

CONFIDENTIAL

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

ORIGINAL

Form ACO-1
October 2008
Form Must Be Typed

9/29/12

OPERATOR: License # 4767
Name: Ritchie Exploration, Inc.
Address 1: P.O. Box 783188
Address 2: _____
City: Wichita State: KS Zip: 67278 + 3188
Contact Person: John Niernberger
Phone: (316) 691-9500
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Mike Engelbrecht
Purchaser: _____

Designate Type of Completion:
 New Well _____ Re-Entry _____ Workover _____
_____ Oil _____ SWD _____ SIOW _____
_____ Gas _____ ENHR _____ SIGW _____
_____ CM (Coal Bed Methane) _____ Temp. Abd. _____
 Dry _____ Other _____
(Core, WSW, Expl., Cathodic, 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: _____ Plug Back Total Depth _____
_____ Commingled _____ Docket No.: _____
_____ Dual Completion _____ Docket No.: _____
_____ Other (SWD or Enhr.?) _____ Docket No.: _____
6/11/10 6/19/10 6/19/10
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 109-20920-0000
Spot Description: 30' N & 60' W of
C S/2 S/2 S/2 Sec. 1 Twp. 12 S. R. 32 East West
360 Feet from North / South Line of Section
2580 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Logan
Lease Name: Stoecker-Engel Well #: 1
Field Name: _____
Producing Formation: _____
Elevation: Ground: 2948 Kelly Bushing: 2958
Total Depth: 4669 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: 221 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 PANJ 107140
(Data must be collected from the Reserve Pit)
Chloride content: 4500 ppm Fluid volume: 700 bbls
Dewatering method used: evaporation
Location of fluid disposal if hauled offsite: _____
Operator Name: _____
Lease Name: _____ License No.: _____
Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West
County: _____ Docket No.: _____

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.

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: _____
Title: Production Manager Date: 9/29/10
Subscribed and sworn to before me this 29th day of September
20 10
Notary Public: Debra K Phillips
Date Commission Expires: 5-4-11

DEBRA K. PHILLIPS
Notary Public - State of Kansas
My Appt. Expires 5-4-11

KCC Office Use ONLY
 Letter of Confidentiality Received 9/29/10 - 9/29/12
If Denied, Yes Date: _____
 Wireline Log Received
 Geologist Report Received

UIC Distribution

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Operator Name: Ritchie Exploration, Inc. Lease Name: Stoecker-Engel Well #: 1
 Sec. 1 Twp. 12 S. R. 32 East West County: Logan

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 copy of all Electric Wireline 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 <i>(Submit Copy)</i> List All E. Logs Run: Radiation Guard Log	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Top Datum <p style="text-align: center;">SEE ATTACHED</p>
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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	12-1/4	8-5/8	24	221	common	175	3%cc, 2%gel

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 <i>(Amount and Kind of Material Used)</i>	Depth
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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: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> 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 <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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KCC
SEP 29 2010
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#1 Stoecker-Engel

360' FSL & 2580' FWL
30' N & 60' W of C S/2 S/2 S/2 Section 1-12S-32W
Logan County, Kansas
API# 15-109-20920-0000

Elevation: GL: 2948', KB: 2958'

<u>Sample Tops</u>			<u>Ref. Well</u>
Anhydrite	2486'	+472	+6
B/Anhydrite	2510'	+448	+6
Heebner	3968'	-1010	+9
Toronto	3995'	-1037	+10
Lansing	4014'	-1056	+10
Lansing "C"	4048'	-1090	+7
Lansing "D"	4062'	-1104	+8
Lansing "E"	4090'	-1132	+9
Lansing "F"	4096'	-1138	+9
Muncie Shale	4150'	-1192	+9
Lansing "H"	4166'	-1208	+9
Lansing "I"	4198'	-1240	+11
Lansing "J"	4216'	-1258	+12
Lansing "K"	4244'	-1286	+16
Lansing "L"	4276'	-1318	+17
BKC	4300'	-1342	+15
Pawnee	4416'	-1458	+20
Myric Station	4460'	-1502	+15
Fort Scott	4480'	-1522	+16
Cherokee Shale	4505'	-1547	+17
Johnson	4549'	-1591	+16
B/Johnson	4565'	-1601	+17
Morrow Sand	4570'	-1612	N/A
Mississippian	4594'	-1636	+25
RTD	4669'	-1711	

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ALLIED CEMENTING CO., LLC. 038878

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

SERVICE POINT:

Oakley, KS

DATE <i>6/11/10</i>	SEC. <i>1</i>	TWP. <i>12</i>	RANGE <i>32</i>	CALLED OUT	ON LOCATION	JOB START <i>6:00pm</i>	JOB FINISH <i>6:30pm</i>
STOOPER-ENGLE LEASE	WELL # <i>1</i>	LOCATION <i>Oakley S to Kuma Rd</i>			COUNTY <i>Logan</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one)		LOCATION <i>1 1/2 E NINTO</i>					

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CONTRACTOR <i>MURFIN 14</i>	OWNER <i>Same</i>
TYPE OF JOB <i>Surface</i>	
HOLE SIZE <i>12 1/4</i>	T.D. <i>221</i>
CASING SIZE <i>8 7/8</i>	DEPTH <i>224</i>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <i>15'</i>	
PERFS.	
DISPLACEMENT <i>13.2496 BBL</i>	
EQUIPMENT	
PUMP TRUCK CEMENTER <i>Alan</i>	
# <i>422</i> HELPER <i>Wayne</i>	
BULK TRUCK	
# <i>347</i> DRIVER <i>Labene</i>	
BULK TRUCK	
#	DRIVER

CEMENT AMOUNT ORDERED <i>1750m</i>		
<i>3070 CC 290 gal</i>		
COMMON <i>175</i>	@ <i>15.45</i>	<i>2703.25</i>
POZMIX	@	
GEL <i>3</i>	@ <i>20.00</i>	<i>62.00</i>
CHLORIDE <i>6</i>	@ <i>58.20</i>	<i>349.20</i>
ASC	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING <i>184.50</i>	@ <i>2.40</i>	<i>441.60</i>
MILEAGE <i>0.454 mile - Miniana</i>		<i>312.00</i>
TOTAL		<i>3868.95</i>

REMARKS:

Cement did circulate

SERVICE

DEPTH OF JOB <i>224</i>		
PUMP TRUCK CHARGE		<i>1018.00</i>
EXTRA FOOTAGE	@	
MILEAGE <i>9</i>	@ <i>7.00</i>	<i>63.00</i>
MANIFOLD	@	
	@	
	@	
TOTAL		<i>1081.00</i>

Thank you Alan, Wayne, Labene

CHARGE TO: *Ritchie Exploration*

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
TOTAL		

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

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ IF PAID IN 30 DAYS

PRINTED NAME *Greg Church*

SIGNATURE *Greg Church*

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ALLIED CEMENTING CO., LLC. 038886

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

SERVICE POINT: Dakley

DATE <u>6/19/10</u>	SEC. <u>1</u>	TWP <u>12</u>	RANGE <u>32</u>	CALLED OUT	ON LOCATION	JOB START <u>1:00pm</u>	JOB FINISH <u>2:30pm</u>
LEASE <u>Spooker-Engle</u>	WELL # <u>1</u>	LOCATION <u>Dakley 7 S 2 E Ninto</u>			COUNTY <u>Logan</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one) <u>NEW</u>							

CONTRACTOR Myrtle 14

TYPE OF JOB PTA

HOLE SIZE 7 7/8 T.D. 4668

CASING SIZE 8 5/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

OWNER

CEMENT AMOUNT ORDERED 220 SK 60/40
470 gel 14 16 Flo Seal

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EQUIPMENT

PUMP TRUCK CEMENTER Alan

422 HELPER Wayne

BULK TRUCK

347 DRIVER LaBene

BULK TRUCK

DRIVER

COMMON	<u>132</u>	@ <u>15.45</u>	<u>2039.40</u>
POZMIX	<u>88</u>	@ <u>8.00</u>	<u>704.00</u>
GEL	<u>8</u>	@ <u>20.00</u>	<u>166.00</u>
CHLORIDE		@	
ASC		@	
<u>Flo Seal</u>	<u>55</u>	@ <u>2.50</u>	<u>137.50</u>
HANDLING	<u>230 SK</u>	@ <u>2.40</u>	<u>552.00</u>
MILEAGE	<u>120 SK/mile - minimum</u>		<u>312.00</u>
			TOTAL <u>3911.00</u>

REMARKS:

25 SK @

100 SK @

40 SK @

10 SK @

30 - Rat Hole

15 - Mouse Hole

SERVICE

DEPTH OF JOB 2490

PUMP TRUCK CHARGE 1185.00

EXTRA FOOTAGE @

MILEAGE 9 miles @ 7.00 63.00

MANIFOLD @

TOTAL 1248.00

CHARGE TO: Ritchie Exploration

STREET

CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

8 5/8 wooden Plug @ 40.00

TOTAL 40.00

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

PRINTED NAME Ceesa Inoch

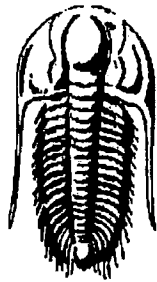
SIGNATURE Ceesa Inoch

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St N 700
Wichita, Ks 67278

ATTN: Mike Engelbrecht

1-12-32 Logan, KS

Stoecker-Engel #1

Start Date: 2010.06.15 @ 17:46:08

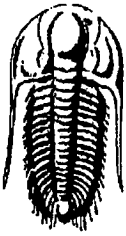
End Date: 2010.06.16 @ 00:53:02

Job Ticket #: 37873 DST #: 1

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KCC WICHITA

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

8100 E22nd St N700
Wichita, Ks 67278

ATTN: Mike Engelbrecht

Stoecker-Engel #1

1-12-32 Logan, KS

Job Ticket: 37873

DST#: 1

Test Start: 2010.06.15 @ 17:46:08

GENERAL INFORMATION:

Formation: **Lancing**

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

Time Tool Opened: 19:59:33

Time Test Ended: 00:53:02

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4080.00 ft (KB) To 4102.00 ft (KB) (TVD)**

Total Depth: 4102.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2958.00 ft (KB)

2948.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press@RunDepth: 125.67 psig @ 4081.00 ft (KB)

Start Date: 2010.06.15

End Date:

2010.06.16

Start Time: 17:46:08

End Time:

00:53:02

Capacity: 8000.00 psig

Last Calib.: 2010.06.16

Time On Btm: 2010.06.15 @ 19:58:18

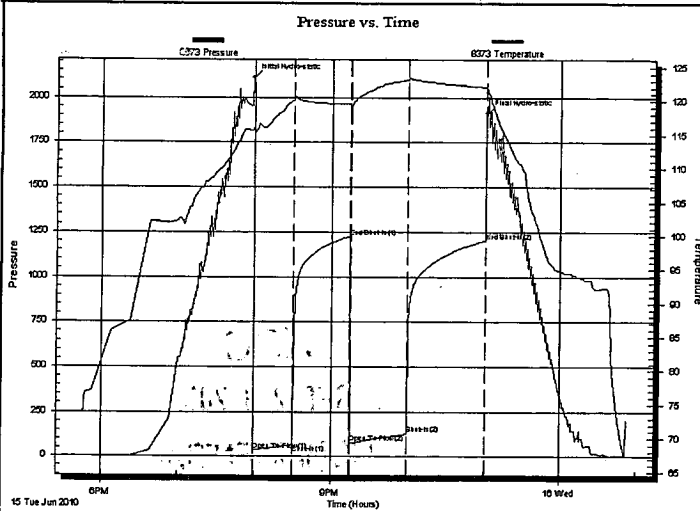
Time Off Btm: 2010.06.15 @ 23:01:32

TEST COMMENT: IF: 1/4 blow built to 4 in 30 min.

IS: No return.

FF: Surface blow built to 2 1/2 in 45 min.

FS: No return.



PRESSURE SUMMARY

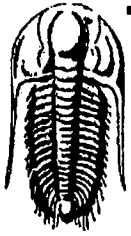
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2108.81	115.77	Initial Hydro-static
2	36.10	114.91	Open To Flow (1)
32	65.23	120.22	Shut-In(1)
77	1223.96	119.61	End Shut-In(1)
77	76.87	119.11	Open To Flow (2)
122	125.67	123.11	Shut-In(2)
183	1201.02	122.12	End Shut-In(2)
184	1913.13	121.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
94.00	mcw 90%w 10%m	0.46
134.00	mcw 70%w 30%m	0.66

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

Stoecker-Engel #1

8100 E22nd St N 700
Wichita, Ks 67278

1-12-32 Logan, KS

Job Ticket: 37873

DST#: 1

ATTN: Mike Engelbrecht

Test Start: 2010.06.15 @ 17:46:08

Tool Information

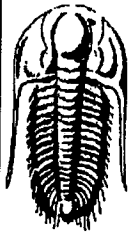
Drill Pipe:	Length: 3518.00 ft	Diameter: 3.80 inches	Volume: 49.35 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 52.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4080.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	50.00 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			4053.00	
Shut In Tool	5.00			4058.00	
Hydraulic tool	5.00			4063.00	
Jars	5.00			4068.00	
Safety Joint	3.00			4071.00	
Packer	5.00			4076.00	28.00 Bottom Of Top Packer
Packer	4.00			4080.00	
Stubb	1.00			4081.00	
Recorder	0.00	8373	Inside	4081.00	
Recorder	0.00	8289	Outside	4081.00	
Perforations	16.00			4097.00	
Bullnose	5.00			4102.00	22.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

Stoecker-Engel #1

8100 E 22nd St N 700
Wichita, Ks 67278

1-12-32 Logan, KS

Job Ticket: 37873

DST#: 1

ATTN: Mike Engelbrecht

Test Start: 2010.06.15 @ 17:46:08

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:

75000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
94.00	mcw 90%w 10%m	0.462
134.00	mcw 70%w 30%m	0.659

Total Length: 228.00 ft Total Volume: 1.121 bbl

Num Fluid Samples: 0

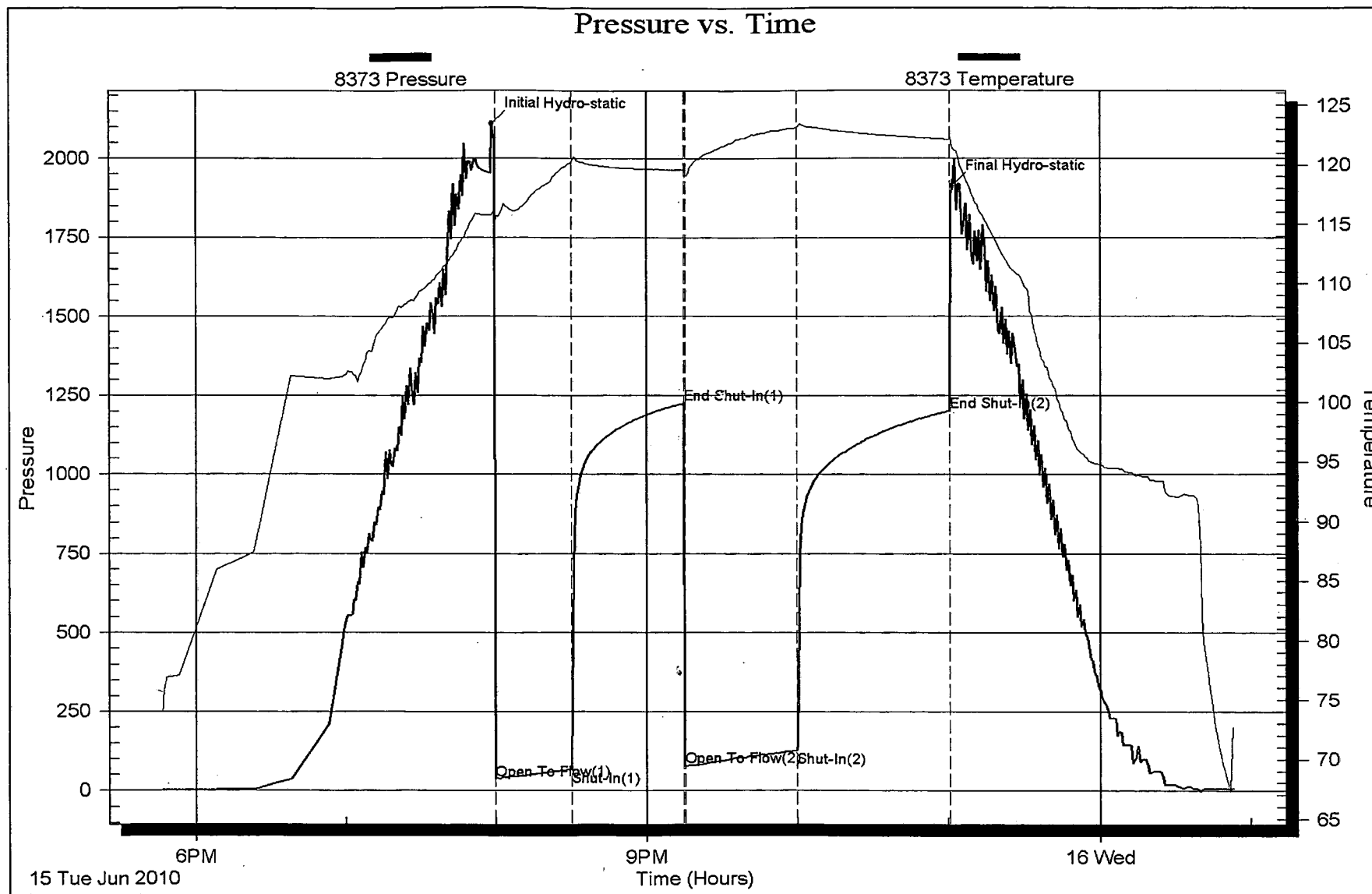
Num Gas Bombs: 0

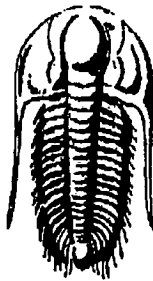
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .11@67=75000





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St N 700
Wichita, Ks 67278

ATTN: Mike Engelbrecht

1-12-32 Logan, KS

Stoecker-Engel #1

Start Date: 2010.06.16 @ 16:08:34

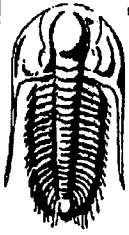
End Date: 2010.06.16 @ 22:15:28

Job Ticket #: 37874 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc.
8100 E22nd St N700
Wichita, Ks 67278
ATTN: Mike Engelbrecht

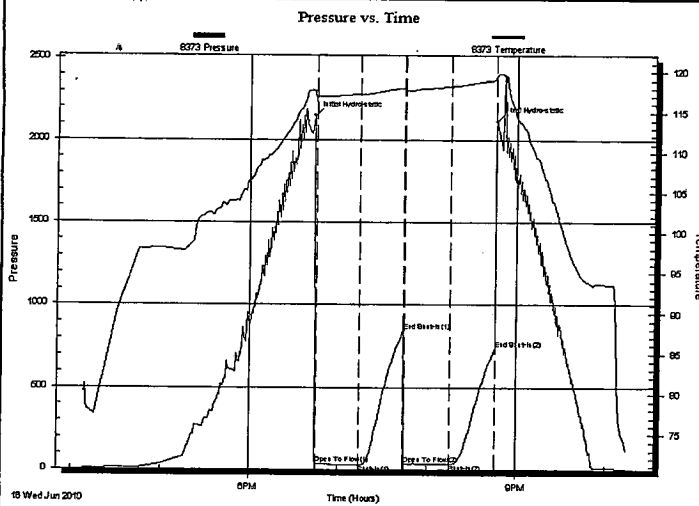
Stoecker-Engel #1
1-12-32 Logan, KS
Job Ticket: 37874 **DST#: 2**
Test Start: 2010.06.16 @ 16:08:34

GENERAL INFORMATION:

Formation: I-J
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:45:14
Time Test Ended: 22:15:28
Interval: **4180.00 ft (KB) To 4237.00 ft (KB) (TVD)**
Total Depth: 4237.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Brandon Turley
Unit No: 35
Reference Elevations: 2958.00 ft (KB)
2948.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**
Press@RunDepth: 35.23 psig @ 4181.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.06.16 End Date: 2010.06.16 Last Calib.: 2010.06.16
Start Time: 16:08:34 End Time: 22:15:28 Time On Btm: 2010.06.16 @ 18:43:29
Time Off Btm: 2010.06.16 @ 20:45:58

TEST COMMENT: IF: Surface blow died in 4 min.
IS: No return.
FF: No blow. Flushed tool no blow.
FS: No return.



PRESSURE SUMMARY

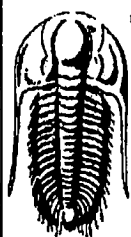
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2151.01	117.77	Initial Hydro-static
2	32.87	117.07	Open To Flow (1)
31	30.04	117.24	Shut-In(1)
61	840.83	118.08	End Shut-In(1)
61	35.72	117.73	Open To Flow (2)
92	35.23	118.28	Shut-In(2)
122	733.47	119.07	End Shut-In(2)
123	2117.16	119.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

Stoecker-Engel #1

8100 E 22nd St N 700
Wichita, Ks 67278

1-12-32 Logan, KS

Job Ticket: 37874

DST#: 2

ATTN: Mike Engelbrecht

Test Start: 2010.06.16 @ 16:08:34

Tool Information

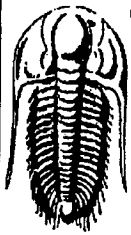
Drill Pipe:	Length: 3644.00 ft	Diameter: 3.80 inches	Volume: 51.12 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 53.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4180.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	85.00 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			4153.00	
Shut In Tool	5.00			4158.00	
Hydraulic tool	5.00			4163.00	
Jars	5.00			4168.00	
Safety Joint	3.00			4171.00	
Packer	5.00			4176.00	28.00 Bottom Of Top Packer
Packer	4.00			4180.00	
Stubb	1.00			4181.00	
Recorder	0.00	8373	Inside	4181.00	
Recorder	0.00	8289	Outside	4181.00	
Perforations	17.00			4198.00	
Change Over Sub	1.00			4199.00	
Drill Pipe	32.00			4231.00	
Change Over Sub	1.00			4232.00	
Bullnose	5.00			4237.00	57.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

Stoecker-Engel #1

8100 E 22nd St N 700
Wichita, Ks 67278

1-12-32 Logan, KS

Job Ticket: 37874

DST#: 2

ATTN: Mike Engelbrecht

Test Start: 2010.06.16 @ 16:08:34

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: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100% _m	0.025

Total Length:

5.00 ft

Total Volume:

0.025 bbl

Num Fluid Samples: 0

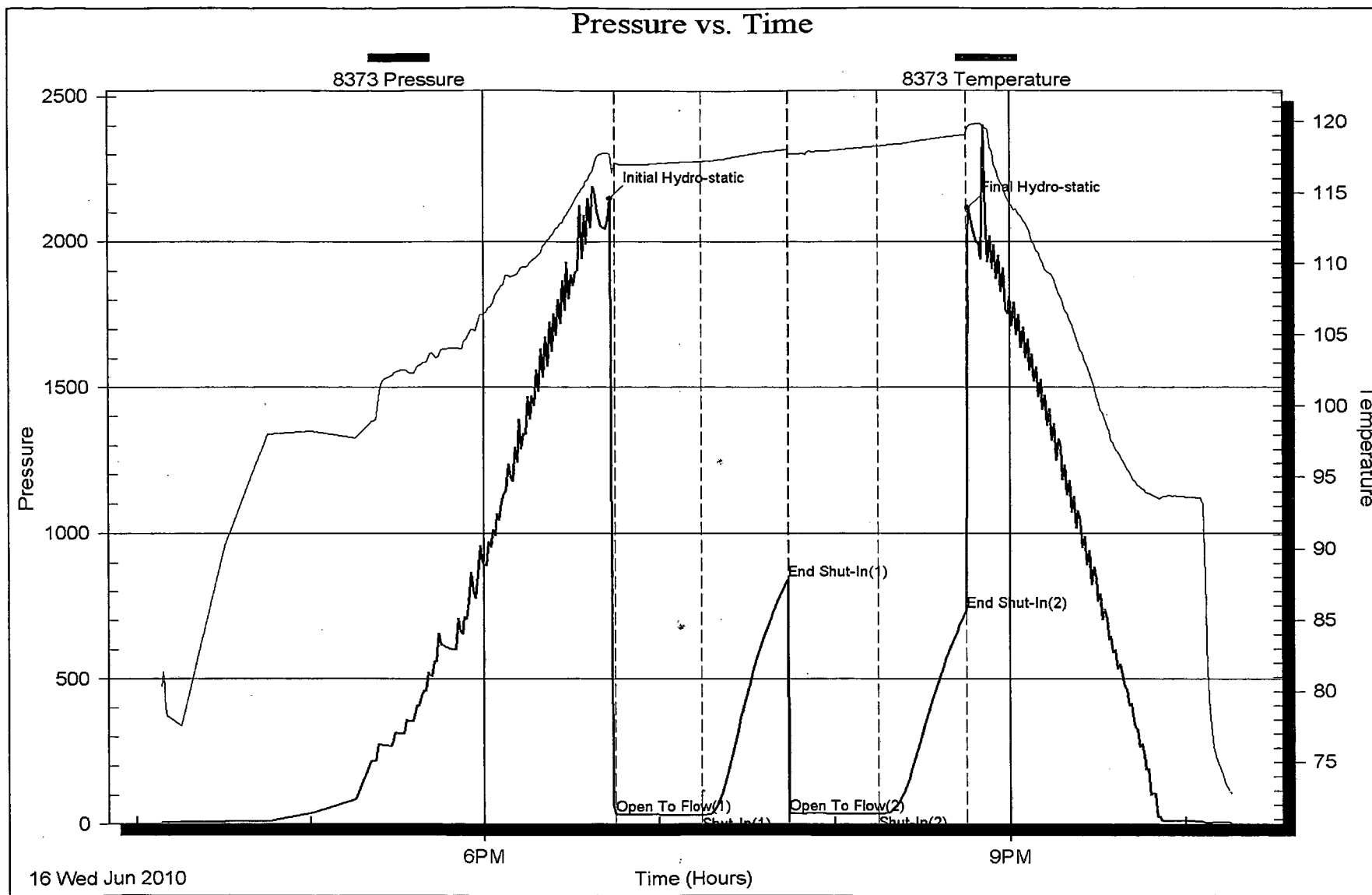
Num Gas Bombs: 0

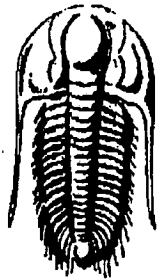
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St N 700
Wichita, Ks 67278

ATTN: Mike Engelbrecht

1-12-32 Logan, KS

Stoecker-Engel #1

Start Date: 2010.06.18 @ 04:15:59

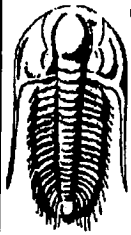
End Date: 2010.06.18 @ 10:14:23

Job Ticket #: 37875 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

8100 E22nd St N 700
Wichita, Ks 67278

ATTN: Mike Engelbrecht

Stoecker-Engel #1

1-12-32 Logan, KS

Job Ticket: 37875

DST#: 3

Test Start: 2010.06.18 @ 04:15:59

GENERAL INFORMATION:

Formation: **Johnson**

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

Time Tool Opened: 06:21:39

Time Test Ended: 10:14:23

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **4527.00 ft (KB) To 4566.00 ft (KB) (TVD)**

Total Depth: **4566.00 ft (KB) (TVD)**

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

Reference Elevations: **2958.00 ft (KB)**

2948.00 ft (CF)

KB to GR/CF: **10.00 ft**

Serial #: 8373 **Inside**

Press@RunDepth: **26.84 psig @ 4528.00 ft (KB)**

Start Date: **2010.06.18**

End Date:

2010.06.18

Start Time: **04:15:59**

End Time:

10:14:23

Capacity: **8000.00 psig**

Last Calib.: **2010.06.18**

Time On Btm: **2010.06.18 @ 06:20:39**

Time Off Btm: **2010.06.18 @ 08:22:54**

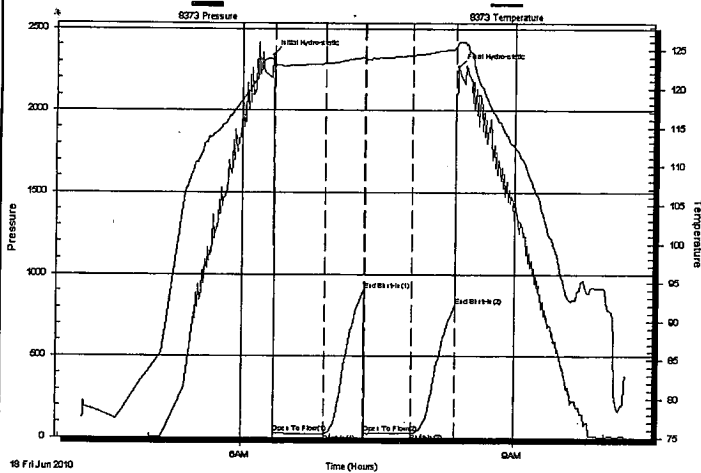
TEST COMMENT: IF: Surface blow died in 9 min.

IS: No return.

FF: No blow. Flushed tool no blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

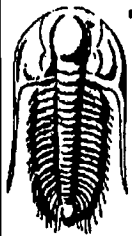
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2340.32	123.87	Initial Hydro-static
1	30.13	122.79	Open To Flow (1)
35	23.07	123.24	Shut-In(1)
61	899.80	124.04	End Shut-In(1)
62	27.29	123.73	Open To Flow (2)
93	26.84	124.32	Shut-In(2)
121	807.80	125.13	End Shut-In(2)
123	2267.02	125.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

Stoecker-Engel #1

8100 E22nd St N 700
Wichita, Ks 67278

1-12-32 Logan, KS

Job Ticket: 37875

DST#: 3

ATTN: Mike Engelbrecht

Test Start: 2010.06.18 @ 04:15:59

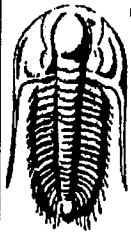
Tool Information

Drill Pipe:	Length: 3995.00 ft	Diameter: 3.80 inches	Volume: 56.04 bbl	Tool Weight: 1500.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 58.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4527.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4508.00	
Shut In Tool	5.00			4513.00	
Hydraulic tool	5.00			4518.00	
Packer	5.00	*		4523.00	20.00 Bottom Of Top Packer
Packer *	4.00			4527.00	*
Stubb	1.00			4528.00	
Recorder	0.00	8373	Inside	4528.00	
Recorder	0.00	8289	Outside	4528.00	
Perforations	33.00			4561.00	
Bullnose	5.00			4566.00	39.00 Bottom Packers & Anchor
Total Tool Length:	59.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

Stoecker-Engel #1

8100 E 22nd St N 700
Wichita, Ks 67278

1-12-32 Logan, KS

Job Ticket: 37875

DST#: 3

ATTN: Mike Engelbrecht

Test Start: 2010.06.18 @ 04:15:59

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: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	mud 100%m	0.025

Total Length:

5.00 ft

Total Volume:

0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

