

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)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Lario Oil & Gas Company
Well Name	ZIEGLER TRUST 5-31
Doc ID	1402086

Tops

Name	Top	Datum
Heebner	3954	-985
Lansing	3990	-1021
Stark Shale	4227	-1258
Hushpuckney	4264	-1295
Base KC	4300	-1331
Marmaton	4346	-1377
Pawnee	4436	-1467
Ft. Scott	4464	-1495
Johnson	4560	-1591
Morrow	4580	-1611
Basal Penn Sand	4614	-1645
Mississippian	4634	-1665
Spergen	4692	-1723



PRESSURE PUMPING LLC

REMIT TO
QES Pressure Pumping LLC
Dept:970
P.O.Box 4346
Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884
 Chanute,KS 66720
 620/431-9210,1-800/467-8676
 Fax 620/431-0012

Invoice Invoice# 812007

Invoice Date: 12/12/17 Terms: Net 30 Page 1

LARIO OIL & GAS
 P.O. BOX 1093
 GARDEN CITY KS 67846
 USA
 3162655611

Ziegler Trust 5-31

drilling

APPROVED DEC 15 2017 *AK*

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0471	Cement Pump Charge 301' - 500' (Coalbed/Methane)	1.000	1,150.0000	30.000	805.00
CE0002	Equipment Mileage Charge - Heavy Equipment	10.000	7.1500	30.000	50.05
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	30.000	462.00
CC5871	Surface Blend II, 2% Gel/3% CaCl	250.000	23.0000	30.000	4,025.00

Subtotal 7,631.50
 Discounted Amount 2,289.45
 SubTotal After Discount 5,342.05

Amount Due 8,120.25 If paid after 01/11/18

Tax: 342.13
 Total: 5,684.18

OK TO PAY					
Acct	Expl	FILE			
GC					
KG			DEC 15 2017		
				DB	
PV					
OD	JS	KE	BB	SF	DM



PRESSURE PUMPING LLC
 PO Box 884, Chanute, KS 66720
 620-431-9210 or 800-467-8676

QES 9517

TICKET NUMBER 54975
 LOCATION Oakley 45
 FOREMAN Miles Shaw

**FIELD TICKET & TREATMENT REPORT
 CEMENT**

Invoice # 812007 *KS*

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-10-17	4793	Ziegler Trust 5-31	31	12S	31W	Cove
CUSTOMER <i>Lava Oil & Gas</i>		Oakley 45 Seneca 29E N.S	TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS P.O. Box 1093			753	<i>High C.</i>		
CITY Garden City		STATE KS	ZIP CODE 67846	516	<i>Travis W.</i>	

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 330' CASING SIZE & WEIGHT 8 5/8" 24#
 CASING DEPTH 330' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 148 SLURRY VOL 1.30 WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 19 1/2 bbl DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: *Safety meeting and Rig up on Southward drilling Rig #8 Circulate casing mix 250SX Surface blend II Class Cement w/ 38 gallon 29 gal displacer 19 1/2 bbl Water shut in Cement did circulate 5 1/2 to bit*

Thanks Miles & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE071	1	PUMP CHARGE	1150.00	1150.00
CE002	10	MILEAGE	71.5	715.00
CE071	11.75 TONS	Ton Mileage delivery min	60.00	600.00
CC587	250 SX	Surface blend II	23.00	5750.00

15028

*Subtotal 7631.50
 less 30% discount 2289.45
 Subtotal 5342.05*

OK TO PAY

ACCT	EXPI	FILE
GC		
KS		
	DEC 10 2017	DB
PV		
OD	JS	KE

Ravin 3737

AUTHORIZATION *[Signature]* TITLE _____

SALES TAX *342.13*
 ESTIMATED TOTAL *5684.18*

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1002301	1718	12/27/2017
INVOICE NUMBER			
92600336			

Pratt (620) 672-1201
 B LARIO OIL & GAS
 I PO Box: 1093
 L GARDEN CITY
 L KS US 67846
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Ziegler Trust 5-31
 O LOCATION
 B COUNTY Gove
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 E JOB CONTACT

DRILLING
AFE 17-156

1/3/18
MK

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41077858	19919		Net - 30 days	01/26/2018
<i>For Service Dates: 12/20/2017 to 12/20/2017</i>				
0041077858				
171815536L Cement-New Well Casing/Pi 12/20/2017 Cement Production Casing				
AA2 Cement		150.00	EA	8.19
A-Con' Blend		380.00	EA	8.37
Calcium Chloride		1,074.00	EA	0.47
Celloflake		95.00	EA	1.67
Gypsum		705.00	EA	0.34
C-15		85.00	EA	5.63
Salt		830.00	EA	0.23
C-41P		36.00	EA	1.80
Gilsonite		750.00	EA	0.30
"Two Stage Cement Collar, 5 1/2" (Blue)		1.00	EA	3,375.00
"Auto Fill Float Shoe 5 1/2" (Blue)"		1.00	EA	270.00
"Turbolizer. 5 1/2" (Blue)"		12.00	EA	82.50
"5 1/2" Basket (Blue)"		1.00	EA	217.50
Super Flush II		500.00	EA	0.69
"Unit Mileage Chg (PU, cars one way)"		100.00	MI	2.03
Heavy Equipment Mileage		300.00	MI	3.38
Proppant & Bulk Del. Chgs., per ton mil		2,495.00	EA	1.13
Blending & Mixing Service Charge		530.00	BAG	0.63
Plug Container Util. Chg.		1.00	EA	112.50
Cement Data Acquisition Monitor		1.00	EA	247.50
Additional Stage Charge		1.00	EA	972.00
Depth Charge; 4001'-5000'		1.00	EA	1,134.00
"Service Supervisor, first 8 hrs on loc.		1.00	EA	78.75

BB

2018

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	18,383.98
BASIC ENERGY SERVICES,LP	BASIC ENERGY SERVICES,LP	TAX	562.40
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	18,946.38
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



Liberal Yard #1 - Phone 620-624-2277 - 1700 S. Country
Estados Road, Liberal KS 67901

PRESSURE PUMPING Job Log

Customer:	Larion Oil & Gas	Cement Pump No.:	38117, 19919 18Hrs.	Operator TRK No.:	78938
Address:		Ticket #:	1718 15536 L	Bulk TRK No.:	14355, 37724 Manuel 70897, 19808 Santiago
City, State, Zip:		Job Type:	Z42 - Cement Production Casing		
Service District:	1718 - Liberal, Ks.	Well Type:	OIL		

Well Name and No.:	Ziegler Trust 5-31	Well Location:	31,12,31	County:	Gover	State:	Ks
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Type of Cmt	Sacks	Additives	Truck Loaded On		
AA2 Cement	150	5% W-60, 10% Salt, .6% C-15, 1/4# Defoamer, 5# Gillsonite	14355, 37724 Manuel	Front	Back
A-Con' Blend	330	3% Calcium Chloride, 1/4# Polyflake	70897, 19808 Santiago	Front	Back
A-Con' Blend	50	3% Calcium Chloride, 1/4# Polyflake	14355, 37724 Manuel	Front	Back

Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
Tail 1:	14.8	1.51	6.64	226.5	TT Man Hours:	72
Tail 2:	11.4	2.95	18.1	973.5	# of Men on Job:	4

Time (am/pm)	(BPM)	Volume (BBLs)	Pumps		Pressure(Psi)		Description of Operation and Materials
			T	C	Tubing	Casing	
18:00							ON LOCATION
18:15							SAFETY MEETING
6:30 PM							RIG UP
10:15 PM							RIG UP TO CIRCULATE
10:20 PM							RIG UP PUMP TRUCK
10:21						3100	PRESSURE TEST
22:22		11.9					PUMP MUD FLUSH
10:25 PM							PUMP RAT AND MOUSE 50SX
22:39	6.6	40.3 slurry				410	PUMP FIRST STAGE 150SX
22:47							SHUT DOWN / DROP PLUG / W.P.
22:54	6.9	10				180	DISPLACE / PUMP H2O
	6.8	20				180	
	7	30				180	
	7	40				180	
	7	51.9				180	
	7.1	60				180	PUMP MUD
	6.6	70				180	
	6.7	80				180	
	6	90				280	
	6.6	100				540	
23:09	6.6	102				560	SLOW RATE 2.0BPM @ 380PSI
	2	110				510	
11:18	2	112				570	LAND PLUG / PRESSURE UP TO 1550PSI

Size Hole	7 7/8"	Depth			TYPE	Plug Container		
Size & Wt. Csg.	5 1/2 15.5#	Depth	4723'	New / Used	DV Tool	YES	Depth	2523'
1ST Land Press.	454.4psi	Depth		2ND Land Pres	Retainer		Depth	
Shoe Jt.	17'	Type			Perfs		CIBP	

Customer Signature:	Basic Representative:	Angel Echevarria
	Basic Signature:	
	Date of Service:	12/20/2017



Liberal Yard #1 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

Job Log

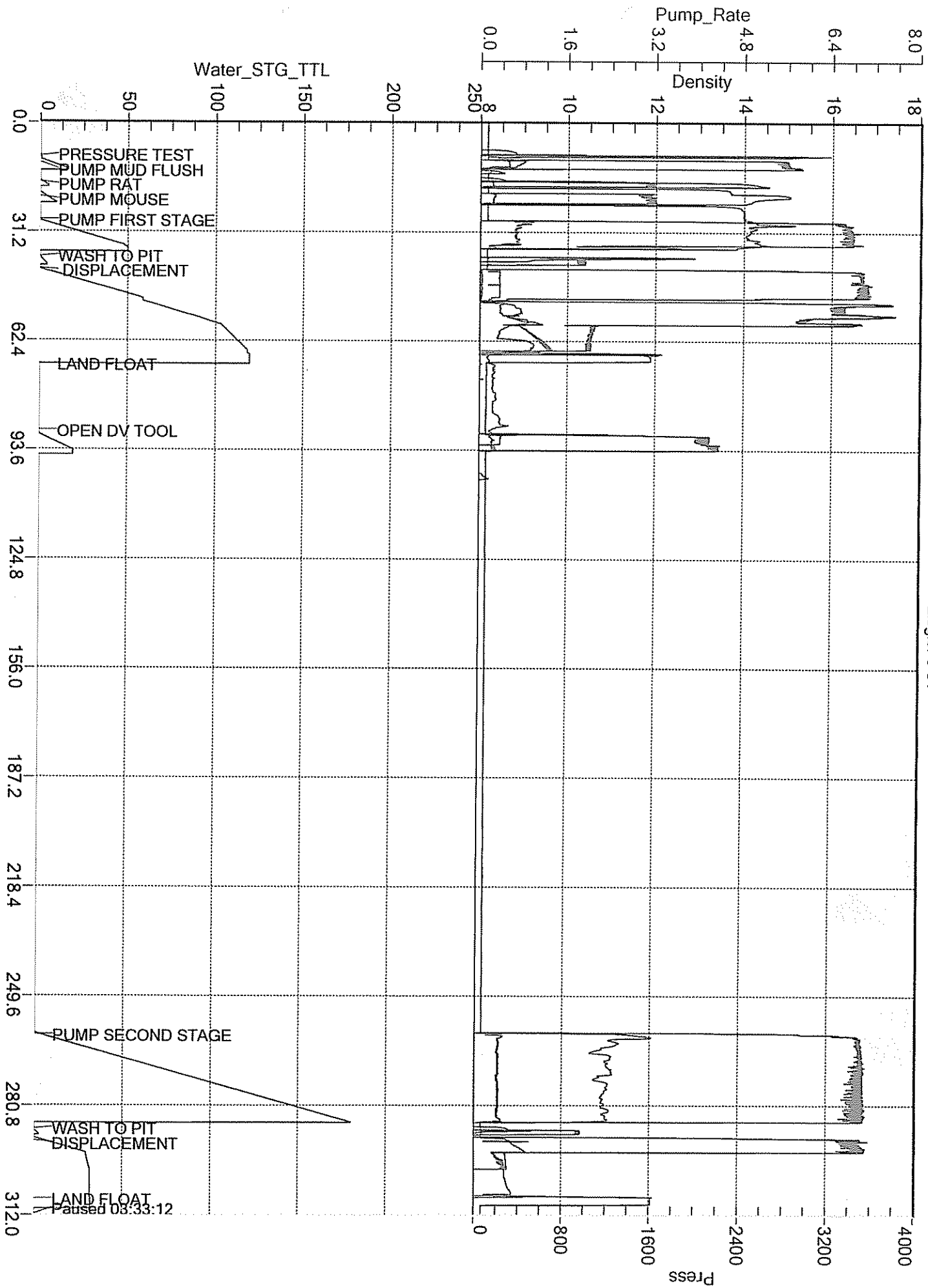
Customer:	Larion Oil & Gas	Cement Pump No.:	38117, 19919 18Hrs.	Operator TRK No.:	78938
Address:		Ticket #:	1718 15536 L	Bulk TRK No.:	14355, 37724 Manuel 70897, 19808 Santiago
City, State, Zip:		Job Type:	Z42 - Cement Production Casing		
Service District:	1718 - Liberal Ks	Well Type:	OIL		
Well Name and No.:	Ziegler Trust 5-31	Well Location:	31,12,31	County:	Gover State: Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
AA2 Cement	150	5% W-60, 10% Salt, .6% C-15, 1/4# Defoamer, 5# Gillsonite	14355, 37724 Manuel	Front	Back
A-Con' Blend	330	3% Calcium Chloride, 1/4# Polyflake	70897, 19808 Santiago	Front	Back
A-Con' Blend	50	3% Calcium Chloride, 1/4# Polyflake	14355, 37724 Manuel	Front	Back
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel
Tail 1:	14.8	1.51	6.64	226.5	TT Man Hours: 72
Tail 2:	11.4	2.95	18.1	973.5	# of Men on Job: 4
Time (am/pm)	(BPM)	Volume (BBLS)	Pumps T C	Pressure(Psi) Tubing Casing	Description of Operation and Materials
23:21					RELEASE BACK — LATCH DOWN PLUG HELD
23:26					DROPPED OPENING TOOL
11:41 PM					OPEN DV TOOL W/ 800PSI
11:55 PM					CIRCULATE / END STAGE #1
2:30 AM	6.9	173.3 slurry		250	PUMP SECOND STAGE 330SX
3:01					SHUT DOWN / DROP PLUG / W. P.
3:03	7	10		350	DISPLACE
	7	20		420	
3:17					SHUT DOWN RAN OUT OF WATER
	6.8				RIG PUMPED 31 BBLS OF MUD
					IN 4 MINUTES AND 30 SECONDS
					6.8 BPM
3:23					LAND PLUG PRESSURE UP TO 1600
3:25					RELEASE BACK — PLUG HELD
					JOB COMPLETE

Size Hole	7 7/8"	Depth			TYPE	Plug Container		
Size & Wt. Csg.	5 1/2 15.5#	Depth	4723'	New / Used	DV Tool	YES	Depth	2523'
1ST Land Press.	454.4psi	Depth		2ND Land Pre.	Retainer		Depth	
Shoe Jt.	17'	Type			Perfs		CIBP	

Customer Signature:	Basic Representative:	Angel Echevarria
	Basic Signature:	<i>[Signature]</i>
	Date of Service:	12/20/2017

Lario Oil And Gas
Ziegler 5-31





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Lario Oil & Gas

31-12-31 Gove, Ks

301 S Market St
Wichita, Ks 67202

Ziegler Trust 5-31

ATTN: Steve Davis

Job Ticket: 64284

DST#: 1

Test Start: 2017.12.15 @ 04:17:55

GENERAL INFORMATION:

Formation: **Lansing D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:39:55

Time Test Ended: 12:37:25

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: 4076.00 ft (KB) To 4088.00 ft (KB) (TVD)

Reference Elevations: 2969.00 ft (KB)

Total Depth: 4088.00 ft (KB) (TVD)

2959.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8166 Outside

Press@RunDepth: 21.26 psig @ 4077.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.12.15 End Date: 2017.12.15

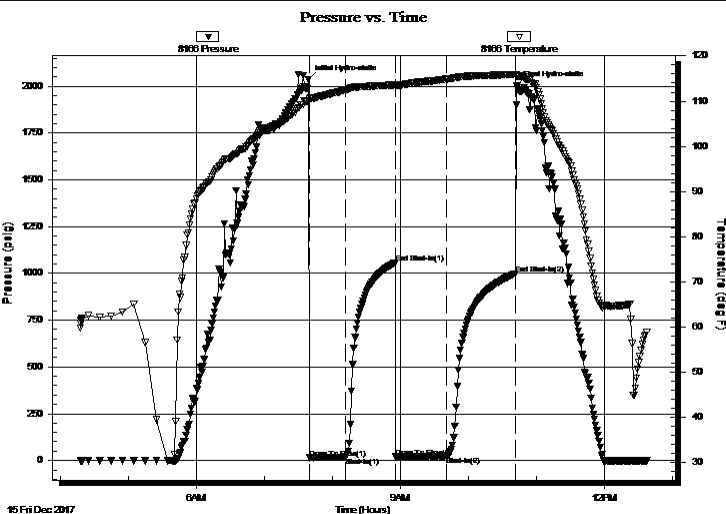
Last Calib.: 2017.12.15

Start Time: 04:18:00 End Time: 12:37:24

Time On Btm: 2017.12.15 @ 07:38:55

Time Off Btm: 2017.12.15 @ 10:42:25

TEST COMMENT: IF: Surface blow for 30 min.
IS: No return.
FF: Surface blow built to 1/8.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2034.33	109.99	Initial Hydro-static
1	14.05	110.43	Open To Flow (1)
32	17.79	112.51	Shut-In(1)
77	1057.49	113.60	End Shut-In(1)
77	19.67	113.33	Open To Flow (2)
121	21.26	114.86	Shut-In(2)
182	998.35	115.91	End Shut-In(2)
184	2003.16	115.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	ocm 5%o 95%m	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil & Gas

31-12-31 Gove, Ks

301 S Market St
Wichita, Ks 67202

Ziegler Trust 5-31

Job Ticket: 64284

DST#: 1

ATTN: Steve Davis

Test Start: 2017.12.15 @ 04:17:55

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	ocm 5%o 95%m	0.281

Total Length: 20.00 ft Total Volume: 0.281 bbl

Num Fluid Samples: 0

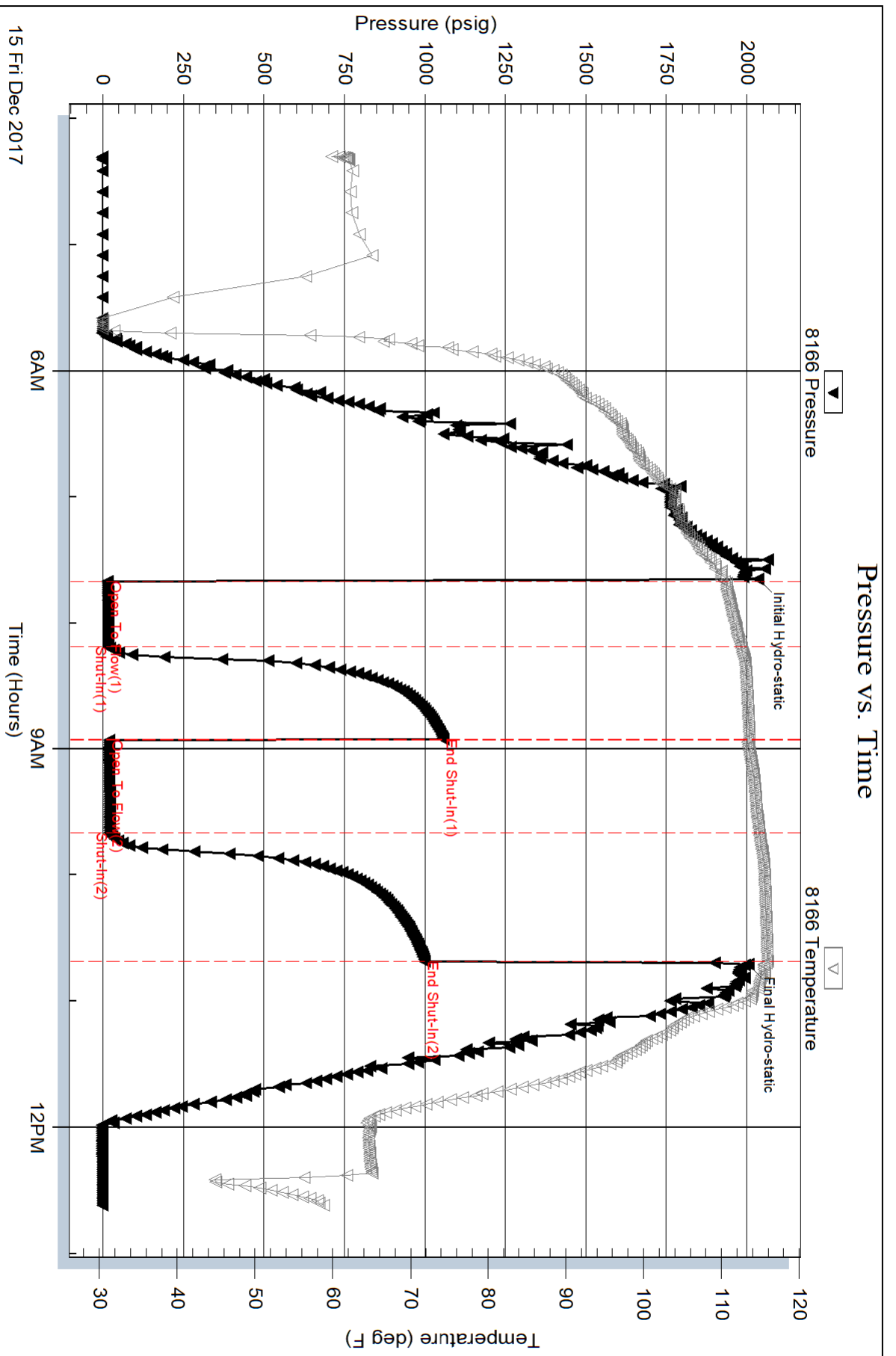
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



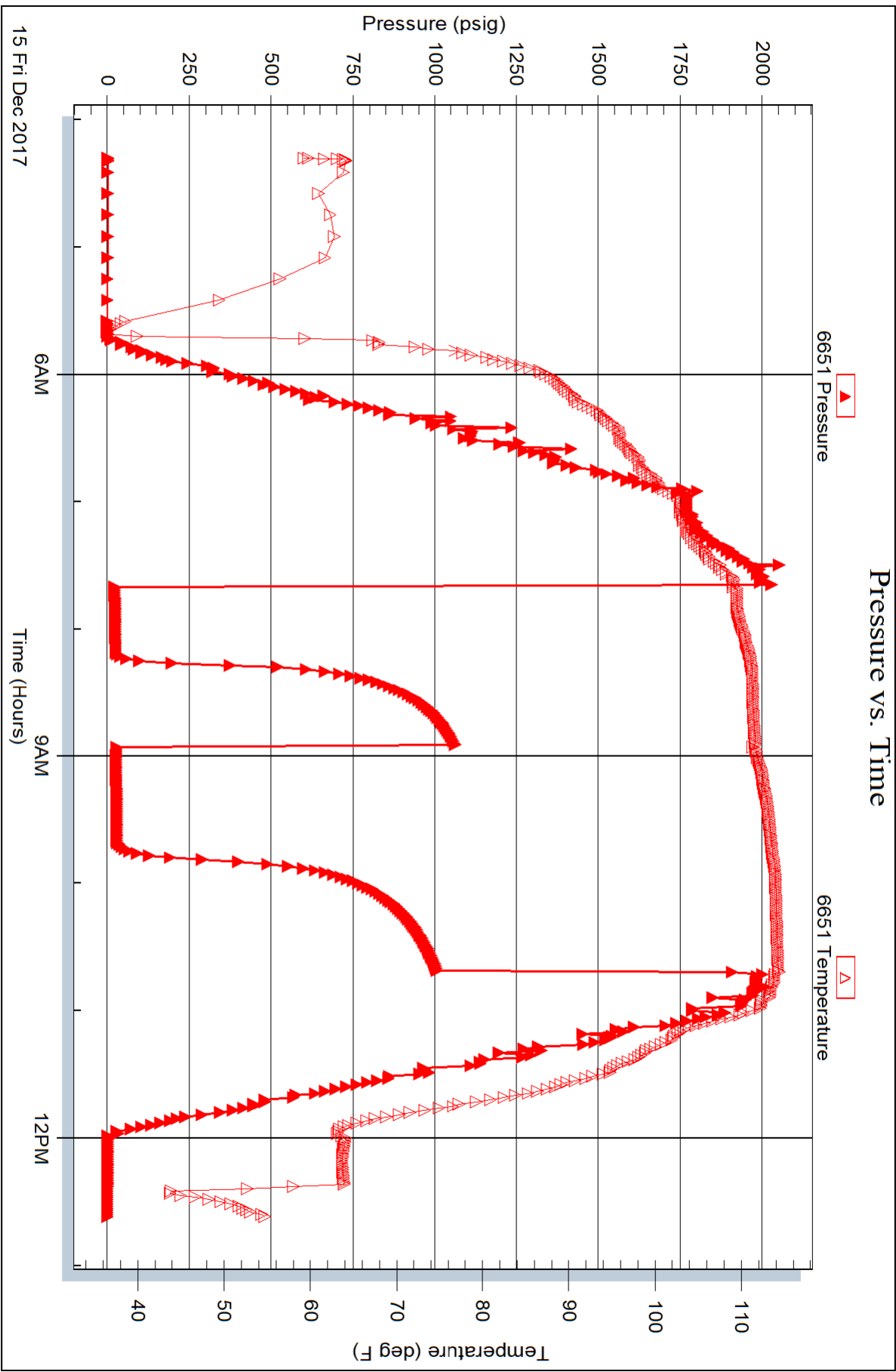
Serial #: 6651

Inside

Lario Oil & Gas

Ziegler Trust 5-31

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Lario Oil & Gas

31-12-31 Gove, Ks

301 S Market St
Wichita, Ks 67202

Ziegler Trust 5-31

Job Ticket: 64285

DST#: 2

ATTN: Steve Davis

Test Start: 2017.12.17 @ 09:30:05

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:51:35

Time Test Ended: 16:23:05

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4536.00 ft (KB) To 4590.00 ft (KB) (TVD)

Reference Elevations: 2969.00 ft (KB)

Total Depth: 4590.00 ft (KB) (TVD)

2959.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8166 Outside

Press@RunDepth: 17.73 psig @ 4537.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.12.17 End Date: 2017.12.17

Last Calib.: 2017.12.17

Start Time: 09:30:10 End Time: 16:23:04

Time On Btm: 2017.12.17 @ 11:49:35

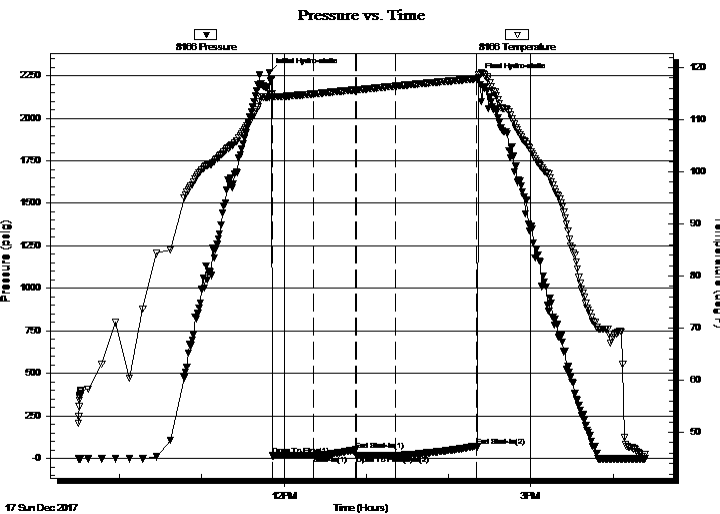
Time Off Btm: 2017.12.17 @ 14:22:05

TEST COMMENT: IF: 1/4 blow died in 7 min.

IS: No return.

FF: No blow.

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2269.47	114.49	Initial Hydro-static
2	16.39	114.34	Open To Flow (1)
32	17.33	114.94	Shut-In(1)
63	50.72	115.75	End Shut-In(1)
63	17.43	115.72	Open To Flow (2)
92	17.73	116.44	Shut-In(2)
151	73.60	117.87	End Shut-In(2)
153	2239.31	118.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Lario Oil & Gas
301 S Market St
Wichita, Ks 67202
ATTN: Steve Davis

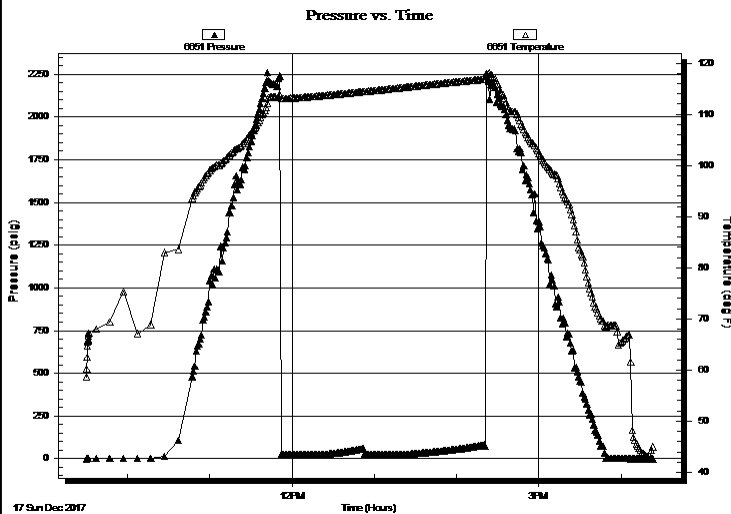
31-12-31 Gove, Ks
Ziegler Trust 5-31
Job Ticket: 64285 **DST#: 2**
Test Start: 2017.12.17 @ 09:30:05

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:51:35
Time Test Ended: 16:23:05
Interval: 4536.00 ft (KB) To 4590.00 ft (KB) (TVD)
Total Depth: 4590.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79
Reference Elevations: 2969.00 ft (KB)
2959.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6651 **Inside**
Press@RunDepth: psig @ 4537.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.12.17 End Date: 2017.12.17 Last Calib.: 2017.12.17
Start Time: 09:30:11 End Time: 16:23:05 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/4 blow died in 7 min.
IS: No return.
FF: No blow.
FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil & Gas

31-12-31 Gove, Ks

301 S Market St
Wichita, Ks 67202

Ziegler Trust 5-31

Job Ticket: 64285

DST#: 2

ATTN: Steve Davis

Test Start: 2017.12.17 @ 09:30:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

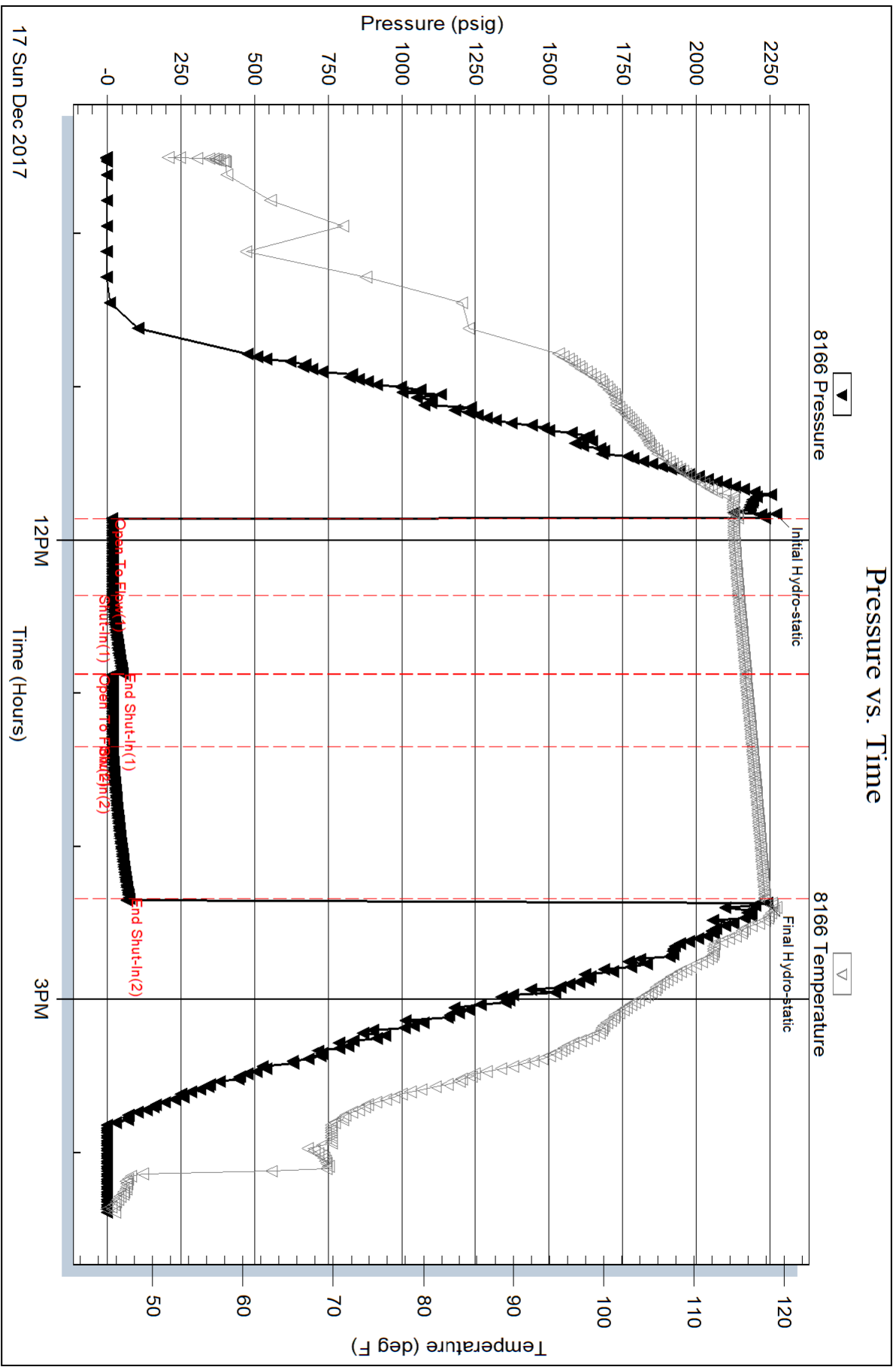
Recovery Comments:

Serial #: 8166

Outside Lario Oil & Gas

Ziegler Trust 5-31

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 64285

Printed: 2017.12.17 @ 17:08:46

Serial #: 6651

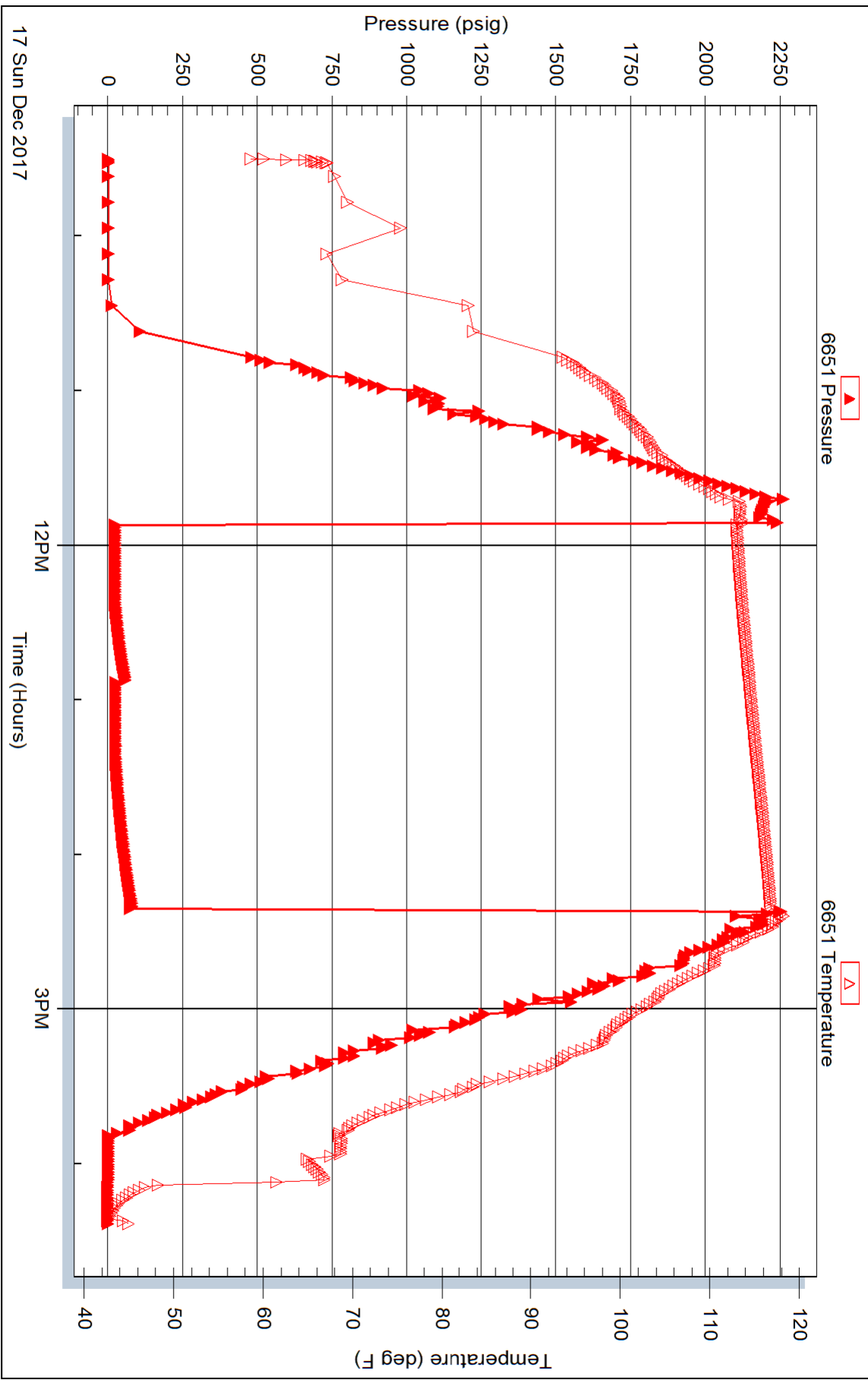
Inside

Lario Oil & Gas

Ziegler Trust 5-31

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 64285

Printed: 2017.12.17 @ 17:08:46



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Lario Oil & Gas

31-12-31 Gove, Ks

301 S Market St
Wichita, Ks 67202

Ziegler Trust 5-31

ATTN: Steve Davis

Job Ticket: 64286

DST#: 3

Test Start: 2017.12.18 @ 01:10:39

GENERAL INFORMATION:

Formation: **Basal Penn Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:01:39

Time Test Ended: 10:31:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4576.00 ft (KB) To 4634.00 ft (KB) (TVD)

Reference Elevations: 2969.00 ft (KB)

Total Depth: 4634.00 ft (KB) (TVD)

2959.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8166 Outside

Press@RunDepth: 249.72 psig @ 4577.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.12.18

End Date: 2017.12.18

Last Calib.: 2017.12.18

Start Time: 01:10:44

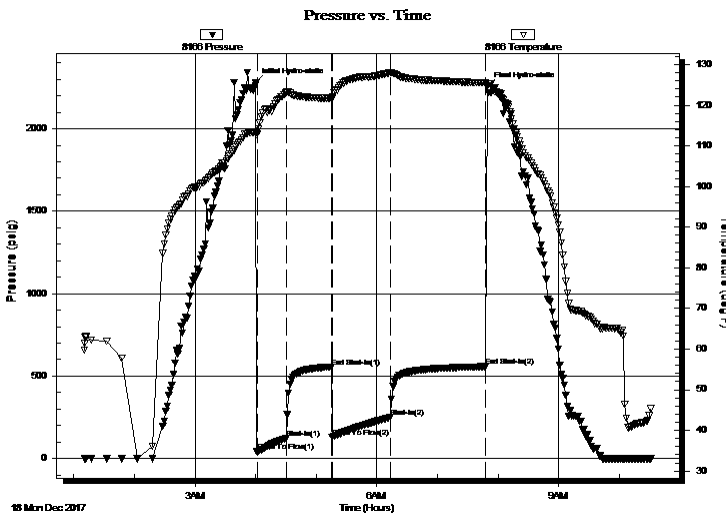
End Time: 10:31:39

Time On Btm: 2017.12.18 @ 04:00:09

Time Off Btm: 2017.12.18 @ 07:49:09

TEST COMMENT: IF: BOB in 14 min.
IS: No return.
FF: BOB in 22 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2276.64	113.34	Initial Hydro-static
2	43.99	112.95	Open To Flow (1)
30	123.05	123.12	Shut-In(1)
75	555.87	121.72	End Shut-In(1)
76	130.35	121.72	Open To Flow (2)
134	249.72	128.02	Shut-In(2)
228	557.49	125.54	End Shut-In(2)
229	2257.37	124.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcw 80%w 20%m	1.77
189.00	w cm 40%w 60%m	2.65
199.00	w cm 5%w 95%m	2.79

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Lario Oil & Gas

31-12-31 Gove, Ks

301 S Market St
Wichita, Ks 67202

Ziegler Trust 5-31

ATTN: Steve Davis

Job Ticket: 64286

DST#: 3

Test Start: 2017.12.18 @ 01:10:39

GENERAL INFORMATION:

Formation: **Basal Penn Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:01:39

Time Test Ended: 10:31:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: **4576.00 ft (KB) To 4634.00 ft (KB) (TVD)**

Reference Elevations: 2969.00 ft (KB)

Total Depth: 4634.00 ft (KB) (TVD)

2959.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: **6651** Inside

Press@RunDepth: psig @ 4577.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.12.18 End Date: 2017.12.18

Last Calib.: 2017.12.18

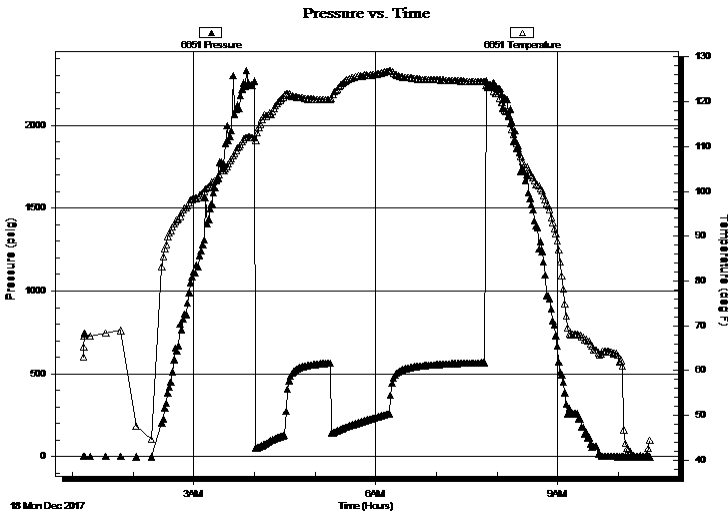
Start Time: 01:10:53 End Time: 10:31:48

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB in 14 min.
IS: No return.
FF: BOB in 22 min.
FS: No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcw 80%w 20%m	1.77
189.00	w cm 40%w 60%m	2.65
199.00	w cm 5%w 95%m	2.79

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil & Gas

31-12-31 Gove, Ks

301 S Market St
Wichita, Ks 67202

Ziegler Trust 5-31

Job Ticket: 64286

DST#: 3

ATTN: Steve Davis

Test Start: 2017.12.18 @ 01:10:39

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

19000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	mcw 80%w 20%m	1.767
189.00	w cm 40%w 60%m	2.651
199.00	w cm 5%w 95%m	2.791

Total Length: 514.00 ft Total Volume: 7.209 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

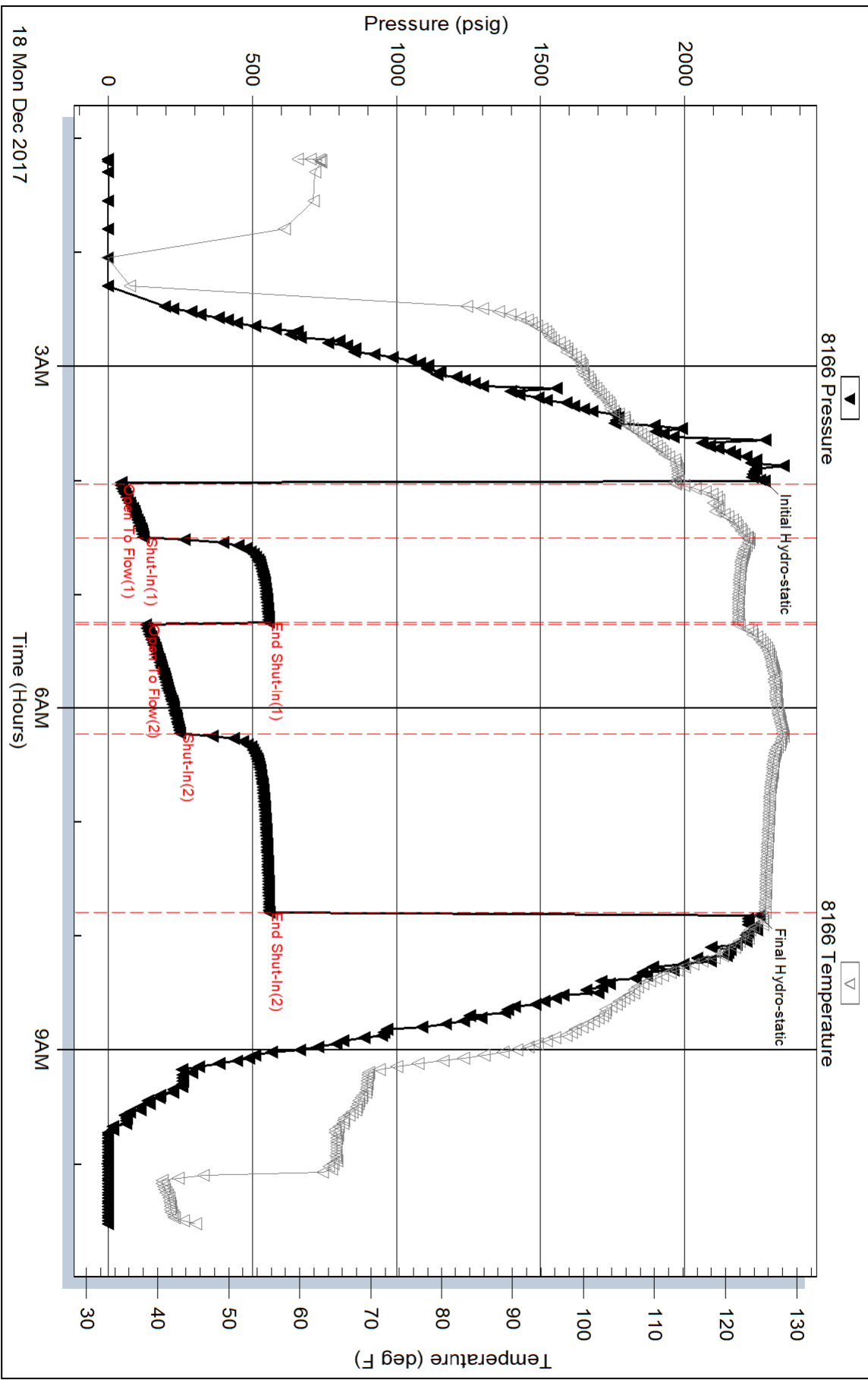
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .49@48=19000

Pressure vs. Time



Serial #: 6651

Inside

Lario Oil & Gas

Ziegler Trust 5-31

DST Test Number: 3

