

ORIGINAL 8/15/13

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 5135
Name: John O. Farmer, Inc.
Address 1: P.O. Box 352
Address 2:
City: Russell State: KS Zip: 67665 + 0 3 5 2
Contact Person: Marge Schulte
Phone: (785) 483-3145, Ext. 214
CONTRACTOR: License # 31548
Name: Discovery Drilling Company, Inc.
Wellsite Geologist: Randall Kilian
Purchaser: Coffeyville Resources, LLC

API No. 15 - 15-147-20,640-00-00

Spot Description:
SE NE NW SE Sec. 13 Twp. 4 S. R. 19 East West
2,030 Feet from North / South Line of Section
1,330 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW

County: Phillips

Lease Name: Bredemeier "B" Well #: 1

Field Name: (wildcat)

Producing Formation: Lansing/KC

Elevation: Ground: 1952' Kelly Bushing: 1960'

Total Depth: 3575' Plug Back Total Depth: 3520'

Amount of Surface Pipe Set and Cemented at: 232.49 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: Port Collar @ 1,543 Feet

If Alternate II completion, cement circulated from: 1,543

feet depth to: surface w/ 190 sx cmt.

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SIOW
 Gas D&A ENHR SIGW
 OG GSW Temp. Abd.
 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 ENHR Conv. to SWD
 Conv. to GSW

Plug Back: Plug Back Total Depth
 Commingled Permit #:
 Dual Completion Permit #:
 SWD Permit #:
 ENHR Permit #:
 GSW Permit #:

4-23-11 4-29-11 6-3-11
Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 20,000 ppm Fluid volume: 500 bbls

Dewatering method used: evaporation

Location of fluid disposal if hauled offsite:

Operator Name:

Lease Name: License #:

Quarter Sec. S R East West

County: Permit #:

CONFIDENTIAL

AUG 15 2013

KCC

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature: John O. Farmer III
Title: John O. Farmer III, President Date: 8-15-11

KCC Office Use ONLY

Letter of Confidentiality Received
Date: 8/15/11 - 8/15/13
 Confidential Release Date: AUG 16 2011
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
KCC WICHITA
ALT I II III Approved by: [Signature] Date: 8-29-11

Operator Name: John O. Farmer, Inc. Lease Name: Bredemeier "B"
 Sec. 13 Twp. 4 S. R. 19 East West County: Phillips

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---------|-----|-------|-----------|-------|--------|--------|-------|--------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|----------|-------|---------|
| Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Dual Induction Log, Compensated Density Neutron Log, Micro Resistivity Log, Dual Receiver Cement Bond Log | <input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>Anhydrite</td> <td>1510'</td> <td>(+450)</td> </tr> <tr> <td>Topeka</td> <td>2942'</td> <td>(-982)</td> </tr> <tr> <td>Heebner</td> <td>3137'</td> <td>(-1177)</td> </tr> <tr> <td>Toronto</td> <td>3161'</td> <td>(-1201)</td> </tr> <tr> <td>Lansing</td> <td>3177'</td> <td>(-1217)</td> </tr> <tr> <td>Base/KC</td> <td>3399'</td> <td>(-1439)</td> </tr> <tr> <td>Arbuckle</td> <td>3508'</td> <td>(-1548)</td> </tr> </table> | Name | Top | Datum | Anhydrite | 1510' | (+450) | Topeka | 2942' | (-982) | Heebner | 3137' | (-1177) | Toronto | 3161' | (-1201) | Lansing | 3177' | (-1217) | Base/KC | 3399' | (-1439) | Arbuckle | 3508' | (-1548) |
| Name | Top | Datum | | | | | | | | | | | | | | | | | | | | | | | |
| Anhydrite | 1510' | (+450) | | | | | | | | | | | | | | | | | | | | | | | |
| Topeka | 2942' | (-982) | | | | | | | | | | | | | | | | | | | | | | | |
| Heebner | 3137' | (-1177) | | | | | | | | | | | | | | | | | | | | | | | |
| Toronto | 3161' | (-1201) | | | | | | | | | | | | | | | | | | | | | | | |
| Lansing | 3177' | (-1217) | | | | | | | | | | | | | | | | | | | | | | | |
| Base/KC | 3399' | (-1439) | | | | | | | | | | | | | | | | | | | | | | | |
| Arbuckle | 3508' | (-1548) | | | | | | | | | | | | | | | | | | | | | | | |

| CASING RECORD <input type="checkbox"/> New <input checked="" 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 |
| Surface | 12-1/4" | 8-5/8" | 23# | 232.49' | Class A | 150 | 3% C.C., 2% gel |
| Production | 7-7/8" | 5-1/2" | 14# & 15.5# | 3570' | Common | 130 | 10% salt, 2% gel |
| Port Collar | | | | 1543' | 60/40 Pozmix | 190 | 6% gel |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|---------------------------------------|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| ___ Perforate | | | | |
| ___ Protect Casing | | | | |
| ___ Plug Back TD | | | | |
| ___ Plug Off Zone | | | | |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| 4 SPF | 3213-3218' (Lansing "C") | 300 gals. 15% MCA acid | |
| 4 SPF | 3232-3238' (Lansing "D") | 300 gals. 15% MCA acid | |
| | | (treated 2 zones together w/ 800 gals. 15% NE) | |

| | | |
|--|------------------------|--|
| TUBING RECORD: Size: <u>2-7/8"</u> Set At: <u>3514'</u> Packer At: _____ | | Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Date of First, Resumed Production, SWD or ENHR. <u>6-9-11</u> | | Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____ |
| Estimated Production Per 24 Hours | Oil Bbls. <u>25.00</u> | Gas Mcf <u>0.00</u> Water Bbls. _____ Gas-Oil Ratio _____ Gravity <u>38.2°</u> |

| | | |
|---|---|--|
| 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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____ | PRODUCTION INTERVAL: <u>3213-3238' OA</u> |
|---|---|--|



Discovery Drilling

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

DRILLER'S LOG

Operator: John O. Farmer, Inc. Lic# 5135 Contractor: Discovery Drilling Co., Inc. LIC#31548
P.O. Box 352 PO Box 763
Russell, KS 67665 Hays, KS 67601

Lease: Bredemeier "B" # 1 Location: SE/NE/NW/SE
Section 13/S/19W
Phillips Co., KS

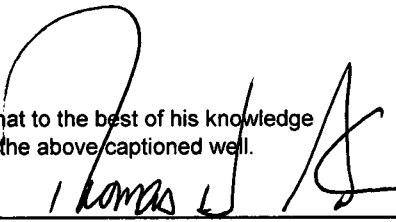
Loggers Total Depth: 3577' API#15- 147-20,640-00-00
Rotary Total Depth: 3575' Elevation: 1952 GL / 1960 KB
Commenced: 4/23/2011 150 Completed: 4/30/2011
Casing: 8 5/8" @ 232.49'W/120sks Status: Oilwell
5 1/2" @ 3570'W/130sks

DEPTHS & FORMATIONS (All from KB)

| | | | |
|-----------------------|--------------|--------------|--------------|
| Surface, Sand & Shale | <u>0'</u> | Shale | <u>1546'</u> |
| Dakota Sand | <u>942'</u> | Shale & Lime | <u>1960'</u> |
| Shale | <u>998'</u> | Shale | <u>2257'</u> |
| Cedar Hill Sand | <u>1029'</u> | Shale & Lime | <u>2640'</u> |
| Red Bed Shale | <u>1126'</u> | Lime & Shale | <u>3092'</u> |
| Anhydrite | <u>1515'</u> | RTD | <u>3575'</u> |
| Base Anhydrite | <u>1546'</u> | | |

STATE OF KANSAS)
) ss
COUNTY OF ELLIS)

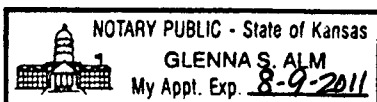
Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.




Thomas H. Alm

Subscribed and sworn to before me on 5-2-2011
My Commission expires: 8-9-2011

(Place stamp or seal below)





Notary Public

CONFIDENTIAL
AUG 15 2013
KCC

RECEIVED
AUG 16 2011
KCC WICHITA

ALLIED CEMENTING CO., LLC. 037193

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Great Bend KS

| DATE | SEC. | TWP. | RANGE | CALLED OUT | ON LOCATION | JOB START | JOB FINISH |
|--|------|------|-------|---------------------------------|-------------|------------------------|-----------------|
| 4-23-2011 | 13 | 49 | 19W | | | 5:00PM | 5:30PM |
| LEASE <i>Bredeman</i> WELL # <i>B#1</i> | | | | LOCATION <i>Gladys, 4W, 2N1</i> | | COUNTY <i>Phillips</i> | STATE <i>KS</i> |
| OLD OR <input checked="" type="radio"/> NEW (Circle one) | | | | 1/4 W, 9/10 | | | |

COPY

CONTRACTOR *Discovery #1*
TYPE OF JOB *Surface*
HOLE SIZE *12 1/4* T.D. *232 FT*
CASING SIZE *8 5/8* DEPTH *232 FT*
TUBING SIZE DEPTH
DRILL PIPE *4 1/2* DEPTH *232 FT*
TOOL DEPTH
PRES. MAX *250 PSI* MINIMUM *-*
MEAS. LINE SHOE JOINT *15 FT*
CEMENT LEFT IN CSG. *15 FT*
PERFS.
DISPLACEMENT *Fresh Water 13 3/4 BBLs*
EQUIPMENT

OWNER *John O Farmer*
CEMENT
AMOUNT ORDERED *150s @ Class A + 396cc + 296 Gel*
COMMON *150 @ 16.25 2437.50*
POZMIX @
GEL *3 @ 21.25 63.75*
CHLORIDE *5 @ 58.20 291.00*
ASC @
HANDLING *158 @ 2.25 355.50*
MILEAGE *158 x 80 x .11 = 1390.40*
TOTAL *4538.15*

PUMP TRUCK CEMENTER *David W.*
366 HELPER *Bob R.*
BULK TRUCK
378 DRIVER *Ron B.*
BULK TRUCK
DRIVER

REMARKS:

*Off bottom Break in Mix
150s @ A + 396cc + 296 Gel Displace
with 13 3/4 BBLs Fresh Water
shut in cement did line*

SERVICE

DEPTH OF JOB *232 FT*
PUMP TRUCK CHARGE *1125.00*
EXTRA FOOTAGE @
MILEAGE *160 @ 7.00 = 1120.00*
MANIFOLD @
Light truck 160 @ 4.00 = 640.00
TOTAL *2885.00*

CHARGE TO: *John O Farmer*
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT:

~~_____~~
~~_____~~ @ _____
~~_____~~ @ _____
~~_____~~ @ _____
~~_____~~ @ _____
TOTAL _____

CONFIDENTIAL

AUG 15 2013

KCC

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME *X*

SIGNATURE *X [Signature]*

Thank you!

SALES TAX (If Any)
TOTAL CHARGES *4538.15*
DISCOUNT IF PAID IN 30 DAYS

RECEIVED

AUG 16 2011

KCC WICHITA

ALLIED CEMENTING CO., LLC. 039605

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Russell

| | | | | | | | |
|-------------------------|----------------|--------------------|---------------------------------|------------|-------------|--------------------------|----------------------------|
| DATE <u>4/30/11</u> | SEC. <u>13</u> | TWP. <u>4S</u> | RANGE <u>19W</u> | CALLED OUT | ON LOCATION | JOB START <u>10:45 A</u> | JOB FINISH <u>11:45 AM</u> |
| LEASE <u>Bradman</u> | | WELL # <u>B #1</u> | LOCATION <u>Glade 4W 28N 1W</u> | | | COUNTY <u>Phillips</u> | STATE <u>Ks.</u> |
| OLD OR NEW (Circle one) | | | | | | | |

COPY

CONTRACTOR Discovery Drilling Rig #1
 TYPE OF JOB Production String
 HOLE SIZE 7 7/8 T.D. 3576'
 CASING SIZE 5 1/2 15.5" DEPTH 3575.52
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL Port. Collar DEPTH 1535 at
 PRES. MAX 1700 psi MINIMUM 3570'
 MEAS. LINE _____ SHOE JOINT 21.66
 CEMENT LEFT IN CSG. 21.66
 PERFS. _____
 DISPLACEMENT 84.59 bbl

OWNER _____
 CEMENT AMOUNT ORDERED 175 Con 109.561 22.661
5 gal KCL 500 Gal WFR-2

| | | | |
|----------|-------------------|----------------|----------------|
| COMMON | <u>175</u> | @ <u>9.25</u> | <u>1706.25</u> |
| POZMIX | | @ | |
| GEL | <u>3</u> | @ <u>12.75</u> | <u>38.25</u> |
| CHLORIDE | | @ | |
| ASC | | @ | |
| | <u>Split 17</u> | @ <u>14.37</u> | <u>244.29</u> |
| | | @ | |
| | <u>KCL 5301</u> | @ <u>31.25</u> | <u>156.25</u> |
| | | @ | |
| | | @ | |
| HANDLING | <u>185</u> | @ <u>7.35</u> | <u>1359.75</u> |
| MILEAGE | <u>102/16 gal</u> | | <u>1036.00</u> |
| TOTAL | | | <u>3287.09</u> |

EQUIPMENT

PUMP TRUCK CEMENTER Shane, Heath
 # 417 HELPER Tony
 BULK TRUCK # 378 DRIVER Nick
 BULK TRUCK # _____ DRIVER _____

REMARKS:
Rot Hole 3000' (Mower Hole 15 sk)
Raw Pipe To Bottom. Est Circulation
Mixed 500 Gal WFR-2, 10.661 KCL
Water & Mix Cement. Shut down
wash pump & mixer. Displaced 84.59 bbl
First batch KCL. Loaded 1700 psi
Float Held!

SERVICE

| | | |
|----------------------|---------------|-----------------------------|
| DEPTH OF JOB | | |
| PUMP TRUCK CHARGE | | <u>2225.00</u> |
| EXTRA FOOTAGE | @ | |
| MILEAGE | <u>160</u> | @ <u>4.20</u> <u>672.00</u> |
| MANIFOLD | @ | |
| <u>LUM</u> | @ <u>2.40</u> | <u>384.00</u> |
| TOTAL <u>3281.00</u> | | |

CHARGE TO: John O Farmer
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

| | | |
|----------------------------|-----------------|----------------|
| <u>Catch down</u> | | <u>180.05</u> |
| <u>Port. Collar</u> | @ | <u>1690.00</u> |
| <u>200' Rotate Scraper</u> | @ <u>53.00</u> | <u>2120.00</u> |
| <u>8 - Controllers</u> | @ <u>31.85</u> | <u>254.80</u> |
| <u>3 - Baskets</u> | @ <u>219.05</u> | <u>657.15</u> |
| <u>AFU - Float Jct</u> | @ | <u>226.85</u> |
| TOTAL <u>5128.85</u> | | |

To Allied Cementing Co., LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Debra Linder
 SIGNATURE Alan White

SALES TAX (If Any) _____
 TOTAL CHARGES 11 6 16
 DISCOUNT _____ IF PAID IN 30 DAYS

CONFIDENTIAL
 AUG 15 2013
KCC
 RECEIVED
 AUG 16 2011
 KCC WICHITA

ALLIED CEMENTING CO., LLC. 043311

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Oakley

| | | | | | | | |
|------------------------------------|-----------------|-----------------------------|-----------------|-----------------|------------------------|------------------------|-------------------------|
| DATE <u>5-10-11</u> | SEC <u>13</u> | TWP <u>4</u> | RANGE <u>19</u> | CALLED OUT | ON LOCATION | JOB START <u>11:30</u> | JOB FINISH <u>12:00</u> |
| LEASE <u>Bredemer</u> | WELL # <u>1</u> | LOCATION <u>Glade 4w 2N</u> | | | COUNTY <u>Phillips</u> | STATE <u>Ks</u> | |
| OLD OR NEW (Circle one) <u>NEW</u> | | | | <u>1w sinto</u> | | | |

CONTRACTOR Poe well service
 TYPE OF JOB Port collar
 HOLE SIZE 5 1/2 T.D.
 CASING SIZE 5 1/2 DEPTH
 TUBING SIZE 2 7/8 DEPTH 1543'
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT

OWNER same
 CEMENT
 AMOUNT ORDERED 300 sbs 640
6 bags 4 1/2 flo-seal
used 190 sbs
 COMMON 114 sbs @ 16.25 1852.50
 POZMIX 76 sbs @ 8.50 646.00
 GEL @
 CHLORIDE @
 ASC @

COPY

EQUIPMENT
 PUMP TRUCK CEMENTER Andrew
 # 423-281 HELPER Jerry
 BULK TRUCK
 # 396 DRIVER Earl
 BULK TRUCK
 # DRIVER

Flo-seal 47* @ 2.70 126.90
 @
 @
 @
 @
 @
 @
 @
 HANDLING 318 sbs @ 2.25 715.50
 MILEAGE 116 sbs/mile 2798.40
 TOTAL 6139.90

REMARKS:
Pressure to 1000# held
open port collar to circulate
cement to surface with
190 sbs close port collar
Pressure to 1000# Run 5.0 hrs
Reverse clean

SERVICE
 DEPTH OF JOB
 PUMP TRUCK CHARGE 1925.00
 EXTRA FOOTAGE @
 MILEAGE 80 miles x 2 @ 7.00 1120.00
 MANIFOLD @
Light vehicle @ 4.00 640.00
 @
 TOTAL 3685.00

CHARGE TO: John O Farmer
 STREET
 CITY STATE ZIP

To Allied Cementing Co., LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME
 SIGNATURE Brian Coleman

PLUG & FLOAT EQUIPMENT
 @
 @
 @
 @
 @

SALES TAX (If Any)
 TOTAL CHARGES
 DISCOUNT IF PAID IN 30 DAYS

CONFIDENTIAL

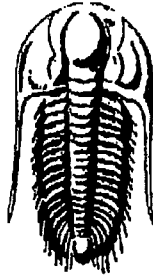
AUG 15 2013

KCC

RECEIVED

AUG 16 2011

KCC WICHITA



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

13-4-19 Phillips,KS

Bredemeier B#1

Start Date: 2011.04.26 @ 21:50:39

End Date: 2011.04.27 @ 03:22:33

Job Ticket #: 43451 DST #: 1

CONFIDENTIAL

AUG 15 2013

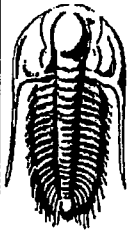
KCC

RECEIVED

AUG 16 2011

KCC WICHITA

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

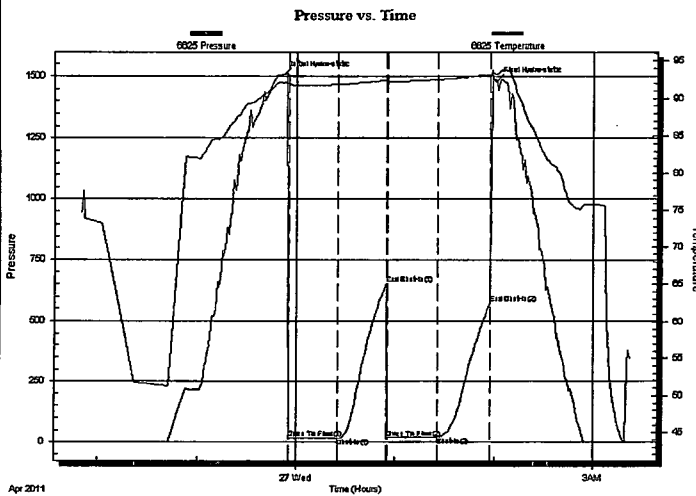
Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43451 DST#: 1
Test Start: 2011.04.26 @ 21:50:39

GENERAL INFORMATION:

Formation: **Tor-LKC "A"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:55:04
 Time Test Ended: 03:22:33
 Interval: **3131.00 ft (KB) To 3185.00 ft (KB) (TVD)**
 Total Depth: **3185.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: Fair
 Test Type: Conventional Bottom Hole
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 1960.00 ft (KB)
 1952.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6625 Inside
 Press@RunDepth: 22.59 psig @ 3133.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.04.26 End Date: 2011.04.27 Last Calib.: 2011.04.27
 Start Time: 21:50:39 End Time: 03:22:33 Time On Btm: 2011.04.26 @ 23:51:34
 Time Off Btm: 2011.04.27 @ 02:00:34

TEST COMMENT: IFP-surface bl died in 20 min
 ISIP-no bl
 FFP-no bl
 FSIP-no bl



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1502.06 | 92.10 | Initial Hydro-static |
| 4 | 16.35 | 91.88 | Open To Flow (1) |
| 34 | 19.28 | 91.88 | Shut-In(1) |
| 63 | 649.66 | 92.41 | End Shut-In(1) |
| 64 | 19.34 | 92.29 | Open To Flow (2) |
| 94 | 22.59 | 92.56 | Shut-In(2) |
| 126 | 569.75 | 93.11 | End Shut-In(2) |
| 129 | 1481.14 | 93.26 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 5.00 | SOCM 1%O99%M | 0.02 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43451 DST#: 1
Test Start: 2011.04.26 @ 21:50:39

Tool Information

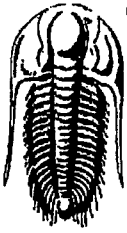
| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3105.00 ft | Diameter: 3.80 inches | Volume: 43.55 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 60000.00 lb |
| | | | <u>Total Volume: 43.70 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 25.00 ft | | | String Weight: Initial 50000.00 lb |
| Depth to Top Packer: | 3131.00 ft | | | Final 50000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 54.00 ft | | | |
| Tool Length: | 75.00 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 | | | 3111.00 | |
| Shut In Tool | 5.00 | | | 3116.00 | |
| Hydraulic tool | 5.00 | | | 3121.00 | |
| Packer | 5.00 | | | 3126.00 | 21.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3131.00 | |
| Stubb | 1.00 | | | 3132.00 | |
| Perforations | 1.00 | | | 3133.00 | |
| Recorder | 0.00 | 6625 | Inside | 3133.00 | |
| Recorder | 0.00 | 8700 | Outside | 3133.00 | |
| Blank Spacing | 32.00 | | | 3165.00 | |
| Perforations | 17.00 | | | 3182.00 | |
| Bullnose | 3.00 | | | 3185.00 | 54.00 Bottom Packers & Anchor |

Total Tool Length: 75.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43451 DST#: 1
Test Start: 2011.04.26 @ 21:50:39

Mud and Cushion Information

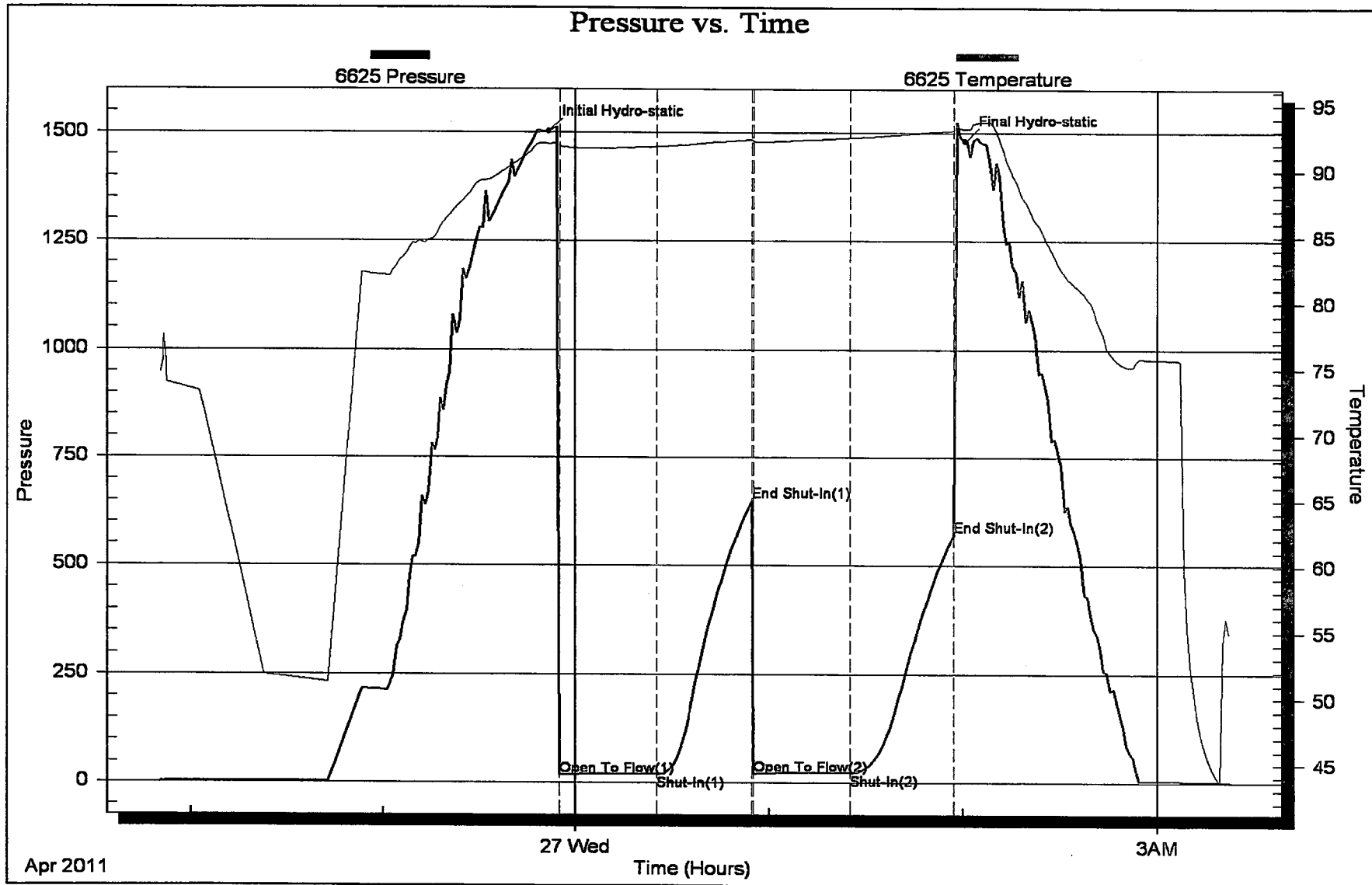
| | | | |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | ppm |
| Viscosity: 61.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.90 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 1000.00 ppm | | | |
| Filter Cake: 1.00 inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 5.00 | SOCM1%O99%M | 0.025 |

Total Length: 5.00 ft Total Volume: 0.025 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

13-4-19 Phillips,KS

Bredemeier B#1

Start Date: 2011.04.27 @ 11:35:04

End Date: 2011.04.27 @ 17:40:28

Job Ticket #: 43452 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

John O Farmer Inc

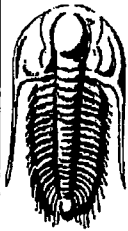
Bredemeier B#1

13-4-19 Phillips,KS

DST # 2

LKC C-D

2011.04.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

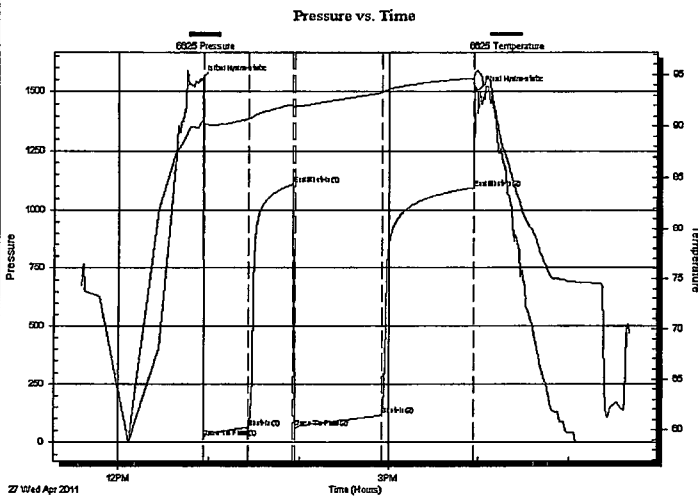
Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43452 DST#: 2
Test Start: 2011.04.27 @ 11:35:04

GENERAL INFORMATION:

Formation: LKC C-D
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:55:59
Time Test Ended: 17:40:28
Interval: 3196.00 ft (KB) To 3242.00 ft (KB) (TVD)
Total Depth: 3185.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 42
Reference Elevations: 1960.00 ft (KB)
1952.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 Inside
Press@RunDepth: 116.10 psig @ 3206.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.04.27 End Date: 2011.04.27 Last Calib.: 2011.04.27
Start Time: 11:35:04 End Time: 17:40:28 Time On Btm: 2011.04.27 @ 12:53:59
Time Off Btm: 2011.04.27 @ 15:58:58

TEST COMMENT: IFP-w k to a fr bl 1/2" to 5 1/2" bl
ISIP-no bl
FFP-w k to strg in 20 min
FSIP-surface bl bk



PRESSURE SUMMARY

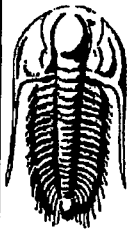
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1548.88 | 90.39 | Initial Hydro-static |
| 2 | 23.72 | 90.24 | Open To Flow (1) |
| 33 | 65.68 | 90.74 | Shut-In(1) |
| 62 | 1110.99 | 92.08 | End Shut-In(1) |
| 63 | 64.29 | 91.89 | Open To Flow (2) |
| 122 | 116.10 | 93.25 | Shut-In(2) |
| 183 | 1095.27 | 94.63 | End Shut-In(2) |
| 185 | 1505.75 | 95.36 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------|--------------|
| 0.00 | 325'GIP | 0.00 |
| 105.00 | CO | 1.20 |
| 90.00 | GMO 25%G10%M65%O | 1.26 |
| 60.00 | GMO 20%G20%M60%O | 0.84 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

Bredemeier B#1
13-4-19 Phillips, KS
Job Ticket: 43452 DST#: 2
Test Start: 2011.04.27 @ 11:35:04

Tool Information

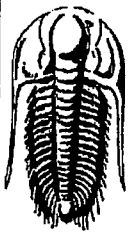
| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3170.00 ft | Diameter: 3.80 inches | Volume: 44.47 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 60000.00 lb |
| | | | <u>Total Volume: 44.62 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 25.00 ft | | | String Weight: Initial 50000.00 lb |
| Depth to Top Packer: | 3196.00 ft | | | Final 52000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 45.00 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 | | | 3176.00 | |
| Shut In Tool | 5.00 | | | 3181.00 | |
| Hydraulic tool | 5.00 | | | 3186.00 | |
| Packer | 5.00 | | | 3191.00 | 21.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3196.00 | |
| Stubb | 1.00 | | | 3197.00 | |
| Perforations | 9.00 | | | 3206.00 | |
| Recorder | 0.00 | 6625 | Inside | 3206.00 | |
| Recorder | 0.00 | 8700 | Outside | 3206.00 | |
| Blank Spacing | 32.00 | | | 3238.00 | |
| Bullnose | 3.00 | | | 3241.00 | 45.00 Bottom Packers & Anchor |

Total Tool Length: 66.00



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

Bredemeier B#1
13-4-19 Phillips, KS
Job Ticket: 43452 DST#: 2
Test Start: 2011.04.27 @ 11:35:04

Mud and Cushion Information

| | | | |
|----------------------------------|----------------------------|-----------------|------------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | 38 deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | ppm |
| Viscosity: 61.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.53 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 2000.00 ppm | | | |
| Filter Cake: 1.00 inches | | | |

Recovery Information

Recovery Table

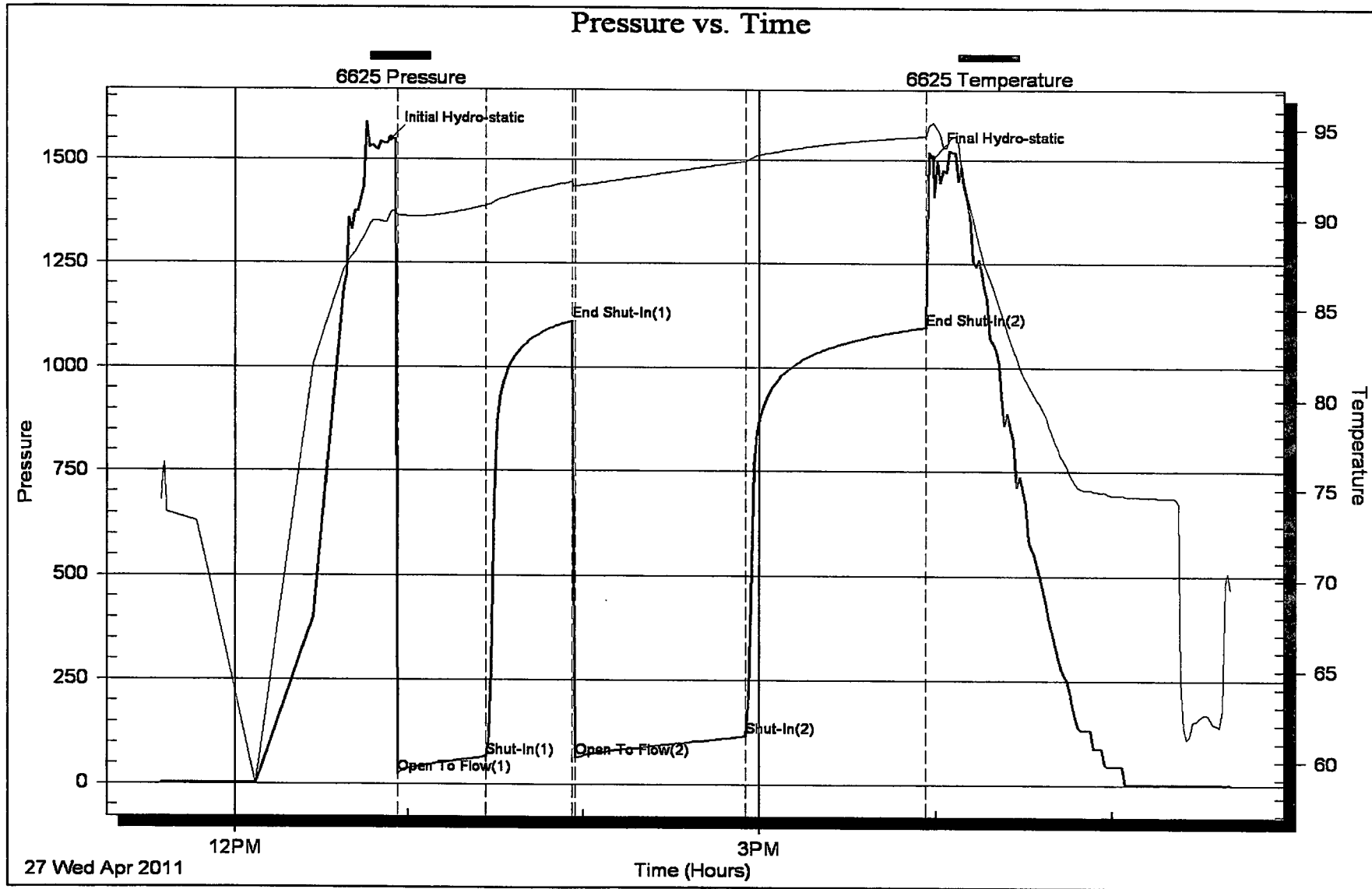
| Length ft | Description | Volume bbl |
|-----------|------------------|------------|
| 0.00 | 325'GIP | 0.000 |
| 105.00 | CO | 1.200 |
| 90.00 | GMO 25%G10%M65%O | 1.262 |
| 60.00 | GMO 20%G20%M60%O | 0.842 |

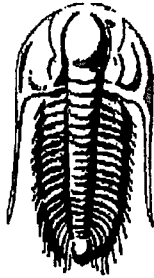
Total Length: 255.00 ft Total Volume: 3.304 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

13-4-19 Phillips,KS

Bredemeier B#1

Start Date: 2011.04.28 @ 01:10:24

End Date: 2011.04.28 @ 06:15:18

Job Ticket #: 43453 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

John O Farmer Inc

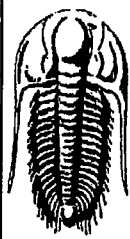
Bredemeier B#1

13-4-19 Phillips,KS

DST # 3

LKC E-F

2011.04.28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

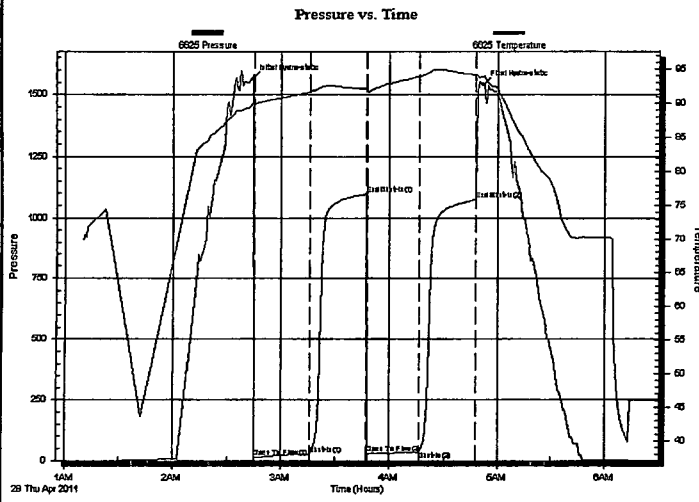
Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43453 DST#: 3
Test Start: 2011.04.28 @ 01:10:24

GENERAL INFORMATION:

Formation: **LKC E-F**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole
 Time Tool Opened: 02:45:19 Tester: Ray Schwager
 Time Test Ended: 06:15:18 Unit No: 42
 Interval: **3242.00 ft (KB) To 3263.00 ft (KB) (TVD)** Reference Elevations: 1960.00 ft (KB)
 Total Depth: 3263.00 ft (KB) (TVD) 1952.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 6625 Inside
 Press@RunDepth: 37.69 psig @ 3243.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.04.28 End Date: 2011.04.28 Last Calib.: 2011.04.28
 Start Time: 01:10:24 End Time: 06:15:18 Time On Btm: 2011.04.28 @ 02:43:49
 Time Off Btm: 2011.04.28 @ 04:51:49

TEST COMMENT: IFP-w k bl 1/2"to 1 1/4"bl
 ISIP-no bl
 FFP-w k bl 1/4"to 3/4"bl
 FSIP-no bl



PRESSURE SUMMARY

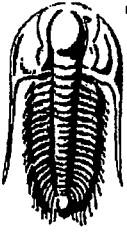
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1563.14 | 90.02 | Initial Hydro-static |
| 2 | 14.24 | 89.79 | Open To Flow (1) |
| 32 | 27.61 | 91.55 | Shut-In(1) |
| 63 | 1096.41 | 92.04 | End Shut-In(1) |
| 64 | 30.82 | 91.78 | Open To Flow (2) |
| 93 | 37.69 | 93.85 | Shut-In(2) |
| 124 | 1073.59 | 94.11 | End Shut-In(2) |
| 128 | 1540.60 | 93.92 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------|--------------|
| 0.00 | 65'GIP | 0.00 |
| 55.00 | MGO 10%G40%M50%O | 0.50 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

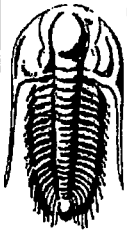
Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43453 **DST#: 3**
Test Start: 2011.04.28 @ 01:10:24

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3201.00 ft | Diameter: 3.80 inches | Volume: 44.90 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 60000.00 lb |
| | | | <u>Total Volume: 45.05 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 10.00 ft | | | String Weight: Initial 52000.00 lb |
| Depth to Top Packer: | 3242.00 ft | | | Final 52000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 21.00 ft | | | |
| Tool Length: | 42.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|------------------------------------|
| Change Over Sub | 1.00 | | | 3222.00 | |
| Shut In Tool | 5.00 | | | 3227.00 | |
| Hydraulic tool | 5.00 | | | 3232.00 | |
| Packer | 5.00 | | | 3237.00 | 21.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3242.00 | |
| Stubb | 1.00 | | | 3243.00 | |
| Recorder | 0.00 | 6625 | Inside | 3243.00 | |
| Recorder | 0.00 | 8700 | Outside | 3243.00 | |
| Perforations | 17.00 | | | 3260.00 | |
| Bullnose | 3.00 | | | 3263.00 | 21.00 Bottom Packers & Anchor |
| Total Tool Length: | 42.00 | | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43453 DST#: 3
Test Start: 2011.04.28 @ 01:10:24

Mud and Cushion Information

| | | | |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | ppm |
| Viscosity: 50.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.88 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 2000.00 ppm | | | |
| Filter Cake: 1.00 inches | | | |

Recovery Information

Recovery Table

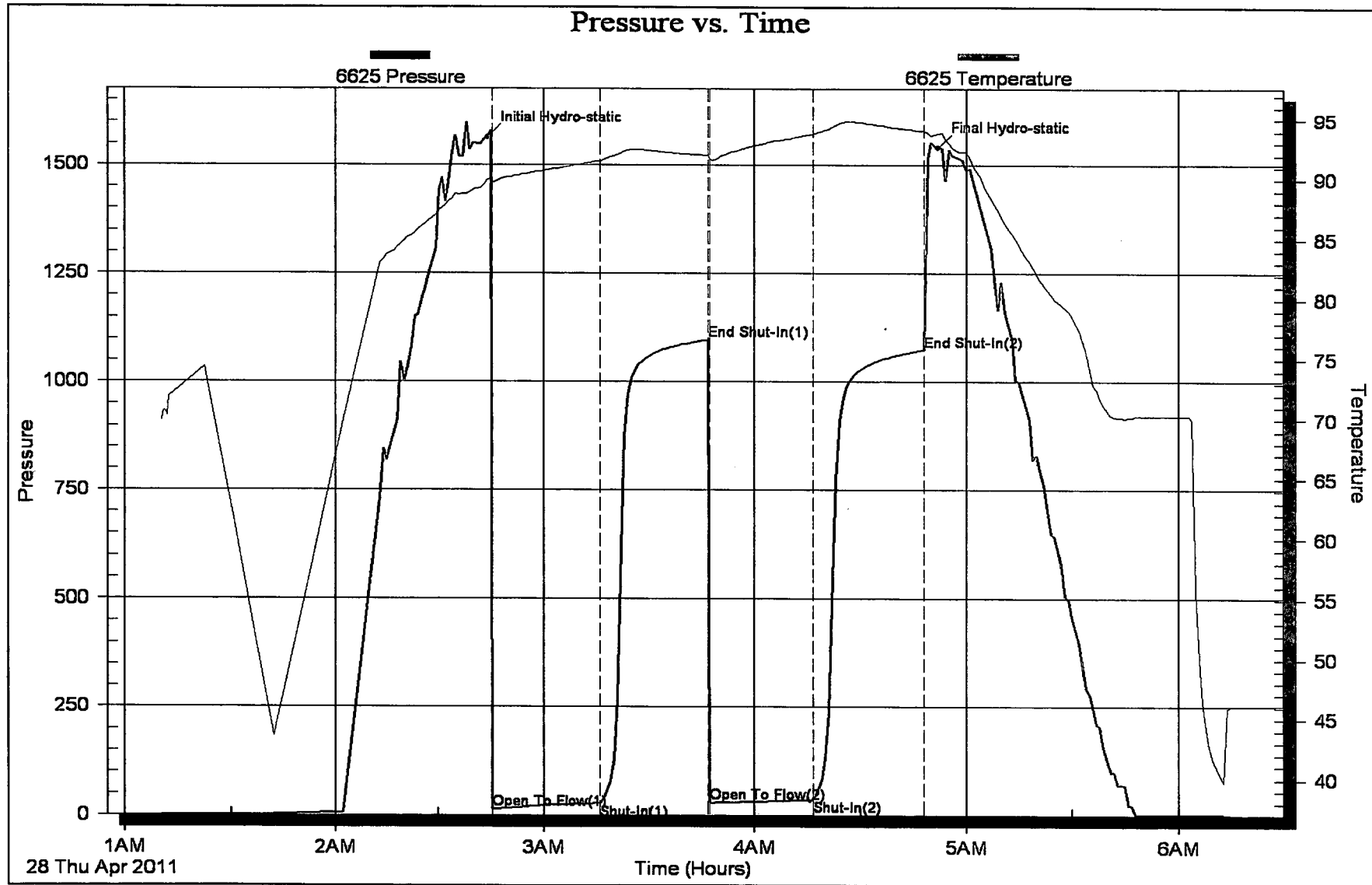
| Length ft | Description | Volume bbl |
|--------------|------------------|---------------|
| 0.00 | 65'GIP | 0.000 |
| 55.00 | MGO 10%G40%M50%O | 0.498 |

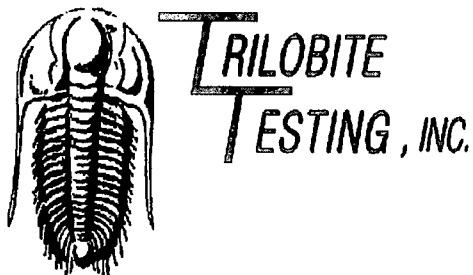
Total Length: 55.00 ft Total Volume: 0.498 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

13-4-19 Phillips,KS

Bredemeier B#1

Start Date: 2011.04.28 @ 11:15:11

End Date: 2011.04.28 @ 16:02:35

Job Ticket #: 43454 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

John O Farmer Inc

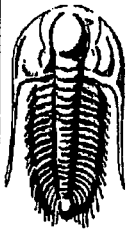
Bredemeier B#1

13-4-19 Phillips,KS

DST # 4

LKC "G"

2011.04.28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

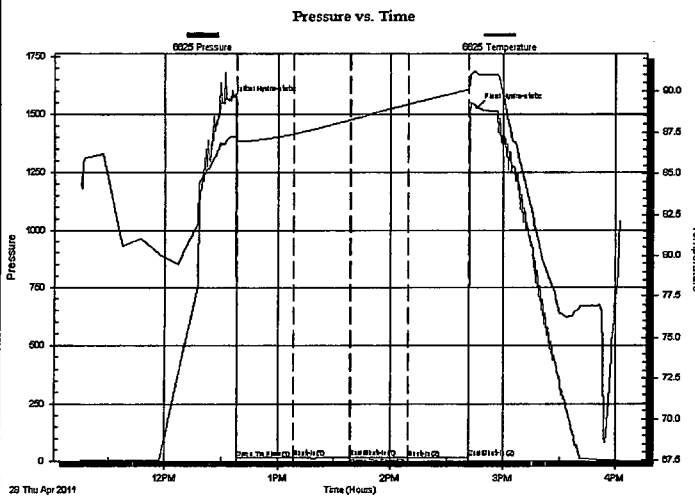
Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43454 DST#: 4
Test Start: 2011.04.28 @ 11:15:11

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 12:38:06
Time Test Ended: 16:02:35
Interval: **3263.00 ft (KB) To 3285.00 ft (KB) (TVD)**
Total Depth: **3285.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **Ray Schwager**
Unit No: **42**
Reference Elevations: **1960.00 ft (KB)**
1952.00 ft (CF)
KB to GR/CF: **8.00 ft**

Serial #: 6625 **Inside**
Press@RunDepth: **13.69 psig @ 3264.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2011.04.28** End Date: **2011.04.28** Last Calib.: **2011.04.28**
Start Time: **11:15:11** End Time: **16:02:35** Time On Btm: **2011.04.28 @ 12:34:36**
Time Off Btm: **2011.04.28 @ 14:46:06**

TEST COMMENT: IFP-surface bl died in 5 min
ISIP-no bl
FFP-no bl
FSIP-no bl



PRESSURE SUMMARY

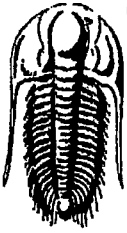
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1559.21 | 87.19 | Initial Hydro-static |
| 4 | 13.33 | 87.01 | Open To Flow (1) |
| 34 | 14.21 | 87.39 | Shut-In(1) |
| 64 | 14.38 | 88.25 | End Shut-In(1) |
| 65 | 13.70 | 88.27 | Open To Flow (2) |
| 95 | 13.69 | 89.18 | Shut-In(2) |
| 127 | 14.74 | 90.10 | End Shut-In(2) |
| 132 | 1526.99 | 91.02 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------------|--------------|
| 0.00 | Recovery w/HOCM in tool | 0.00 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

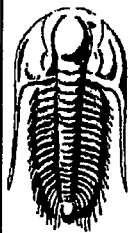
Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43454 DST#: 4
Test Start: 2011.04.28 @ 11:15:11

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3233.00 ft | Diameter: 3.80 inches | Volume: 45.35 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 60000.00 lb |
| | | | <u>Total Volume: 45.50 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 21.00 ft | | | String Weight: Initial 52000.00 lb |
| Depth to Top Packer: | 3263.00 ft | | | Final 52000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 22.00 ft | | | |
| Tool Length: | 43.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|------------------------------------|
| Change Over Sub | 1.00 | | | 3243.00 | |
| Shut In Tool | 5.00 | | | 3248.00 | |
| Hydraulic tool | 5.00 | | | 3253.00 | |
| Packer | 5.00 | | | 3258.00 | 21.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3263.00 | |
| Stubb | 1.00 | | | 3264.00 | |
| Recorder | 0.00 | 6625 | Inside | 3264.00 | |
| Recorder | 0.00 | 8700 | Outside | 3264.00 | |
| Perforations | 18.00 | | | 3282.00 | |
| Bullnose | 3.00 | | | 3285.00 | 22.00 Bottom Packers & Anchor |
| Total Tool Length: | 43.00 | | | | |



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FLUID SUMMARY

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PO Box 352
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ATTN: John O Farmer IV

Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43454 DST#: 4
Test Start: 2011.04.28 @ 11:15:11

Mud and Cushion Information

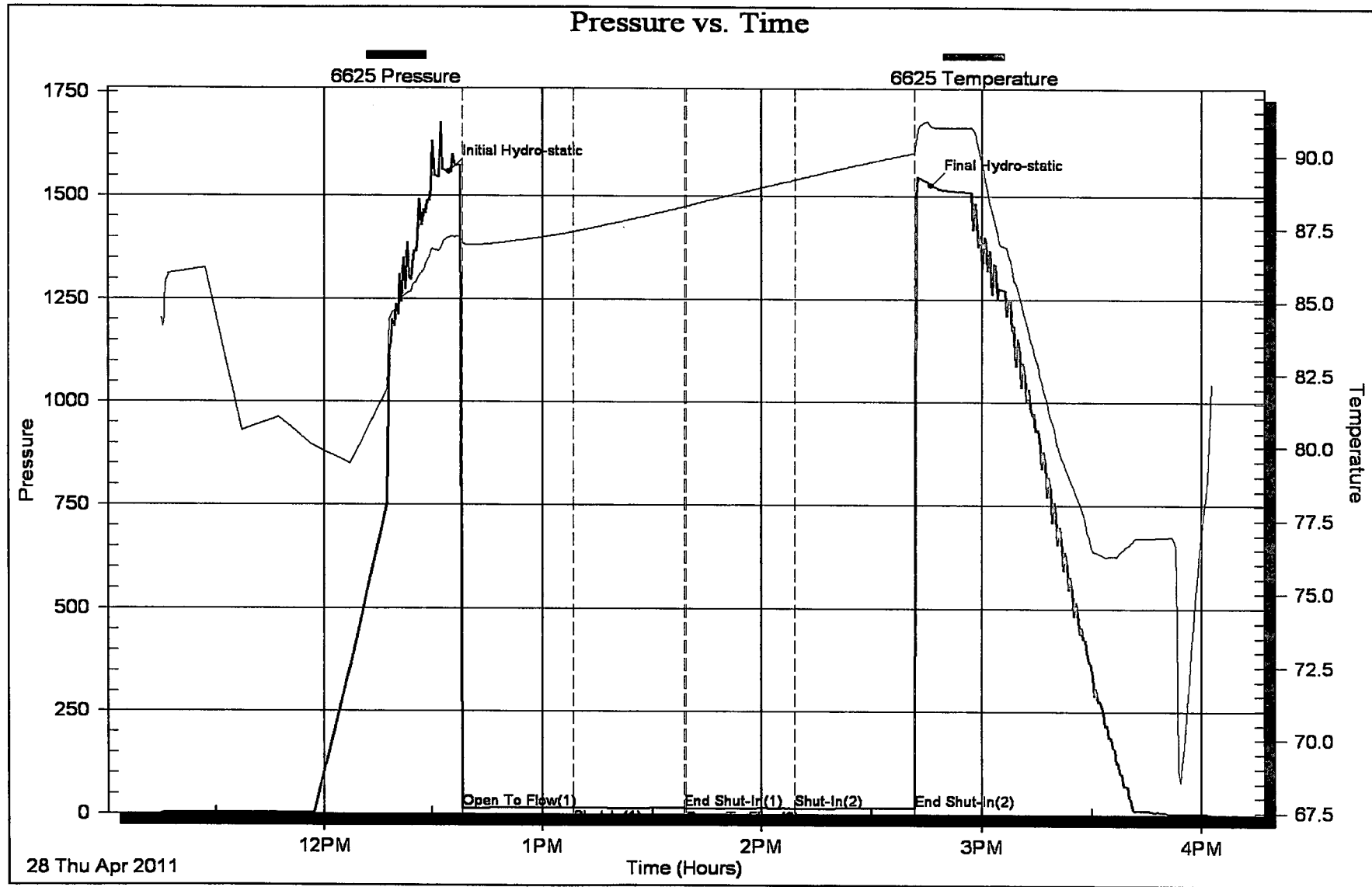
| | | | |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | ppm |
| Viscosity: 50.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.94 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 2000.00 ppm | | | |
| Filter Cake: 1.00 inches | | | |

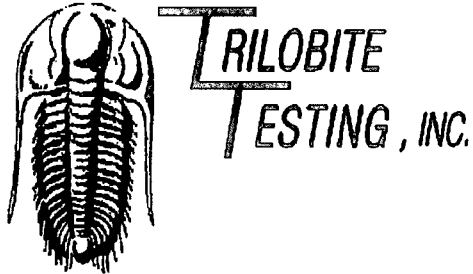
Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------|---------------|
| 0.00 | Recovery w/HOCM in tool | 0.000 |

Total Length: ft Total Volume: bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W. Wichita Ave
PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

13-4-19 Phillips,KS

Bredemeier B#1

Start Date: 2011.04.29 @ 01:40:44

End Date: 2011.04.29 @ 07:12:08

Job Ticket #: 43455 DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

John O Farmer Inc

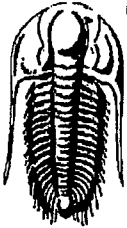
Bredemeier B#1

13-4-19 Phillips,KS

DST # 5

LKC H-K

2011.04.29



**TRILOBITE
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DRILL STEM TEST REPORT

John O Farmer Inc
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PO Box 352
Russell KS 67665-2635
ATTN: John O Farmer IV

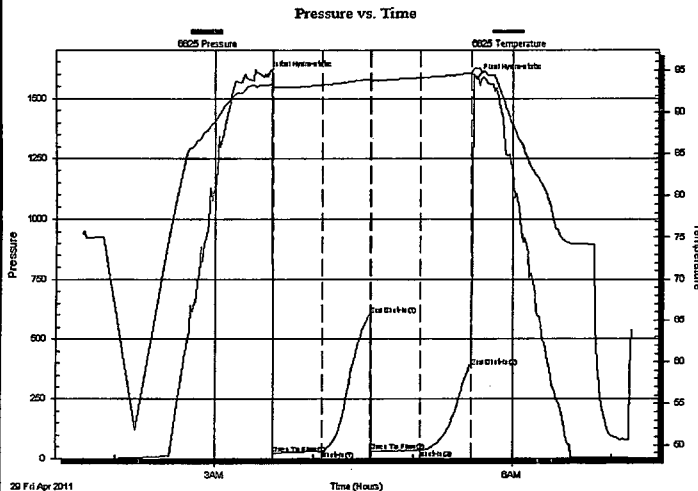
Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43455 DST#: 5
Test Start: 2011.04.29 @ 01:40:44

GENERAL INFORMATION:

Formation: **LKC H-K**
Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole**
Time Tool Opened: **03:34:39** Tester: **Ray Schwager**
Time Test Ended: **07:12:08** Unit No: **42**
Interval: **3283.00 ft (KB) To 3380.00 ft (KB) (TVD)** Reference Elevations: **1960.00 ft (KB)**
Total Depth: **3380.00 ft (KB) (TVD)** **1952.00 ft (CF)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **8.00 ft**

Serial #: 6625 Inside
Press@RunDepth: **34.26 psig @ 3290.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2011.04.29** End Date: **2011.04.29** Last Calib.: **2011.04.29**
Start Time: **01:40:44** End Time: **07:12:08** Time On Btm: **2011.04.29 @ 03:30:39**
Time Off Btm: **2011.04.29 @ 05:38:09**

TEST COMMENT: IFP-w k bl 1/4"to 1/2"bl
ISIP-no bl
FFP-surface bl thru-out
FSIP-no bl



PRESSURE SUMMARY

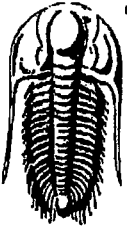
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1593.10 | 93.26 | Initial Hydro-static |
| 4 | 19.42 | 93.06 | Open To Flow (1) |
| 35 | 30.87 | 93.28 | Shut-In(1) |
| 64 | 599.30 | 93.95 | End Shut-In(1) |
| 64 | 33.14 | 93.83 | Open To Flow (2) |
| 94 | 34.26 | 94.13 | Shut-In(2) |
| 125 | 384.58 | 94.64 | End Shut-In(2) |
| 128 | 1583.30 | 95.18 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------|--------------|
| 40.00 | MGO 5%G45%M50%O | 0.29 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



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Bredemeier B#1
13-4-19 Phillips,KS
Job Ticket: 43455 DST#: 5
Test Start: 2011.04.29 @ 01:40:44

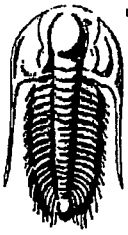
Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3262.00 ft | Diameter: 3.80 inches | Volume: 45.76 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 75000.00 lb |
| | | | <u>Total Volume: 45.91 bbl</u> | Tool Chased 8.00 ft |
| Drill Pipe Above KB: | 30.00 ft | | | String Weight: Initial 54000.00 lb |
| Depth to Top Packer: | 3283.00 ft | | | Final 54000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 97.00 ft | | | |
| Tool Length: | 118.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|------------------------------------|
| Change Over Sub | 1.00 | | | 3263.00 | |
| Shut In Tool | 5.00 | | | 3268.00 | |
| Hydraulic tool | 5.00 | | | 3273.00 | |
| Packer | 5.00 | | | 3278.00 | 21.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3283.00 | |
| Stubb | 1.00 | | | 3284.00 | |
| Perforations | 6.00 | | | 3290.00 | |
| Recorder | 0.00 | 6625 | Inside | 3290.00 | |
| Recorder | 0.00 | 8700 | Outside | 3290.00 | |
| Blank Spacing | 63.00 | | | 3353.00 | |
| Perforations | 24.00 | | | 3377.00 | |
| Bullnose | 3.00 | | | 3380.00 | 97.00 Bottom Packers & Anchor |

Total Tool Length: 118.00



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Job Ticket: 43455 DST#: 5
Test Start: 2011.04.29 @ 01:40:44

Mud and Cushion Information

| | | | |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | ppm |
| Viscosity: 50.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.91 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 2000.00 ppm | | | |
| Filter Cake: 1.00 inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------|---------------|
| 40.00 | MGO 5%G45%M50%O | 0.288 |

Total Length: 40.00 ft Total Volume: 0.288 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: slid tool 8'to bottom

