



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1158971
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 Recompletion Date | Date Reached TD | Completion Date or 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: _____



1158971

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 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 | | | | |
| | | | | |

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 Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

| 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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i> | PRODUCTION INTERVAL: _____ _____ |
|--|---|---|

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 19, 2013

Leon Rodak
Murfin Drilling Co., Inc.
250 N WATER STE 300
WICHITA, KS 67202-1216

Re: ACO1
API 15-039-21177-00-00
Kathka Farms 2-2
NW/4 Sec.02-02S-29W
Decatur County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Leon Rodak

| | |
|--|--|
| MDCI Kathka Farms #2-2 760' FNL 1770' FWL Sec. 2-T2S-R29W 2787' KB | MDCI DCFY Unit #1-11 2450' FNL 2150' FEL Sec. 11-T2S-R29W 2719' KB |
|--|--|

| Formation | Sample top | Datum | Ref | Log tops | Datum | Ref | Log tops | Datum |
|-------------|------------|-------|-----|----------|-------|-----|----------|-------|
| Anhydrite | 2485 | +302 | +20 | 2485 | +302 | +20 | 2437 | +282 |
| B/Anhydrite | 2515 | +272 | +23 | 2516 | +271 | +22 | 2470 | +249 |
| Foraker | 3276 | -489 | +12 | 3274 | -487 | +14 | 3220 | -501 |
| Topeka | 3546 | -759 | +23 | 3544 | -757 | +25 | 3501 | -782 |
| Heebner | 3698 | -911 | +31 | 3699 | -912 | +30 | 3661 | -942 |
| Lansing | 3742 | -955 | +30 | 3742 | -955 | +30 | 3704 | -985 |
| Stark | 3916 | -1129 | +20 | 3915 | -1128 | +21 | 3868 | -1149 |
| BKC | 3965 | -1178 | +22 | 3966 | -1179 | +21 | 3919 | -1200 |
| RTD | 4060 | | | | | | 4025 | |
| LTD | | | | 4061 | | | 4022 | |



GEOLOGISTS' REPORT

OPERATOR **MURFIN DRILLING COMPANY, INC.**
LEASE **KATHKA FARMS # 2-2**

LOCATION **760 FNL & 1770 FWL**
SEC. **2** TWSP **2S** RGE **29W**

COUNTY **DECATUR** STATE **KANSAS**
FIELD **WILDCAT**

CONTRACTOR **Murfin Drilling Company** RIG NO. **8**
COMMENCED **24 May 2013** COMPLETED **30 May 2013**

MUD DISPLACED **2793** MUD TYPE **Chemical**
DRILLING TIME KEPT FROM **3180** TO **4060**

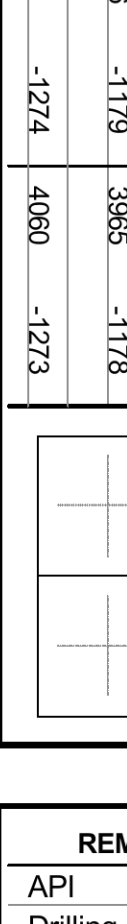
SAMPLES SAVED FROM **3180** TO **4060**
SAMPLES EXAMINED FROM **3180** TO **4060**

GEOLOGICAL SUPERVISION FROM **3106** TO **4060**
GEOLOGIST ON WELL **Paul Gurszeiman**

| FORMATION | TOP | LOG | TOP | SAMPLE |
|------------------|-------|-------|-------|--------|
| NAME | DATUM | DATUM | DATUM | DATUM |
| Stone Corral | 2485 | +302 | 2485 | +302 |
| Base/Anhydrite | 2516 | +271 | 2515 | +272 |
| Foraker | 3274 | -3276 | -487 | -489 |
| Stotler Lm. | 3432 | -645 | 3431 | -644 |
| Topeka | 3544 | -757 | 3546 | -759 |
| Heebner Shale | 3689 | -912 | 3688 | -911 |
| Lansing | 3742 | -955 | 3742 | -955 |
| Base/Kansas City | 3966 | -1179 | 3965 | -1178 |
| Total Depth | 4061 | -1274 | 4060 | -1273 |

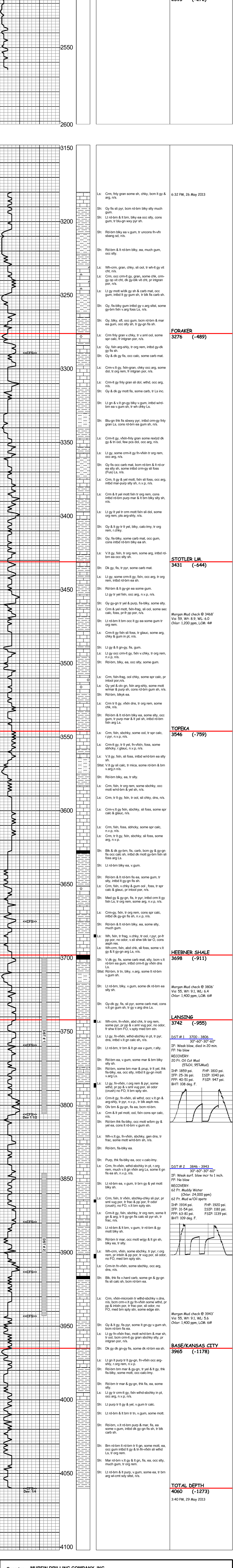
ELEVATIONS
KB **2787 Ft.**
GL **2782 Ft.**

ALL MEASUREMENTS FROM K.B.
CASING RECORD
Conductor None
Surface **8.68 @ 305'**
Production None



| REMARKS |
|--|
| API 15-039-21177-00-00 |
| Drilling Fluids: Morgan Mud, Inc. (David Lines, engineer) |
| Drill Stem Testing: Trilobite Testing, Inc. (Brandon Turley, tester) |
| Gas Trailer: No Gas Trailer |
| Reserve Pit Chlorides: 1,200 PPM |

| DRILL TIME (MIN/FT) | DEPTH | LITHOLOGY | REMARKS |
|---------------------|-------|-----------|---------|
|---------------------|-------|-----------|---------|



| | |
|-----------|--------------------------------------|
| Operator: | MURFIN DRILLING COMPANY, INC. |
| Lease: | KATHKA FARMS # 2-2 |
| Location: | 760 FNL & 1770 FWL |
| County: | DECATUR |
| State: | KANSAS |



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Kathka Farms #2-2

2-2s-29w Decatur,KS

Start Date: 2013.05.28 @ 05:31:37

End Date: 2013.05.28 @ 12:15:37

Job Ticket #: 53156 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.03 @ 09:54:23



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Company

2-2s-29w Decatur, KS

250 N Water Ste 300
Wichita, KS 67202

Kathka Farms #2-2

ATTN: Paul Gunzelman

Job Ticket: 53156

DST#: 1

Test Start: 2013.05.28 @ 05:31:37

GENERAL INFORMATION:

Formation: **LKC A-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:34:37

Time Test Ended: 12:15:37

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

Interval: 3700.00 ft (KB) To 3806.00 ft (KB) (TVD)

Reference Elevations: 2787.00 ft (KB)

Total Depth: 3806.00 ft (KB) (TVD)

2782.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press @ Run Depth: 51.26 psig @ 3701.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.28

End Date:

2013.05.28

Last Calib.:

2013.05.28

Start Time: 05:31:42

End Time:

12:15:36

Time On Btm:

2013.05.28 @ 07:33:07

Time Off Btm:

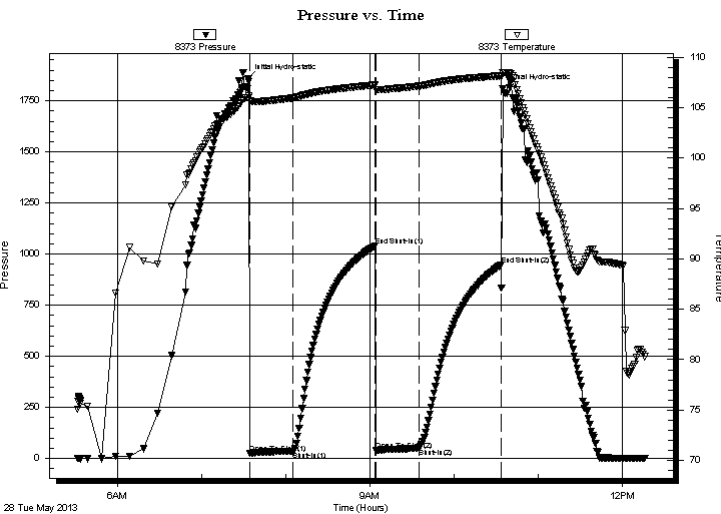
2013.05.28 @ 10:34:37

TEST COMMENT: IF: 1/4" blow built to 1" died in 20 min.

IS: No return.

FF: No blow.

FS: No return.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1859.91 | 106.00 | Initial Hydro-static |
| 2 | 25.71 | 105.65 | Open To Flow (1) |
| 32 | 36.35 | 105.97 | Shut-In(1) |
| 91 | 1040.55 | 107.26 | End Shut-In(1) |
| 91 | 40.85 | 106.83 | Open To Flow (2) |
| 122 | 51.26 | 107.14 | Shut-In(2) |
| 180 | 947.12 | 108.18 | End Shut-In(2) |
| 182 | 1810.87 | 108.46 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 20.00 | ocm 5%o 95%m | 0.10 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

2-2s-29w Decatur, KS

250 N Water Ste 300
Wichita, KS 67202

Kathka Farms #2-2

Job Ticket: 53156

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2013.05.28 @ 05:31:37

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3504.00 ft | Diameter: 3.80 inches | Volume: 49.15 bbl | Tool Weight: 2500.00 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: 186.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: 58000.00 lb |
| | | | <u>Total Volume: 50.06 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 18.00 ft | | | String Weight: Initial 52000.00 lb |
| Depth to Top Packer: | 3700.00 ft | | | Final 52000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 106.00 ft | | | |
| Tool Length: | 134.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

| | | | | | |
|-----------------|-------|------|---------|---------|--------------------------------|
| Stubb | 1.00 | | | 3673.00 | |
| Shut In Tool | 5.00 | | | 3678.00 | |
| Hydraulic tool | 5.00 | | | 3683.00 | |
| Jars | 5.00 | | | 3688.00 | |
| Safety Joint | 3.00 | | | 3691.00 | |
| Packer | 5.00 | | | 3696.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3700.00 | |
| Stubb | 1.00 | | | 3701.00 | |
| Recorder | 0.00 | 8373 | Inside | 3701.00 | |
| Recorder | 0.00 | 8356 | Outside | 3701.00 | |
| Perforations | 4.00 | | | 3705.00 | |
| Change Over Sub | 1.00 | | | 3706.00 | |
| Drill Pipe | 94.00 | | | 3800.00 | |
| Change Over Sub | 1.00 | | | 3801.00 | |
| Bullnose | 5.00 | | | 3806.00 | 106.00 Bottom Packers & Anchor |

Total Tool Length: 134.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-2s-29w Decatur, KS

250 N Water Ste 300
Wichita, KS 67202

Kathka Farms #2-2

Job Ticket: 53156

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2013.05.28 @ 05:31:37

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------|---------------|
| 20.00 | ocm 5%o 95%m | 0.098 |

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

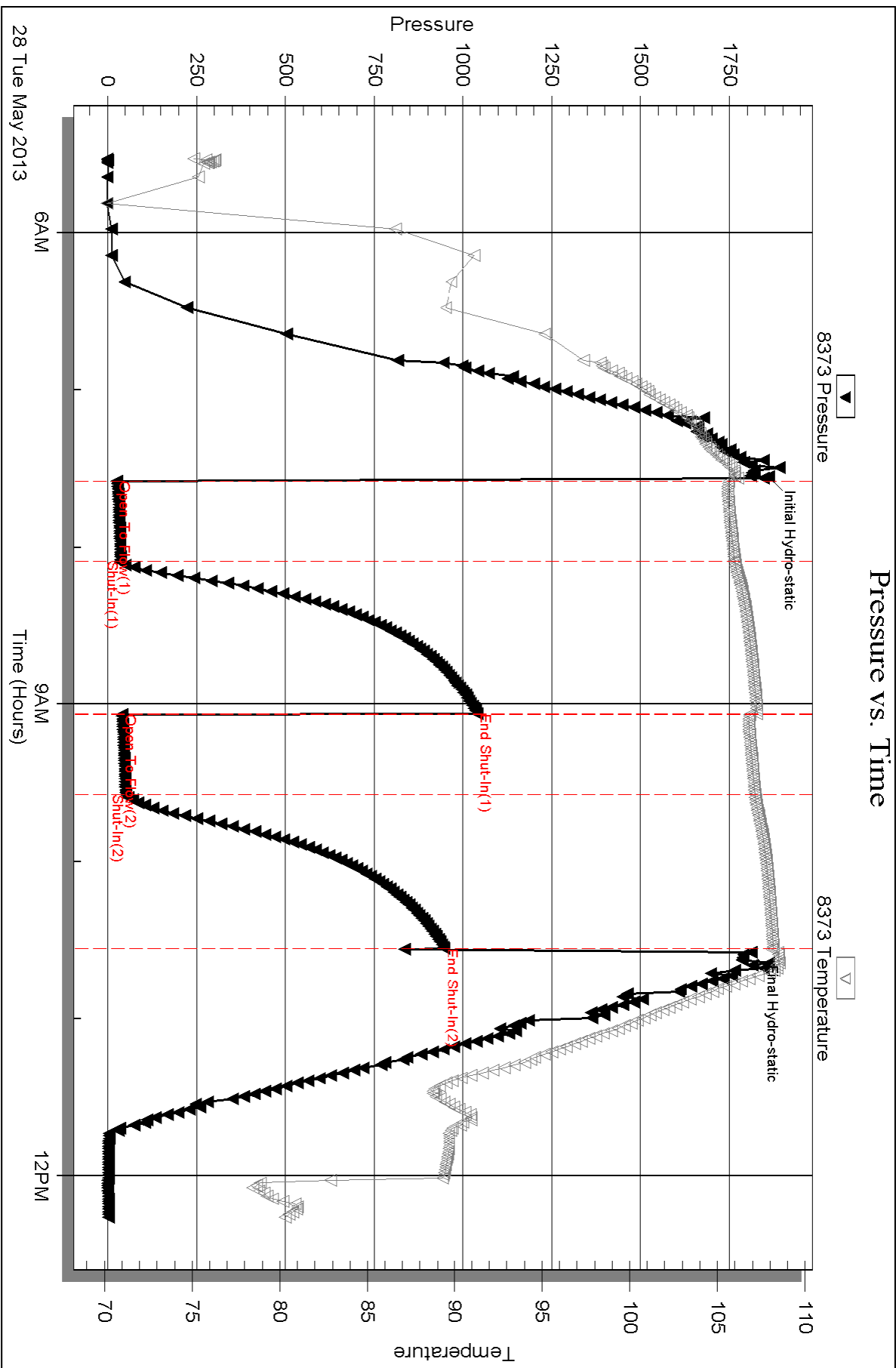
Serial #: 8373

Inside

Murfin Drilling Company

Kathka Farms #2-2

DST Test Number: 1

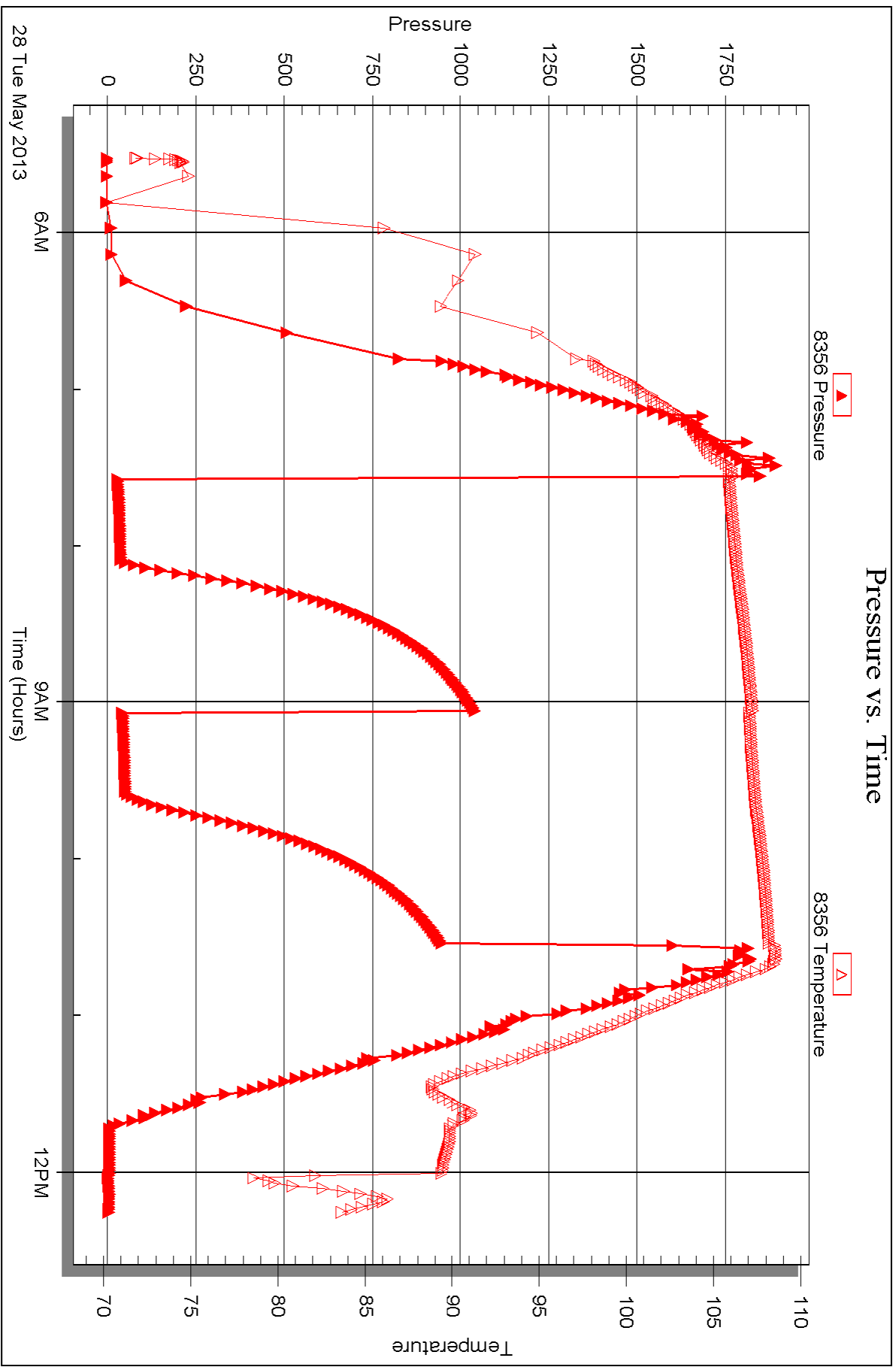


Serial #: 8356

Outside Murfin Drilling Company

Kathka Farms #2-2

DST Test Number: 1



28 Tue May 2013

9 AM

12 PM

Triobite Testing, Inc

Ref. No: 53156

Printed: 2013.06.03 @ 09:54:26



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Kathka Farms #2-2

2-2s-29w Decatur,KS

Start Date: 2013.05.29 @ 01:50:00

End Date: 2013.05.29 @ 08:56:00

Job Ticket #: 52680 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.03 @ 09:53:48

Murfin Drilling Company

2-2s-29w Decatur,KS

Kathka Farms #2-2

DST # 2

LKC " H - K "

2013.05.29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Company

2-2s-29w Decatur, KS

250 N Water Ste 300
Wichita, KS 67202

Kathka Farms #2-2

ATTN: Paul Gunzelman

Job Ticket: 52680

DST#: 2

Test Start: 2013.05.29 @ 01:50:00

GENERAL INFORMATION:

Formation: **LKC " H - K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:35:00

Time Test Ended: 08:56:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 60

Interval: 3846.00 ft (KB) To 3943.00 ft (KB) (TVD)

Reference Elevations: 2787.00 ft (KB)

Total Depth: 3943.00 ft (KB) (TVD)

2782.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8356 Outside

Press @ RunDepth: 80.89 psig @ 3847.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.29 End Date: 2013.05.29

Last Calib.: 2013.05.29

Start Time: 01:50:05 End Time: 08:55:59

Time On Btm: 2013.05.29 @ 03:34:30

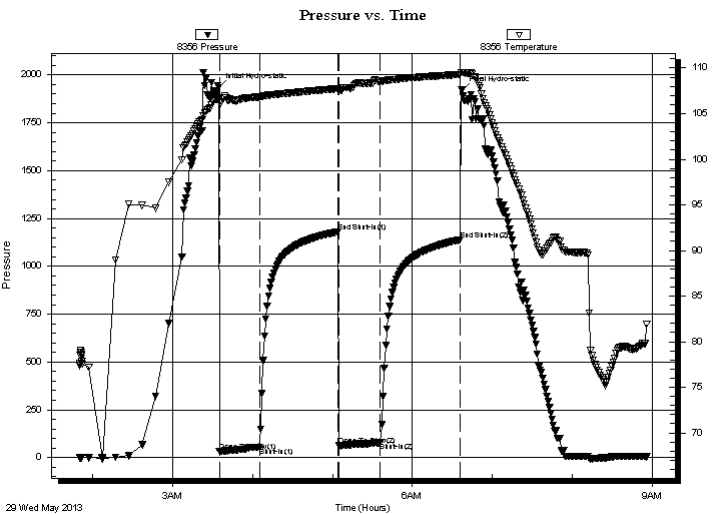
Time Off Btm: 2013.05.29 @ 06:37:00

TEST COMMENT: 30 IF - Surface blow built to 1"

60 ISI - No return

30 FF - No blow

60 FSI - No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1934.10 | 106.61 | Initial Hydro-static |
| 1 | 31.20 | 106.25 | Open To Flow (1) |
| 31 | 53.74 | 106.83 | Shut-In(1) |
| 90 | 1180.64 | 107.74 | End Shut-In(1) |
| 91 | 63.40 | 107.39 | Open To Flow (2) |
| 122 | 80.89 | 108.56 | Shut-In(2) |
| 182 | 1139.37 | 109.29 | End Shut-In(2) |
| 183 | 1920.27 | 109.53 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------|--------------|
| 62.00 | MW - 45%M - 55%W | 0.30 |
| 62.00 | Mud w/oil spots | 0.30 |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

2-2s-29w Decatur, KS

250 N Water Ste 300
Wichita, KS 67202

Kathka Farms #2-2

Job Ticket: 52680

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2013.05.29 @ 01:50:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3662.00 ft | Diameter: 3.80 inches | Volume: 51.37 bbl | Tool Weight: 2500.00 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: 186.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: 56000.00 lb |
| | | | <u>Total Volume: 52.28 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 30.00 ft | | | String Weight: Initial 54000.00 lb |
| Depth to Top Packer: | 3846.00 ft | | | Final 54000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 97.00 ft | | | |
| Tool Length: | 125.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

| | | | | | |
|-----------------|-------|------|---------|---------|-------------------------------|
| Stubb | 1.00 | | | 3819.00 | |
| Shut In Tool | 5.00 | | | 3824.00 | |
| Hydraulic tool | 5.00 | | | 3829.00 | |
| Jars | 5.00 | | | 3834.00 | |
| Safety Joint | 3.00 | | | 3837.00 | |
| Packer | 5.00 | | | 3842.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3846.00 | |
| Stubb | 1.00 | | | 3847.00 | |
| Recorder | 0.00 | 8373 | Inside | 3847.00 | |
| Recorder | 0.00 | 8356 | Outside | 3847.00 | |
| Perforations | 27.00 | | | 3874.00 | |
| Change Over Sub | 1.00 | | | 3875.00 | |
| Drill Pipe | 62.00 | | | 3937.00 | |
| Change Over Sub | 1.00 | | | 3938.00 | |
| Bullnose | 5.00 | | | 3943.00 | 97.00 Bottom Packers & Anchor |

Total Tool Length: 125.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-2s-29w Decatur, KS

250 N Water Ste 300
Wichita, KS 67202

Kathka Farms #2-2

Job Ticket: 52680

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2013.05.29 @ 01:50:00

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:

24000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------|---------------|
| 62.00 | MW - 45%M - 55%W | 0.305 |
| 62.00 | Mud w /oil spots | 0.305 |

Total Length: 124.00 ft Total Volume: 0.610 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

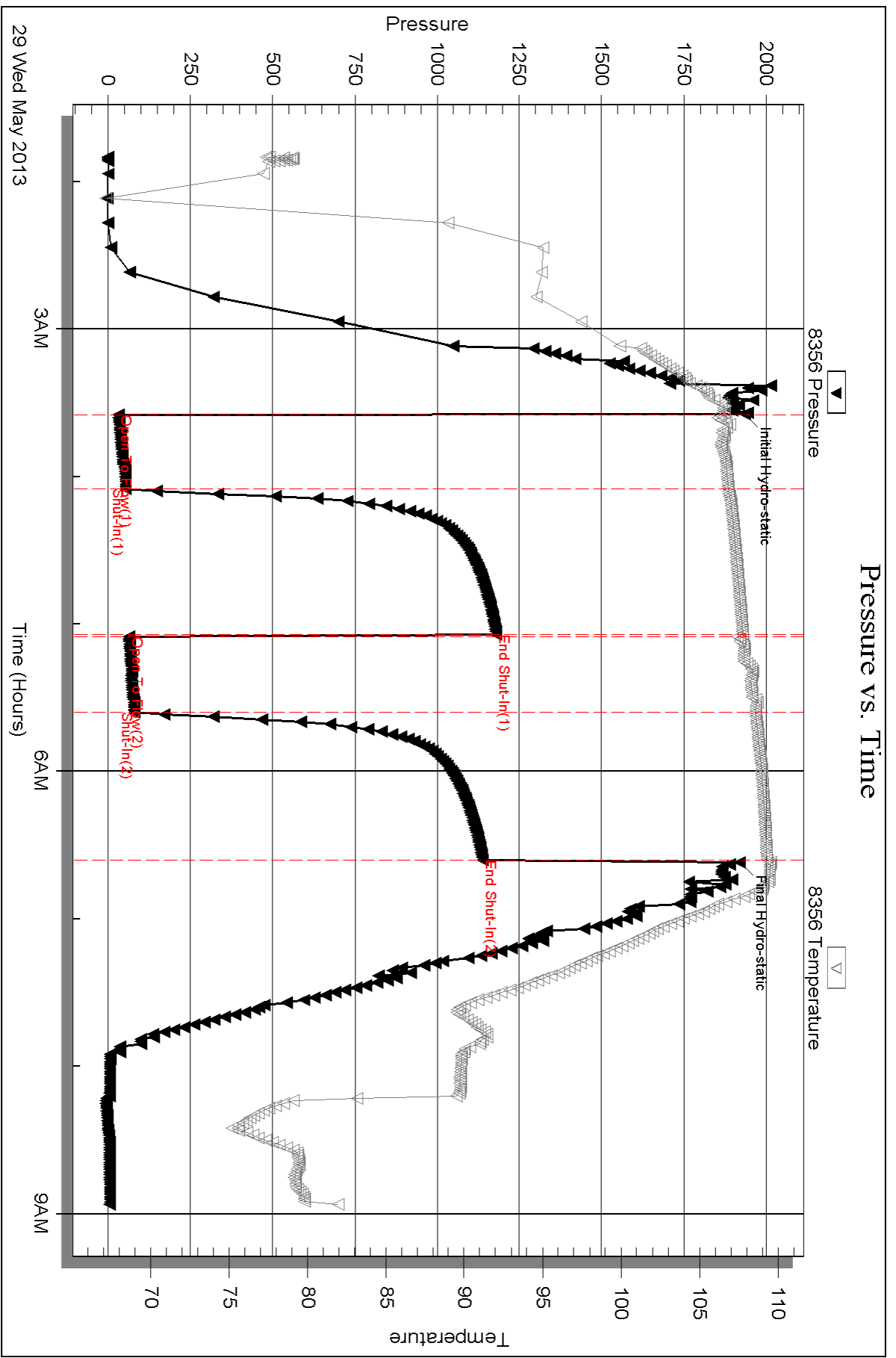
Recovery Comments: RW = .207 @ 75 DEG F

Serial #: 8356

Outside Murfin Drilling Company

Kathka Farms #2-2

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52680

Printed: 2013.06.03 @ 09:53:50



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53156

Well Name & No. Kathka Farms 2-2 Test No. 1 Date 5-28-13
 Company Murfin Drilling Company Elevation 2787 KB 2782 GL
 Address 250 N water ste 300 Wichita, KS 67202
 Co. Rep / Geo. Paul Gunzelman Rig Murfin 8
 Location: Sec. 2 Twp. 25 Rge. 29W Co. Decatur State KS

Interval Tested 3700 3806 Zone Tested LKC A-D
 Anchor Length 106 Drill Pipe Run 3504 Mud Wt. 8.9
 Top Packer Depth 2782 Drill Collars Run 186 Vis 59
 Bottom Packer Depth 2787 Wt. Pipe Run --- WL 6.0
 Total Depth 3806 Chlorides 1200 ppm System LCM 4
 Blow Description IF: 1/4 blow built to 1 died in 20 min.
IS: No return,
FF: No blow.
FS: No return.

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|------------|----------|------|-----------|------|
| <u>20</u> | <u>OCM</u> | <u>5</u> | | <u>95</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 20 BHT 108 Gravity --- API RW --- @ --- F Chlorides --- ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>1859</u> | <input checked="" type="checkbox"/> Test 1150 | T-On Location <u>3:30</u> |
| (B) First Initial Flow <u>25</u> | <input checked="" type="checkbox"/> Jars 250 | T-Started <u>5:31</u> |
| (C) First Final Flow <u>36</u> | <input checked="" type="checkbox"/> Safety Joint 75 | T-Open <u>7:33</u> |
| (D) Initial Shut-In <u>1040</u> | <input checked="" type="checkbox"/> Circ Sub <u>N/L</u> | T-Pulled <u>10:33</u> |
| (E) Second Initial Flow <u>40</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>12:17</u> |
| (F) Second Final Flow <u>51</u> | <input checked="" type="checkbox"/> Mileage <u>228-</u> 13rt 20.15 | Comments |
| (G) Final Shut-In <u>947</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>1810</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| Initial Open <u>30</u> | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Final Flow <u>30</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Day Standby | Total <u>1495.15</u> |
| | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1495.15</u> | |

Approved By Paul Gunzelman Our Representative [Signature]

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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52680

4/10

Well Name & No. Kathka Farms #2-2 Test No. 2 Date 5/29/13
 Company Murfin Drilling Co. Elevation 2787 KB 2782 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Paul Gunzelman Rig Murfin #8
 Location: Sec. 2 Twp. 2S Rge. 29W Co. Decatur State KS

Interval Tested 3846 - 3943 Zone Tested LKC "H-K"
 Anchor Length 97' Drill Pipe Run 3662' Mud Wt. 9.1
 Top Packer Depth 3841 Drill Collars Run 186' Vis 55
 Bottom Packer Depth 3846 Wt. Pipe Run 0' WL 5.6
 Total Depth 3943 Chlorides 1400 ppm System LCM 26

Blow Description IF - Surface blow built to 1"
ISI - No return
FF - No blow
FST - No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|--------------------|-----------------|------|------|--------|------|
| 62' 62' | Mud w/oil spots | | | 100 | |
| 62' | MW | | 55 | 45 | |
| | | | | | |
| | | | | | |
| | | | | | |
| Rec Total | <u>124'</u> | | | | |

BHT 109° Gravity — API RW 207 @ 25 ° F Chlorides 24000 ppm

| | | | | | |
|-------------------------|-------------|--|--------------------|--|--------------|
| (A) Initial Hydrostatic | <u>1934</u> | <input checked="" type="checkbox"/> Test | <u>1150</u> | T-On Location | <u>01:30</u> |
| (B) First Initial Flow | <u>31</u> | <input checked="" type="checkbox"/> Jars | <u>250</u> | T-Started | <u>01:50</u> |
| (C) First Final Flow | <u>54</u> | <input checked="" type="checkbox"/> Safety Joint | <u>75</u> | T-Open | <u>03:35</u> |
| (D) Initial Shut-In | <u>1181</u> | <input checked="" type="checkbox"/> Circ Sub | <u>NC</u> | T-Pulled | <u>06:35</u> |
| (E) Second Initial Flow | <u>63</u> | <input type="checkbox"/> Hourly Standby | | T-Out | <u>08:57</u> |
| (F) Second Final Flow | <u>81</u> | <input checked="" type="checkbox"/> Mileage | <u>13 KT</u> 20.15 | Comments | |
| (G) Final Shut-In | <u>1139</u> | <input type="checkbox"/> Sampler | | | |
| (H) Final Hydrostatic | <u>1920</u> | <input type="checkbox"/> Straddle | | <input type="checkbox"/> Ruined Shale Packer | |

| | | | | | |
|-----------------|-----------|---|----------------|--|----------------|
| Initial Open | <u>30</u> | <input type="checkbox"/> Shale Packer | | <input type="checkbox"/> Ruined Packer | |
| Initial Shut-In | <u>60</u> | <input type="checkbox"/> Extra Packer | | <input type="checkbox"/> Extra Copies | |
| Final Flow | <u>30</u> | <input type="checkbox"/> Extra Recorder | | Sub Total | <u>0</u> |
| Final Shut-In | <u>60</u> | <input type="checkbox"/> Day Standby | | Total | <u>1495.15</u> |
| | | <input type="checkbox"/> Accessibility | | MP/DST Disc't | |
| | | Sub Total | <u>1495.15</u> | | |

Approved By _____ Our Representative Ryan J. Mikes

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.



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

acct. Prod-LH
INVOICE

Invoice Number: 136438

Invoice Date: May 24, 2013

Page: 1

Now Includes:



| |
|---|
| Bill To: |
| Murfin Drig. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202 |

| Customer ID | Field Ticket # | Payment Terms | |
|--------------|----------------|---------------|----------|
| Murfin | 60302 | Net 30 Days | |
| Job Location | Camp Location | Service Date | Due Date |
| KS1-01 | Oakley | May 24, 2013 | 6/23/13 |

| Quantity | Item | Description | Unit Price | Amount |
|----------|-------------|------------------------|------------|----------|
| 250.00 | MAT | Kathka Farms #2-2 | | |
| | | Class A Common | 17.90 | 4,475.00 |
| 9.00 | MAT | Chloride | 64.00 | 576.00 |
| 262.50 | SER | Cubic Feet | 2.48 | 651.00 |
| 726.00 | SER | Ton Mileage | 2.60 | 1,887.60 |
| 1.00 | SER | Surface | 1,512.25 | 1,512.25 |
| 60.00 | SER | Pump Truck Mileage | 7.70 | 462.00 |
| 1.00 | SER | Manifold Swedge Rental | 275.00 | 275.00 |
| 60.00 | SER | Light Vehicle Mileage | 4.40 | 264.00 |
| 1.00 | CEMENTER | Darren Racette | | |
| 1.00 | EQUIP OPER | Tyler Flipse | | |
| 1.00 | OPER ASSIST | Chris Helpingstine | | |

QYM

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 3,535.99 *3516*

ONLY IF PAID ON OR BEFORE

Jun 18, 2013

| | |
|------------------------|------------------|
| Subtotal | 10,102.85 |
| Sales Tax | 368.72 |
| Total Invoice Amount | 10,471.57 |
| Payment/Credit Applied | |
| TOTAL | 10,471.57 |

- 3535.99

6935.58

ALLIED OIL & GAS SERVICES, LLC 060302

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:

Oakley

| | | | | | | | |
|--------------------------------|------------------|---|-----------------|------------|-----------------------|---------------------------|----------------------------|
| DATE <u>5/24/13</u> | SEC. <u>2</u> | TWP. <u>2</u> | RANGE <u>29</u> | CALLED OUT | ON LOCATION | JOB START <u>11:30 Am</u> | JOB FINISH <u>12:00 Am</u> |
| LEASE <u>Kathka Farms</u> | WELL# <u>2-2</u> | LOCATION <u>Cherlin bn 3/4w - Sinto</u> | | | COUNTY <u>Decatur</u> | STATE <u>Ks.</u> | |
| OLD OR <u>NEW</u> (Circle one) | | | | | | | |

CONTRACTOR Murfin #8

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 305.5'

CASING SIZE 8 7/8 DEPTH 306.91'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15'

PERFS. _____

DISPLACEMENT 18.57

OWNER Same

CEMENT AMOUNT ORDERED 250 SKs Com 3%CC

EQUIPMENT

PUMP TRUCK CEMENTER Darren Racette

120 HELPER Tyler Flipse

BULK TRUCK

600 DRIVER Chris Helpingstine

BULK TRUCK

_____ DRIVER _____

| | | | |
|----------|---------------------|------------------|------------------------|
| COMMON | <u>250 SKs</u> | @ <u>\$17.90</u> | <u>\$4475.00</u> |
| POZMIX | | @ _____ | _____ |
| GEL | | @ _____ | _____ |
| CHLORIDE | <u>9 SKs</u> | @ <u>\$64.00</u> | <u>\$576.00</u> |
| ASC | | @ _____ | _____ |
| | | @ _____ | _____ |
| | | @ _____ | _____ |
| | | @ _____ | _____ |
| | | @ _____ | _____ |
| | | @ _____ | _____ |
| | | @ _____ | _____ |
| HANDLING | <u>262.5 CF X</u> | @ <u>\$2.48</u> | <u>\$651.00</u> |
| MILEAGE | <u>12.10 X 60 X</u> | @ <u>\$2.00</u> | <u>\$187.60</u> |
| | | | TOTAL <u>\$7589.60</u> |

REMARKS:

mix 250 SKs Cement
Displace with water
Cement Did Circulate

SERVICE

| | | | |
|-------------------|----------------|-----------------|------------------|
| DEPTH OF JOB | <u>306.91'</u> | | |
| PUMP TRUCK CHARGE | | | <u>\$1512.25</u> |
| BXTRA FOOTAGE | | @ _____ | _____ |
| MILEAGE | <u>60</u> | @ <u>\$7.70</u> | <u>\$462.00</u> |
| MANIFOLD | <u>Swedge</u> | @ _____ | <u>\$275.00</u> |
| | <u>Unmlage</u> | @ <u>\$4.50</u> | <u>264.00</u> |
| | | @ _____ | _____ |

TOTAL \$2513.25

CHARGE TO: Murfin

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

| | | |
|--|---------|-------|
| | @ _____ | _____ |
| | @ _____ | _____ |
| | @ _____ | _____ |
| | @ _____ | _____ |
| | @ _____ | _____ |

TOTAL _____

To: Allied Oil & Gas Services, 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.

SALES TAX (If Any) _____

TOTAL CHARGES 10,102.85

DISCOUNT 3,535.99 IF PAID IN 30 DAYS

PRINTED NAME Rodney Farr

SIGNATURE Rodney Farr

6,566.85 Net.

ALLIED

OIL & GAS SERVICES, LLC

PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

Acc. #
LizH

INVOICE

PROD COPY

Invoice Number: 136525

Invoice Date: May 30, 2013

Page: 1

Bill To:
Murfin Drig. Co., Inc.
250 N. Water
STE #300
Wichita, KS 67202

Now Includes:



| Customer ID | Field Ticket # | Payment Terms | |
|--------------|----------------|---------------|----------|
| Murfin | 60787 | Net 30 Days | |
| Job Location | Camp Location | Service Date | Due Date |
| KS1-03 | Oakley | May 30, 2013 | 6/29/13 |

| Quantity | Item | Description | Unit Price | Amount |
|----------|-------------|-------------------------------------|------------|----------|
| 132.00 | MAT | Kathka Farms #2-2 Class A Common | 17.90 | 2,362.80 |
| 88.00 | MAT | Pozmix | 9.35 | 822.80 |
| 8.00 | MAT | Gel | 23.40 | 187.20 |
| 55.00 | MAT | Flo Seal | 2.97 | 163.35 |
| 236.29 | SER | Cubic Feet | 2.48 | 586.00 |
| 591.96 | SER | Ton Mileage | 2.60 | 1,539.10 |
| 1.00 | SER | Rotary Plug | 2,483.59 | 2,483.59 |
| 60.00 | SER | Pump Truck Mileage | 7.70 | 462.00 |
| 60.00 | SER | Light Vehicle Mileage | 4.40 | 264.00 |
| 1.00 | CEMENTER | Alan Ryan | | |
| 1.00 | EQUIP OPER | Wayne McGhghy | | |
| 1.00 | OPER ASSIST | Darrin Hoeb | | |

Account # 10203
3. 4239.0002
6413.62
PTA #2-2
OK

| | |
|------------------------|-----------------|
| Subtotal | 8,870.84 |
| Sales Tax | 647.57 |
| Total Invoice Amount | 9,518.41 |
| Payment/Credit Applied | |
| TOTAL | 9,518.41 |

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 3,104.79

ONLY IF PAID ON OR BEFORE
Jun 24, 2013

(3104.79)

6413.62

ALLIED OIL & GAS SERVICES, LLC 060787

Federal Tax I.D. # 20-8661476

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Dakota

| | | | | | | | |
|--------------------------|-------------------|------------------------------------|-----------------|------------|----------------------|--------------------------|---------------------------|
| DATE <u>5/10/10</u> | SEC. <u>2</u> | TWP. <u>2</u> | RANGE <u>29</u> | CALLED OUT | ON LOCATION | JOB START <u>7:00 AM</u> | JOB FINISH <u>8:00 AM</u> |
| LEASE <u>Dakota Farm</u> | WELL # <u>2-2</u> | LOCATION <u>Oberlin on 34th St</u> | | | COUNTY <u>DeWitt</u> | STATE <u>TX</u> | |
| OLD OR NEW (Circle one) | | | | | | | |

| | |
|-------------------------------------|---------------------|
| CONTRACTOR <u>Murphy & S</u> | OWNER <u>Same</u> |
| TYPE OF JOB <u>PTA - Rotary</u> | |
| HOLE SIZE <u>12 1/4 - 2 7/8 TD.</u> | CEMENT |
| CASING SIZE <u>8 7/8</u> | DEPTH <u>300-91</u> |
| TUBING SIZE | DEPTH |
| DRILL PIPE | DEPTH |
| TOOL | DEPTH |
| PRES. MAX | MINIMUM |
| MEAS. LINE | SHOE JOINT |
| CEMENT LEFT IN CSG. | |
| PERFS. | |
| DISPLACEMENT | |

| EQUIPMENT | |
|--------------|------------------------------|
| PUMP TRUCK | CEMENTER <u>Alan Ryan</u> |
| # <u>422</u> | HELPER <u>Wayne McGilguy</u> |
| BULK TRUCK | |
| # <u>347</u> | DRIVER <u>Darrin Hoeh</u> |
| BULK TRUCK | |
| # | DRIVER |

| | |
|---|-------------------------------|
| AMOUNT ORDERED <u>220 60/40 470 gal</u> | |
| <u>14 FLO</u> | |
| COMMON <u>132</u> | @ <u>17.90</u> <u>2367.80</u> |
| POZMIX <u>88</u> | @ <u>9.35</u> <u>822.80</u> |
| GEL <u>8</u> | @ |
| CHLORIDE | @ |
| ASC | @ |
| <u>Flo Seal 576</u> | @ <u>2.21</u> <u>1263.36</u> |
| | @ |
| | @ |
| | @ |
| | @ |
| | @ |
| | @ |
| | @ |
| HANDLING <u>236.29 CF</u> | @ <u>2.42</u> <u>586.00</u> |
| MILEAGE <u>2.40 700/mile 9.866 700</u> | <u>15.32</u> |
| TOTAL <u>5424.05</u> | |

REMARKS:

25 SK @ 2500'
100 SK @ 1780'
40 SK @ 355'
10 SK @ 40'
15 SK Reserve hole
30 SK But hole

SERVICE

| | |
|---------------------------|-----------------------------|
| DEPTH OF JOB <u>2500'</u> | |
| PUMP TRUCK CHARGE | <u>2403.50</u> |
| EXTRA FOOTAGE | @ |
| MILEAGE <u>60</u> | @ <u>7.30</u> <u>462.00</u> |
| MANIFOLD | @ |
| <u>6 1/2 vehicle 60</u> | @ <u>4.50</u> <u>264.00</u> |
| | @ |
| TOTAL <u>3209.59</u> | |

CHARGE TO: Martin Drilling

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

| | | |
|-------------|---|--|
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| TOTAL _____ | | |

To: Allied Oil & Gas Services, 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 Rodney Fair

SIGNATURE Rodney Fair

SALES TAX (If Any) _____

TOTAL CHARGES 8,603.64

DISCOUNT 3,039.07 IF PAID IN 30 DAYS

5,644.36 Net.