

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

**ORIGINAL**

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

OPERATOR: License # 34405  
Name: E & B Natural Resources Management Corp.  
Address 1: 1600 Norris Road  
Address 2: \_\_\_\_\_  
City: Bakersfield State: CA Zip: 93308 + \_\_\_\_\_  
Contact Person: Keith Pickett  
Phone: ( 661 ) 301-1500  
CONTRACTOR: License # 30606  
Name: Murfin Drilling Company, Inc.  
Wellsite Geologist: Bob O'Dell  
Purchaser: Plains Exploration

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 #: \_\_\_\_\_

<u>01-31-2012</u>	<u>02-09-2012</u>	<u>02-10-2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 051-26231 - 0000  
Spot Description: \_\_\_\_\_  
SW SW NW SW Sec. 31 Twp. 11 S. R. 17  East  West  
1,330 Feet from  North /  South Line of Section  
100 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Ellis  
Lease Name: Marshall "A" Well #: 37  
Field Name: Bemis-Shutts  
Producing Formation: Arbuckle  
Elevation: Ground: 2117 Kelly Bushing: 2122  
Total Depth: 3709 Plug Back Total Depth: 3692.76  
Amount of Surface Pipe Set and Cemented at: 264 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 2064 Feet  
If Alternate II completion, cement circulated from: \_\_\_\_\_  
feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmft.

**Drilling Fluid Management Plan**  
(Data must be collected from the Reserve Pit)  
Chloride content: 34,000 ppm Fluid volume: 150 bbls  
Dewatering method used: Evaporation  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**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: Keith Pickett  
Title: Engineer Date: 07-06-2012

**KCC Office Use ONLY**

Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Dlg Date: 7/12/12

**RECEIVED**  
**JUL 11 2012**  
**KCC WICHITA**

Operator Name: E & B Natural Resources Management Corp. Lease Name: Marshall "A" Well #: 37

Sec. 31 Twp. 11 S. R. 17  East  West County: Ellis

**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 checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: <b>Dual Compensated Porosity Log, Dual Induction Log,                  Microresistivity Log, Sonic Cement Bond Log</b>	<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>1347</td> <td>+775</td> </tr> <tr> <td>Topeka</td> <td>3060</td> <td>-938</td> </tr> <tr> <td>Heebner</td> <td>3289</td> <td>-1167</td> </tr> <tr> <td>Lansing</td> <td>3334</td> <td>-1212</td> </tr> <tr> <td>BKC</td> <td>3575</td> <td>-1453</td> </tr> <tr> <td>Arbuckle</td> <td>3614</td> <td>-1492</td> </tr> </table>	Name	Top	Datum	Anhydrite	1347	+775	Topeka	3060	-938	Heebner	3289	-1167	Lansing	3334	-1212	BKC	3575	-1453	Arbuckle	3614	-1492
Name	Top	Datum																				
Anhydrite	1347	+775																				
Topeka	3060	-938																				
Heebner	3289	-1167																				
Lansing	3334	-1212																				
BKC	3575	-1453																				
Arbuckle	3614	-1492																				

CASING RECORD <input checked="" 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
Surface	12.25	8.625	24 Lbs.	264'	A	165	2% Sodium Chloride
Production	9-7/8	5-1/2	15.5 Lbs.	3709'	A	700	60/40 Poz Mix

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				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	3673' - 3676'		

TUBING RECORD: Size: <u>3-1/2</u> Set At: <u>3674'</u> Pecker At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. <u>02-16-2012</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>30</u>	Gas Mcf <u>0</u>	Water Bbls. <u>2000</u> Gas-Oil Ratio <u>N/A</u> Gravity <u>31</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. (Submit ACO-5) <input type="checkbox"/> Commingled (Submit ACO-4) <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>3673' - 3676'</u>
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Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

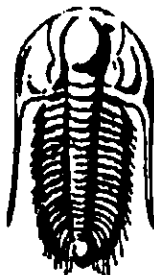
RECEIVED  
 JUL 11 2012  
 KCC WICHITA

TO: E& B Natural Resource Management  
 From: David L. Jensen  
 RE: Marshall A-37 pipe set

Calculated threads off pipe tally. Received the caliper log from Log-Tech and determined volume required to cement the casing. Ordered cement from Consolidated Oil Well Service. Marked the casing for the installation of the DV tool, centralizers, baskets and the marker joint. After the open hole logs were completed, ran in hole and circulated for one hour to condition hole. Murray Casing Crews arrived on location and helped lay down drill pipe and collars. RIH with 5 1/2", 15.5#, J-55, R-3, 8rd, LT&C casing purchased from Midwestern Pipe Works. Ran a total of 89 joints. Rigged down Murray Casing and rigged up COWS. Cemented the casing as follows: Dropped the auto fill float shoe ball and circulated the hole for one hour. Mixed and pumped 500 gallons of mud flush and 200 sacks of OWC cement. Shut down and released the wiper plug. Displaced the cement with 40 barrels of fresh water and 48 barrels of drilling mud(700# lifting pressure; landed with 1500#). Dropped the DV tool opening device and circulated the hole for 1 1/2 hours. Plugged the mouse hole. Mixed 500 sacks of 60/40 poz, 8% gel, 1 1/4# flo-seal and displaced with 49.5 barrels of fresh water(600# lifting pressure; plug landed with 1350#). **Circulated 20 barrels of cement to the pit. RDMO COWS. Casing ran as follows:**

.86'	5 1/2" auto fill float shoe	Cond.: New
15.21'	1- 5 1/2" shoe joint	Cond.: New
0.00'	Insert	Cond.: New
463.25'	11 - 5 1/2" casing	Cond.: New
20.90'	1 - 5 1/2" marker joint	Cond.: New
1137.30'	27 - 5 1/2" casing	Cond.: New
2.16'	5 1/2" 2 stage DV tool	Cond.: New
<u>2064.15'</u>	49 - 5 1/2" casing	Cond.: New
3703.83'	Total equipment	
<u>5.00'</u>	Zero Measurement	
3708.83'	Depth Landed	

RECEIVED  
 JUL 11 2012  
 KCC WICHITA



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **E&B Natural Resources**

1600 Norris Rd  
Bakersfield CA 93308

ATTN: Bob O'Dell

**Marshall A #37**

**31-11s-17w Ellis,KS**

Start Date: 2012.02.06 @ 17:40:39

End Date: 2012.02.07 @ 00:19:39

Job Ticket #: 46864                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

**ORIGINAL**

Printed: 2012.02.15 @ 14:23:46

RECEIVED

JUL 11 2012

KCC WICHITA

E&B Natural Resources

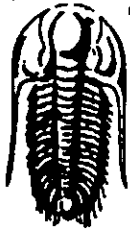
31-11s-17w Ellis,KS

Marshall A #37

DST # 1

LKC F

2012.02.06



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

E&B Natural Resources

**31-11s-17w Ellis,KS**

1600 Norris Rd  
Bakersfield CA 93308

**Marshall A #37**

Job Ticket: 46864

**DST#: 1**

ATTN: Bob O'Dell

Test Start: 2012.02.06 @ 17:40:39

**Tool Information**

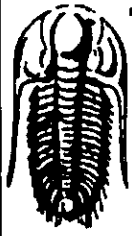
Drill Pipe:	Length: 3361.00 ft	Diameter: 3.80 inches	Volume: 47.15 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 47000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3395.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	54.00 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			3367.00	
Shut In Tool	5.00			3372.00	
Hydraulic tool	5.00			3377.00	
Jars	5.00			3382.00	
Safety Joint	3.00			3385.00	
Packer	5.00			3390.00	29.00 Bottom Of Top Packer
Packer	5.00			3395.00	
Stubb	1.00			3396.00	
Recorder	0.00	8369	Inside	3396.00	
Recorder	0.00	6753	Outside	3396.00	
Perforations	21.00			3417.00	
Bullnose	3.00			3420.00	25.00 Bottom Packers & Anchor

**Total Tool Length: 54.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

E&B Natural Resources

31-11s-17w Ellis,KS

1600 Norris Rd  
Bakersfield CA 93308

**Marshall A #37**

ATTN: Bob O'Dell

Job Ticket: 46864

DST#: 1

Test Start: 2012.02.06 @ 17:40:39

## GENERAL INFORMATION:

Formation: **LKC F**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 19:26:09

Time Test Ended: 00:19:39

Test Type: **Conventional Bottom Hole (Initial)**

Tester: **Jim Svaty**

Unit No: **59**

Interval: **3395.00 ft (KB) To 3420.00 ft (KB) (TVD)**

Total Depth: **3420.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2128.00 ft (KB)**

**2123.00 ft (CF)**

KB to GR/CF: **5.00 ft**

**Serial #: 6753**

**Outside**

Press@RunDepth: **46.13 psig @ 3396.00 ft (KB)**

Start Date: **2012.02.06**

End Date:

**2012.02.07**

Start Time: **17:40:44**

End Time:

**00:19:38**

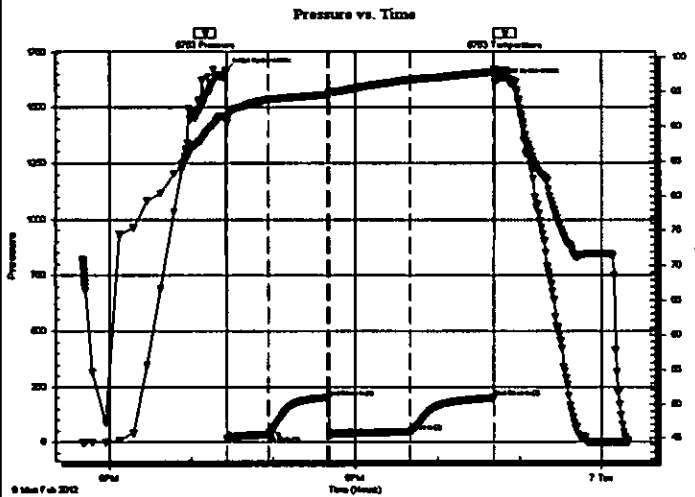
Capacity: **8000.00 psig**

Last Calib.: **2012.02.07**

Time On Btm: **2012.02.06 @ 19:25:39**

Time Off Btm: **2012.02.06 @ 22:41:39**

**TEST COMMENT:** IFF- Surface Blow Building to BOB 25 min  
ISIP- No Blow  
FFP-Surface Blow Building to 4" in 60 min  
FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1663.34	91.54	Initial Hydro-static
1	15.66	90.47	Open To Flow (1)
31	31.84	93.81	Shut-In(1)
74	202.16	94.50	End Shut-In(1)
75	29.52	94.82	Open To Flow (2)
135	46.13	96.70	Shut-In(2)
196	199.10	97.80	End Shut-In(2)
196	1613.22	98.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
68.00	SL O&WCM 10%O 40%VW 50%M	0.68
0.00	60' GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

FLUID SUMMARY

E&B Natural Resources

31-11s-17w Ellis,KS

1600 Norris Rd  
Bakersfield CA 93308

Marshall A #37

Job Ticket: 46864

DST#: 1

ATTN: Bob O'Dell

Test Start: 2012.02.06 @ 17:40:39

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
68.00	SL O&WCM 10%O 40%W 50%M	0.681
0.00	60' GIP	0.000

Total Length: 68.00 ft      Total Volume: 0.681 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

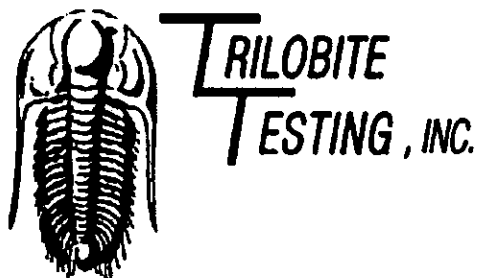
Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **E&B Natural Resources**

1600 Norris Rd  
Bakersfield CA 93308

ATTN: Bob O'Dell

**Marshall A #37**

**31-11s-17w Ellis,KS**

Start Date: 2012.02.07 @ 20:22:15

End Date: 2012.02.08 @ 03:02:15

Job Ticket #: 46865                      DST #: 2

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

Printed: 2012.02.15 @ 14:24:02

E&B Natural Resources

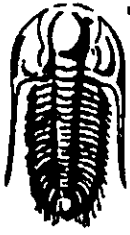
31-11s-17w Ellis,KS

Marshall A #37

DST # 2

Arbuckle

2012.02.07



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

E&B Natural Resources

31-11s-17w Ellis, KS

1600 Norris Rd  
Bakersfield CA 93308

Marshall A #37

Job Ticket: 46865

DST#: 2

ATTN: Bob O'Dell

Test Start: 2012.02.07 @ 20:22:15

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:48:15

Time Test Ended: 03:02:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 59

Interval: 3618.00 ft (KB) To 3647.00 ft (KB) (TVD)

Total Depth: 3647.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2128.00 ft (KB)

2123.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8369

Inside

Press@RunDepth: 78.17 psig @ 3619.00 ft (KB)

Start Date: 2012.02.07

End Date:

2012.02.08

Capacity: 8000.00 psig

Last Calib.: 2012.02.08

Start Time: 20:22:20

End Time:

03:02:14

Time On Btm: 2012.02.07 @ 22:47:45

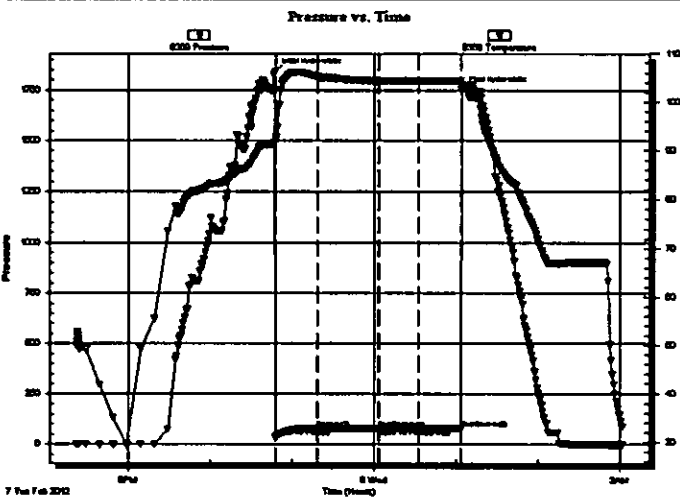
Time Off Btm: 2012.02.08 @ 01:04:15

TEST COMMENT: IFR-BOB 6 min

ISI-No Blow

FFP-No Blow

FSIF-No Blow



## PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1839.76	91.61	Initial Hydro-static
1	33.81	92.62	Open To Flow (1)
31	77.80	105.21	Shut-In(1)
76	78.16	104.33	End Shut-In(1)
76	78.16	104.32	Open To Flow (2)
105	78.17	104.29	Shut-In(2)
136	77.24	104.30	End Shut-In(2)
137	1750.32	103.48	Final Hydro-static

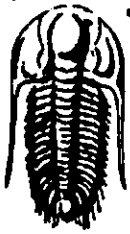
## Recovery

Length (ft)	Description	Volume (bbl)
90.00	MV 90%W 10%M	0.99
30.00	OS MV 3%O 67%W 30%M	0.42
10.00	CO	0.14

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

E&B Natural Resources

**31-11s-17w Ellis,KS**

1600 Norris Rd  
Bakersfield CA 93308

**Marshall A #37**

Job Ticket: 46865

**DST#: 2**

ATTN: Bob O'Dell

Test Start: 2012.02.07 @ 20:22:15

### Tool Information

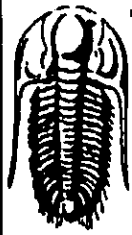
Drill Pipe:	Length: 3581.00 ft	Diameter: 3.80 inches	Volume: 50.23 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Full Loose: 49000.00 lb
			Total Volume: - bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3618.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	58.00 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			3590.00	
Shut In Tool	5.00			3595.00	
Hydraulic tool	5.00			3600.00	
Jars	5.00			3605.00	
Safety Joint	3.00			3608.00	
Packer	5.00			3613.00	29.00 Bottom Of Top Packer
Packer	5.00			3618.00	
Stubb	1.00			3619.00	
Recorder	0.00	8369	Inside	3619.00	
Recorder	0.00	6753	Outside	3619.00	
Perforations	25.00			3644.00	
Bullnose	3.00			3647.00	29.00 Bottom Packers & Anchor

**Total Tool Length: 58.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

E&B Natural Resources

31-11s-17w Ellis,KS

1600 Norris Rd  
Bakersfield CA 93308

Marshall A #37

Job Ticket: 46865

DST#: 2

ATTN: Bob O'Dell

Test Start: 2012.02.07 @ 20:22:15

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

23 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

38000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
90.00	MW 90%W 10%M	0.989
30.00	OS MW 3%O 67%W 30%M	0.421
10.00	OO	0.140

Total Length: 130.00 ft      Total Volume: 1.550 bbl

Num Fluid Samples: 0

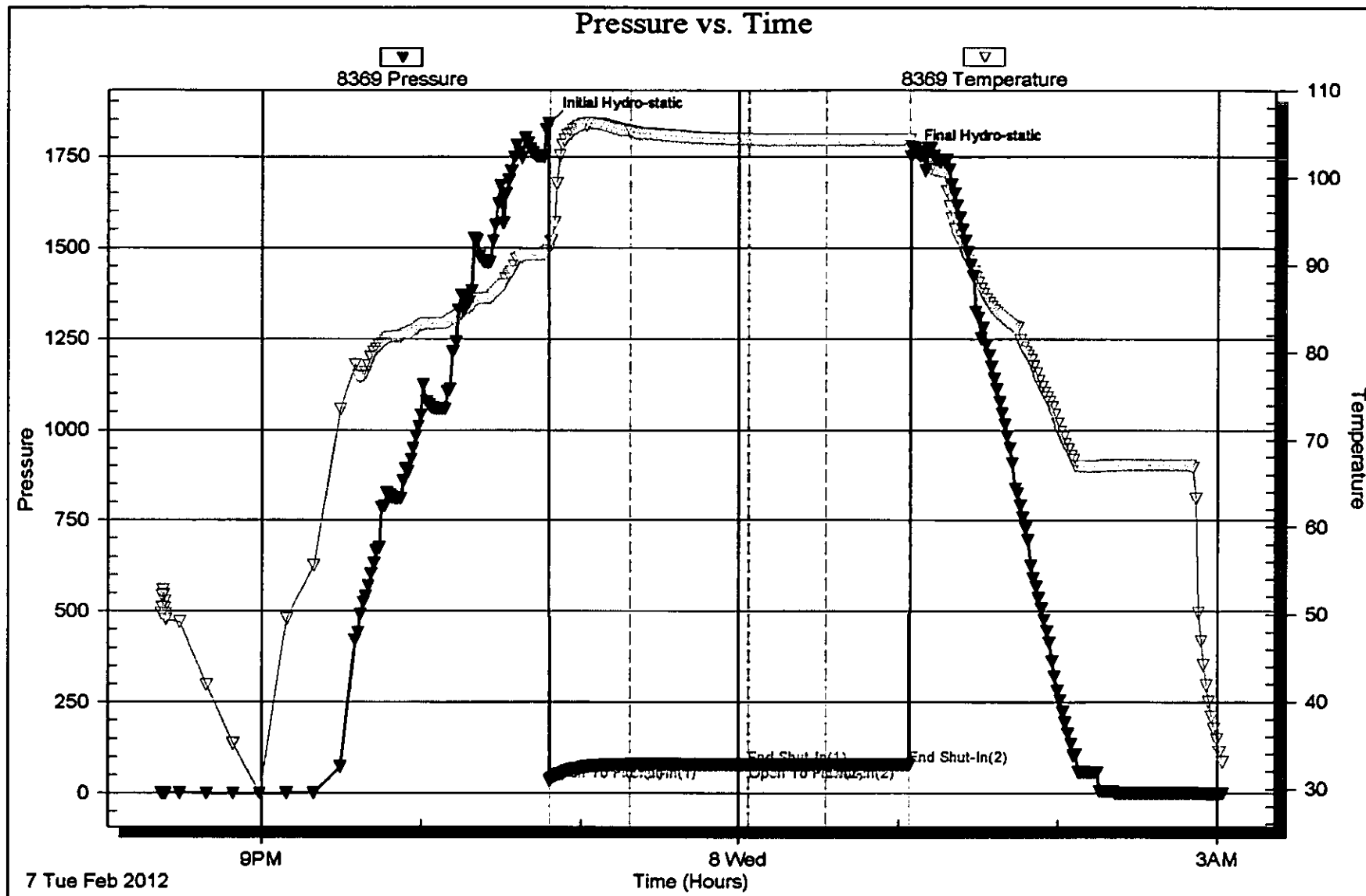
Num Gas Bombs: 0

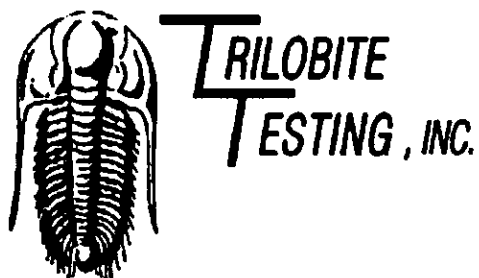
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .27@50





## DRILL STEM TEST REPORT

Prepared For: **E&B Natural Resources**

1600 Norris Rd  
Bakersfield CA 93308

ATTN: Bob O'Dell

**Marshall A #37**

**31-11s-17w Ellis,KS**

Start Date: 2012.02.08 @ 08:56:18

End Date: 2012.02.08 @ 16:59:48

Job Ticket #: 46866                      DST #: 3

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

Printed: 2012.02.15 @ 14:24:19

E&B Natural Resources

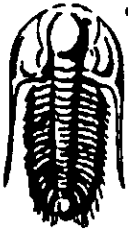
31-11s-17w Ellis,KS

Marshall A #37

DST # 3

Arbuckle

2012.02.08



**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

E&B Natural Resources  
 1600 Norris Rd  
 Bakersfield CA 93308  
 ATTN: Bob O'Dell

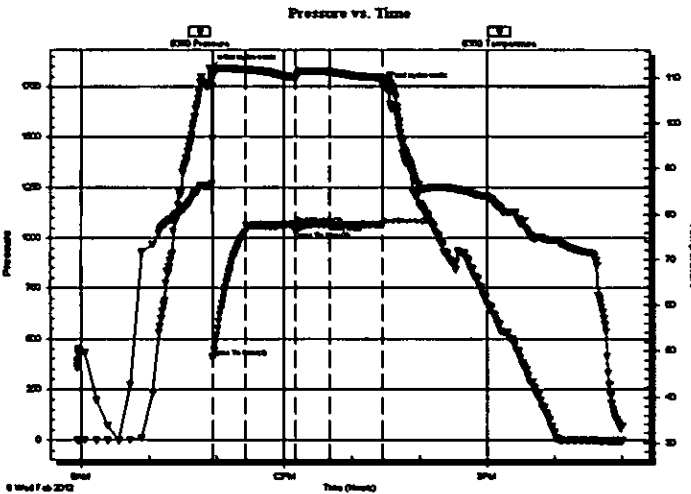
**31-11s-17w Ellis,KS**  
**Marshall A #37**  
 Job Ticket: 46866      DST#: 3  
 Test Start: 2012.02.08 @ 08:56:18

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:56:18  
 Time Test Ended: 16:59:48  
 Interval: **3646.00 ft (KB) To 3657.00 ft (KB) (TVD)**  
 Total Depth: **3657.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: **Conventional Bottom Hole (Reset)**  
 Tester: **Jim Svaty**  
 Unit No: **59**  
 Reference Elevations: **2128.00 ft (KB)**  
**2123.00 ft (CF)**  
**KB to GR/CF: 5.00 ft**

**Serial #: 8369** Inside  
 Press@RunDepth: 1066.11 psig @ 3647.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.02.08 End Date: 2012.02.08 Last Calib.: 2012.02.08  
 Start Time: 08:56:23 End Time: 16:59:47 Time On Btm: 2012.02.08 @ 10:55:18  
 Time Off Btm: 2012.02.08 @ 13:27:18

**TEST COMMENT:** IFF-BOB in 30 sec  
 ISI-Surface Blow in 8 min  
 FFP-BOB in 1 min 30 sec  
 FSIP-Surface Blow in 1 min 3 sec



**PRESSURE SUMMARY**

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1842.72	86.53	Initial Hydro-static
1	405.44	96.59	Open To Flow (1)
31	1027.96	111.79	Shut-In(1)
75	1065.85	110.08	End Shut-In(1)
75	1032.27	110.04	Open To Flow (2)
105	1066.11	111.28	Shut-In(2)
152	1064.43	109.95	End Shut-In(2)
152	1748.87	108.95	Final Hydro-static

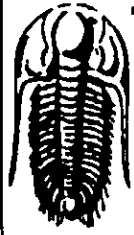
**Recovery**

Length (ft)	Description	Volume (bbl)
1120.00	osw 98%w 2%o	15.44
500.00	sl ocw 10%o 90sw	7.01
550.00	sl o&mcw 15%o 70%w 15%o	7.72
130.00	gsy oil 10%g 90%o	1.82

\* Recovery from multiple tests

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

E&B Natural Resources

**31-11s-17w Ells,KS**

1600 Norris Rd  
Bakersfield CA 93308

**Marshall A #37**

Job Ticket: 46866

**DST#: 3**

ATTN: Bob O'Dell

Test Start: 2012.02.08 @ 08:56:18

**Tool Information**

Drill Pipe:	Length: 3612.00 ft	Diameter: 3.80 inches	Volume: 50.67 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - 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: 57000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3646.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

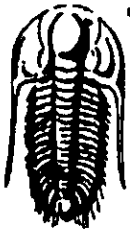
Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3618.00	
Shut In Tool	5.00			3623.00	
Hydraulic tool	5.00			3628.00	
Jars	5.00			3633.00	
Safety Joint	3.00			3636.00	
Packer	5.00			3641.00	29.00 Bottom Of Top Packer
Packer	5.00			3646.00	
Stubb	1.00			3647.00	
Recorder	0.00	8369	Inside	3647.00	
Recorder	0.00	6753	Outside	3647.00	
Perforations	7.00			3654.00	
Bullnose	3.00			3657.00	11.00 Bottom Packers & Anchor

**Total Tool Length: 40.00**





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

E&B Natural Resources

**31-11s-17w Ellis,KS**

1600 Norris Rd  
Bakersfield CA 93308

**Marshall A #37**

Job Ticket: 46866

**DST#: 3**

ATTN: Bob O'Dell

Test Start: 2012.02.08 @ 08:56:18

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 26 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 62000 ppm
Viscosity: 63.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.19 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: ppm		
Filter Cake: inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1120.00	osw 98%w 2%o	15.437
500.00	sl ocw 10%o 905w	7.014
550.00	sl o&mcw 15%o 70%w 15%m	7.715
130.00	gsy oil 10%g 90%o	1.824

Total Length: 2300.00 ft      Total Volume: 31.990 bbl

Num Fluid Samples: 0

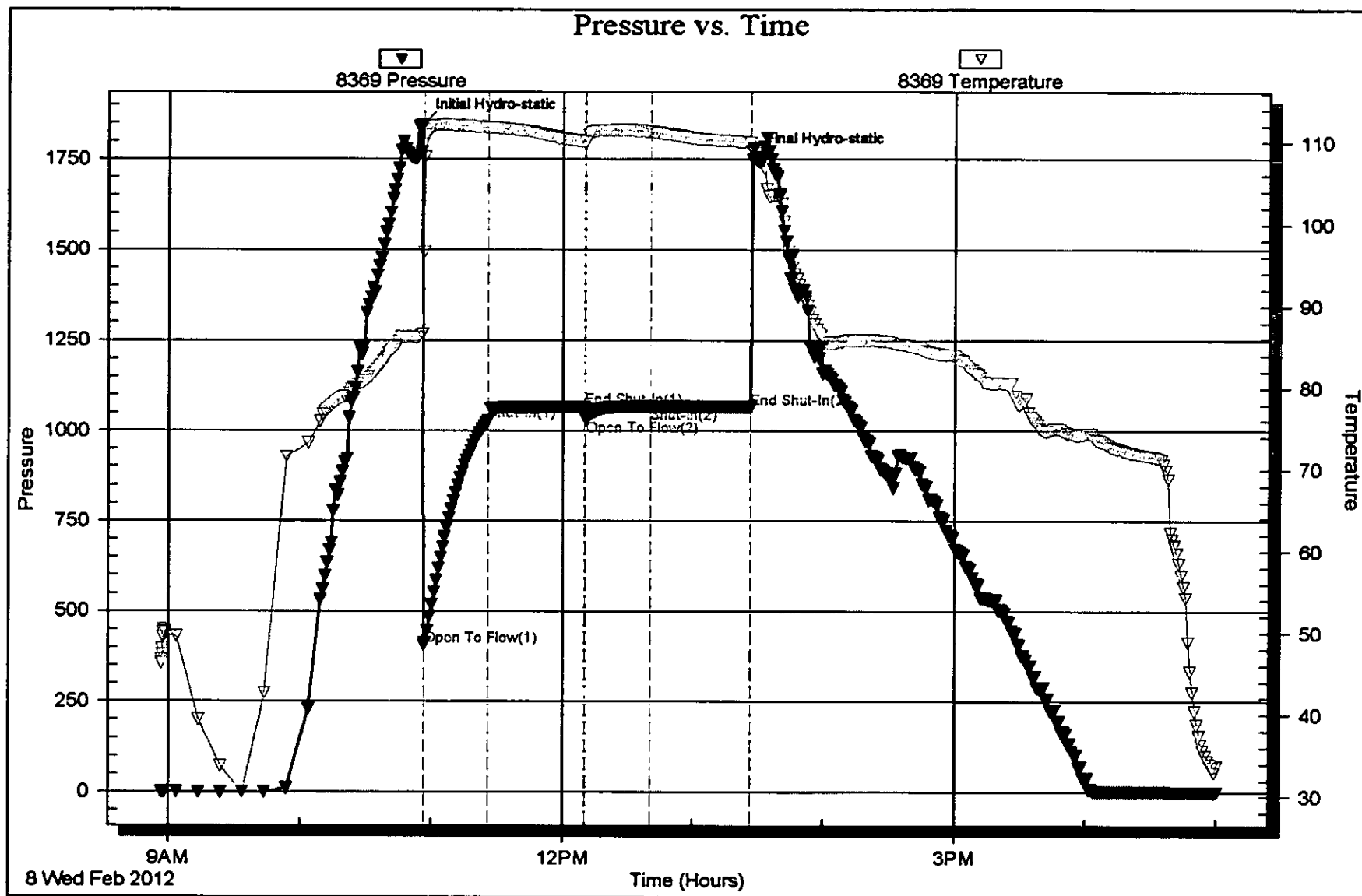
Num Gas Bombs: 0

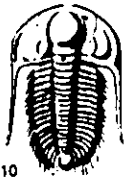
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .23@ 37





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED

## Test Ticket

NO. 46864

Well Name & No. Marshall A #37 Test No. 1 Date 2-6-12  
 Company E & B Natural Resources Elevation 2128 KB 2123 GL  
 Address 1600 Norris Rd Bakersfield CA 93308  
 Co. Rep / Geo. Bob O'Dell 3167061553 Rig Murfin Rig #16  
 Location: Sec. 31 Twp. 11<sup>S</sup> Rge. 17<sup>W</sup> Co. Ellis State KS

Interval Tested 3395-3420 Zone Tested LKC F  
 Anchor Length 25 Drill Pipe Run 3361 Mud Wt. 9.1  
 Top Packer Depth 3390 Drill Collars Run 30 Vis 50  
 Bottom Packer Depth 3395 Wt. Pipe Run — WL 7.6  
 Total Depth 3420 Chlorides 5000 ppm System LCM 2

Blow Description IFP - Surface Blow Building to BOB 25min  
ISIP - NO Blow  
FFP - Surface Blow Building to 4" IN 60min  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>68</u>	<u>SLIP + WCM</u>	<u>10</u>	<u>40</u>	<u>50</u>	
<u>60</u>	<u>GIP</u>				

Rec Total	BHT	Gravity	API RW	@	F Chlorides	ppm
<u>68</u>		<u>1125</u>				
(A) Initial Hydrostatic	<u>1663</u>	<input checked="" type="checkbox"/> Test	<u>250</u>		T-On Location	<u>17:10</u>
(B) First Initial Flow	<u>15</u>	<input checked="" type="checkbox"/> Jars	<u>75</u>		T-Started	<u>17:40</u>
(C) First Final Flow	<u>31</u>	<input checked="" type="checkbox"/> Safety Joint			T-Open	<u>19:26</u>
(D) Initial Shut-In	<u>202</u>	<input type="checkbox"/> Circ Sub			T-Pulled	<u>22:41</u>
(E) Second Initial Flow	<u>29</u>	<input type="checkbox"/> Hourly Standby			T-Out	<u>00:19</u>
(F) Second Final Flow	<u>46</u>	<input checked="" type="checkbox"/> Mileage	<u>31 RT 43<sup>40</sup></u>		Comments	
(G) Final Shut-In	<u>199</u>	<input type="checkbox"/> Sampler				
(H) Final Hydrostatic	<u>1613</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>45</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>60</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>60</u>	<input type="checkbox"/> Day Standby		Total	<u>1493.40</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1493.40</u>		

Approved By \_\_\_\_\_ 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.  
Bob Paul



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED

## Test Ticket

NO. 46865

Well Name & No. Marshall A #37 BY: \_\_\_\_\_ Test No. 2 Date 2-7-12  
 Company E & B Natural Resources Elevation 2128 KB 2123 GL \_\_\_\_\_  
 Address 1600 Norris Rd Bakersfield CA 93308  
 Co. Rep / Geo. Bob O'Dell 3167061553 Rig MURFIN #16  
 Location: Sec. 31 Twp. 11S Rge. 17W Co. Ellis State KS

Interval Tested 3618 - 3647 Zone Tested Arbuckle  
 Anchor Length 29 Drill Pipe Run 3581 Mud Wt. 9.1  
 Top Packer Depth 3613 Drill Collars Run 30' Vis 49  
 Bottom Packer Depth 3618 Wt. Pipe Run \_\_\_\_\_ WL 7.6  
 Total Depth 3647 Chlorides 6000 ppm System LCM 2

Blow Description IF - BOB 6 min  
ISI - NO Blow  
PF - NO Blow  
FSI - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>MW</u>			<u>90</u>	<u>10</u>
<u>30</u>	<u>OS MW</u>	<u>3</u>		<u>67</u>	<u>30</u>
<u>10</u>	<u>CO</u>	<u>100</u>			
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

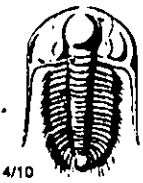
Rec Total \_\_\_\_\_ BHT 104 Gravity 23 API RW, 21 @ 35 °F Chlorides 38000 ppm  
 (A) Initial Hydrostatic 1839  Test 1125 T-On Location 17:50  
 (B) First Initial Flow 34  Jars 250 T-Started 20:22  
 (C) First Final Flow 78  Safety Joint 75 T-Open 22:48  
 (D) Initial Shut-In 78  Circ Sub \_\_\_\_\_ T-Pulled 01:03  
 (E) Second Initial Flow 78  Hourly Standby 14hr 25' T-Out 3:02  
 (F) Second Final Flow 78  Mileage 31 RT 43.40 Comments is hard to start  
 (G) Final Shut-In 77  Sampler \_\_\_\_\_ trip - called but we were  
 (H) Final Hydrostatic 1750  Straddle \_\_\_\_\_ almost there - had light plant  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer issues  
 Extra Packer \_\_\_\_\_  Ruined Packer tripped very  
 Extra Recorder \_\_\_\_\_  Extra Copies slow

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 30

Sub Total 1518.40 Sub Total \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Approved By Bob O'Dell 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.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
FEB 10 2012  
BY: \_\_\_\_\_

## Test Ticket

NO. 46866

Well Name & No. Marshall A #37 Test No. 3 Date 2-8-12  
 Company E & B Natural Resources Elevation 2128 KB 2123 GL  
 Address 1600 Norris Rd Bakersfield CA 92308  
 Co. Rep / Geo. Bob O'Dell Rig MURFIN #16  
 Location: Sec. 31 Twp. 11<sup>s</sup> Rge. 17<sup>w</sup> Co. Ellis State KS

Interval Tested 3646-3657 Zone Tested Arbuckle  
 Anchor Length 11 Drill Pipe Run 3612 Mud Wt. 9.2  
 Top Packer Depth 3641 Drill Collars Run 30 Vis 63  
 Bottom Packer Depth 3646 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 3657 Chlorides 6000 ppm System LCM 9

Blow Description IF - BOB in 30 seconds  
ISI - SURFACE Blow in 8min  
FF - BOB in 1min 30sec  
FSI - SURFACE Blow in 1min 30sec, Building to 5.5 inch

Rec	Feet of	%gas	%oil	%water	%mud
<u>1120</u>	<u>0SW</u>	<u>2</u>	<u>98</u>		
<u>500</u>	<u>SL DCW</u>	<u>10</u>	<u>90</u>		
<u>550</u>	<u>SL &amp; MCW</u>	<u>15</u>	<u>70</u>	<u>15</u>	
<u>130</u>	<u>gsy oil</u>	<u>10</u>	<u>90</u>		
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total	BHT
(A) Initial Hydrostatic	<u>1843</u>
(B) First Initial Flow	<u>405</u>
(C) First Final Flow	<u>1028</u>
(D) Initial Shut-In	<u>1066</u>
(E) Second Initial Flow	<u>1032</u>
(F) Second Final Flow	<u>1066</u>
(G) Final Shut-In	<u>1064</u>
(H) Final Hydrostatic	<u>1748</u>

Gravity API RW @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

Test 1125'

Jars 250'

Safety Joint 75'

Circ Sub \_\_\_\_\_

Hourly Standby \_\_\_\_\_

Mileage 31 RT 43.40

Sampler \_\_\_\_\_

Straddle \_\_\_\_\_

Shale Packer \_\_\_\_\_

Extra Packer \_\_\_\_\_

Extra Recorder \_\_\_\_\_

Day Standby \_\_\_\_\_

Accessibility \_\_\_\_\_

Sub Total 1493.40

T-On Location 8:53

T-Started 8:56

T-Open 10:55

T-Pulled 01:25

T-Out 16:59

Initial Open 30

Initial Shut-In 45

Final Flow 30

Final Shut-In 45

Comments \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_

Ruined Packer \_\_\_\_\_

Extra Copies \_\_\_\_\_

Sub Total 0

Total 1493.40

MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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