

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 |
|--|---|

| 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 |
|---|---|------------------------------------|

| 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: | |
|----------------|-------|---------|------------|--|

| | |
|-----------|---|
| Form | ACO1 - Well Completion |
| Operator | Larson Engineering, Inc. dba Larson Operating Company |
| Well Name | PARIS 2-11 |
| Doc ID | 1352205 |

Tops

| Name | Top | Datum |
|-------------|------|-------|
| Anhydrite | 2133 | +677 |
| B Anhydrite | 2154 | +656 |
| Heebner | 3934 | -1124 |
| Lansing | 3976 | -1166 |
| Stark Sh | 4253 | -1443 |
| Ft Scott | 4503 | -1693 |
| Cher Sh | 4529 | -1719 |
| B Johnson | 4579 | 1769 |

| | |
|-----------|---|
| Form | ACO1 - Well Completion |
| Operator | Larson Engineering, Inc. dba Larson Operating Company |
| Well Name | PARIS 2-11 |
| Doc ID | 1352205 |

Perforations

| Shots Per Foot | Perforation Record | Material Record | Depth |
|----------------|------------------------------|---------------------|------------------|
| 4 | 4354-59, 4307-10 | 250 gal 15% MCA | 4354-59 |
| | | 250 gal 15% MCA | 4307-10 |
| | | SQZ-75 sx Class A | 4307-10 |
| 4 | 4270-72 | 250 gal 15% NE | 4270-72 |
| | | SQZ - 25 sx Class A | 4270-72 |
| 4 | 4251-54, 4213-19, 4223-25 | 250 gal 15% MCA | 4251-54 |
| | | 250 gal 15% MCA | 4213-19, 4223-25 |
| | | 250 gal 15% MCA | 4213-19, 4223-25 |



CHARGE TO: **LARSON ENGINEERING**
 ADDRESS:
 CITY, STATE, ZIP CODE:

TICKET 29963

PAGE 1 OF 1

SERVICE LOCATIONS: 1. **Ness City, Ks**
 WELL/PROJECT NO. **2-11** LEASE **PARIS** COUNTY/PARISH **LANE** STATE **Ks** CITY **LOCATION** DATE **2-15-17** OWNER **SAME**
 TICKET TYPE **SALES** CONTRACTOR **SOUTHWIND DRIG** RIG NAME/NO. **LOCATION** SHIPPED VIA **CT** ORDER NO.
 WELL TYPE **Oil** WELL CATEGORY **DEVELOPMENT** JOB PURPOSE **CEMENT 8 5/8" SURFACE** WELL PERMIT NO. **S/NIGHTON, Ks - 65, 1W, 1 1/2W**
 REFERRAL LOCATION **W DWO** INVOICE INSTRUCTIONS

| PRICE REFERENCE | SECONDARY REFERENCE/ PART NUMBER | ACCOUNTING | | | DESCRIPTION | QTY. | | UM | | UNIT PRICE | AMOUNT |
|-----------------|-------------------------------------|------------|------|----|-------------------------|-------|--|-------|----|------------|---------|
| | | LOC | ACCT | DF | | | | | | | |
| 575 | | 1 | | | MILEAGE #112 | 40 | | | | 5.00 | 200.00 |
| 5765 | | 1 | | | PUMP CHARGE | 1 | | 265 | FT | 800.00 | 800.00 |
| 325 | | 1 | | | STANDARD CEMENT | 165 | | | | 12.25 | 2021.25 |
| 276 | | 1 | | | FLOCEL | 50 | | | | 2.25 | 112.50 |
| 278 | | 1 | | | CALCIUM CHLORIDE | 8 | | | | 40.00 | 320.00 |
| 279 | | 1 | | | BENTONITE GEL | 3 | | 300 | UG | 25.00 | 75.00 |
| 581 | | 1 | | | SERVIZE CHARGE CEMENT | 165 | | | | 1.50 | 247.50 |
| 582 | | 1 | | | MINIMUM DRAINAGE CHARGE | 16260 | | 325.2 | TM | 250.00 | 250.00 |

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS
 X *William Larson*
 DATE SIGNED **2-15-17** TIME SIGNED **1900** **5-AM** **8-P.M.**

REMIT PAYMENT TO:
SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

| SURVEY | AGREE | UN-DECIDED | DIS-AGREE | PAGE TOTAL |
|--|--|------------|-----------|---------------|
| OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? | | | | 4026.25 |
| WE UNDERSTOOD AND MET YOUR NEEDS? | | | | -402.63 |
| OUR SERVICE WAS PERFORMED WITHOUT DELAY? | | | | 3623.62 |
| WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? | | | | TAX 170.69 |
| ARE YOU SATISFIED WITH OUR SERVICE? | <input type="checkbox"/> YES <input type="checkbox"/> NO | | | TOTAL 3794.31 |
| <input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND | | | | |

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket
 SWIFT OPERATOR **WAYNE WILSON** APPROVAL **Thank You!**

JOB LOG

SWIFT Services, Inc.

DATE 2-15-17 PAGE NO. 1

CUSTOMER CARSON ENGINEERING WELL NO. 2-11 LEASE PARTS JOB TYPE 8 5/8" SURFACE TICKET NO. 29963

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL)(GAL) | PUMPS | | PRESSURE (PSI) | | DESCRIPTION OF OPERATION AND MATERIALS |
|-----------|------|------------|-------------------|-------|---|----------------|--------|--|
| | | | | T | C | TUBING | CASING | |
| | 1900 | | | | | | | ON LOCATION |
| | | | | | | | | TD-266 SETC 265 |
| | | | | | | | | TP-265 8 5/8" 23 |
| | | | | | | | | 15' CEMENT LEFT IN CASING |
| | 2125 | | | | | | | ON BOTTOM - CIRCULATE |
| | 2140 | 6 | 40 | | ✓ | 200 | | MAX CEMENT- 165 SBA STANDARD, 29 GEL, 390CC, 1/4" FLOCEL |
| | 2150 | 6 | 16 | | ✓ | 300 | | DISPLACE CEMENT - SHUT IN |
| | | | | | | | | CIRCULATE 25 SBA CEMENT TO BIT |
| | | | | | | | | WASH TRUCK |
| | 2300 | | | | | | | JOB COMPLETE |
| | | | | | | | | THANK YOU WAYNE, DAVE K., ISAAC |



CHARGE TO: Larson Engineering
 ADDRESS: _____
 CITY, STATE, ZIP CODE: Olmitsch Ks

TICKET 29375

PAGE 1 OF 2

SERVICE LOCATIONS: 1. Ness City, Ks
 WELL/PROJECT NO. 2-11 LEASE Paris COUNTY/PARISH Lane STATE Ks CITY Ness City DATE 2-25-2017 OWNER Sorce
 2. TICKET TYPE SERVICE SALES CONTRACTOR Southwind Drilling RIG NAME/NO. _____ SHIPPED VIA _____ DELIVERED TO South of Dighton ORDER NO. _____
 3. WELL TYPE oil WELL CATEGORY Development JOB PURPOSE new well - long string WELL PERMIT NO. _____ WELL LOCATION _____
 4. REFERRAL LOCATION _____ INVOICE INSTRUCTIONS _____

| PRICE REFERENCE | SECONDARY REFERENCE/ PART NUMBER | ACCOUNTING | | | DESCRIPTION | QTY. | | U/M | | UNIT PRICE | AMOUNT |
|-----------------|-------------------------------------|------------|------|----|---------------------------|------|--|-----|---|------------|---------|
| | | LOC | ACCT | DF | | | | | | | |
| 575 | | | | | MILEAGE 115 | 40 | | mi | | 5.00 | 200.00 |
| 578 | | | | | Pump Change | 1 | | ea | | 1250.00 | 1250.00 |
| 419 | | | | | Rotary Head Change | 1 | | ea | | | 200.00 |
| 280 | | | | | Flo check 21 | 500 | | qd | | 3.00 | 1500.00 |
| 221 | | | | | Liquid KCC | 2 | | gal | | 25.00 | 50.00 |
| 325 | | | | | Standard Cut EAS | 200 | | sls | | 12.25 | 2450.00 |
| 284 | | | | | Calrod | 900 | | lbs | 9 | 30.00 | 2700.00 |
| 283 | | | | | Salt | 1000 | | lbs | | 2.00 | 2000.00 |
| 292 | | | | | Halod 322 | 1800 | | lbs | | 8.00 | 1504.00 |
| 277 | | | | | Gilsonite | 1400 | | lbs | | 7.50 | 1050.00 |
| 276 | | | | | Floccle | 50 | | lbs | | 2.25 | 112.50 |
| 58/583 | | | | | Service Charge Drayage | 200 | | sq | | 1.50 | 300.00 |
| | | | | | | 4471 | | TM | | 75 | 335.25 |

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS
 x [Signature]
 DATE SIGNED 2-25-2017 TIME SIGNED 3:00 A.M. P.M.

REMIT PAYMENT TO:
SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

| SURVEY | AGREE | UN-DECIDED | DIS-AGREE | PAGE TOTAL |
|--|------------------------------|-----------------------------|-----------|-------------------|
| OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? | | | | 9421.75 |
| WE UNDERSTOOD AND MET YOUR NEEDS? | | | | -9421.18 |
| OUR SERVICE WAS PERFORMED WITHOUT DELAY? | | | | 10% Disc 304 |
| WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? | | | | Lane Co. TAX 7.5% |
| ARE YOU SATISFIED WITH OUR SERVICE? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | 8479.157 |
| <input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND | | | | 495.21 |
| | | | | TOTAL |
| | | | | 8974.178 |

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 SWIFT OPERATOR [Signature] APPROVAL _____

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 2-25-2017 PAGE NO. 1/1

CUSTOMER Larson Engineering WELL NO. 2-11 LEASE Paris JOB TYPE Long string TICKET NO. 29375

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS | | PRESSURE (PSI) | | DESCRIPTION OF OPERATION AND MATERIALS |
|-----------|------------------------|---------------------|--------------------|-------|---|----------------|--------|--|
| | | | | T | C | TUBING | CASING | |
| | 09:00 | | | | | | | Called out |
| | 15:00 | | | | | | | On location / set up |
| | 15:00 | | | | | | | Rig running csg. |
| | 16:05 | | | | | | | Csg on bottom |
| | 16:10 | | | | | | | Hook up to circulate |
| | 16:15 | | | | | | | Started circulating & Rotating |
| | 17:25 | | | | | | | Done circulating |
| | 17:25 | | | | | | | Started cut job (plugged at hole) |
| | 17:28 | 5 | 15 | | | 200 | | 15661 KCL water ^{wt 30 sks} |
| | 17:31 | 4 | 12 | | | 200 | | 500 gal Flocheck 21 ^{wt 20 sks} |
| | 17:32 | 5 | 5 | | | 200 | | 5661 KCL water |
| | 17:33 | 7 1/2 | 10 | | | | | noted mouse hole mixed cut 150 sks down hole |
| | 17:40 | 5 | 37 | | | 0 | | Done mixing at |
| | 17:50 | | | | | 0 | | wash out pump & line |
| | 18:05 18:05 | | | | | 0 | | Started displacement |
| 18:15 | 18:15 18:15 | 15 7 3/4 | | | | 800 | | Done w/ displac 800 PSI LPT |
| | 18:18 | | | | | 1800 | | Handled plug at 1800 PSI |
| | 18:20 | | | | | | | Release pressure - float held |
| | 18:30 | | | | | | | wash up trk |
| | 18:40 | | | | | | | Recked up trk |
| | 19:00 | | | | | | | Job completed |
| | | | | | | | | Thank you Lad Jones |
| | | | | | | | | TED F 3:15 Jason R. |
| | | | | | | | | Preston K 2:21 |
| | | | | | | | | plug down at 6:15pm |
| | | | | | | | | TD = 4660 ft |
| | | | | | | | | Total Pipe = 4662 ft |
| | | | | | | | | Set up = 4659 ft |
| | | | | | | | | Port Collar at 2116 ft |
| | | | | | | | | Shoe Jt = 4178 ft |



CHARGE TO: Larson Engineering
 ADDRESS: _____
 CITY, STATE, ZIP CODE: _____

TICKET 30157

SERVICE LOCATION: Ness City KS
 WELL/PROJECT NO.: 2-11 LEASE: Paris COUNTY/PARISH: Lane STATE: KS CITY: Dighton DATE: 1 MAR 17 OWNER: _____
 TICKET TYPE: SERVICE SALES CONTRACTOR: _____ RIG NAME/NO.: _____ SHIPPED VIA: CT DELIVERED TO: Location ORDER NO.: _____
 WELL TYPE: oil WELL CATEGORY: WILD WEST Development JOB PURPOSE: cement part collar WELL PERMIT NO.: _____ WELL LOCATION: _____
 REFERRAL LOCATION: _____ INVOICE INSTRUCTIONS: _____

| PRICE REFERENCE | SECONDARY REFERENCE/PART NUMBER | ACCOUNTING | | | DESCRIPTION | QTY. | | UNIT PRICE | | AMOUNT | |
|-----------------|---------------------------------|------------|------|----|----------------|-------|-----|------------|----|---------|--------|
| | | LOC | ACCT | DF | | | U/M | | | | |
| 575 | | 1 | | | MILEAGE TRX W/ | 40 | mi | 5 | 00 | 200.00 | |
| 576D | | 1 | | | Pump Charge | 1 | ea | 1250 | 00 | 1250.00 | |
| 330 | | 1 | | | SAND cement | 200 | sk | 15 | 75 | 3150.00 | |
| 276 | | 1 | | | Fluore | 50 | lb | 2 | 35 | 167.50 | |
| 290 | | 1 | | | D-AIR | 2 | gal | 42 | 00 | 84.00 | |
| 581 | | 1 | | | service charge | 300 | sk | 1 | 50 | 450.00 | |
| 583 | | 1 | | | Drayage | 29853 | lb | 597.06 | 76 | 0.25 | 447.80 |

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 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS
 X
 DATE SIGNED: _____ TIME SIGNED: _____ A.M. P.M.
 11:15

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

| SURVEY | AGREE | UN-DECIDED | DIS-AGREE | |
|--|-------|------------|-----------|-------------------------|
| OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? | | | | PAGE TOTAL 5694.30 |
| WE UNDERSTOOD AND MET YOUR NEEDS? | | | | -10% 5124.87 |
| OUR SERVICE WAS PERFORMED WITHOUT DELAY? | | | | -DISC |
| WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? | | | | Lane CO TAX 7.5% 225.89 |
| ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | TOTAL 5350.76 |
| <input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND | | | | |

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 SWIFT OPERATOR: [Signature] APPROVAL: _____
 Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 1 MAR 17 PAGE NO. 1

CUSTOMER Larson Engineering WELL NO. 2-11 LEASE Paris JOB TYPE cement port collar TICKET NO. 30157

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS | | PRESSURE (PSI) | | DESCRIPTION OF OPERATION AND MATERIALS |
|-----------|------|------------|--------------------|-------|---|----------------|--------|---|
| | | | | T | C | TUBING | CASING | |
| | | | | | | | | 300 sk SMD cement w/ 1/4" Flocide 2 3/8 x 4 1/2 port collar 2116' |
| | 0900 | | | | | | | on loc TR# 114 |
| | 0920 | | | | | 1000 | 1000 | test to 1000 psi - held |
| | 0927 | 3 1/2 | 2 | | | 350 | | open port collar inj rate 3 1/2 bpm @ 350 psi |
| | 0930 | 3 1/2 | | | | 350 | | mix SMD cement @ 11.2 ppg - circ fluid to surface - → cement to surface ← { 200 sk mix at 1500 to P. # } |
| | | 3 1/2 | 17 | | | 400 | | |
| | | 3 1/2 | 108 | | | 400 | | |
| | | | 7 | | | | | Displace w/ H ₂ O - 7 bbl - |
| | 1004 | | | | | 1000 | 1000 | close port collar test to 1000 psi - held |
| | 1008 | | | | | | | Run 5 JTs |
| | 1018 | | 20 | | | | | Reverse hole clean - 2 cement plugs - |
| | 1025 | | | | | | | Pull tool Break truck Rack up |
| | 1055 | | | | | | | Job complete Flunks Blow Port # 15000 |



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Vern Schrag

Paris #2-11

11-19s-29w Lane,KS

Start Date: 2017.02.20 @ 19:07:00

End Date: 2017.02.21 @ 00:21:15

Job Ticket #: 61318 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.02.27 @ 08:48:56



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering, Inc

11-19s-29w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

ATTN: Vern Schrag

Job Ticket: 61318

DST#: 1

Test Start: 2017.02.20 @ 19:07:00

GENERAL INFORMATION:

Formation: **LKC I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:29:45

Time Test Ended: 00:21:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 4198.00 ft (KB) To 4227.00 ft (KB) (TVD)

Reference Elevations: 2810.00 ft (KB)

Total Depth: 4227.00 ft (KB) (TVD)

2800.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8845 Outside

Press@RunDepth: 13.05 psig @ 4199.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.20

End Date:

2017.02.21

Last Calib.: 2017.02.21

Start Time: 19:07:05

End Time:

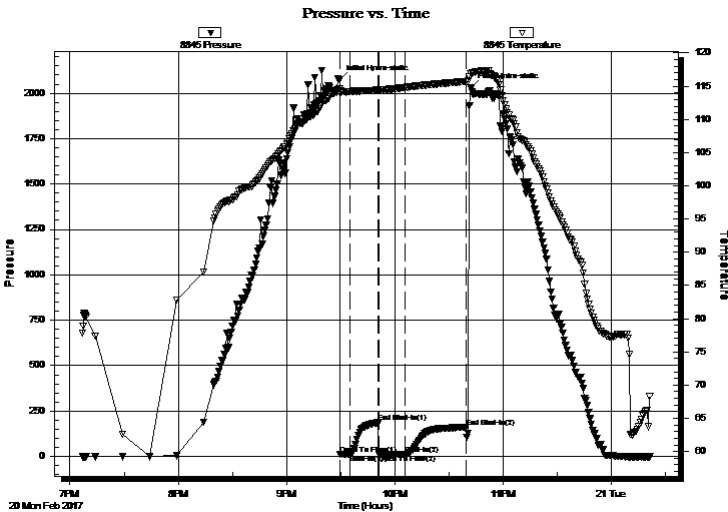
00:21:14

Time On Btm: 2017.02.20 @ 21:29:30

Time Off Btm: 2017.02.20 @ 22:42:00

TEST COMMENT: IF: 1/4" blow.
IS: No return.
FF: No blow.
FS: No return.

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2075.29 | 114.69 | Initial Hydro-static |
| 1 | 11.32 | 113.97 | Open To Flow (1) |
| 6 | 12.88 | 114.17 | Shut-In(1) |
| 22 | 185.70 | 114.41 | End Shut-In(1) |
| 22 | 12.78 | 114.35 | Open To Flow (2) |
| 37 | 13.05 | 114.80 | Shut-In(2) |
| 70 | 161.35 | 115.72 | End Shut-In(2) |
| 73 | 2029.44 | 116.85 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 5.00 | Mud 100m (oil spots) | 0.07 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61318

DST#: 1

ATTN: Vern Schrag

Test Start: 2017.02.20 @ 19:07:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 4191.00 ft | Diameter: 3.80 inches | Volume: 58.79 bbl | Tool Weight: | 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.90 inches | Volume: 0.00 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: | 60000.00 lb |
| | | | <u>Total Volume: 58.79 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 15.00 ft | | | String Weight: Initial | 42000.00 lb |
| Depth to Top Packer: | 4198.00 ft | | | Final | 42000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 29.00 ft | | | | |
| Tool Length: | 51.00 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 | | | 4177.00 | |
| Shut In Tool | 5.00 | | | 4182.00 | |
| Hydraulic tool | 5.00 | | | 4187.00 | |
| Safety Joint | 2.00 | | | 4189.00 | |
| Packer | 5.00 | | | 4194.00 | 22.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4198.00 | |
| Stubb | 1.00 | | | 4199.00 | |
| Recorder | 0.00 | 8365 | Inside | 4199.00 | |
| Recorder | 0.00 | 8845 | Outside | 4199.00 | |
| Perforations | 25.00 | | | 4224.00 | |
| Bullnose | 3.00 | | | 4227.00 | 29.00 Bottom Packers & Anchor |

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61318

DST#: 1

ATTN: Vern Schrag

Test Start: 2017.02.20 @ 19:07:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------------|---------------|
| 5.00 | Mud 100m (oil spots) | 0.070 |

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

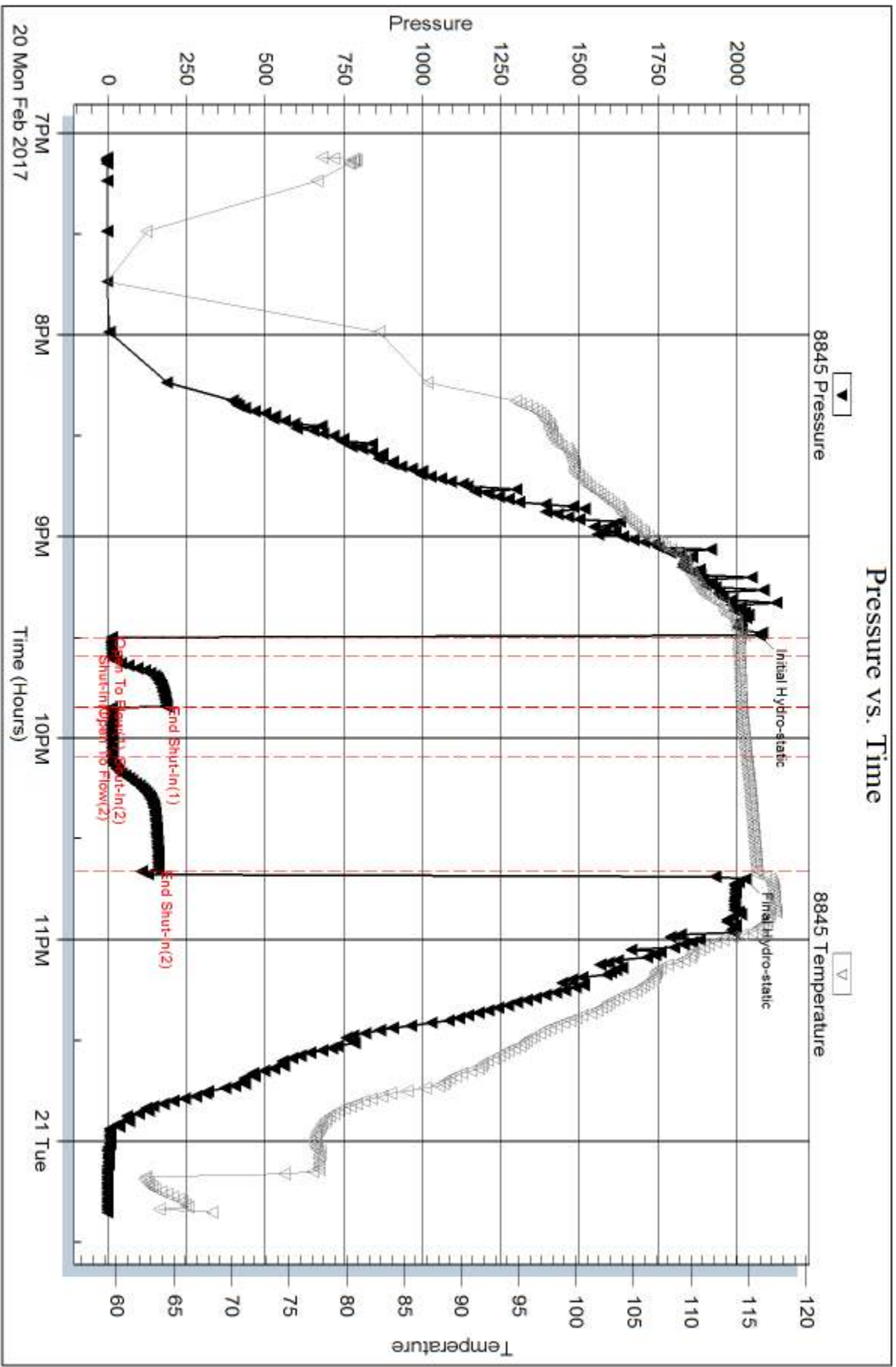
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



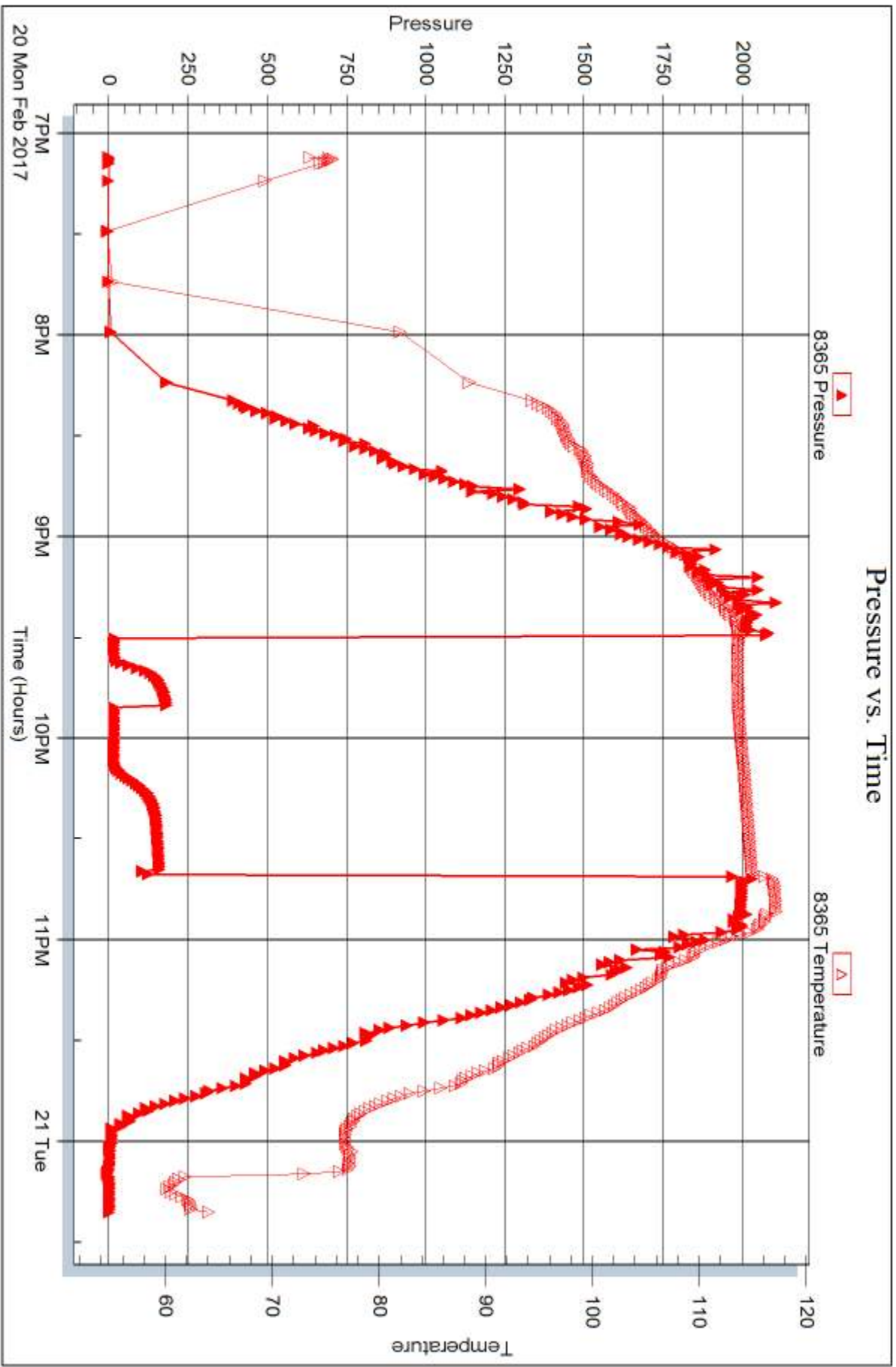
Serial #: 8365

Inside

Larson Engineering, Inc

Paris #2-11

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Vern Schrag

Paris #2-11

11-19s-29w Lane,KS

Start Date: 2017.02.21 @ 11:31:00

End Date: 2017.02.21 @ 16:47:15

Job Ticket #: 61319 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.02.27 @ 08:44:45



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering, Inc
562 W State Rd 4
Olmitz, KS 67564
ATTN: Vern Schrag

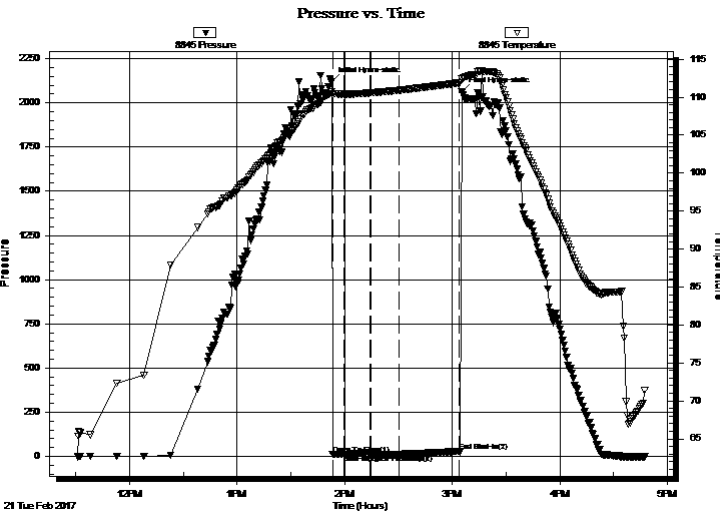
11-19s-29w Lane,KS
Paris #2-11
Job Ticket: 61319 **DST#: 2**
Test Start: 2017.02.21 @ 11:31:00

GENERAL INFORMATION:

Formation: **LKC K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:53:15
Time Test Ended: 16:47:15
Interval: **4246.00 ft (KB) To 4262.00 ft (KB) (TVD)**
Total Depth: 4262.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78
Reference Elevations: 2810.00 ft (KB)
2800.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8845 Outside
Press@RunDepth: 13.02 psig @ 4247.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.02.21 End Date: 2017.02.21 Last Calib.: 2017.02.21
Start Time: 11:31:05 End Time: 16:47:14 Time On Btm: 2017.02.21 @ 13:52:45
Time Off Btm: 2017.02.21 @ 15:05:30

TEST COMMENT: IF: Surface blow .
IS: No return.
FF: No blow .
FS: No return.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2118.60 | 110.80 | Initial Hydro-static |
| 1 | 11.36 | 110.26 | Open To Flow (1) |
| 7 | 12.05 | 110.40 | Shut-In(1) |
| 22 | 23.92 | 110.56 | End Shut-In(1) |
| 22 | 12.77 | 110.57 | Open To Flow (2) |
| 38 | 13.02 | 110.92 | Shut-In(2) |
| 71 | 28.42 | 111.89 | End Shut-In(2) |
| 73 | 2062.38 | 112.43 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 2.00 | mud 100m (oil spots) | 0.03 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61319

DST#: 2

ATTN: Vern Schrag

Test Start: 2017.02.21 @ 11:31:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4252.00 ft | Diameter: 3.80 inches | Volume: 59.64 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.90 inches | Volume: 0.00 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: 60000.00 lb |
| | | | <u>Total Volume: 59.64 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 28.00 ft | | | String Weight: Initial 45000.00 lb |
| Depth to Top Packer: | 4246.00 ft | | | Final 45000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 16.00 ft | | | |
| Tool Length: | 38.00 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 | | | 4225.00 | |
| Shut In Tool | 5.00 | | | 4230.00 | |
| Hydraulic tool | 5.00 | | | 4235.00 | |
| Safety Joint | 2.00 | | | 4237.00 | |
| Packer | 5.00 | | | 4242.00 | 22.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4246.00 | |
| Stubb | 1.00 | | | 4247.00 | |
| Recorder | 0.00 | 8365 | Inside | 4247.00 | |
| Recorder | 0.00 | 8845 | Outside | 4247.00 | |
| Perforations | 12.00 | | | 4259.00 | |
| Bullnose | 3.00 | | | 4262.00 | 16.00 Bottom Packers & Anchor |

Total Tool Length: 38.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61319

DST#: 2

ATTN: Vern Schrag

Test Start: 2017.02.21 @ 11:31:00

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: 67.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------------|---------------|
| 2.00 | mud 100m (oil spots) | 0.028 |

Total Length: 2.00 ft Total Volume: 0.028 bbl

Num Fluid Samples: 0

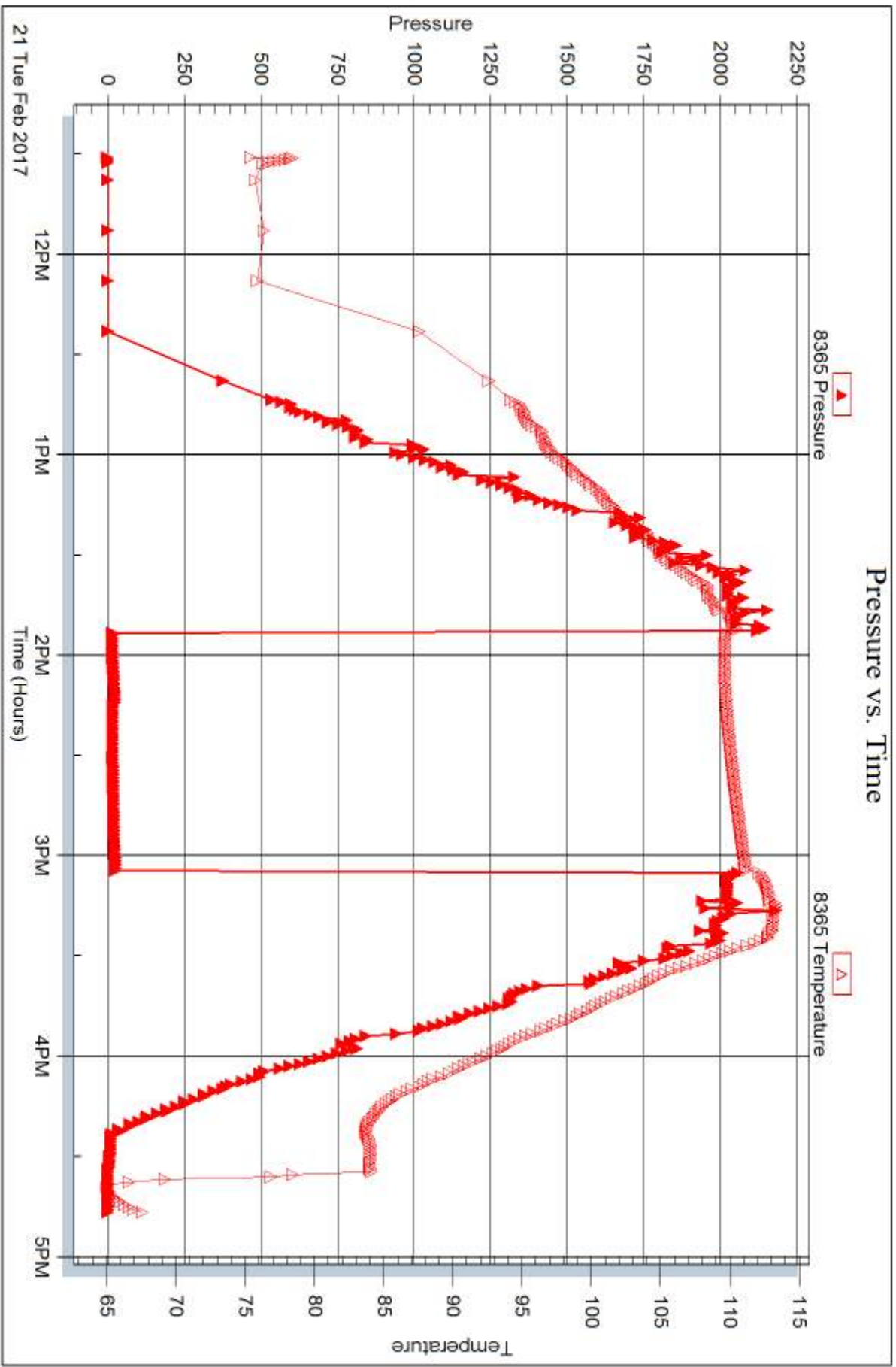
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Vern Schrag

Paris #2-11

11-19s-29w Lane,KS

Start Date: 2017.02.22 @ 04:33:00

End Date: 2017.02.22 @ 10:21:45

Job Ticket #: 61320 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.02.27 @ 08:43:50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering, Inc
562 W State Rd 4
Olmitz, KS 67564
ATTN: Vern Schrag

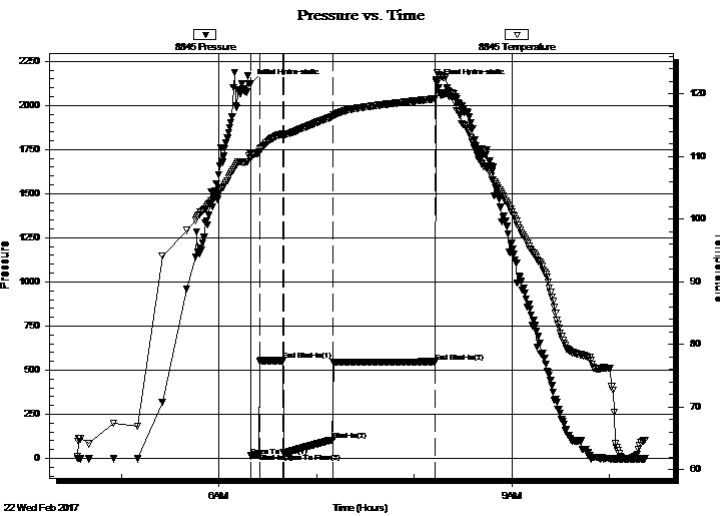
11-19s-29w Lane, KS
Paris #2-11
Job Ticket: 61320 **DST#: 3**
Test Start: 2017.02.22 @ 04:33:00

GENERAL INFORMATION:

Formation: **LKC L**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:19:45
Time Test Ended: 10:21:45
Interval: **4298.00 ft (KB) To 4314.00 ft (KB) (TVD)**
Total Depth: 4227.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78
Reference Elevations: 2810.00 ft (KB)
2800.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8845 Outside
Press@RunDepth: 104.30 psig @ 4299.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.02.22 End Date: 2017.02.22 Last Calib.: 2017.02.22
Start Time: 04:33:05 End Time: 10:21:44 Time On Btm: 2017.02.22 @ 06:19:30
Time Off Btm: 2017.02.22 @ 08:14:00

TEST COMMENT: IF: 2" Blow .
IS: No return.
FF: 8" blow .
FS: No return.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2125.34 | 110.42 | Initial Hydro-static |
| 1 | 14.35 | 109.75 | Open To Flow (1) |
| 6 | 26.36 | 110.72 | Shut-In(1) |
| 20 | 554.38 | 113.59 | End Shut-In(1) |
| 21 | 28.79 | 113.50 | Open To Flow (2) |
| 51 | 104.30 | 116.38 | Shut-In(2) |
| 113 | 547.42 | 119.19 | End Shut-In(2) |
| 115 | 2122.58 | 123.40 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------|--------------|
| 200.00 | mcw 5m 95w (oil spots) | 2.81 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61320

DST#: 3

ATTN: Vern Schrag

Test Start: 2017.02.22 @ 04:33:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 4284.00 ft | Diameter: 3.80 inches | Volume: 60.09 bbl | Tool Weight: | 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.90 inches | Volume: 0.00 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: | 60000.00 lb |
| | | | <u>Total Volume: 60.09 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 8.00 ft | | | String Weight: Initial | 45000.00 lb |
| Depth to Top Packer: | 4298.00 ft | | | Final | 46000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 16.00 ft | | | | |
| Tool Length: | 38.00 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 | | | 4277.00 | |
| Shut In Tool | 5.00 | | | 4282.00 | |
| Hydraulic tool | 5.00 | | | 4287.00 | |
| Safety Joint | 2.00 | | | 4289.00 | |
| Packer | 5.00 | | | 4294.00 | 22.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4298.00 | |
| Stubb | 1.00 | | | 4299.00 | |
| Recorder | 0.00 | 8365 | Inside | 4299.00 | |
| Recorder | 0.00 | 8845 | Outside | 4299.00 | |
| Perforations | 12.00 | | | 4311.00 | |
| Bullnose | 3.00 | | | 4314.00 | 16.00 Bottom Packers & Anchor |

Total Tool Length: 38.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61320

DST#: 3

ATTN: Vern Schrag

Test Start: 2017.02.22 @ 04:33:00

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:

62000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------------|---------------|
| 200.00 | mcw 5m 95w (oil spots) | 2.805 |

Total Length: 200.00 ft Total Volume: 2.805 bbl

Num Fluid Samples: 0

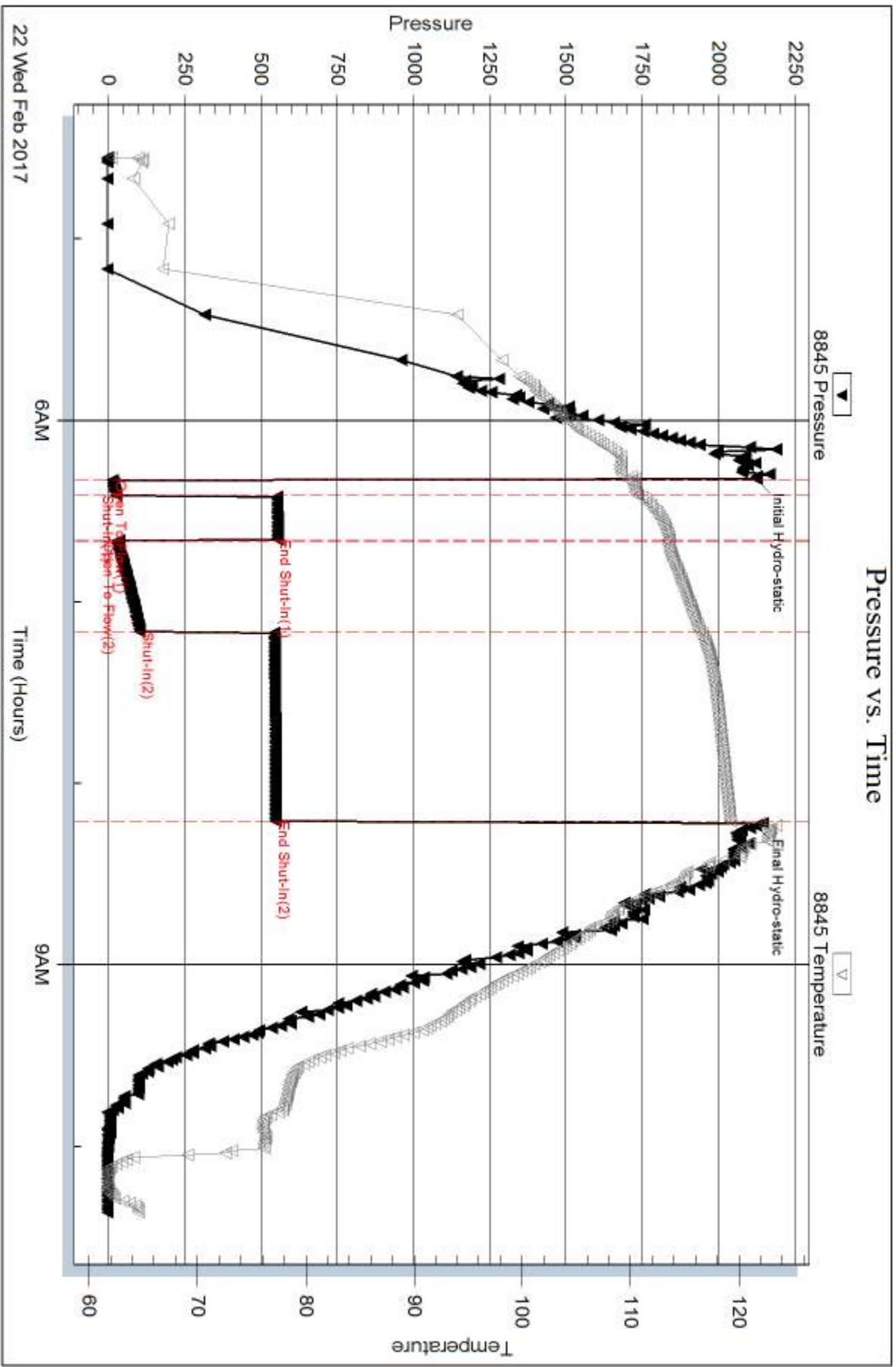
Num Gas Bombs: 0

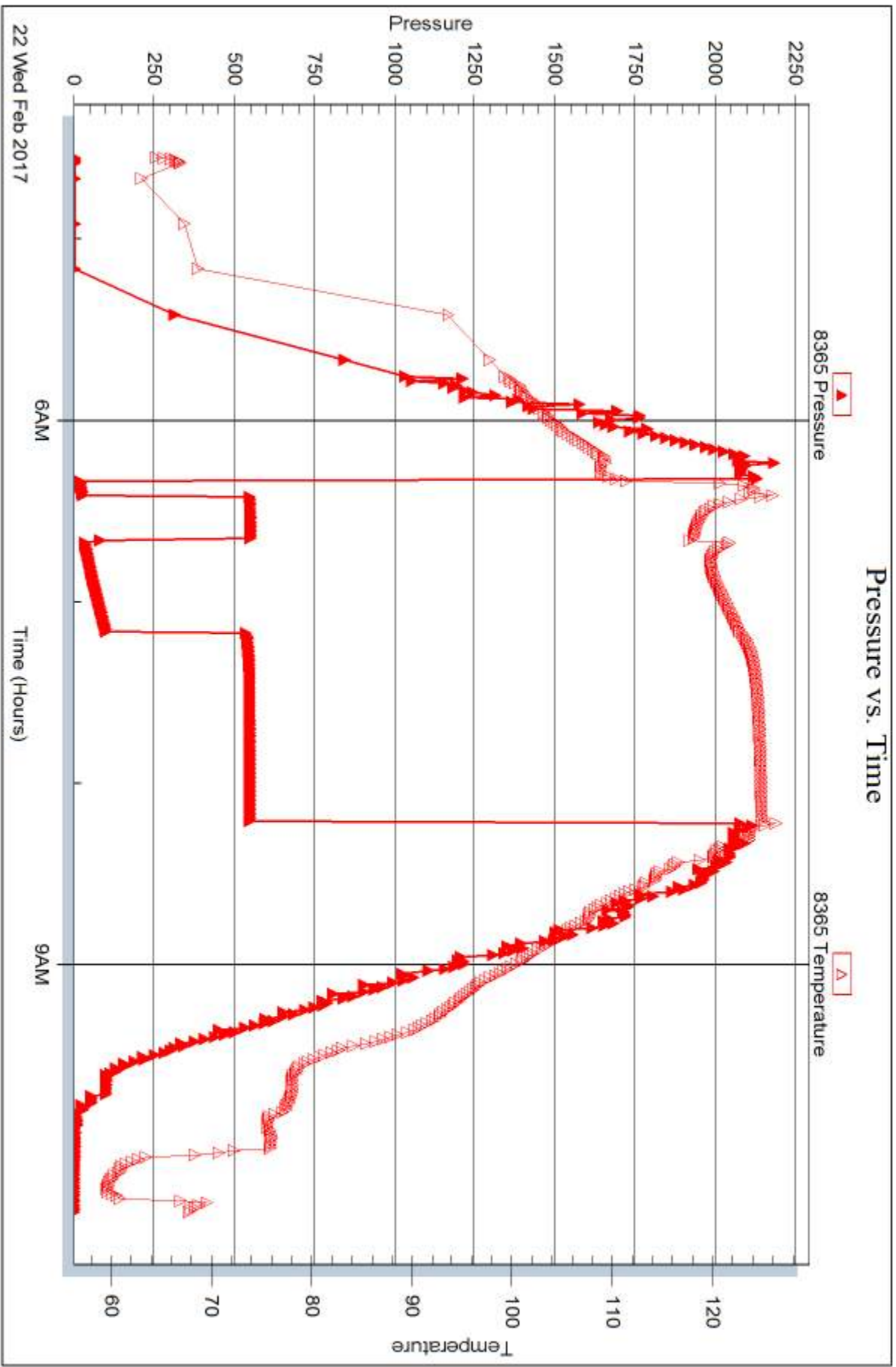
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .143 @ 61F = 62000







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Vern Schrag

Paris #2-11

11-19s-29w Lane,KS

Start Date: 2017.02.23 @ 04:28:00

End Date: 2017.02.23 @ 10:21:45

Job Ticket #: 61321 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.02.27 @ 08:43:26



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc
 562 W State Rd 4
 Olmitz, KS 67564
 ATTN: Vern Schrag

11-19s-29w Lane, KS
Paris #2-11
 Job Ticket: 61321 **DST#: 4**
 Test Start: 2017.02.23 @ 04:28:00

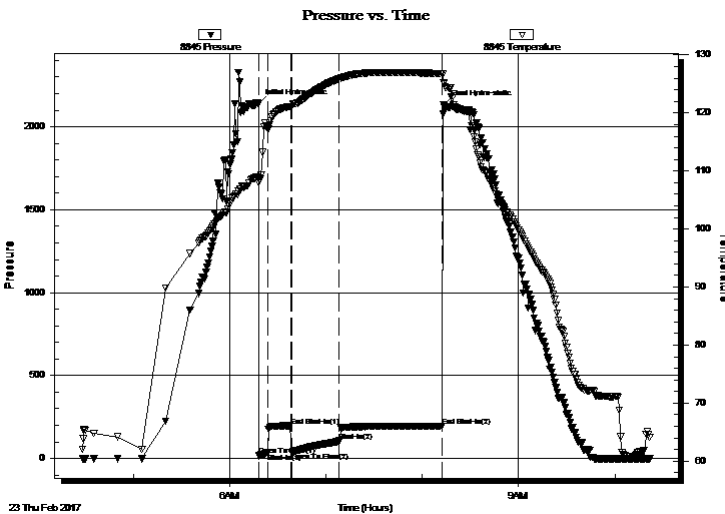
GENERAL INFORMATION:

Formation: **Pleasanton**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 06:18:00 Tester: Bradley Walter
 Time Test Ended: 10:21:45 Unit No: 78
 Interval: **4341.00 ft (KB) To 4385.00 ft (KB) (TVD)** Reference Elevations: 2810.00 ft (KB)
 Total Depth: 4385.00 ft (KB) (TVD) 2800.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

Serial #: 8845 Outside
 Press@RunDepth: 101.81 psig @ 4342.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.02.23 End Date: 2017.02.23 Last Calib.: 2017.02.23
 Start Time: 04:28:05 End Time: 10:21:44 Time On Btm: 2017.02.23 @ 06:17:45
 Time Off Btm: 2017.02.23 @ 08:13:15

TEST COMMENT: IF: 3 1/2" blow .
 IS: No return.
 FF: 7" blow .
 FS: No return.

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2140.13 | 108.82 | Initial Hydro-static |
| 1 | 15.99 | 107.97 | Open To Flow (1) |
| 6 | 32.71 | 117.34 | Shut-In(1) |
| 20 | 196.32 | 121.13 | End Shut-In(1) |
| 21 | 36.69 | 121.10 | Open To Flow (2) |
| 51 | 101.81 | 125.90 | Shut-In(2) |
| 115 | 193.92 | 126.78 | End Shut-In(2) |
| 116 | 2131.13 | 125.26 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------------|--------------|
| 198.00 | mcw 15m 85w (oil spots) | 2.78 |
| 2.00 | free oil 100 o | 0.03 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61321

DST#: 4

ATTN: Vern Schrag

Test Start: 2017.02.23 @ 04:28:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 4346.00 ft | Diameter: 3.80 inches | Volume: 60.96 bbl | Tool Weight: | 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.90 inches | Volume: 0.00 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: | 60000.00 lb |
| | | | <u>Total Volume: 60.96 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 27.00 ft | | | String Weight: Initial | 45000.00 lb |
| Depth to Top Packer: | 4341.00 ft | | | Final | 46000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 44.00 ft | | | | |
| Tool Length: | 66.00 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 | | | 4320.00 | |
| Shut In Tool | 5.00 | | | 4325.00 | |
| Hydraulic tool | 5.00 | | | 4330.00 | |
| Safety Joint | 2.00 | | | 4332.00 | |
| Packer | 5.00 | | | 4337.00 | 22.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4341.00 | |
| Stubb | 1.00 | | | 4342.00 | |
| Recorder | 0.00 | 8365 | Inside | 4342.00 | |
| Recorder | 0.00 | 8845 | Outside | 4342.00 | |
| Perforations | 7.00 | | | 4349.00 | |
| Change Over Sub | 1.00 | | | 4350.00 | |
| Drill Pipe | 31.00 | | | 4381.00 | |
| Change Over Sub | 1.00 | | | 4382.00 | |
| Bullnose | 3.00 | | | 4385.00 | 44.00 Bottom Packers & Anchor |

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61321

DST#: 4

ATTN: Vern Schrag

Test Start: 2017.02.23 @ 04:28:00

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:

34000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------|---------------|
| 198.00 | mcw 15m 85w (oil spots) | 2.777 |
| 2.00 | free oil 100 o | 0.028 |

Total Length: 200.00 ft Total Volume: 2.805 bbl

Num Fluid Samples: 0

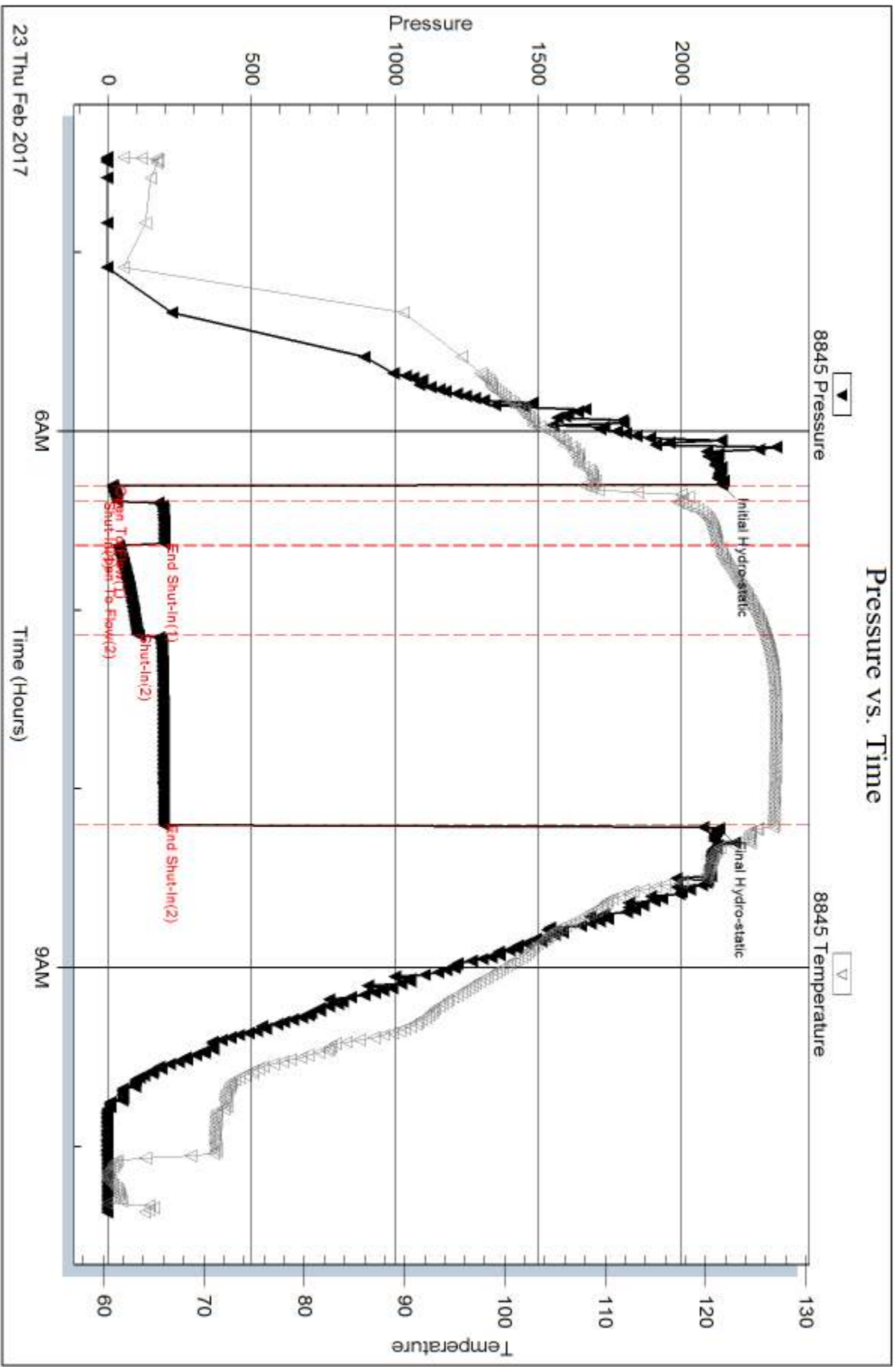
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .289 @ 51F = 34,000ppm







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Vern Schrag

Paris #2-11

11-19s-29w Lane,KS

Start Date: 2017.02.23 @ 20:55:00

End Date: 2017.02.24 @ 01:40:15

Job Ticket #: 61322 DST #: 5

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.02.27 @ 08:42:53



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc
 562 W State Rd 4
 Olmitz, KS 67564
 ATTN: Vern Schrag

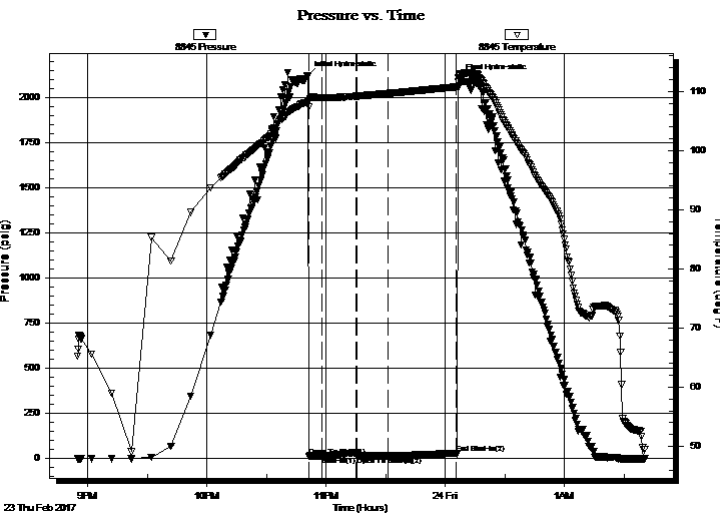
11-19s-29w Lane, KS
Paris #2-11
 Job Ticket: 61322 **DST#: 5**
 Test Start: 2017.02.23 @ 20:55:00

GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:51:15
 Time Test Ended: 01:40:15
Interval: 4355.00 ft (KB) To 4430.00 ft (KB) (TVD)
 Total Depth: 4430.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2810.00 ft (KB)
 2800.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8845 Outside
 Press@RunDepth: 13.85 psig @ 4356.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.02.23 End Date: 2017.02.24 Last Calib.: 2017.02.24
 Start Time: 20:55:05 End Time: 01:40:14 Time On Btm: 2017.02.23 @ 22:51:00
 Time Off Btm: 2017.02.24 @ 00:07:00

TEST COMMENT: IF: 1/2" blow .
 IS: No return.
 FF: No blow .
 FS: No return.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2118.96 | 108.39 | Initial Hydro-static |
| 1 | 12.95 | 107.37 | Open To Flow (1) |
| 7 | 13.63 | 108.94 | Shut-In(1) |
| 24 | 31.34 | 109.19 | End Shut-In(1) |
| 25 | 13.26 | 109.20 | Open To Flow (2) |
| 40 | 13.85 | 109.65 | Shut-In(2) |
| 75 | 28.76 | 110.77 | End Shut-In(2) |
| 76 | 2105.25 | 112.73 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 5.00 | Mud 100m (oil spots) | 0.07 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61322

DST#: 5

ATTN: Vern Schrag

Test Start: 2017.02.23 @ 20:55:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4348.00 ft | Diameter: 3.80 inches | Volume: 60.99 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.90 inches | Volume: 0.00 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: 60000.00 lb |
| | | | <u>Total Volume: 60.99 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 15.00 ft | | | String Weight: Initial 45000.00 lb |
| Depth to Top Packer: | 4355.00 ft | | | Final 45000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 75.00 ft | | | |
| Tool Length: | 97.00 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 | | | 4334.00 | |
| Shut In Tool | 5.00 | | | 4339.00 | |
| Hydraulic tool | 5.00 | | | 4344.00 | |
| Safety Joint | 2.00 | | | 4346.00 | |
| Packer | 5.00 | | | 4351.00 | 22.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4355.00 | |
| Stubb | 1.00 | | | 4356.00 | |
| Recorder | 0.00 | 8365 | Inside | 4356.00 | |
| Recorder | 0.00 | 8845 | Outside | 4356.00 | |
| Perforations | 6.00 | | | 4362.00 | |
| Change Over Sub | 1.00 | | | 4363.00 | |
| Drill Pipe | 63.00 | | | 4426.00 | |
| Change Over Sub | 1.00 | | | 4427.00 | |
| Bullnose | 3.00 | | | 4430.00 | 75.00 Bottom Packers & Anchor |

Total Tool Length: 97.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc

11-19s-29w Lane,KS

562 W State Rd 4
Olmitz, KS 67564

Paris #2-11

Job Ticket: 61322

DST#: 5

ATTN: Vern Schrag

Test Start: 2017.02.23 @ 20:55:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------------|---------------|
| 5.00 | Mud 100m (oil spots) | 0.070 |

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

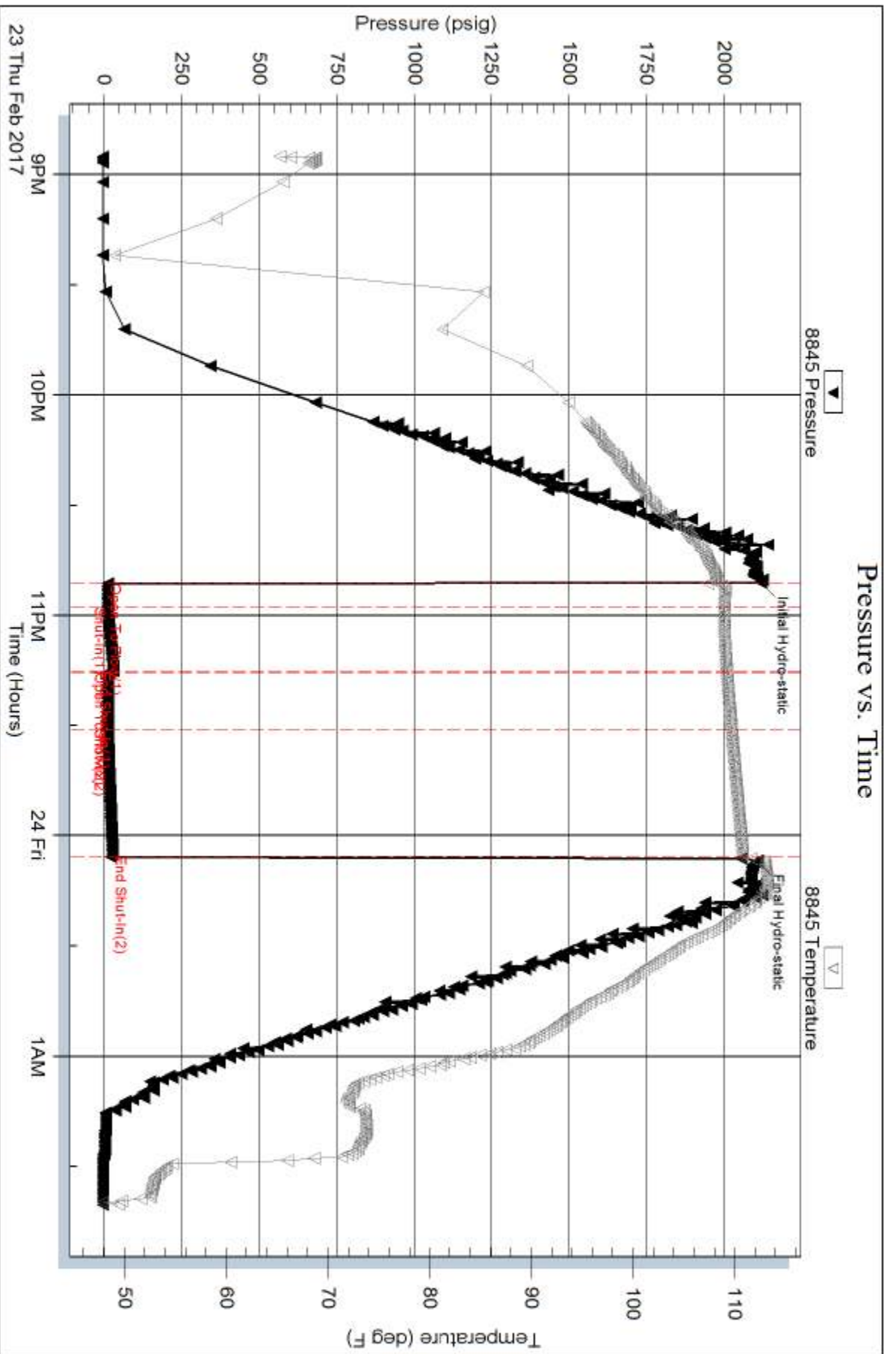
Num Gas Bombs: 0

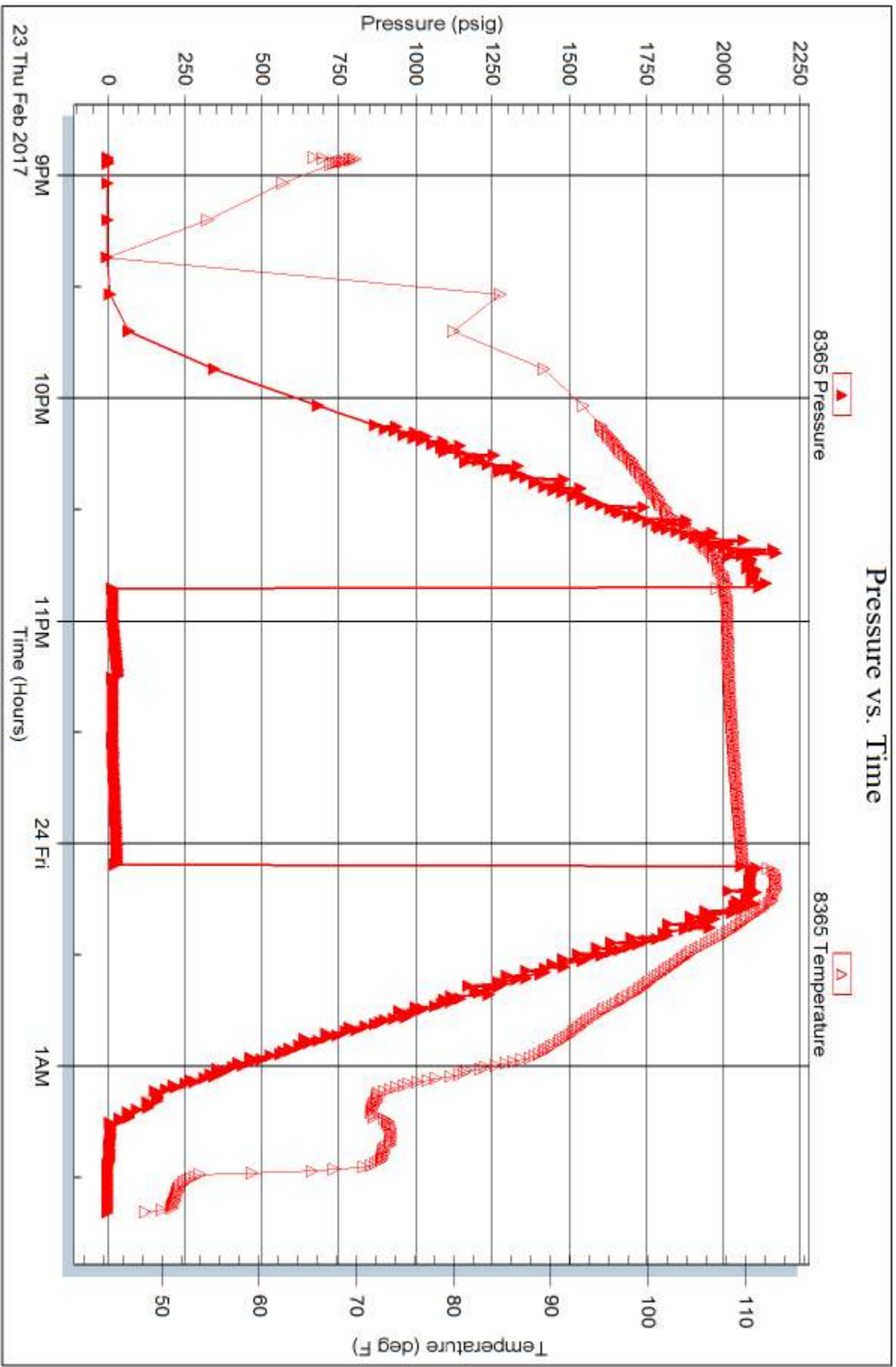
Serial #:

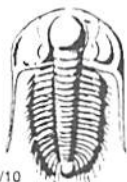
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **61318**

Well Name & No. Paris 2-11 Test No. 1 Date 2/20/2018
 Company Larson Engineering, Inc Elevation 2810 KB 2800 GL
 Address 562 W State Rd 4 Olmitz, ks 67564
 Co. Rep / Geo. Vern Schwag Rig Southwing 2
 Location: Sec. 11 Twp. 19S Rge. 29W Co. Lane State KS

Interval Tested 4198 4227 Zone Tested LKC I
 Anchor Length 29 Drill Pipe Run 4191 Mud Wt. 9.1
 Top Packer Depth 4193 Drill Collars Run 0 Vis 57
 Bottom Packer Depth 4198 Wt. Pipe Run 0 WL 7.2
 Total Depth 4227 Chlorides 1500 ppm System LCM 2#

Blow Description IF 1/4" blow
ISI No return.
FF No blow
FBI No return.

| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|--------------------------|------|------|------------|------|
| <u>S</u> | <u>mud</u> | | | <u>100</u> | |
| | <u>oil puddle on top</u> | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

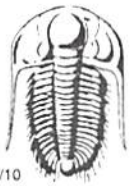
Rec Total 5 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2075 Test 1150 T-On Location 1815
 (B) First Initial Flow 11 Jars NO T-Started 1907
 (C) First Final Flow 13 Safety Joint 75 T-Open 2131
 (D) Initial Shut-In 186 Circ Sub 11C T-Pulled 2236
 (E) Second Initial Flow 13 Hourly Standby _____ T-Out 0021
 (F) Second Final Flow 13 Mileage 65RT 48.75 Comments _____
 (G) Final Shut-In 161 Sampler _____
 (H) Final Hydrostatic 2029 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 5 Ruined Shale Packer _____
 Initial Shut-In 15 Ruined Packer _____
 Final Flow 15 Extra Copies _____
 Final Shut-In 30 Sub Total 0
 Sub Total 1273.75 Total 1273.75
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **61319**

4/10

Well Name & No. Paris 2-11 Test No. 2 Date 2/21/2017
 Company Larson Engineering, Inc Elevation 2810 KB 2800 GL
 Address 562 W State Rd 4 Olinitz, KS 67564
 Co. Rep / Geo. Vern Schwag Rig SouthWind 8
 Location: Sec. 11 Twp. 19s Rge. 29w Co. Lane State KS

Interval Tested 4246 - 4262 Zone Tested LKC K
 Anchor Length 16 Drill Pipe Run 4252 Mud Wt. 9.1
 Top Packer Depth 4241 Drill Collars Run 0 Vis 67
 Bottom Packer Depth 4246 Wt. Pipe Run 0 WL 7.2
 Total Depth 4262 Chlorides 1900 ppm System LCM 2#
 Blow Description IF Surface blow
ISI No return.
FF No blow
FSI No return.

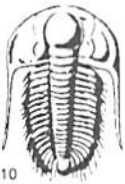
| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|------------------|------|------|------------|------|
| <u>2</u> | <u>Mud</u> | | | <u>100</u> | |
| | <u>oil spots</u> | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 2 BHT 111 Gravity - API RW - @ - ° F Chlorides - ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>2119</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>1000</u> |
| (B) First Initial Flow <u>11</u> | <input type="checkbox"/> Jars | T-Started <u>1131</u> |
| (C) First Final Flow <u>12</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>1352</u> |
| (D) Initial Shut-In <u>24</u> | <input checked="" type="checkbox"/> Circ Sub <u>MC</u> | T-Pulled <u>1458</u> |
| (E) Second Initial Flow <u>13</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>1647</u> |
| (F) Second Final Flow <u>13</u> | <input checked="" type="checkbox"/> Mileage <u>65 RT</u> <u>48.75</u> | Comments |
| (G) Final Shut-In <u>28</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2062</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Open <u>5</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Initial Shut-In <u>15</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Flow <u>15</u> | <input type="checkbox"/> Day Standby | Total <u>1273.75</u> |
| Final Shut-In <u>30</u> | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1273.75</u> | |

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61320

Well Name & No. Paris 2-11 Test No. 3 Date 2/22/2016
 Company Lawson Engineering, Inc Elevation 2810 KB 2800 GL
 Address 562 W State Rd 4 Olmitz, KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 11 Twp. 19s Rge. 29w Co. Lane State Ks

Interval Tested 4298 4314 Zone Tested LKC L
 Anchor Length 16 Drill Pipe Run 4284 Mud Wt. 9.2
 Top Packer Depth 4293 Drill Collars Run 0 Vis S3
 Bottom Packer Depth 4298 Wt. Pipe Run 0 WL 2#
 Total Depth 4314 Chlorides 1900 ppm System LCM 1"
 Blow Description IF 2" blow
ISF No return
FF 8" blow
FSF No return.

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|------------|------|-----------|----------|------|
| <u>200</u> | <u>mcw</u> | | <u>95</u> | <u>5</u> | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 200 BHT 123 Gravity — API RW 143 @ 61 °F Chlorides 62000 ppm

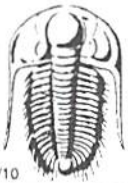
(A) Initial Hydrostatic 2125 Test 1150 T-On Location 0405
 (B) First Initial Flow 14 Jars _____ T-Started 0433
 (C) First Final Flow 24 Safety Joint 75 T-Open 0619
 (D) Initial Shut-In 554 Circ Sub N/C T-Pulled 0809
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out _____
 (F) Second Final Flow 104 Mileage 65 RT 48.75 Comments _____
 (G) Final Shut-In 547 Sampler _____
 (H) Final Hydrostatic 2123 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1273.75

Initial Open 5
 Initial Shut-In 15
 Final Flow 30
 Final Shut-In 60

Sub Total 0
 Total 1273.75
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **61321**

Well Name & No. Paris 2-4 Test No. 4 Date 2/23/2017
 Company Larson Engineering, Inc Elevation 2810 KB 2800 GL
 Address 562 W State Rd 4 Olmitz, Ks 67564
 Co. Rep / Geo. Vern Schrag Rig SouthWind 5
 Location: Sec. 11 Twp. 19S Rge. 29W Co. Lane State Ks

Interval Tested 4341 4385 Zone Tested Pleasanton
 Anchor Length 44 Drill Pipe Run 4346 Mud Wt. 9.0
 Top Packer Depth 4336 Drill Collars Run 0 Vis 53
 Bottom Packer Depth 4341 Wt. Pipe Run 0 WL 7.8
 Total Depth 4385 Chlorides 2800 ppm System LCM 2#
 Blow Description IF 3 1/2" blow
ISF No return.
FF 7" blow
FSF No return.

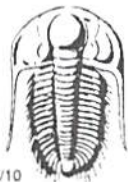
| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|----------------------|------|------------|-----------|-----------|
| <u>2</u> | <u>OIL</u> | | <u>100</u> | | |
| <u>198</u> | <u>MCW oil spots</u> | | | <u>85</u> | <u>15</u> |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 200 BHT 126 Gravity — API RW 1281 @ 51 °F Chlorides 34000 ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2140</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>0400</u> |
| (B) First Initial Flow <u>16</u> | <input type="checkbox"/> Jars | T-Started <u>0428</u> |
| (C) First Final Flow <u>33</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>0618</u> |
| (D) Initial Shut-In <u>196</u> | <input checked="" type="checkbox"/> Circ Sub <u>MC</u> | T-Pulled <u>0808</u> |
| (E) Second Initial Flow <u>37</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>1019</u> |
| (F) Second Final Flow <u>102</u> | <input checked="" type="checkbox"/> Mileage <u>65RT</u> <u>48.75</u> | Comments |
| (G) Final Shut-In <u>194</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2131</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Open <u>5</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Initial Shut-In <u>15</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Flow <u>30</u> | <input type="checkbox"/> Day Standby | Total <u>12753.75</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1273.75</u> | |

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **61322**

Well Name & No. Paris 2-11 Test No. 5 Date 2/23/2017
 Company Larson Engineering Inc Elevation 2810 KB 2800 GL
 Address 562 W State Rd 4 Olmitz, Ks 67564
 Co. Rep / Geo. Vern Schrag Rig Southern 8
 Location: Sec. 11 Twp. 19S Rge. 29W Co. Lane State Ks

Interval Tested 4355 - 4430 Zone Tested Altamont
 Anchor Length 75 Drill Pipe Run 4348 Mud Wt. 9.2
 Top Packer Depth 4350 Drill Collars Run 0 Vis 49
 Bottom Packer Depth 4355 Wt. Pipe Run 0 WL 7.8
 Total Depth 4430 Chlorides 2200 ppm System LCM 1#

Blow Description IF? 1/2" blow
ISI! No return.
FF! No blow
FST! No return.

| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|------------------|------|------|------------|------|
| <u>5</u> | <u>MUD</u> | | | <u>100</u> | |
| | <u>oil spots</u> | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 5 BHT 111 Gravity — API RW — @ — F Chlorides — ppm

| | | |
|-------------------------------------|--|---------------------------|
| (A) Initial Hydrostatic <u>2119</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>1945</u> |
| (B) First Initial Flow <u>13</u> | <input type="checkbox"/> Jars | T-Started <u>2055</u> |
| (C) First Final Flow <u>14</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>2252</u> |
| (D) Initial Shut-In <u>31</u> | <input checked="" type="checkbox"/> Circ Sub <u>N/C</u> | T-Pulled <u>2358</u> |
| (E) Second Initial Flow <u>13</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>0140</u> |
| (F) Second Final Flow <u>14</u> | <input checked="" type="checkbox"/> Mileage <u>6521</u> <u>48.75</u> | Comments |
| (G) Final Shut-In <u>29</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2105</u> | <input type="checkbox"/> Straddle | |
| | <input type="checkbox"/> Shale Packer <u>250</u> | |

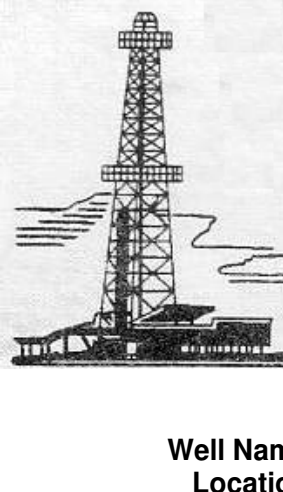
| | | |
|---------------------------|--|--|
| Initial Open <u>5</u> | <input checked="" type="checkbox"/> Extra Packer | <input type="checkbox"/> Ruined Shale Packer |
| Initial Shut-In <u>15</u> | <input type="checkbox"/> Extra Recorder | <input type="checkbox"/> Ruined Packer |
| Final Flow <u>15</u> | <input type="checkbox"/> Day Standby | <input type="checkbox"/> Extra Copies |
| Final Shut-In <u>30</u> | <input type="checkbox"/> Accessibility | Sub Total <u>0</u> |
| | Sub Total <u>1523.75</u> | Total <u>1523.75</u> |

Approved By _____ Our Representative [Signature]

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WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST



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

Well Name: **PARIS #2-11**
 Location: **NW NE NW SE SEC. 11-19S-29W**
 Licence Number: **API: 15-101-22587**
 Spud Date: **February 15, 2017**
 Surface Coordinates: **2550' FSL & 1690' FEL**

Region: **Lane Co., KS**
 Drilling Completed: **February 25, 2017**

Bottom Hole Coordinates:
 Ground Elevation (ft): **2800'**
 Logged Interval (ft): **3800'**
 Formation: **Mississippi**
 Type of Drilling Fluid: **Chemical Premix (Displaced)**

K.B. Elevation (ft): **2810'**
 Total Depth (ft): **4650'**
 To: **RTD**
 Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR:

Company: **Larson Engineering Inc.**
 Address: **562 West State Road 4
 Olinitz, KS 67564-8561**

DRILLING CONTRACTOR:

Southwind Drilling, Inc., Rig #8

DP 4.5" XH (16.6#); DC 6-1/4" x 2-3/8" x 556', Kelly 40.30', Tool Joint 5.5" ; Bit: Reed S53-P, 7-7/8", standard jets 14-14-14; rpm 80, WOB 35k; Kelly Bushing 10' above ground level.

CASING:

Ran 6 jts new 8-5/8" 23# R3 STC 8rd csg. Tallied 253', set @ 266' KB.

Ran 114 jts new 4-1/2" 11.6# N-80 R3 LTC 8rd csg. Tallied 4662.21' KB, set @ 4659' KB.

CIRCULATION SYSTEM:

Continental EMSCO D-375, duplex, 6 x 14, 58 spm, Chemical, premix, earth pits, Mud-Co/Service Mud, Inc., Hays, KS, Gary Schmidtberger.

OPEN HOLE LOGS:

DN, DI (SP), ML, No Sonic; 5" detail LTD-3600; 2" DI to surface casing; Pioneer Wireline, Hays, KS, D. Schmidt, Log total depth 4660', rotary total depth 4650'.

Rotary measurements should be adjusted 5' downhole from Heebner thru Marmaton and 8-10' downhole from 4432' to RTD to corelate with log.

DRILL STEM TEST #1:

Kansas City "I-zone": Interval: 4198-4227 (29' anchor): Blow: weak 1/4" IFP, no RB, no blow 2nd open; Times: 5-15-15-30; Recovery: 5' mud (100%) w/show oil on top; HP: 2075-2029, SIP: 186-161; FP: 11-13, 13-13; BHT: 116 F; Trilobite Testing, Inc., Scott City, KS, Bradley "Walt" Walter.

DRILL STEM TEST #2:

Kansas City "K-zone": Interval: 4246-4262 (16' anchor): Blow: weak surf. IFP, no blow FFP; 5-15-15-30; Recovery: 2' mud w/oil spots (100%); HP: 2119-2062; SIP: 24-28; FP: 11-12, 13-13; BHT: 111 F; Trilobite Testing, Inc., Scott City, KS, Bradley "Walt" Walter.

DRILL STEM TEST #3:

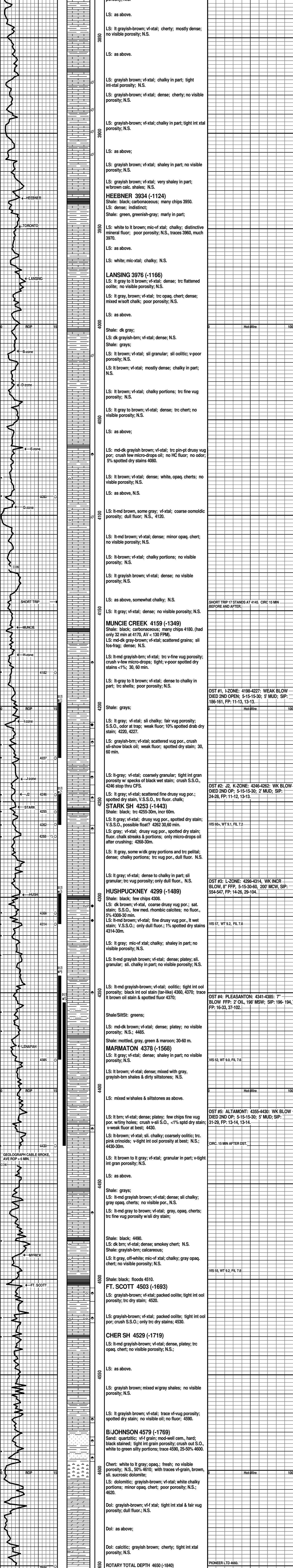
Kansas City (Middle Creek, L-zone): Interval: 4298-4314 (16' anchor): Blow: weak increasing to 2" IFP, no RB, weak increasing to 8" FFP, no RB; Times: 5-15-30-60; Recovery: 200' MCW (95%W, 5%M), HP: 2125-2123; SIP: 554-547; FP: 14-26, 29-104; BHT: 123 F; Trilobite Testing, Inc., Scott City, KS, Bradley "Walt" Walter.

DRILL STEM TEST #4:

Pleasanton: Interval: 4341-4385 (44' anchor): Blow: weak incr. to 3.5" IFP, no RB, weak incr to 7" FFP; no RB; Recovery: 2' oil & 196' MSW (85%W, 15%M, 34k chlorides); HP: 2140-2131, SIP: 196-194, FP: 16-33, 37-102; BHT: 126 F; Trilobite Testing, Inc., Scott City, KS, Bradley "Walt" Walter.

DRILL STEM TEST #5:

Altamont: Interval: 4355-4430 (75' anchor): Blow: weak 1/2" thru IFP, no RB, no blow at second open, no RB; Recovery: 5' mud (100%) with oil spots; HP: 2119-2105, SIP: 31-29, FP: 13-14, 13-14; BHT: 111 F; Trilobite Testing, Inc., Scott City, KS, Bradley "Walt" Walter.



RTD: 9:18 pm
02/24/2017