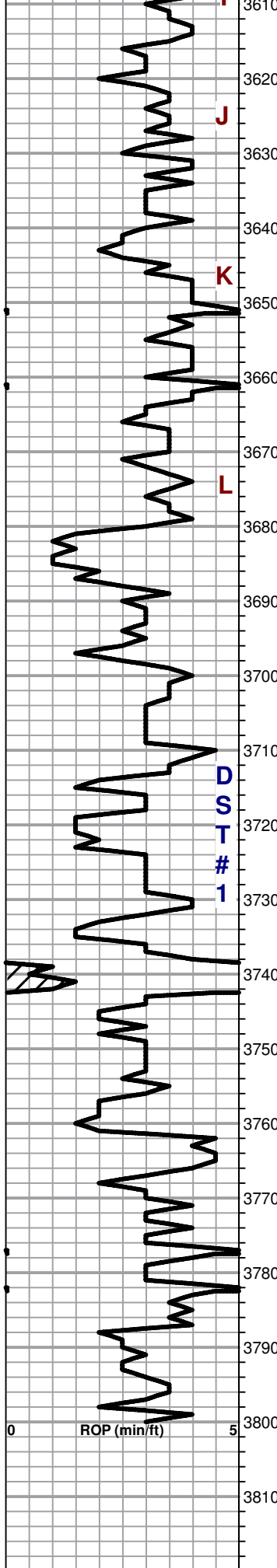
Sh- brn- gray

Lm- crm, v.fn-fnxln, oolitic in prt, cherty, scat brn-gray shales

Lm- A/A

Sh- gray-brn- green

Lm- crm, v.fnxln, cherty, barren



3610 Lm- crm-wt, microxln, cherty, chalky

3620 Lm- crm, v.fnxln, cherty, v. few pcs w/ pr ppt-inxln por, v. few scat pcs w/ pr spotty brn-blk hvy stn in por, 1 FO drop in cup, no odor

3630 Sh- blk, carb

3640 Lm- crm, v.fn-fnxln, oolitic in prt, cherty, few scat pcs w/ pr inxln por, v. few pcs w/ brn spotty stn in por, NSFO, faint odor

3650 Lm- crm-wt, v.fn-fnxln, oolitic in prt, barren, dense

3660 Lm- A/A, chalky

3670 Sh- blk, carb

3670 Lm- crm, v.fn-fnxln, cherty, oolitic in prt, scat pr inxln-oomoldic & tr vuggy por, few scat pcs w/ spotty brn stn in por, NSFO, no odor

**BKC: SPL 3679' (-1506) LOG 3675' (-1502)**

3680 Sh- gray

3690 Lm- crm, v.fnxln, oolitic, cherty, dense

3700 Sh- gray-brn

3710 Lm- crm fnxln, oolitic, scat tan subangular chert

**ARBUCKLE: SPL 3718' (-1545) LOG 3717' (-1544)**

3720 Dolo- crm, fn-coarsexln, rhombic, sucrosic in prt, friable in prt, pr-fr inxln por, brn-blk sub sat-sat stn, fr SFO upon crush & fr-gd SFO in cup, fr-gd odor

3730 Dolo- crm, fn-mdxln, sucrosic, rhombic in prt, friable in prt, pr-fr inxln-vuggy por, brn-blk sub sat- sat stn, fr-gd SFO in cup, spl & upon crush, fr-gd odor

3740 Dolo- A/A, fr odor

3750 Dolo- A/A, fn-coarsexln, fr SFO in cup, fr odor

3760 Dolo- crm, fn-mdxln, sucrosic, friable in prt, fairly tight inxln & some vuggy por, brn-blk sub sat- sat stn, mod SFO in cup, spl & upon crush, pr odor

3770 Dolo- crm, fn-mdxln, sucrosic in prt, fairly tight inxln & tr vuggy por, scat fairly spotty brn-blk sub sat & few pcs sat stn, scat dead blk stn, mod SFO in cup, & upon crush, pr odor, scat tan-wt subangular chert

3780 Dolo- crm, fn-mdxln, sucrosic in prt, mostly pr inxln por, scat fairly spotty brn-blk sub sat stn, scat dead blk stn, mod SFO in cup, fr odor

3790 Dolo- crm-lt. pink, fnxln, sucrosic in prt, pr inxln por, spotty brn-blk stn, scat dead blk stn, mod SFO in cup, pr odor

**RTD: SPL 3800' (-1627) LOG 3801' (-1628)**

**DST #1**  
**3708'-3721' (ARBUCKLE)**  
 15-30-30-45  
**470' GO (70% O)**  
**70' W**  
**10' MW**  
 SIP: 1153-1124#

CFS @ 3721'  
 SURVEY @ 3721' (1°)

SURVEY @ RTD (1 1/4°)

OFF  
 LOCATION @  
 3:45 PM  
 10/29/22



## DRILL STEM TEST REPORT

Prepared For: **Mustang Energy Corporation**

PO Box 1121  
Hays KS 67601+1121

ATTN: Cameron Brin

### **Leinmiller #4**

### **2-12s-19w Ellis,KS**

Start Date: 2022.10.28 @ 16:10:00

End Date: 2022.10.29 @ 00:20:22

Job Ticket #: 69824                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.11.01 @ 15:51:51



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Mustang Energy Corporation

**2-12s-19w Ellis,KS**

PO Box 1121  
Hays KS 67601+1121

**Leinmiller #4**

Job Ticket: 69824

**DST#: 1**

ATTN: Cameron Brin

Test Start: 2022.10.28 @ 16:10:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:04:47

Time Test Ended: 00:20:22

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

**Interval: 3708.00 ft (KB) To 3721.00 ft (KB) (TVD)**

Reference Elevations: 2173.00 ft (KB)

Total Depth: 3721.00 ft (KB) (TVD)

2165.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8875 Outside**

Press@RunDepth: 231.27 psig @ 3709.00 ft (KB)

Capacity: psig

Start Date: 2022.10.28

End Date:

2022.10.29

Last Calib.:

2022.10.29

Start Time: 16:10:01

End Time:

00:20:22

Time On Btm:

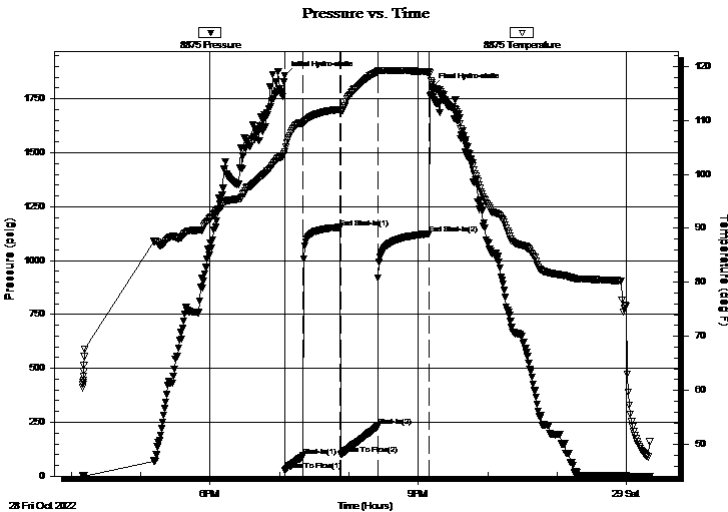
2022.10.28 @ 19:04:32

Time Off Btm:

2022.10.28 @ 21:11:37

**TEST COMMENT:** 15-IF-BOB 14.5 mins Built to 12.5"  
30-ISI-Very Weak Surface Died @ 2 mins  
30-FF-BOB 13 mins Built to 25"  
45-FSI-Very Weak Surface

## PRESSURE SUMMARY



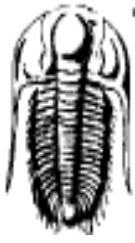
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1856.27         | 104.25       | Initial Hydro-static |
| 1           | 27.21           | 104.16       | Open To Flow (1)     |
| 16          | 93.96           | 109.49       | Shut-In(1)           |
| 48          | 1153.35         | 112.01       | End Shut-In(1)       |
| 49          | 100.18          | 111.73       | Open To Flow (2)     |
| 81          | 231.27          | 119.05       | Shut-In(2)           |
| 125         | 1124.45         | 118.94       | End Shut-In(2)       |
| 128         | 1801.72         | 116.96       | Final Hydro-static   |

## Recovery

| Length (ft) | Description    | Volume (bbl) |
|-------------|----------------|--------------|
| 10.00       | MW 10% m 90% W | 0.05         |
| 70.00       | Water          | 0.81         |
| 470.00      | GO 30% G 70% O | 6.66         |
|             |                |              |
|             |                |              |

## Gas Rates

|  | Choke (inches) | Pressure (psig) | Gas Rate (MMcf/d) |
|--|----------------|-----------------|-------------------|
|  |                |                 |                   |



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

Mustang Energy Corporation

**2-12s-19w Ellis,KS**

PO Box 1121  
Hays KS 67601+1121

**Leinmiller #4**

Job Ticket: 69824

**DST#: 1**

ATTN: Cameron Brin

Test Start: 2022.10.28 @ 16:10:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:04:47

Time Test Ended: 00:20:22

Interval: **3708.00 ft (KB) To 3721.00 ft (KB) (TVD)**

Total Depth: 3721.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Reference Elevations: 2173.00 ft (KB)

2165.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 6838 Inside**

Press@RunDepth: psig @ 3709.00 ft (KB)

Start Date: 2022.10.28

End Date: 2022.10.29

Capacity: psig

Last Calib.: 2022.10.29

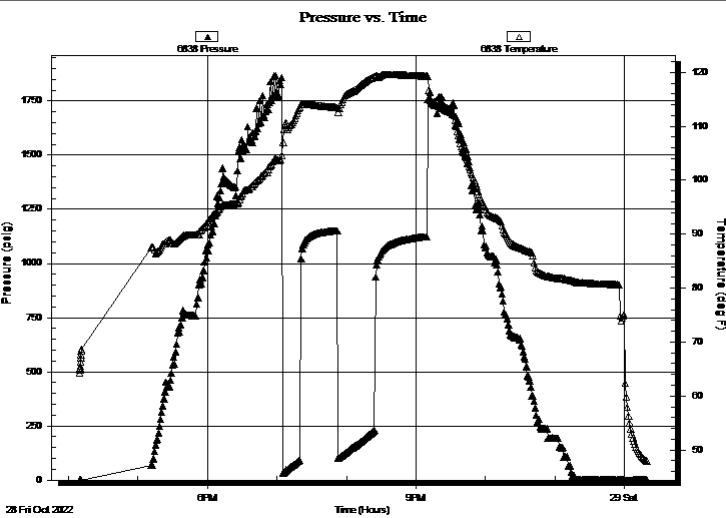
Start Time: 16:10:01

End Time: 00:19:41

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 15-IF-BOB 14.5 mins Built to 12.5"  
30-ISI-Very Weak Surface Died @ 2 mins  
30-FF-BOB 13 mins Built to 25"  
45-FSI-Very Weak Surface



**PRESSURE SUMMARY**

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

**Recovery**

| Length (ft) | Description    | Volume (bbl) |
|-------------|----------------|--------------|
| 10.00       | MW 10% m 90% W | 0.05         |
| 70.00       | Water          | 0.81         |
| 470.00      | GO 30% G 70% O | 6.66         |
|             |                |              |
|             |                |              |
|             |                |              |

**Gas Rates**

|  | Choke (inches) | Pressure (psig) | Gas Rate (MMcf/d) |
|--|----------------|-----------------|-------------------|
|  |                |                 |                   |
|  |                |                 |                   |
|  |                |                 |                   |



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mustang Energy Corporation

**2-12s-19w Ellis,KS**

PO Box 1121  
Hays KS 67601+1121

**Leinmiller #4**

Job Ticket: 69824

**DST#: 1**

ATTN: Cameron Brin

Test Start: 2022.10.28 @ 16:10:00

## Tool Information

|                           |                    |                       |                      |                        |              |
|---------------------------|--------------------|-----------------------|----------------------|------------------------|--------------|
| Drill Pipe:               | Length: 3667.00 ft | Diameter: 3.82 inches | Volume: 51.98 bbl    | Tool Weight:           | 2200.00 daN  |
| Heavy Wt. Pipe:           | Length: ft         | Diameter: 2.75 inches | Volume: - bbl        | Weight set on Packer:  | 25000.00 daN |
| Drill Collar:             | Length: 30.00 ft   | Diameter: 2.25 inches | Volume: 0.15 bbl     | Weight to Pull Loose:  | 51000.00 daN |
|                           |                    |                       | <u>Total Volume:</u> | Tool Chased            | ft           |
| Drill Pipe Above KB:      | 16.00 ft           |                       |                      | String Weight: Initial | 48000.00 daN |
| Depth to Top Packer:      | 3708.00 ft         |                       |                      | Final                  | 50000.00 daN |
| Depth to Bottom Packer:   | ft                 |                       |                      |                        |              |
| Interval between Packers: | 13.00 ft           |                       |                      |                        |              |
| Tool Length:              | 40.00 ft           |                       |                      |                        |              |
| Number of Packers:        | 2                  | Diameter:             | 6.75 inches          |                        |              |
| Tool Comments:            |                    |                       |                      |                        |              |

## Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub  | 1.00        |            |          | 3682.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3687.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3692.00    |                               |
| Gap Sub          | 4.00        |            |          | 3696.00    |                               |
| Safety Joint     | 3.00        |            |          | 3699.00    |                               |
| Packer           | 5.00        |            |          | 3704.00    | 27.00 Bottom Of Top Packer    |
| Packer           | 4.00        |            |          | 3708.00    |                               |
| Stubb            | 1.00        |            |          | 3709.00    |                               |
| Recorder         | 0.00        | 6838       | Inside   | 3709.00    |                               |
| Recorder         | 0.00        | 8875       | Outside  | 3709.00    |                               |
| Perforations     | 9.00        |            |          | 3718.00    |                               |
| Bullnose         | 3.00        |            |          | 3721.00    | 13.00 Bottom Packers & Anchor |

**Total Tool Length: 40.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Mustang Energy Corporation

**2-12s-19w Ellis,KS**

PO Box 1121  
Hays KS 67601+1121

**Leinmiller #4**

Job Ticket: 69824

**DST#: 1**

ATTN: Cameron Brin

Test Start: 2022.10.28 @ 16:10:00

### 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:

11000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description    | Volume<br>bbl |
|--------------|----------------|---------------|
| 10.00        | MW 10% m 90% W | 0.049         |
| 70.00        | Water          | 0.807         |
| 470.00       | GO 30% G 70% O | 6.662         |

Total Length: 550.00 ft      Total Volume: 7.518 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

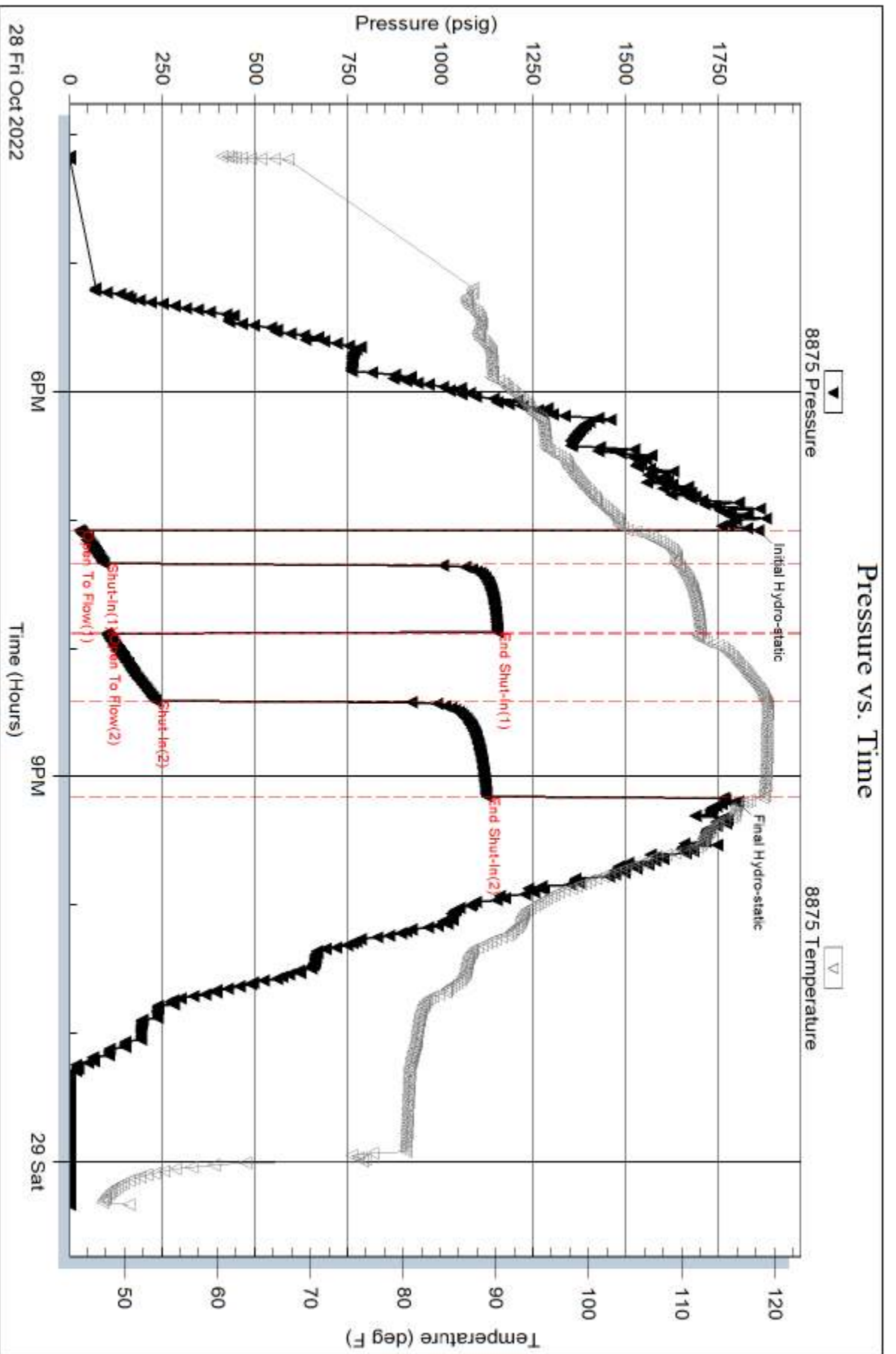
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1.5#LCM

RW=.845@46F



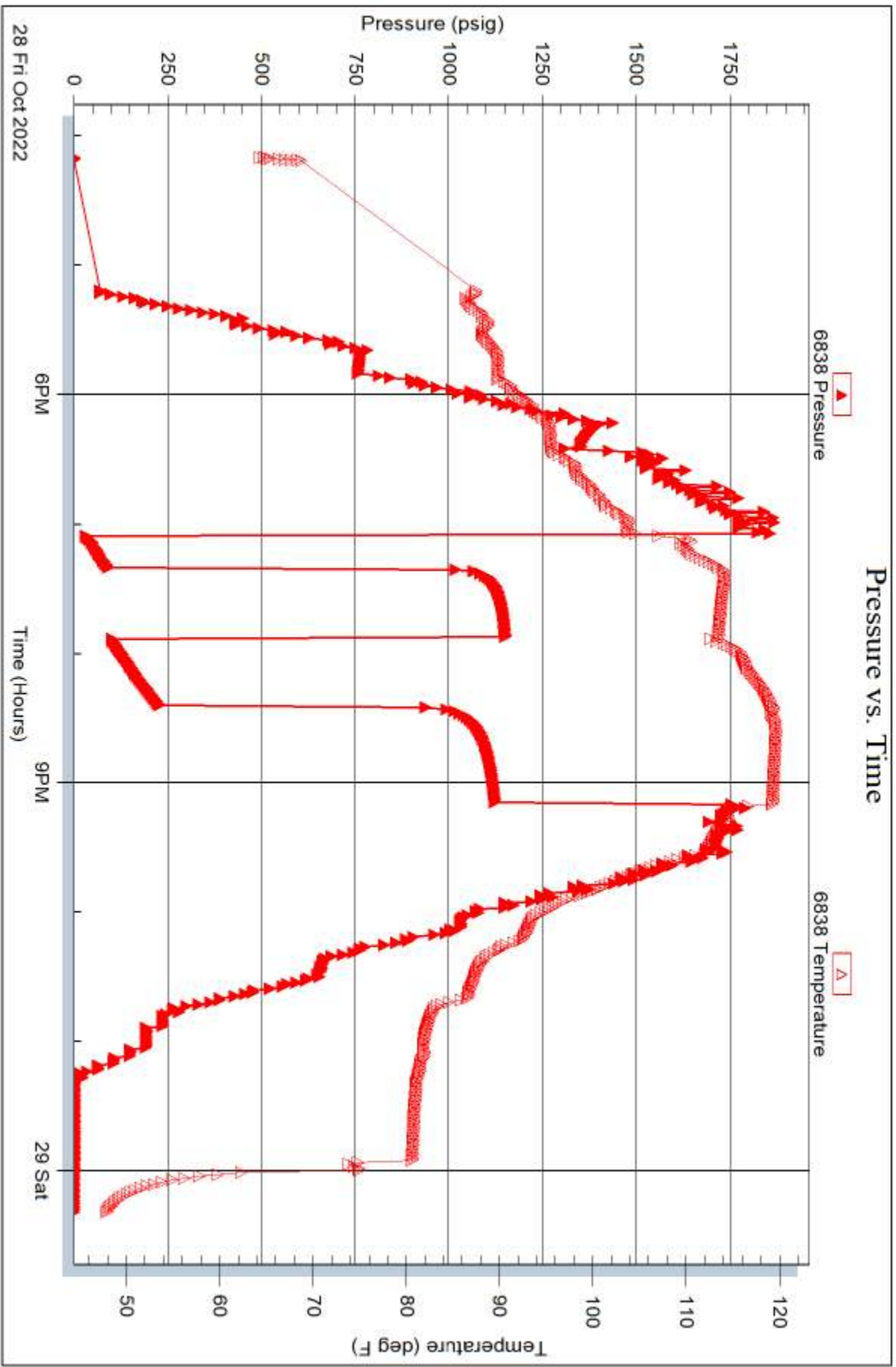
Serial #: 6838

Inside

Mustang Energy Corporation

Leimiller #4

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 69824

Printed: 2022.11.01 @ 15:51:52



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 69824

Well Name & No. Leinmiller #4 Test No. 1 Date 10/28/2022  
 Company Mustang Energy Corp Elevation 2173' KB 2165' GL  
 Address PO BOX 1124 Hays Ks 67601+1121  
 Co. Rep / Geo. Cameron Brin Rig Discovery #4  
 Location: Sec. 2 Twp 2S Rge. 19W Co. Ellis State Ks

Interval Tested 3708' - 3721' Zone Tested Arbuckle  
 Anchor Length 13' Drill Pipe Run 3667' Mud Wt. 8.8  
 Top Packer Depth 3703' Drill Collars Run 30' Vis 51  
 Bottom Packer Depth 3708' Wt. Pipe Run - WL 6.4  
 Total Depth 3721' Chlorides 5000 ppm System LCM 1 1/2#

Blow Description 67-BOB 14 1/2 mins; Built to 12 1/2"  
68-Very Weak Surface; Died @ 2mins  
77-BOB 13 mins; Built to 25"  
78-Very Weak Surface

| Rec         | Feet of      | %gas      | %oil       | %water    | %mud |
|-------------|--------------|-----------|------------|-----------|------|
| <u>10'</u>  | <u>MW</u>    |           | <u>90</u>  | <u>10</u> |      |
| <u>70'</u>  | <u>Water</u> |           | <u>100</u> |           |      |
| <u>470'</u> | <u>GO</u>    | <u>30</u> | <u>70</u>  |           |      |
|             |              |           |            |           |      |
|             |              |           |            |           |      |

Rec Total 550' BHT 118° Gravity <19° API RW 845 @ 46 °F Chlorides 11,000 ppm

- (A) Initial Hydrostatic 1856  Test 1800 T-On Location 14:32
- (B) First Initial Flow 27  Jars \_\_\_\_\_ T-Started 16:10
- (C) First Final Flow 93  Safety Joint \_\_\_\_\_ T-Open 19:02
- (D) Initial Shut-In 1153  Circ Sub \_\_\_\_\_ T-Pulled 21:02
- (E) Second Initial Flow 100  Hourly Standby \_\_\_\_\_ T-Out 00:18
- (F) Second Final Flow 231  Mileage 42.27 73.50 Comments \_\_\_\_\_
- (G) Final Shut-In 1124  Sampler \_\_\_\_\_
- (H) Final Hydrostatic 1801  Straddle \_\_\_\_\_  EM Tool -350

Initial Open 15  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Shut-In 45  Day Standby \_\_\_\_\_ Sub Total -350  
 Sub Total 1873.50  Accessibility \_\_\_\_\_ Total 1523.50  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Spencer J. Stahl Thanks!  
 TriLOBITE TESTING Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

785-259-0058