



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1202595  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

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       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
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

|                                   |                 |   |
|-----------------------------------|-----------------|---|
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - \_\_\_\_\_

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
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1202595

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<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: _____ | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>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<br><input type="checkbox"/> Protect Casing<br><input type="checkbox"/> Plug Back TD<br><input type="checkbox"/> Plug Off Zone |                  |                |              |                            |
|  |                  |                |              |                            |

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 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)*

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type<br>Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record<br><i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |

|                |       |         |            |   |
|----------------|-------|---------|------------|---|
| TUBING RECORD: | Size: | Set At: | Packer At: | Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No |
|----------------|-------|---------|------------|---|

|   |  |
|---|--|
| Date of First, Resumed Production, SWD or ENHR. | Producing Method:<br><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 |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
|                                   |           |         |             |               |         |

|  |  |   |
|--|--|---|
| <b>DISPOSITION OF GAS:</b><br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | <b>METHOD OF COMPLETION:</b><br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ | <b>PRODUCTION INTERVAL:</b><br>_____<br>_____ |
|--|--|---|

# QUALITY OILWELL CEMENTING, INC.

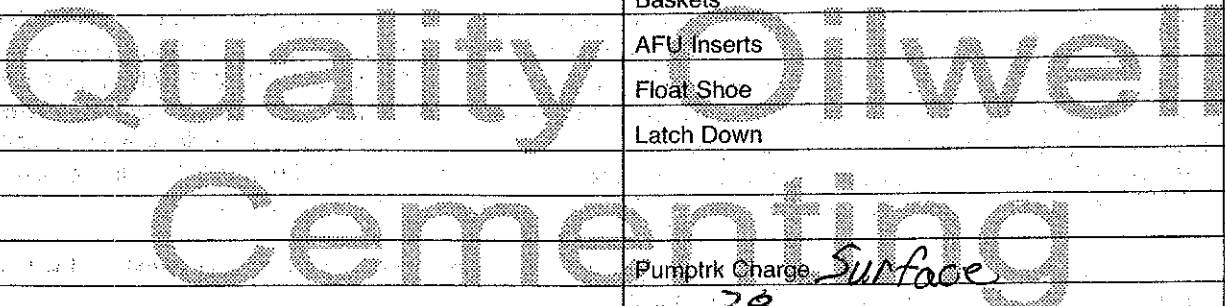
Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 019

|                                   |                         |      |          |       |            |       |    |                                   |                         |  |  |             |  |        |          |  |
|-----------------------------------|-------------------------|------|----------|-------|------------|-------|----|-----------------------------------|-------------------------|--|--|-------------|--|--------|----------|--|
| Date                              | 4.16.14                 | Sec. | 9        | Twp.  | 9          | Range | 24 | County                            | Graham                  | State  | KS   | On Location |  | Finish | 4:00p.m. |  |
| Location                          |                         |      |          |       |            |       |    | Wakenel Redline 7.5190 3/10 Winto |                         |  |  |             |  |        |          |  |
| Lease                             | Michaelis Homburg       |      |          |       | Well No    | B-1-9 |    |                                   |                         | Owner  | To Quality Oilwell Cementing, Inc.<br>You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. |             |  |        |          |  |
| Contractor                        | D. Soren                |      |          |       |            |       |    |                                   |                         |  |  |             |  |        |          |  |
| Type Job                          | Surface                 |      |          |       |            |       |    |                                   |                         |  |  |             |  |        |          |  |
| Hole Size                         | 12 1/4                  |      |          |       | T.D.       | 221   |    |                                   |                         | Charge To  | Downing/ Nelson  |             |  |        |          |  |
| Csg.                              | 8 5/8                   |      |          |       | Depth      | 220   |    |                                   |                         | Street   |  |             |  |        |          |  |
| Tbg. Size                         |                         |      |          |       | Depth      |       |    |                                   |                         | City   | State  |             |  |        |          |  |
| Tool                              |                         |      |          |       | Depth      |       |    |                                   |                         | The above was done to satisfaction and supervision of owner agent or contractor. |  |             |  |        |          |  |
| Cement Left in Csg.               | 15'                     |      |          |       | Shoe Joint |       |    |                                   |                         | Cement Amount Ordered  | 15000m 3/CC 2/4P2  |             |  |        |          |  |
| Meas Line                         |                         |      |          |       | Displace   | 13BL  |    |                                   |                         |  |  |             |  |        |          |  |
| <b>EQUIPMENT</b>                  |                         |      |          |       |            |       |    | <b>Common</b>                     |                         |  |  |             |  |        |          |  |
| Pumptrk                           | 16                      | No.  | Cementer | Chris |            |       |    | 150                               |                         |  |  |             |  |        |          |  |
|                                   |                         |      | Helper   |       |            |       |    | Poz. Mix                          |                         |  |  |             |  |        |          |  |
| Bulktrk                           |                         | No.  | Driver   | Bobby |            |       |    | Gel. 3                            |                         |  |  |             |  |        |          |  |
|                                   |                         |      | Driver   |       |            |       |    | Calcium 5                         |                         |  |  |             |  |        |          |  |
| Bulktrk                           | 1                       | No.  | Driver   | Chad  |            |       |    | Hulls                             |                         |  |  |             |  |        |          |  |
| <b>JOB SERVICES &amp; REMARKS</b> |                         |      |          |       |            |       |    | <b>Salt</b>                       |                         |  |  |             |  |        |          |  |
| Remarks:                          | Michaelis Homburg B-1-9 |      |          |       |            |       |    |                                   | Flowseal                |  |  |             |  |        |          |  |
| Rat Hole                          |                         |      |          |       |            |       |    |                                   | Kol-Seal                |  |  |             |  |        |          |  |
| Mouse Hole                        |                         |      |          |       |            |       |    |                                   | Mud CLR 48              |  |  |             |  |        |          |  |
| Centralizers                      |                         |      |          |       |            |       |    |                                   | CFL-117 or CD110 CAF 38 |  |  |             |  |        |          |  |
| Baskets                           |                         |      |          |       |            |       |    |                                   | Sand                    |  |  |             |  |        |          |  |
| D/V or Port, Collar               |                         |      |          |       |            |       |    |                                   | Handling 158            |  |  |             |  |        |          |  |
| 8 5/8 on bottom Est Circulation   |                         |      |          |       |            |       |    | Mileage                           |                         |  |  |             |  |        |          |  |
| M.X 15000m Displace               |                         |      |          |       |            |       |    | <b>FLOAT EQUIPMENT</b>            |                         |  |  |             |  |        |          |  |
| Cement Circulated                 |                         |      |          |       |            |       |    | Guide Shoe                        |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Centralizer                       |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Baskets                           |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | AFU Inserts                       |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Float Shoe                        |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Latch Down                        |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Pumptrk Charge Surface            |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Mileage 38                        |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Tax                               |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Discount                          |                         |  |  |             |  |        |          |  |
|                                   |                         |      |          |       |            |       |    | Total Charge                      |                         |  |  |             |  |        |          |  |
| X Signature                       | Chad Marshall           |      |          |       |            |       |    |                                   |                         |  |  |             |  |        |          |  |



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 022

|               |        |        |          |                |          |             |                |
|---------------|--------|--------|----------|----------------|----------|-------------|----------------|
| Date: 4-21-14 | Sec. 9 | Twp. 9 | Range 24 | County Ceramah | State KS | On Location | Finish 5:30 AM |
|---------------|--------|--------|----------|----------------|----------|-------------|----------------|

Location *Waxeeney Radline 7w to 190 3rd Winto*

|                                |                       |  |
|--------------------------------|-----------------------|--|
| Lease <i>Michael's Homberg</i> | Well No. <i>B-1-9</i> | Owner  |
| Contractor <i>Discovery #1</i> |                       | To Quality Oilwell Cementing, Inc.<br>You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. |
| Type Job <i>Rotary Plug</i>    |                       |  |
| Hole Size <i>7 7/8</i>         | T.D. <i>4111</i>      | Charge To <i>Downing Nelson</i>  |
| Csg. <i>4 1/2 N-H</i>          | Depth                 | Street   |
| Tbg. Size                      | Depth                 | City State   |
| Tool                           | Depth                 | The above was done to satisfaction and supervision of owner agent or contractor.   |
| Cement Left in Csg.            | Shoe Joint            | Cement Amount Ordered <i>220 60/40 4 1/2 GEL 1/4 #10</i>   |

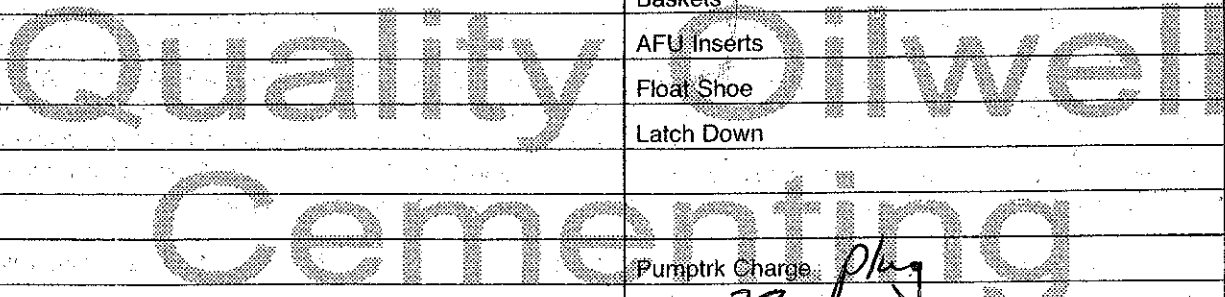
|                       |                            |                    |
|-----------------------|----------------------------|--------------------|
| Meas Line             | Displace                   |                    |
| <b>EQUIPMENT</b>      |                            |                    |
| Pumptrk <i>17</i> No. | Cement Helper <i>Craig</i> | Common <i>132</i>  |
| Bulktrk No.           | Driver                     | Poz. Mix <i>88</i> |
| Bulktrk <i>14</i> No. | Driver <i>Ryan</i>         | Gel. <i>8</i>      |
|                       |                            | Calcium            |

|                                   |  |                         |
|-----------------------------------|--|-------------------------|
| <b>JOB SERVICES &amp; REMARKS</b> |  | Hulls                   |
| Remarks:                          |  | Salt                    |
| Rat Hole <i>30SK</i>              |  | Flowseal <i>50 #</i>    |
| Mouse Hole <i>15SK</i>            |  | Kol-Seal                |
| Centralizers                      |  | Mud CLR 48              |
| Baskets                           |  | CFL-117 or CD110 CAF 38 |
| D/V or Port Collar                |  | Sand                    |
| <i>1st 2200 25SK</i>              |  | Handling <i>228</i>     |
| <i>2nd 1325 100SK</i>             |  | Mileage                 |
| <i>3rd 275 40SK</i>               |  |                         |
| <i>4th 40 10SK</i>                |  |                         |

|                                       |  |
|---------------------------------------|--|
| <b>FLOAT EQUIPMENT</b>                |  |
| Guide Shoe                            |  |
| Centralizer <i>8 5/8 Dry Mix Plug</i> |  |
| Baskets                               |  |
| AFU Inserts                           |  |
| Float Shoe                            |  |
| Latch Down                            |  |
| Pumptrk Charge <i>plug</i>            |  |
| Mileage <i>38</i>                     |  |

|  |              |
|--|--------------|
|  | Tax          |
|  | Discount     |
|  | Total Charge |

X Signature *Cliff Mayfield*





## DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**9-9s-24w Graham,KS**

**Michaelis-Hamburg B #1-9**

Start Date: 2014.04.19 @ 20:50:00

End Date: 2014.04.20 @ 04:34:45

Job Ticket #: 54030                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.24 @ 11:47:49



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**Michaelis-Hamburg B #1-9**

PO Box 1019  
Hays KS 67601

**9-9s-24w Graham,KS**

ATTN: Ron Nelson

Job Ticket: 54030

**DST#: 1**

Test Start: 2014.04.19 @ 20:50:00

## GENERAL INFORMATION:

Formation: **LKC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:45:30

Time Test Ended: 04:34:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 73

**Interval: 3877.00 ft (KB) To 3920.00 ft (KB) (TVD)**

Reference Elevations: 2488.00 ft (KB)

Total Depth: 3920.00 ft (KB) (TVD)

2480.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8648**

**Inside**

Press@RunDepth: 63.71 psig @ 3917.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.19

End Date:

2014.04.20

Last Calib.:

2014.04.20

Start Time: 20:50:05

End Time:

04:34:44

Time On Btm:

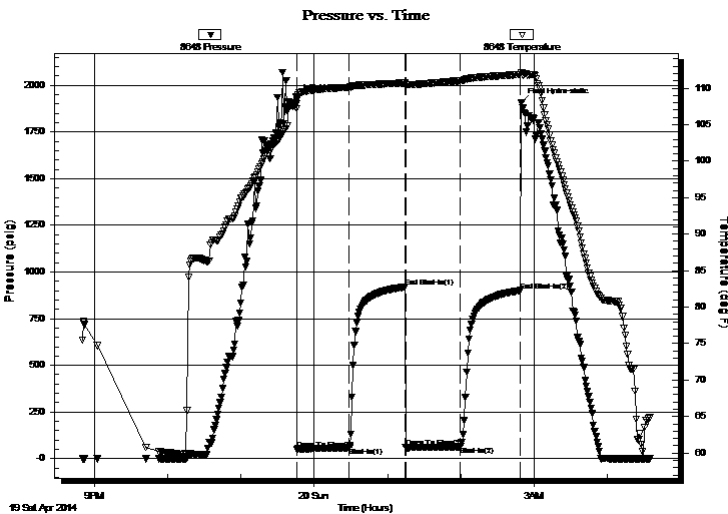
2014.04.19 @ 23:45:15

Time Off Btm:

2014.04.20 @ 02:49:45

TEST COMMENT: 45 - IF- 2" blow  
45 - IS- No return  
FF- 1/2" blow  
FS- No return

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1930.75         | 107.93       | Initial Hydro-static |
| 1           | 50.15           | 107.22       | Open To Flow (1)     |
| 44          | 58.53           | 110.10       | Shut-In(1)           |
| 89          | 919.76          | 110.71       | End Shut-In(1)       |
| 90          | 59.17           | 110.42       | Open To Flow (2)     |
| 135         | 63.71           | 111.02       | Shut-In(2)           |
| 184         | 900.55          | 111.87       | End Shut-In(2)       |
| 185         | 1907.71         | 112.16       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 55.00       | Mud, 100%M  | 0.50         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**Michaelis-Hamburg B #1-9**

PO Box 1019  
Hays KS 67601

**9-9s-24w Graham,KS**

Job Ticket: 54030

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2014.04.19 @ 20:50:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3848.00 ft | Diameter: 3.80 inches | Volume: 53.98 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 30000.00 lb  |
| Drill Collar:             | Length: 30.00 ft   | Diameter: 2.25 inches | Volume: 0.15 bbl               | Weight to Pull Loose: 68000.00 lb  |
|                           |                    |                       | <u>Total Volume: 54.13 bbl</u> | Tool Chased 15.00 ft               |
| Drill Pipe Above KB:      | 22.00 ft           |                       |                                | String Weight: Initial 52000.00 lb |
| Depth to Top Packer:      | 3877.00 ft         |                       |                                | Final 52000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 43.00 ft           |                       |                                |                                    |
| Tool Length:              | 64.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments: slid 15' to bottom

## Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub  | 1.00        |            |          | 3857.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3862.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3867.00    |                               |
| Packer           | 5.00        |            |          | 3872.00    | 21.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3877.00    |                               |
| Stubb            | 1.00        |            |          | 3878.00    |                               |
| Perforations     | 2.00        |            |          | 3880.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3881.00    |                               |
| Drill Pipe       | 31.00       |            |          | 3912.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3913.00    |                               |
| Perforations     | 4.00        |            |          | 3917.00    |                               |
| Recorder         | 0.00        | 8648       | Inside   | 3917.00    |                               |
| Recorder         | 0.00        | 8940       | Outside  | 3917.00    |                               |
| Bullnose         | 3.00        |            |          | 3920.00    | 43.00 Bottom Packers & Anchor |

**Total Tool Length: 64.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**Michaelis-Hamburg B #1-9**

PO Box 1019  
Hays KS 67601

**9-9s-24w Graham,KS**

Job Ticket: 54030 **DST#: 1**

ATTN: Ron Nelson

Test Start: 2014.04.19 @ 20:50:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 75.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 2000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 55.00        | Mud, 100%M  | 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:

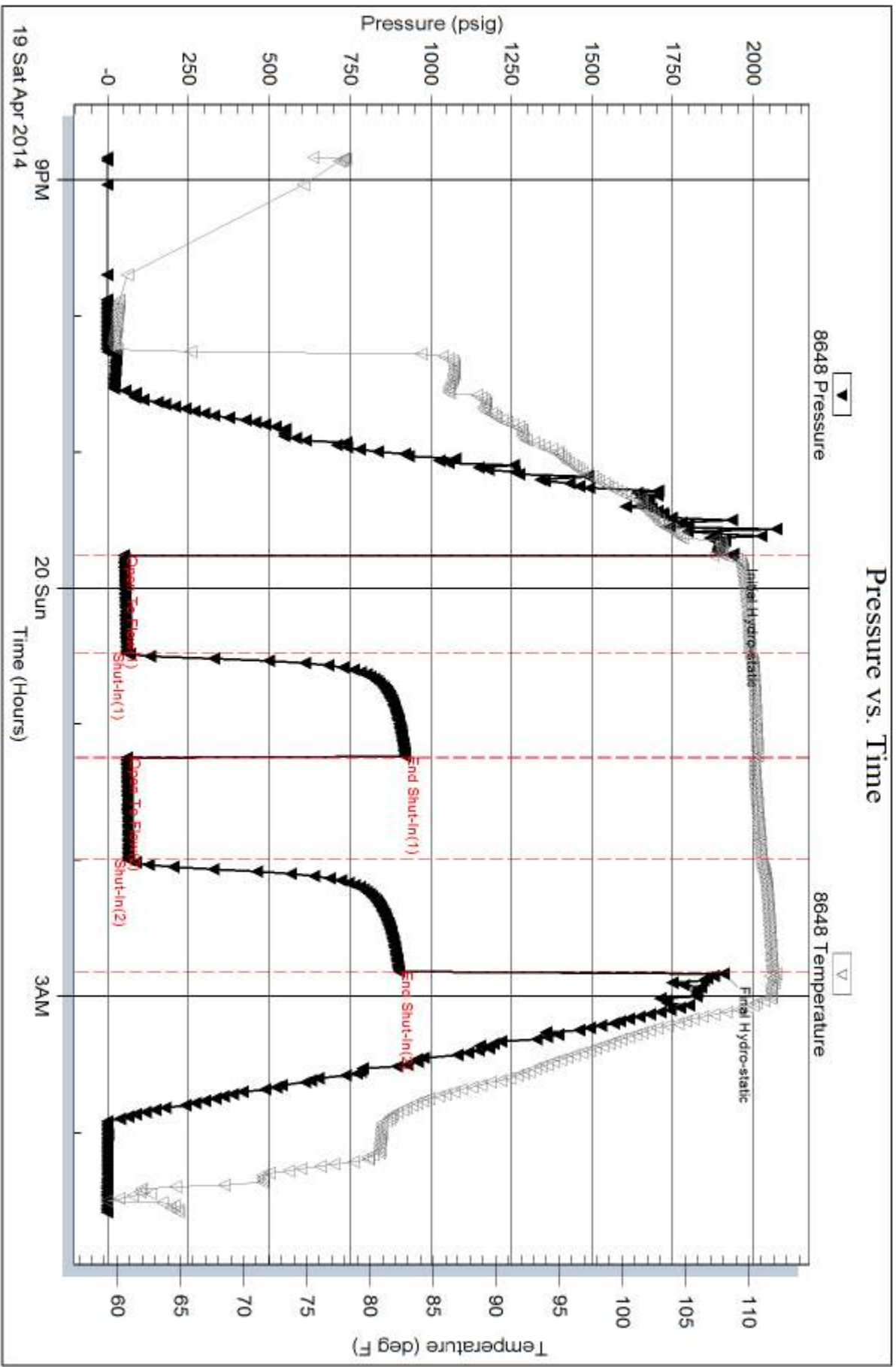
Serial #: 8648

Inside

Dow nng-Nelson Oil Co Inc

9-9s-24w Graham,KS

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54030

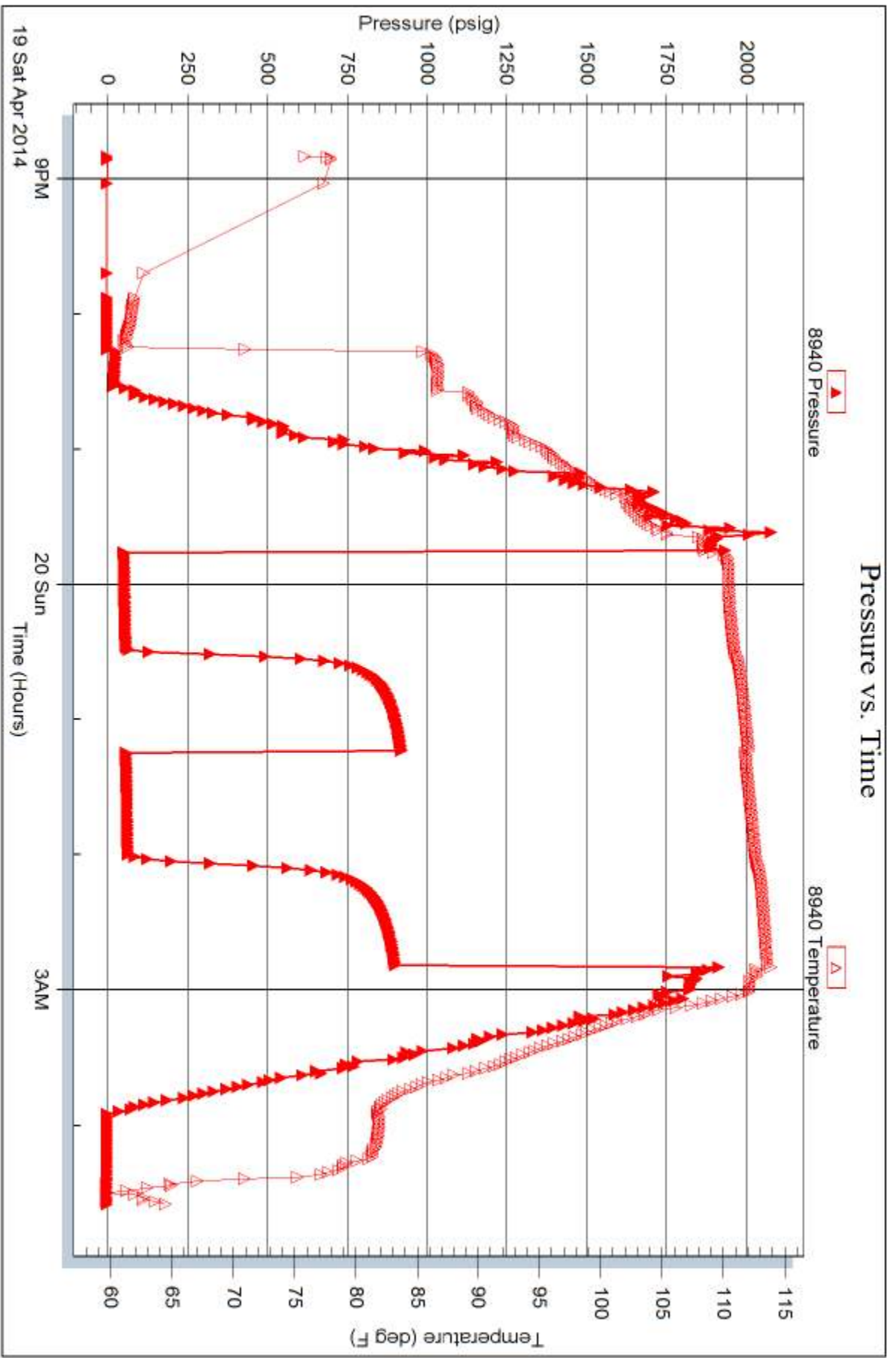
Printed: 2014.04.24 @ 11:47:50

Serial #: 8940

Outside Dow nrg-Nelson Oil Co Inc

9-9s-24w Graham,KS

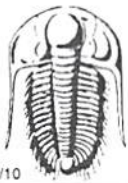
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54030

Printed: 2014.04.24 @ 11:47:50



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **54030**

Well Name & No. Michaelis-Homburg "B" 1-9 Test No. 1 Date 4-19-14  
 Company Dawning Nelson oil Co Inc Elevation 2488 KB 2480 GL  
 Address Po Box 1019, Hays KS, 67601  
 Co. Rep / Geo. Pon Nelson Rig Discovery #1  
 Location: Sec. 9 Twp. 9S Rge. 24W Co. Graham State KS

Interval Tested 3877-3920 Zone Tested LKC "C-D"  
 Anchor Length 43' Drill Pipe Run 3848' Mud Wt. 8.6  
 Top Packer Depth 3872 Drill Collars Run 30' Vis 75  
 Bottom Packer Depth 3877 Wt. Pipe Run — WL 7.6  
 Total Depth 3920 Chlorides 2,000 ppm System LCM —

Blow Description IF-2" blow  
TSI- No return  
FF-1/2" blow  
FSI No return

| Rec       | Feet of    | %gas | %oil | %water     | %mud |
|-----------|------------|------|------|------------|------|
| <u>55</u> | <u>Mud</u> |      |      | <u>100</u> |      |
| Rec       | Feet of    | %gas | %oil | %water     | %mud |
| Rec       | Feet of    | %gas | %oil | %water     | %mud |
| Rec       | Feet of    | %gas | %oil | %water     | %mud |
| Rec       | Feet of    | %gas | %oil | %water     | %mud |

Rec Total 55' BHT 1110 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1930  Test 1150 T-On Location 2003  
 (B) First Initial Flow 50  Jars — T-Started 2050  
 (C) First Final Flow 28  Safety Joint — T-Open 2346  
 (D) Initial Shut-In 919  Circ Sub — T-Pulled 0245  
 (E) Second Initial Flow 59  Hourly Standby — T-Out 0435  
 (F) Second Final Flow 63  Mileage 124 RTX2 384.40 Comments Loaded tools 4-20-14  
 (G) Final Shut-In 900  Sampler — @ 7:00pm  
 (H) Final Hydrostatic 1907  Straddle —  Ruined Shale Packer —

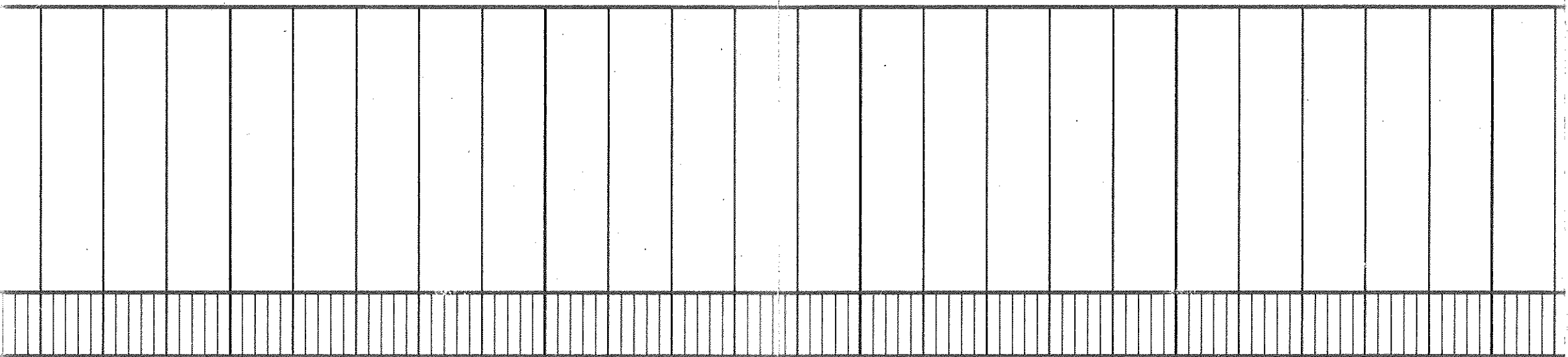
Initial Open 45  Shale Packer —  Ruined Packer —  
 Initial Shut-In 45  Extra Packer —  Extra Copies —  
 Final Flow 45  Extra Recorder — Sub Total 0  
 Final Shut-In 45  Day Standby — Total 1534.40  
 Accessibility — MP/DST Disc't —  
 Sub Total 1534.40

Approved By — Our Representative Cody Bloodorn

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.







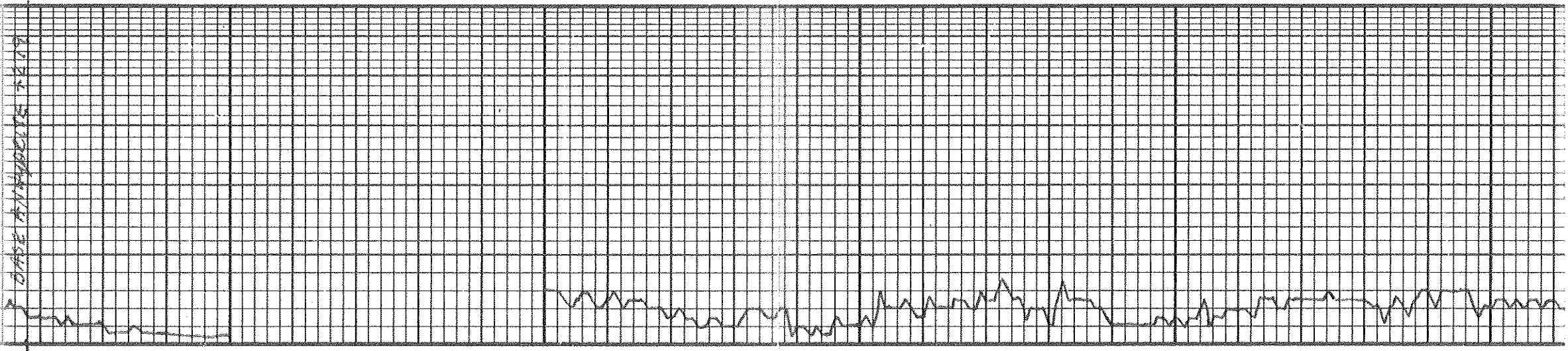
2250

3400

50

3500

50



BASE AMPLITUDE 1000





11/15/50

11/15/50

11/15/50

50

3900

50

4000

50

SA BLK CARB

DNS TANU CS POP NS

SH RO, dk brn

LS wh - tan fa - v tan w/wh, obs  
prxy/pt. fcl pces w/wh  
chd

SA 974 dk gray

LS wh fm shc xym mod  
DNS pr wyl & fnc PPP  
NS

RA w/wh, fmc chd

Shs 974, brn, RO

LS wh - tan, rest v tan xym obs  
prxy/pt. fcl pces w/wh  
shc to, sig. fcl pces, mod, chd  
mod. int vly brn shc

LS wh - tan fm xym prxy/pt  
NS w/wh chd

Dust tan v tan xym barrenis  
w/wh chd

Sh 974 dk carb

LS wh w/wh xym chd

about SA RO, gray, brn

LS tan - wh, 1-2 sil fcl pces, sm m  
w/wh chd

Chk y tan fcl pces LS NS sil p

974 sh

LS wh mic xym w/wh chd  
ppp NS  
fcl pces sil pces w/wh chd  
NS

LS wh mic xym w/wh chd  
NS

w/wh chd

SA BLK COBB

Sh dk gray, RO, BRN

DNS wh - tan v tan xym  
ppp 11/15/50

RA w/wh chd

Sh RO brn gray

DNS TANU, v tan xym, PPP  
NS

about gray RO SAS

LS wh tan fm sil xym pr  
ppp 11/15/50  
sm v chd

SA BLK COBB

DK GRM

DST #1

3877-3920'

45" 45" 45" 45" 45"

1st top 2" BLOW

2nd top 1/2" BLOW

(SLID 15' to 17m)

IEP 520-58

FFP 524-63

SIP 919-900

HP 1430-1407

Rec 55' m 40

BHT 110

DST #1



|  |       |   |                     |           |         |
|--|-------|---|---------------------|-----------|---------|
|  | DEPTH | LITHOLOGY   | SAMPLE DESCRIPTIONS | OIL SHOWS | REMARKS |
|  |       | <p>           OPERATOR <u>DNGG</u><br/>           LEASE <u>MICHAELS HARBURG 3-4-9</u> IP <u>DEA</u><br/>           ELEVATION <u>2427</u> <u>RB</u> RTD <u>410'</u> </p> <p>           LOCATION <u>400' ECL E 1400' EE</u><br/>           SEC <u>9</u> TWP <u>9S</u> RNG <u>74W</u><br/>           COUNTY <u>GRAHAM</u> STATE <u>KANSAS</u> </p> |                     |           |         |