

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

Form ACO-1
September 1999
Form Must Be Typed

6/22/12

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 4767
 Name: Ritchie Exploration, Inc.
 Address: P.O. Box 783188
 City/State/Zip: Wichita, KS 67278-3188
 Purchaser: Plains Marketing
 Operator Contact Person: John Niernberger
 Phone: (316) 691-9500
 Contractor: Name: Murfin Drilling Co., Inc.
 License: 30606
 Wellsite Geologist: Tom Funk
 Designate Type of Completion:
 New Well Re-Entry Workover
 Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 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./SWD
 Plug Back Plug Back Total Depth
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Enhr.?) Docket No. _____

<u>3/25/10</u>	<u>4/5/10</u>	<u>4/6/10</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

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API No. 15 - 171-20756-00-00
 County: Scott
 approx. SW SW SW Sec. 14 Twp. 17 S. R. 31 East West
330 feet from (S) N (circle one) Line of Section
345 feet from E (W) (circle one) Line of Section
 Footages Calculated from Nearest Outside Section Corner:
 (circle one) NE SE NW SW
 Lease Name: Sharp Seed 14C Well #: 2
 Field Name: _____
 Producing Formation: Cherokee & Johnson
 Elevation: Ground: 2914 Kelly Bushing: 2919
 Total Depth: 4640 Plug Back Total Depth: 4616
 Amount of Surface Pipe Set and Cemented at 224 Feet
 Multiple Stage Cementing Collar Used? Yes No
 If yes, show depth set 2244 Feet
 If Alternate II completion, cement circulated from 2244
 feet depth to surface w/ 365 sx cmt.

Drilling Fluid Management Plan AT-INJ 6-28-10
 (Data must be collected from the Reserve Pit)
 Chloride content 6500 ppm Fluid volume 715 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: 6/22/10
 Subscribed and sworn to before me this 22nd day of June
20 10
 Notary Public: Debra K Phillips
 Date Commission Expires: 5-4-11

KCC Office Use ONLY

Letter of Confidentiality Received 6/22/10
 If Denied, Yes Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution

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

Operator Name: Ritchie Exploration, Inc. Lease Name: Sharp Seed 14C Well #: 2
 Sec. 14 Twp. 17 S. R. 31 East West County: Scott

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: Dual Induction Log Compensated Density/Neutron Log	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Top Datum SEE ATTACHED <div style="text-align: right; font-weight: bold; font-size: 1.2em;"> KCC JUN 22 2010 CONFIDENTIAL </div>
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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	23#/24#	224	Common	175	3%cc, 2% gel
Production	7-7/8	4-1/2	10.5	4638	ASC	200	10% salt, 2% gel & 5# per sack flo-secal

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	4034.5' - 4038.5' (LKC-E 4/14/10)	500 gallons 15% NE	
4	4275.5' - 4279.5' (LKC-L 4/14/10)		
	**** Packer set at 4431' ****		
4	4500' - 4502.5' & 4510' - 4512.5' (Cherokee Lime 4/14/10)	600 gallons 15% NE	
4	4544.3' - 4548.3' (Johnson 4/14/10)	500 gallons 15% NE	

TUBING RECORD	Size Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2-3/8	4570'	4431'	

Date of First, Resumerd Production, SWD or Enhr. <u>4/26/10</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.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	17.65		0		33.5

Disposition of Gas <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify)	Production Interval
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RITCHIE

EXPLORATION, INC.
Wichita, Kansas

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#2 Sharp Seed 14C

330' FSL & 345' FWL

15' E of SW SW SW Section 14-17S-31W

Scott County, Kansas

API# 15-171-20756-0000

Elevation: 2914' GL: 2919' KB

Sample Tops		Ref.	Well
Anhydrite	2282'	+637	-5
B/Anhydrite	2301'	+618	-6
Stotler	3521'	-602	+2
Topeka	3669'	-750	+1
Heebner	3900'	-981	flat
Toronto	3912'	-993	flat
Lansing	3936'	-1017	flat
Lansing "C"	3976'	-1057	flat
Lansing "E"	4033'	-1114	-1
Muncie Creek	4127'	-1208	-3
Lansing "H"	4138'	-1219	-4
Stark Shale	4223'	-1304	-5
Lansing "K"	4235'	-1316	-7
BKC	4300'	-1381	-4
Pleasanton	4307'	-1388	-3
Marmaton	4339'	-1420	-4
Altamont	4354'	-1435	-4
Pawnee	4425'	-1506	-8
Myric	4456'	-1537	-7
Fort Scott	4470'	-1551	-7
Cherokee Shale	4494'	-1575	-9
Johnson	4534'	-1615	-8
Morrow Sand	4566'	-1647	N/A
Mississippian	4577'	-1658	-14
RTD	4640'	-1721	

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ALLIED CEMENTING CO., LLC. 039151

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

SERVICE POINT: Oakley, KJ

DATE <u>3/26/10</u>	SEC. <u>14</u>	TWP. <u>17</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>4:30pm</u>	JOB FINISH <u>5:00pm</u>
LEASE <u>Sharp sand 14-c</u>	WELL # <u>th</u>	LOCATION <u>Hwy 4 & Manning Rd 1 1/2 S</u>				COUNTY <u>SCOTT</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)		<u>Exito</u>					

CONTRACTOR Marvin 24 OWNER Same

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. _____ CEMENT _____

CASING SIZE 8 5/8 DEPTH 224 FT AMOUNT ORDERED 175 SK

TUBING SIZE _____ DEPTH _____ Com 2070 gel 390 CC

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____ COMMON 175 @ 15.95 2703.75

MEAS. LINE _____ SHOE JOINT _____ POZMIX _____ @ _____

CEMENT LEFT IN CSG. _____ GEL 3 @ 20.00 62.40

PERFS. _____ CHLORIDE 6 @ 58.20 349.20

DISPLACEMENT _____ ASC _____ @ _____

EQUIPMENT

PUMP TRUCK CEMENTER Alan

42 HELPER Wayne

BULK TRUCK _____

34 DRIVER Jerry

BULK TRUCK _____

_____ DRIVER _____

HANDLING <u>184</u>	@ <u>2.40</u>	<u>441.60</u>
MILEAGE <u>10 + 5/2/mile</u>	@ _____	<u>920.00</u>
TOTAL		<u>4476.95</u>

REMARKS: Cement Dick Circulate

Thank You Alan, Wayne, Jerry

CHARGE TO: Ritchie Exploration

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB _____		
PUMP TRUCK CHARGE _____		<u>1018.00</u>
EXTRA FOOTAGE _____ @ _____		
MILEAGE <u>50 miles</u> @ <u>7.00</u>		<u>350.00</u>
MANIFOLD _____ @ _____		
TOTAL		<u>1368.00</u>

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.

PRINTED NAME Anthony Martin

SIGNATURE Anthony Martin

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ IF PAID IN 30 DAYS

ETW

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ALLIED CEMENTING CO., LLC. 039219

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

SERVICE POINT: Orkney

DATE <u>4-9-10</u>	SEC. <u>14</u>	TWP. <u>17</u>	RANGE <u>3/W</u>	CALLED OUT	ON LOCATION	JOB START <u>12:30pm</u>	JOB FINISH <u>1:30pm</u>
<u>Sharpseeds</u> LEASE	WELL # <u>14</u>	LOCATION <u>2</u>	<u>manning</u>	<u>IN</u>	<u>Einro</u>	COUNTY <u>Scott</u>	STATE <u>Ks</u>
OLD OR NEW (Circle one)							

CONTRACTOR Plains well service
 TYPE OF JOB Port collar
 HOLE SIZE _____ T.D. _____
 CASING SIZE 4 1/2 DEPTH _____
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL Port collar DEPTH 2241
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. _____
 PERFS. _____
 DISPLACEMENT _____

OWNER Same
 CEMENT
 AMOUNT ORDERED 450 sks 2040 lbs gal
1/4" FLO-seal 350# hulls on side
used 365 sks 250# hulls

COMMON	<u>219 sks</u>	@ <u>15.45</u>	<u>3383.55</u>
POZMIX	<u>146 sks</u>	@ <u>8.00</u>	<u>1168.00</u>
GEL	<u>19 sks</u>	@ <u>20.80</u>	<u>395.20</u>
CHLORIDE		@	
ASC		@	
	<u>FLO-seal 91#</u>	@ <u>2.50</u>	<u>227.50</u>
	<u>Hulls 5 sks</u>	@ <u>31.85</u>	<u>159.25</u>
		@	
		@	
HANDLING	<u>471 sks</u>	@ <u>2.40</u>	<u>1130.40</u>
MILEAGE	<u>10# sk/mile</u>		<u>235.00</u>
			TOTAL <u>8818.90</u>

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REMARKS:

Pressure to 1200 Open port collar
take injection rate 4 BBL min 500#
Mix 365 sks cement with 250#
hulls cement did circulate.
Displace, close port collar pressure
to 1200# Run 5 joints Reverse
clean.

thank you

CHARGE TO: Ritchie exploration
 STREET _____
 CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB 2244'
 PUMP TRUCK CHARGE 1185.00
 EXTRA FOOTAGE @ _____
 MILEAGE 50 miles @ 7.00 350.00
 MANIFOLD @ _____
 @ _____
 @ _____

TOTAL 1535.00

PLUG & FLOAT EQUIPMENT

 @ _____
 @ _____
 @ _____
 @ _____
 @ _____

TOTAL _____

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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 GARY RAWE
Gary Rawe
 SIGNATURE _____

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

ALLIED CEMENTING CO.. LLC. 039227

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

SERVICE POINT:

DAHL

DATE <u>4-6-10</u>	SEC <u>14</u>	TWP. <u>17S</u>	RANGE <u>31W</u>	CALLED OUT	ON LOCATION <u>2:30pm</u>	JOB START <u>10:00pm</u>	JOB FINISH <u>10:30pm</u>
Sharp Seeds LEASE <u>14C</u>		WELL# <u>22</u>	LOCATION <u>Manning 10-CW</u>	COUNTY <u>Scott</u>	STATE <u>KS</u>		
OLD OR NEW (Circle one)							

CONTRACTOR Murphy #24
 TYPE OF JOB Production
 HOLE SIZE 7 7/8 T.D. 4640'
 CASING SIZE 4 1/2 10.5 DEPTH 4638'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL P. Collar #60 DEPTH 2244'
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT 20'
 CEMENT LEFT IN CSG. 20'
 PERFS.
 DISPLACEMENT 73.2 BBLs

OWNER
 CEMENT
 AMOUNT ORDERED 250 ASC 290gal
1090 salt, 5*G. 1/5K 3/4 20CB-31
500* WFA II

COMMON	@		
POZMIX	@		
GEL	<u>5</u>	@ <u>20.00</u>	<u>104.00</u>
CHLORIDE	@		
ASC	<u>250</u>	@ <u>18.00</u>	<u>4650.00</u>
CD-31	<u>176#</u>	@ <u>9.35</u>	<u>1645.00</u>
Gelsolite	<u>1250</u>	@ <u>.89</u>	<u>1112.50</u>
Salt	<u>251</u>	@ <u>23.92</u>	<u>574.80</u>
WFA II	<u>500gal</u>	@ <u>1.27</u>	<u>635.00</u>
HANDLING	<u>307</u>	@ <u>2.45</u>	<u>736.80</u>
MILEAGE	<u>104.5Kwile</u>		<u>1535.00</u>
TOTAL			<u>10993.20</u>

EQUIPMENT

PUMP TRUCK CEMENTER Fuzzly
 # 431 HELPER Kelly
 BULK TRUCK
 # 396 DRIVER Darwin
 BULK TRUCK
 # DRIVER

REMARKS:

Pump 500gal WFA II mix 200sk in MH
 200sk in MH with 200sk cement
 down 4 1/2 csg. wash out pump & lines
 Drop plug & displace twin cement
 800' high 1500' hand float
 hold plug down @ 10:15pm
 Turn off Fuzzly crew

SERVICE

DEPTH OF JOB	<u>4638'</u>		
PUMP TRUCK CHARGE			<u>2011.00</u>
EXTRA FOOTAGE	@		
MILEAGE	<u>50</u>	@ <u>7.00</u>	<u>350.00</u>
MANIFOLD	@		
	@		
	@		
TOTAL			<u>2361.00</u>

CHARGE TO: Ritchie Exploration
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

4 1/2 { 1-G-Shoe		<u>73.00</u>
1-ARV Insert	@	<u>101.00</u>
1-P-Collar	@	<u>1673.00</u>
1-Basket (W)	@	<u>169.00</u>
1-Basket	@	<u>147.00</u>
7-Tensbolizers	@ <u>39.00</u>	<u>273.00</u>
1-Rubber plug		<u>27.00</u>
TOTAL		<u>2463.00</u>

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

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

PRINTED NAME Guy Rowe
 SIGNATURE Guy Rowe

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PR



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

#2 Sharp Seed 14c

Start Date: 2010.03.30 @ 16:37:34

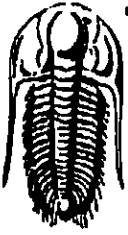
End Date: 2010.03.30 @ 21:48:13

Job Ticket #: 37069 DST #: 1

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37069

DST#: 1

ATTN: Tom Funk

Test Start: 2010.03.30 @ 16:37:34

GENERAL INFORMATION:

Formation: **Toronto**

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

Time Tool Opened: 18:15:44

Time Test Ended: 21:48:13

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **3899.00 ft (KB) To 3926.00 ft (KB) (TVD)**

Reference Elevations: **2919.00 ft (KB)**

Total Depth: **3926.00 ft (KB) (TVD)**

2914.00 ft (CF)

Hole Diameter: **7.88 inches** Hole Condition: **Good**

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

Serial #: **8373**

Inside

Press@RunDepth: **26.50 psig @ 3900.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2010.03.30** End Date: **2010.03.30**

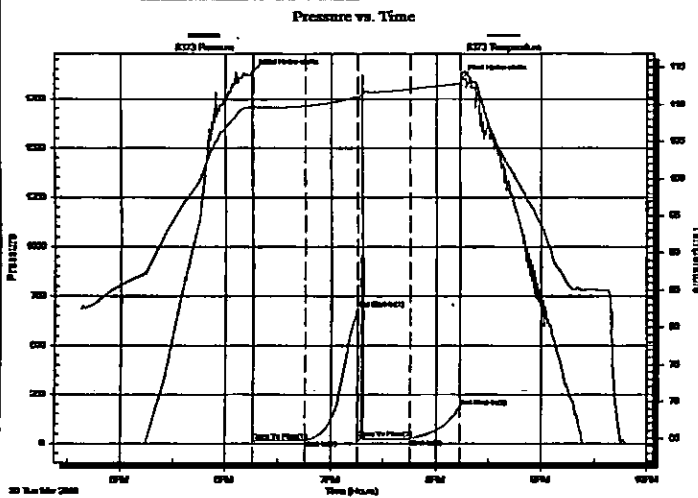
Last Calib.: **2010.03.30**

Start Time: **16:37:34** End Time: **21:48:13**

Time On Btm: **2010.03.30 @ 18:15:14**

Time Off Btm: **2010.03.30 @ 20:14:14**

TEST COMMENT: IF: Surface blow died in 3 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	1883.10	109.99	Initial Hydro-static
1	16.78	109.10	Open To Flow (1)
30	20.17	109.82	Shut-In(1)
60	686.09	111.06	End Shut-In(1)
61	22.20	110.78	Open To Flow (2)
90	26.50	112.11	Shut-In(2)
119	187.24	112.89	End Shut-In(2)
119	1852.29	114.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud oil spots 100%m	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37069

DST#: 1

ATTN: Tom Funk

Test Start: 2010.03.30 @ 16:37:34

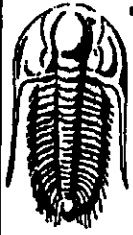
Tool Information

Drill Pipe:	Length: 3777.00 ft	Diameter: 3.80 inches	Volume: 52.98 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 53.59 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3899.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	27.00 ft				
Tool Length:	47.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			3880.00	
Shut In Tool	5.00			3885.00	
Hydraulic tool	5.00			3890.00	
Packer	5.00			3895.00	20.00 Bottom Of Top Packer
Packer	4.00			3899.00	
Stubb	1.00			3900.00	
Recorder	0.00	8373	Inside	3900.00	
Recorder	0.00	6772	Outside	3900.00	
Perforations	21.00			3921.00	
Bullnose	5.00			3926.00	27.00 Bottom Packers & Anchor
Total Tool Length:	47.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37069

DST#: 1

ATTN: Tom Funk

Test Start: 2010.03.30 @ 16:37:34

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: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.56 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud oil spots 100%m	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

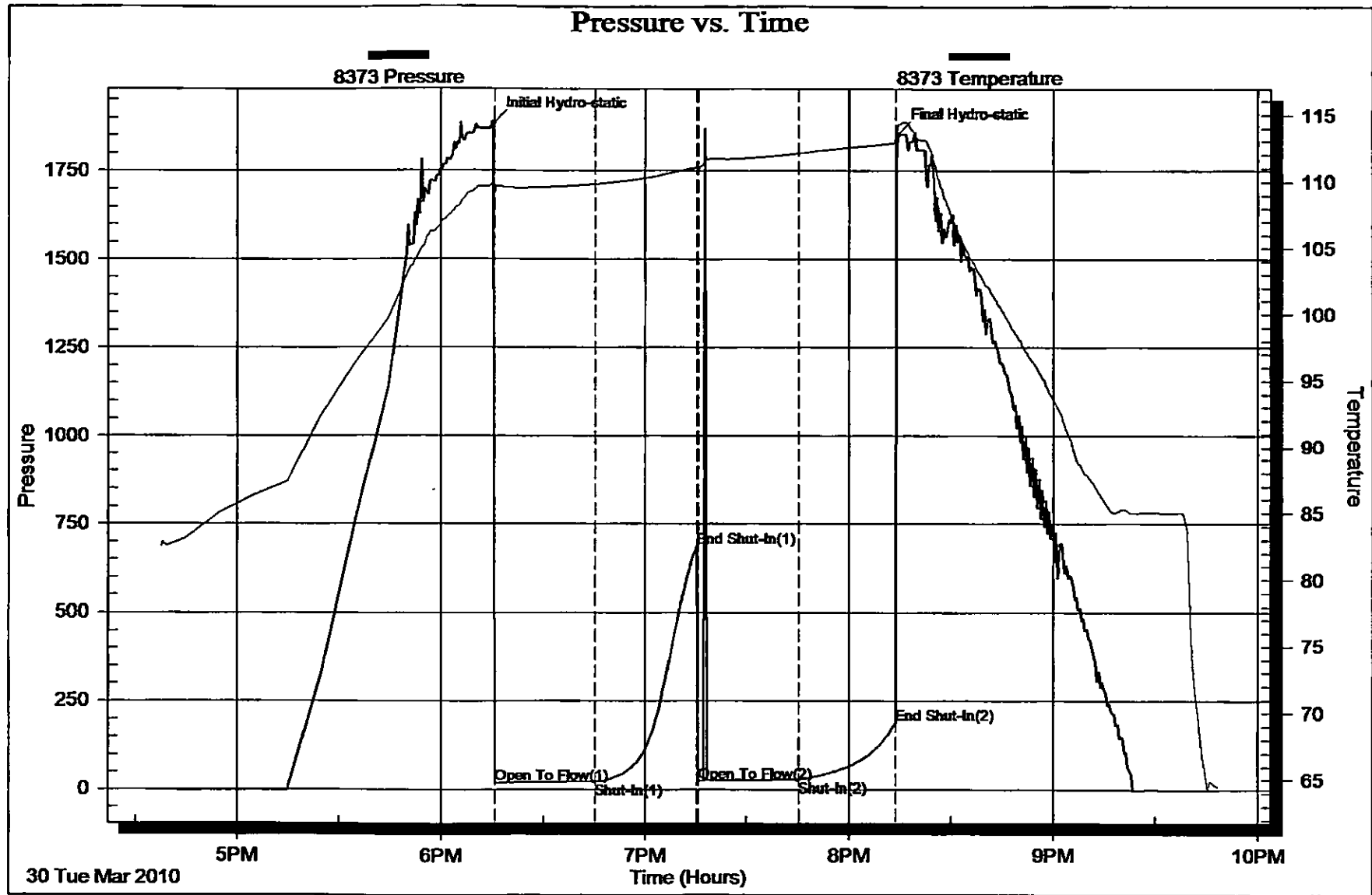
Num Gas Bombs: 0

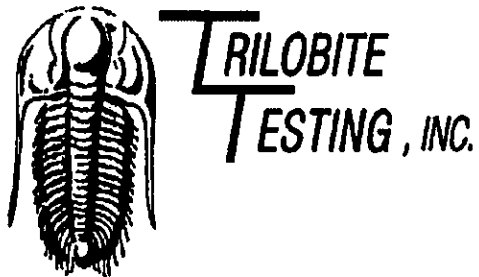
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

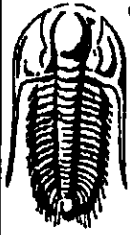
#2 Sharp Seed 14c

Start Date: 2010.03.31 @ 05:52:36

End Date: 2010.03.31 @ 13:08:45

Job Ticket #: 37070 DST #: 2

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37070

DST#: 2

ATTN: Tom Funk

Test Start: 2010.03.31 @ 05:52:36

GENERAL INFORMATION:

Formation: **Lansing C**

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

Time Tool Opened: 08:20:46

Time Test Ended: 13:08:45

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **3963.00 ft (KB) To 3988.00 ft (KB) (TVD)**

Reference Elevations: **2919.00 ft (KB)**

Total Depth: **3988.00 ft (KB) (TVD)**

2914.00 ft (CF)

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

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

Serial #: **8373**

Inside

Press@RunDepth: **68.89 psig @ 3964.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2010.03.31**

End Date:

2010.03.31

Last Calib.: **2010.03.31**

Start Time: **05:52:36**

End Time:

13:08:45

Time On Btm: **2010.03.31 @ 08:19:46**

Time Off Btm: **2010.03.31 @ 11:21:30**

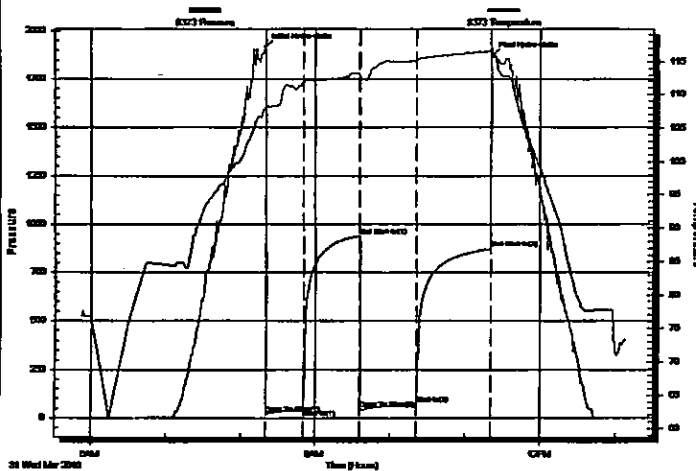
TEST COMMENT: IF: 1/4 blow built to 3 in 30 min.

IS: No return.

FF: Surface blow built to 2 in 45 min.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

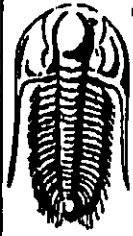
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1915.04	107.91	Initial Hydro-static
1	20.18	108.10	Open To Flow (1)
31	42.65	111.81	Shut-In(1)
76	940.30	113.28	End Shut-In(1)
77	43.85	112.80	Open To Flow (2)
121	68.89	115.12	Shut-In(2)
181	873.66	116.51	End Shut-In(2)
182	1869.23	117.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
129.00	mcw 70%w 30%m	0.68

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37070

DST#: 2

ATTN: Tom Funk

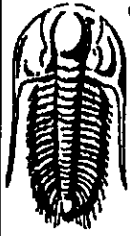
Test Start: 2010.03.31 @ 05:52:36

Tool Information

Drill Pipe:	Length: 3840.00 ft	Diameter: 3.80 inches	Volume: 53.87 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 54.48 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3963.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	45.00 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			3944.00	
Shut In Tool	5.00			3949.00	
Hydraulic tool	5.00			3954.00	
Packer	5.00			3959.00	20.00 Bottom Of Top Packer
Packer	4.00			3963.00	
Stubb	1.00			3964.00	
Recorder	0.00	8373	Inside	3964.00	
Recorder	0.00	6772	Outside	3964.00	
Perforations	19.00			3983.00	
Bullnose	5.00			3988.00	25.00 Bottom Packers & Anchor
Total Tool Length:	45.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37070

DST#: 2

ATTN: Tom Funk

Test Start: 2010.03.31 @ 05:52:36

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:

18000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.56 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
129.00	mcw 70%w 30%m	0.680

Total Length: 129.00 ft

Total Volume: 0.680 bbl

Num Fluid Samples: 0

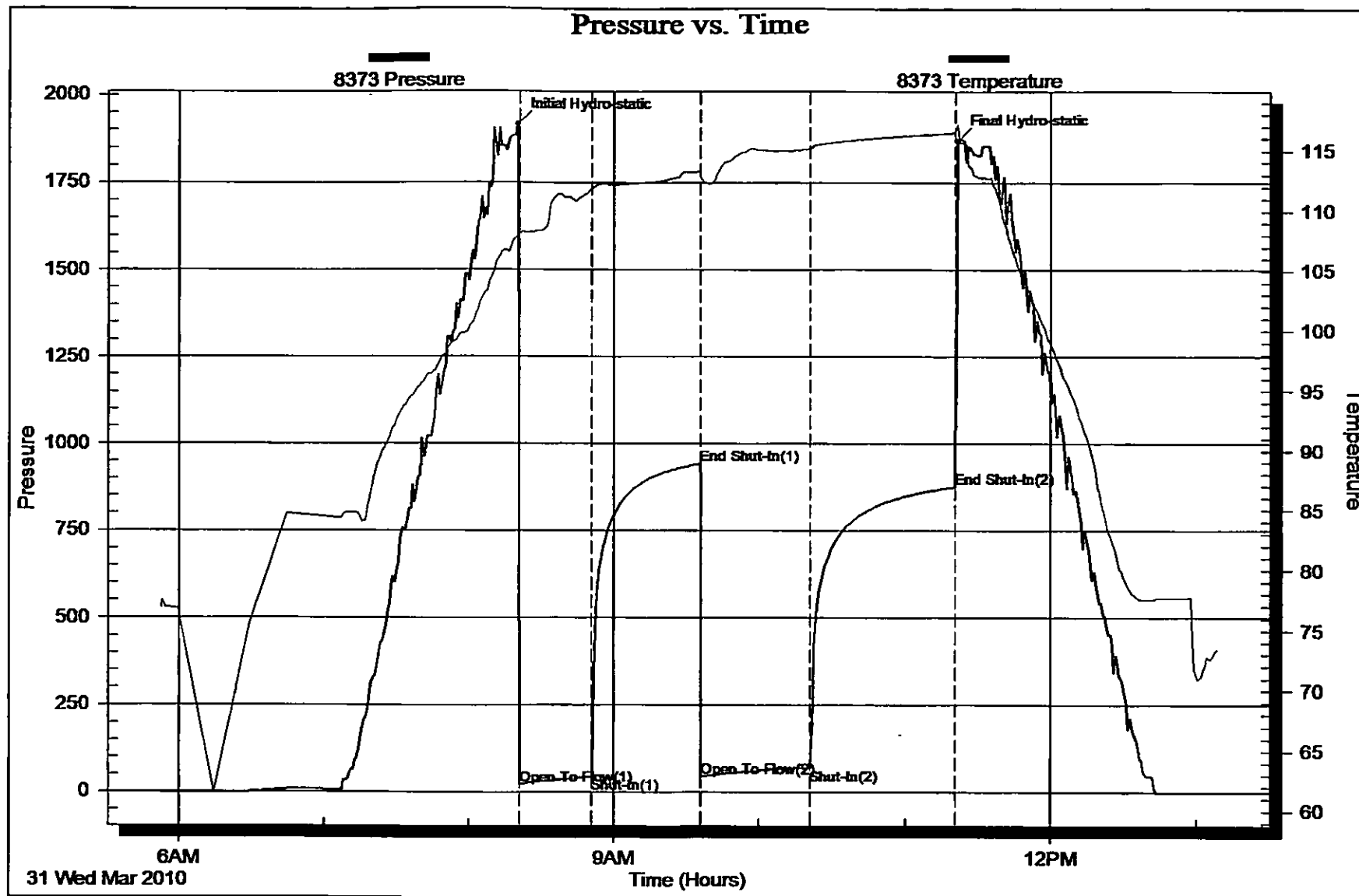
Num Gas Bombs: 0

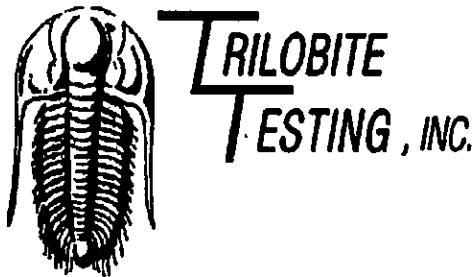
Serial#:

Laboratory Name:

Laboratory Location:

Recovery Comments: .35@73=18000





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

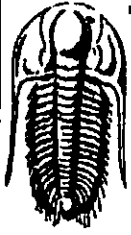
#2 Sharp Seed 14c

Start Date: 2010.03.31 @ 22:23:03

End Date: 2010.04.01 @ 04:45:12

Job Ticket #: 37071 DST #: 3

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37071

DST#: 3

ATTN: Tom Funk

Test Start: 2010.03.31 @ 22:23:03

GENERAL INFORMATION:

Formation: **Lansing E-F**

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

Time Tool Opened: 00:01:58

Time Test Ended: 04:45:12

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **4026.00 ft (KB) To 4057.00 ft (KB) (TVD)**

Total Depth: **4057.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2919.00 ft (KB)**

2914.00 ft (CF)

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

Serial #: **8373**

Inside

Press@RunDepth: **39.96 psig @ 4027.00 ft (KB)**

Start Date: **2010.03.31**

End Date:

2010.04.01

Start Time: **22:23:03**

End Time:

04:45:12

Capacity: **8000.00 psig**

Last Calib.: **2010.04.01**

Time On Btm: **2010.04.01 @ 00:00:43**

Time Off Btm: **2010.04.01 @ 03:03:42**

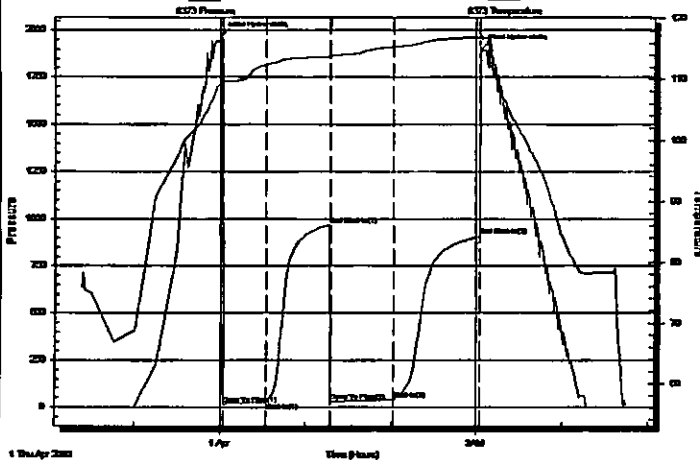
TEST COMMENT: IF: 1/4 blow built to 2 in 30 min.

IS: No return.

FF: Surface blow built to 1 in 45 min.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1972.03	109.21	Initial Hydro-static
2	15.74	109.01	Open To Flow (1)
32	27.64	112.42	Shut-In(1)
77	969.97	113.81	End Shut-In(1)
77	29.36	113.64	Open To Flow (2)
121	39.96	115.43	Shut-In(2)
182	909.22	116.98	End Shut-In(2)
183	1903.06	117.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
64.00	ocm 10%o 90%m	0.31

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278.

14-17s-31w Scott KS

Job Ticket: 37071

DST#: 3

ATTN: Tom Funk

Test Start: 2010.03.31 @ 22:23:03

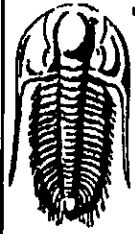
Tool Information

Drill Pipe:	Length: 3862.00 ft	Diameter: 3.80 inches	Volume: 54.17 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 65000.00 lb
			Total Volume: 54.93 bbl	Tool Chased 5.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4026.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4007.00	
Shut In Tool	5.00			4012.00	
Hydraulic tool	5.00			4017.00	
Packer	5.00			4022.00	20.00 Bottom Of Top Packer
Packer	4.00			4026.00	
Stubb	1.00			4027.00	
Recorder	0.00	8373	Inside	4027.00	
Recorder	0.00	6772	Outside	4027.00	
Perforations	25.00			4052.00	
Bullnose	5.00			4057.00	31.00 Bottom Packers & Anchor
Total Tool Length:	51.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37071

DST#: 3

ATTN: Tom Funk

Test Start: 2010.03.31 @ 22:23:03

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.16 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 bbbl
64.00	ocm 10%o 90%m	0.315

Total Length: 64.00 ft

Total Volume: 0.315 bbl

Num Fluid Samples: 0

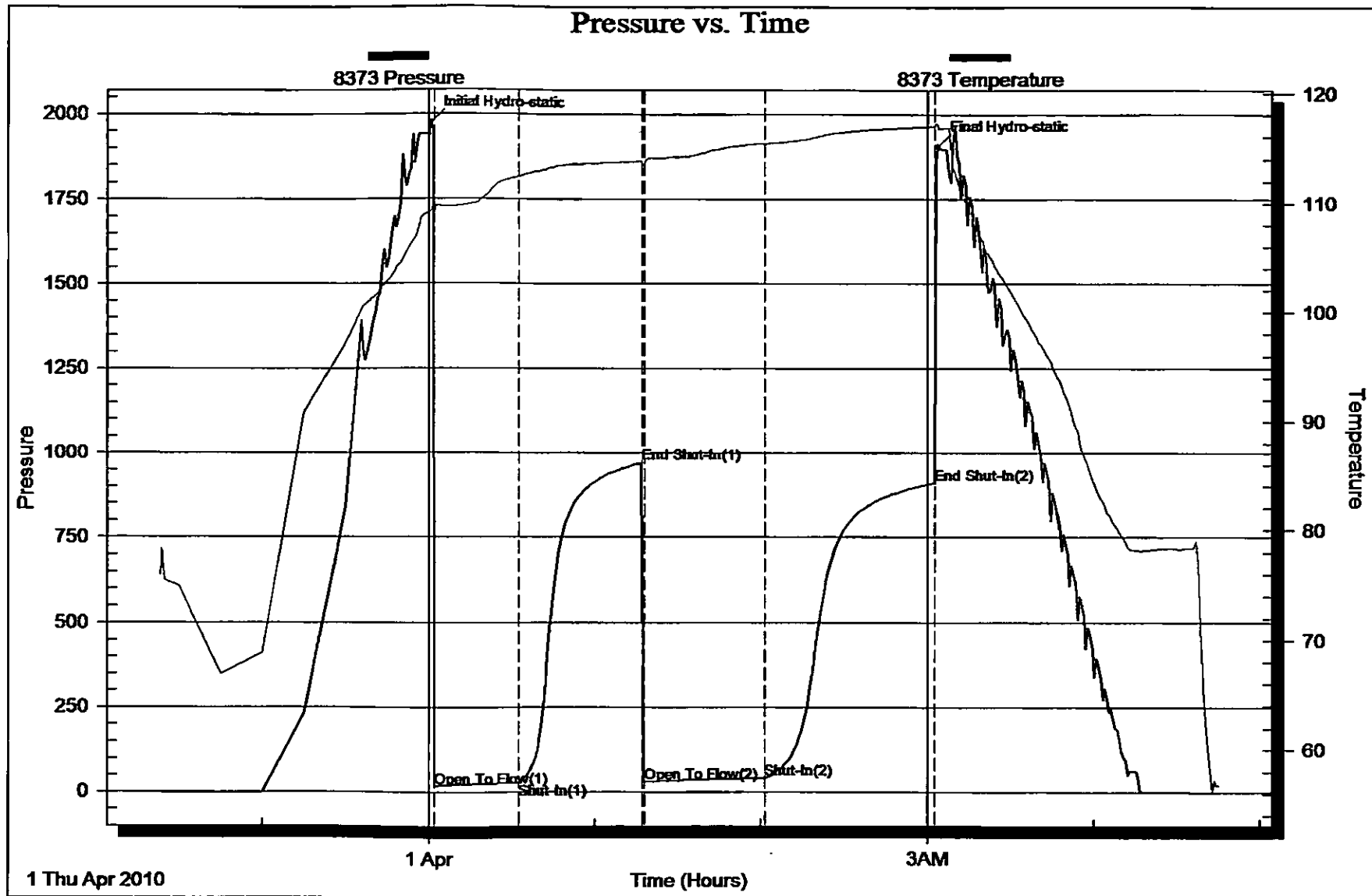
Num Gas Bombs: 0

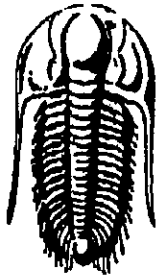
Serial #:

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: Tom Funk

14-17s-31w Scott KS

#2 Sharp Seed 14c

Start Date: 2010.04.01 @ 17:23:04

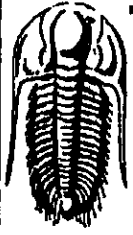
End Date: 2010.04.02 @ 00:24:13

Job Ticket #: 37072 DST #: 4

Trilobite Testing, Inc

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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37072

DST#: 4

ATTN: Tom Funk

Test Start: 2010.04.01 @ 17:23:04

GENERAL INFORMATION:

Formation: Lansing H-I

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:54:59

Time Test Ended: 00:24:13

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: 4124.00 ft (KB) To 4185.00 ft (KB) (TVD)

Total Depth: 4185.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2919.00 ft (KB)

2914.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press@RunDepth: 104.27 psig @ 4125.00 ft (KB)

Start Date: 2010.04.01

End Date:

2010.04.02

Capacity: 8000.00 psig

Last Calib.: 2010.04.01

Start Time: 17:23:04

End Time:

00:24:13

Time On Btm: 2010.04.01 @ 18:54:14

Time Off Btm: 2010.04.01 @ 21:59:13

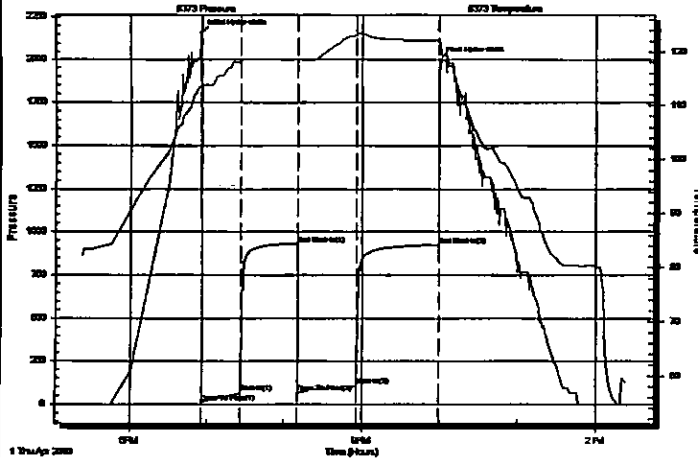
TEST COMMENT: IF: 1/4 blow built to 5 in 30 min.

IS: No return.

FF: Surface blow built to 4 in 45 min.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2154.39	113.69	Initial Hydro-static
1	11.99	113.59	Open To Flow (1)
32	65.81	118.02	Shut-In(1)
76	931.40	118.54	End Shut-In(1)
77	67.93	117.96	Open To Flow (2)
122	104.27	123.14	Shut-In(2)
185	923.73	122.14	End Shut-In(2)
185	1999.47	122.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cm 20%w 80%m	0.30
155.00	w cm 10%w 90%m	1.61

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37072

DST#: 4

ATTN: Tom Funk

Test Start: 2010.04.01 @ 17:23:04

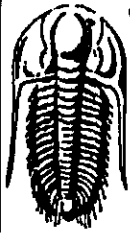
Tool Information

Drill Pipe:	Length: 3973.00 ft	Diameter: 3.80 inches	Volume: 55.73 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 56.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4124.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	102.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	22.00			4105.00	
Shut In Tool	5.00			4110.00	
Hydraulic tool	5.00			4115.00	
Packer	5.00			4120.00	41.00 Bottom Of Top Packer
Packer	4.00			4124.00	
Stubb	1.00			4125.00	
Recorder	0.00	8373	Inside	4125.00	
Recorder	0.00	6772	Outside	4125.00	
Perforations	22.00			4147.00	
Change Over Sub	1.00			4148.00	
Drill Pipe	31.00			4179.00	
Change Over Sub	1.00			4180.00	
Bullnose	5.00			4185.00	61.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37072

DST#: 4

ATTN: Tom Funk

Test Start: 2010.04.01 @ 17:23:04

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: 26000 ppm

Viscosity: 67.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	w cm 20%w 80%m	0.305
155.00	w cm 10%w 90%m	1.609

Total Length: 217.00 ft Total Volume: 1.914 bbl

Num Fluid Samples: 0

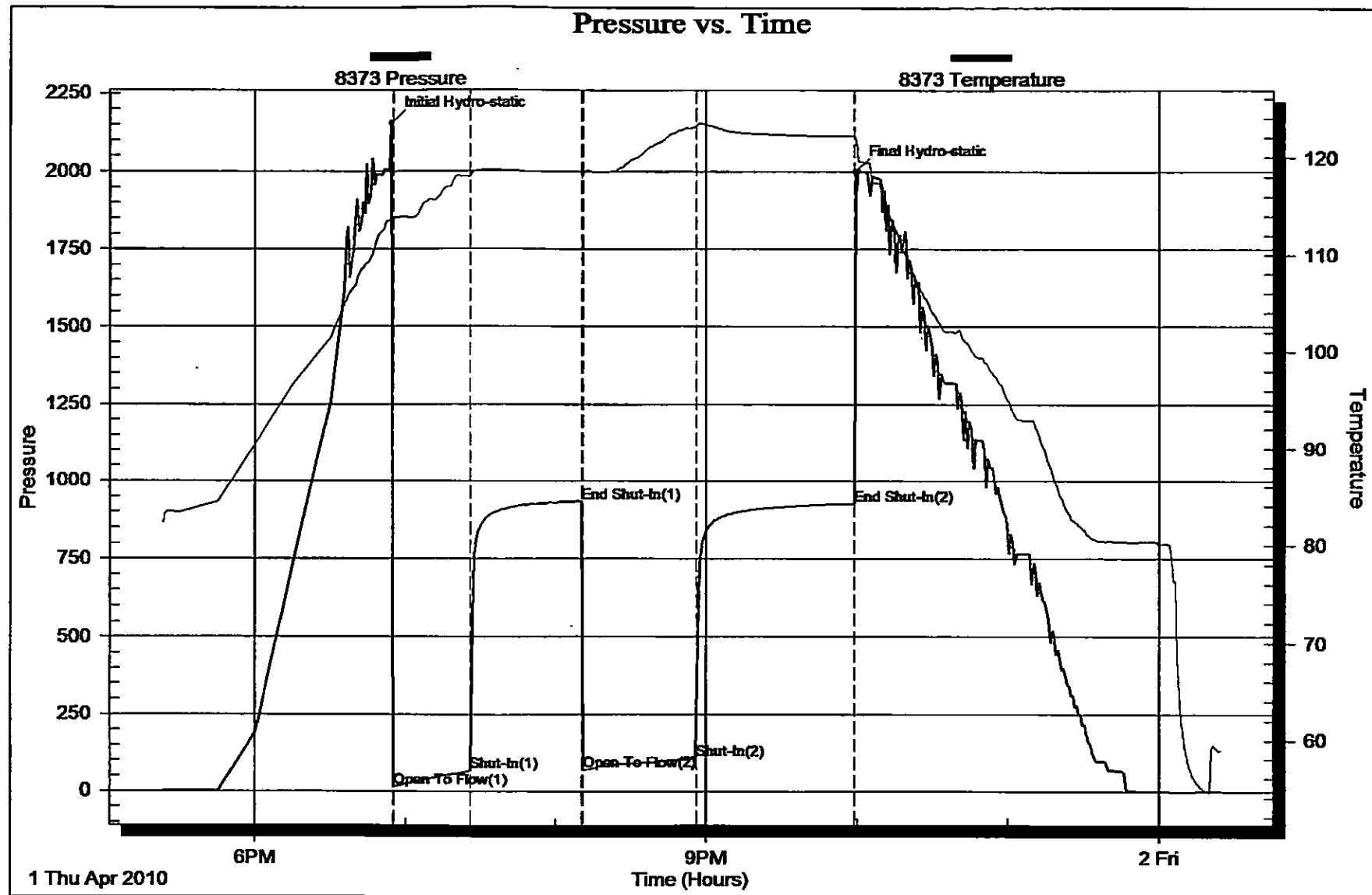
Num Gas Bombs: 0

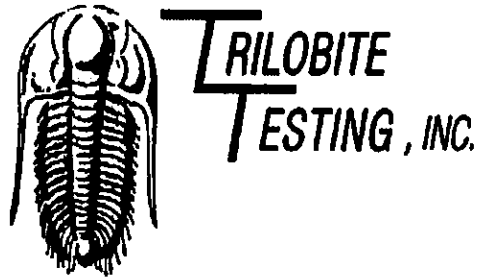
Serial#:

Laboratory Name:

Laboratory Location:

Recovery Comments: .28@67=26000





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

#2 Sharp Seed 14c

Start Date: 2010.04.02 @ 14:48:35

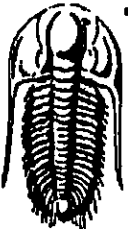
End Date: 2010.04.02 @ 22:05:59

Job Ticket #: 37073 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

ATTN: Tom Funk

Job Ticket: 37073

DST#: 5

Test Start: 2010.04.02 @ 14:48:35

GENERAL INFORMATION:

Formation: **Lansing L- Pleasanto**

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

Time Tool Opened: 16:51:15

Time Test Ended: 22:05:59

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **4257.00 ft (KB) To 4320.00 ft (KB) (TVD)**

Total Depth: **4320.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2919.00 ft (KB)**

2914.00 ft (CF)

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

Serial #: **8373**

Inside

Press@RunDepth: **183.97 psig @ 4258.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2010.04.02**

End Date:

2010.04.02

Last Calib.:

2010.04.02

Start Time: **14:48:35**

End Time:

22:05:59

Time On Btm:

2010.04.02 @ 16:50:15

Time Off Btm:

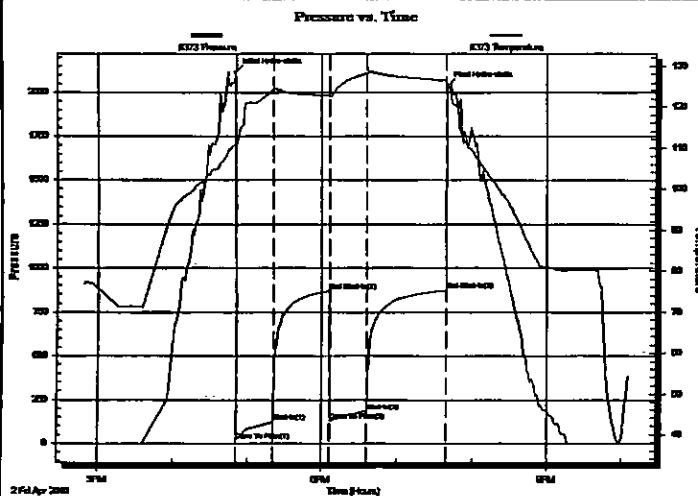
2010.04.02 @ 19:40:14

TEST COMMENT: IF: 1/4 blow BOB in 15 min.

IS: No return.

FF: Surface blow BOB in 19 min.

FS: No return.



PRESSURE SUMMARY

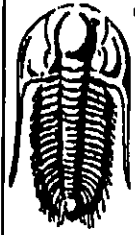
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2115.34	110.70	Initial Hydro-static
1	17.05	110.29	Open To Flow (1)
31	120.58	124.25	Shut-In(1)
76	869.23	122.92	End Shut-In(1)
77	127.80	122.58	Open To Flow (2)
106	183.97	128.19	Shut-In(2)
169	872.22	126.62	End Shut-In(2)
170	2042.63	125.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	omcw 5%o 85%w 10%m	0.61
124.00	omcw 10%o 50%w 40%m	1.74
124.00	ocm 10%o 90%m	1.74
31.00	go 5%g 95%o	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37073

DST#: 5

ATTN: Tom Funk

Test Start: 2010.04.02 @ 14:48:35

Tool Information

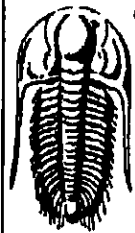
Drill Pipe:	Length: 4119.00 ft	Diameter: 3.80 inches	Volume: 57.78 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.39 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4257.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4238.00	
Shut In Tool	5.00			4243.00	
Hydraulic tool	5.00			4248.00	
Packer	5.00			4253.00	20.00 Bottom Of Top Packer
Packer	4.00			4257.00	
Stubb	1.00			4258.00	
Recorder	0.00	8373	Inside	4258.00	
Recorder	0.00	6772	Outside	4258.00	
Perforations	24.00			4282.00	
Change Over Sub	1.00			4283.00	
Drill Pipe	31.00			4314.00	
Change Over Sub	1.00			4315.00	
Bullnose	5.00			4320.00	63.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37073

DST#: 5

ATTN: Tom Funk

Test Start: 2010.04.02 @ 14:48:35

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

36000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.36 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	omcw 5%o 85%w 10%m	0.610
124.00	omcw 10%o 50%w 40%m	1.739
124.00	ocm 10%o 90%m	1.739
31.00	go 5%g 95%o	0.435

Total Length: 403.00 ft Total Volume: 4.523 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

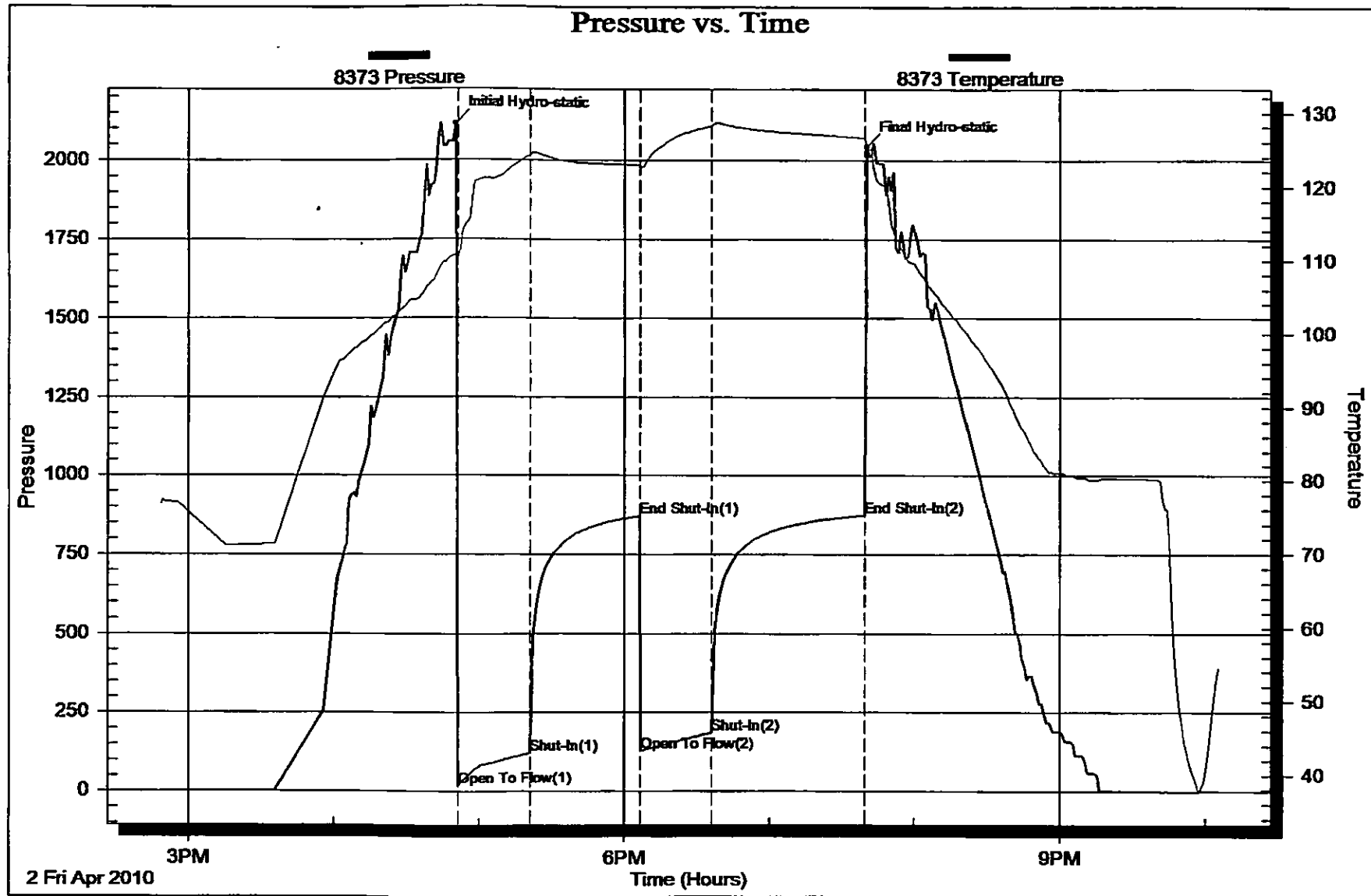
Serial #:

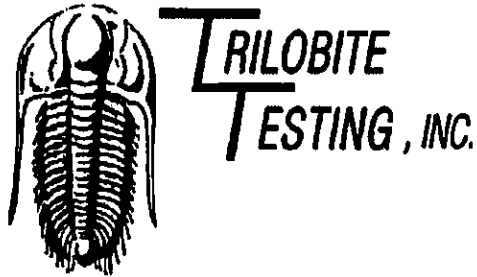
Laboratory Name:

Laboratory Location:

Recovery Comments: .22@63=36000

32@40=34





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

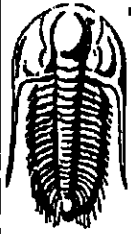
#2 Sharp Seed 14c

Start Date: 2010.04.03 @ 06:52:14

End Date: 2010.04.03 @ 13:52:08

Job Ticket #: 37074 DST #: 6

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.
8100 E 22nd St. N 700
Wichita, KS 67278
ATTN: Tom Funk

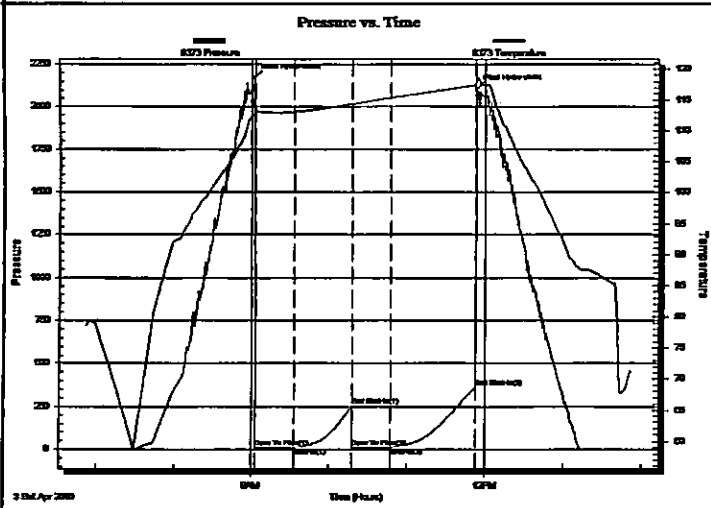
#2 Sharp Seed 14c
14-17s-31w Scott KS
Job Ticket: 37074 DST#: 6
Test Start: 2010.04.03 @ 06:52:14

GENERAL INFORMATION:

Formation: Altamont
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:02:24
Time Test Ended: 13:52:08
Interval: 4320.00 ft (KB) To 4380.00 ft (KB) (TVD)
Total Depth: 4380.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Reference Elevations: 2919.00 ft (KB)
2914.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8373 Inside
Press@RunDepth: 13.44 psig @ 4321.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.04.03 End Date: 2010.04.03 Last Calib.: 2010.04.03
Start Time: 06:52:14 End Time: 13:52:08 Time On Btm: 2010.04.03 @ 09:01:39
Time Off Btm: 2010.04.03 @ 11:53:08

TEST COMMENT: IF: 1/4 blow built to 1 in 30 min.
IS: No return.
FF: No blow.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.37	112.94	Initial Hydro-static
1	11.35	112.87	Open To Flow (1)
31	12.26	113.02	Shut-In(1)
76	252.99	114.41	End Shut-In(1)
76	11.29	114.20	Open To Flow (2)
106	13.44	115.42	Shut-In(2)
171	360.35	117.46	End Shut-In(2)
172	2109.98	118.25	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.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37074

DST#: 6

ATTN: Tom Funk

Test Start: 2010.04.03 @ 06:52:14

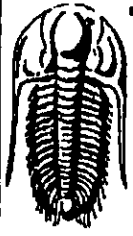
Tool Information

Drill Pipe:	Length: 4181.00 ft	Diameter: 3.80 inches	Volume: 58.65 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 59.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4320.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	80.00 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			4301.00	
Shut In Tool	5.00			4306.00	
Hydraulic tool	5.00			4311.00	
Packer	5.00			4316.00	20.00 Bottom Of Top Packer
Packer	4.00			4320.00	
Stubb	1.00			4321.00	
Recorder	0.00	8373	Inside	4321.00	
Recorder	0.00	6772	Outside	4321.00	
Perforations	20.00			4341.00	
Change Over Sub	1.00			4342.00	
Drill Pipe	32.00			4374.00	
Change Over Sub	1.00			4375.00	
Bullnose	5.00			4380.00	60.00 Bottom Packers & Anchor

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

ATTN: Tom Funk

Job Ticket: 37074 DST#: 6
Test Start: 2010.04.03 @ 06:52:14

Mud and Cushion Information

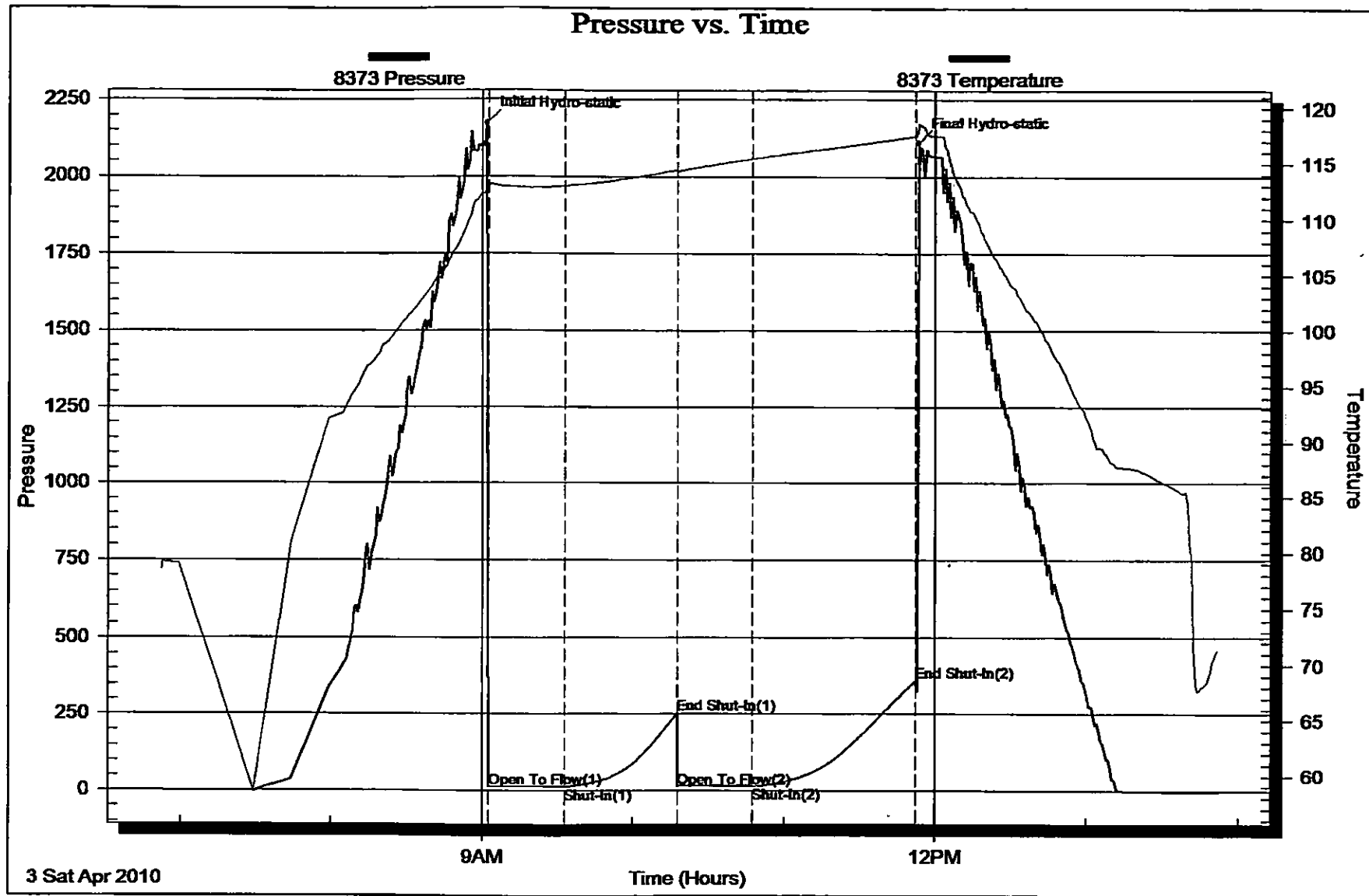
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.36 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: 1.00 inches			

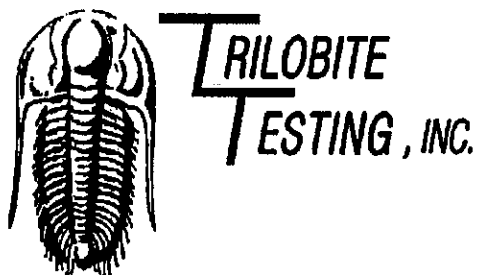
Recovery Information

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:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

#2 Sharp Seed 14c

Start Date: 2010.04.04 @ 01:30:21

End Date: 2010.04.04 @ 09:09:15

Job Ticket #: 37075 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Ritchie Exploration, Inc.

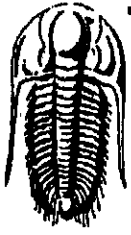
#2 Sharp Seed 14c

14-17s-31w Scott KS

DST # 7

Pawn Myrick Station

2010.04.04



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37075

DST#: 7

ATTN: Tom Funk

Test Start: 2010.04.04 @ 01:30:21

GENERAL INFORMATION:

Formation: **Pawn Myrick Station**

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

Time Tool Opened: 03:55:01

Time Test Ended: 09:09:15

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **4408.00 ft (KB) To 4505.00 ft (KB) (TVD)**

Total Depth: **4505.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2919.00 ft (KB)**

2914.00 ft (CF)

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

Serial #: 8373

Inside

Press@RunDepth: **47.07 psig @ 4409.00 ft (KB)**

Start Date: **2010.04.04**

End Date: **2010.04.04**

Capacity: **8000.00 psig**

Last Calib.: **2010.04.04**

Start Time: **01:30:21**

End Time: **09:09:15**

Time On Btm: **2010.04.04 @ 03:54:16**

Time Off Btm: **2010.04.04 @ 07:01:15**

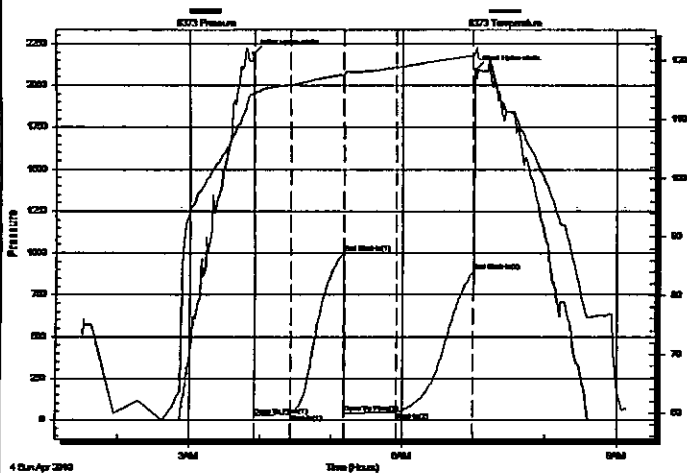
TEST COMMENT: IF: 1/4 blow built to 2 in 30 min.

IS: No return.

FF: Surface blow built to 1 in 45 min.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

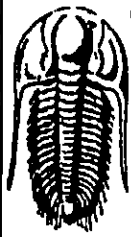
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2191.61	114.47	Initial Hydro-static
1	26.44	114.32	Open To Flow (1)
32	35.20	115.81	Shut-In(1)
77	1003.70	117.61	End Shut-In(1)
77	39.51	117.52	Open To Flow (2)
121	47.07	118.87	Shut-In(2)
186	893.22	120.94	End Shut-In(2)
187	2098.84	121.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
64.00	mud heavy oil spots 100%	0.31

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37075

DST#: 7

ATTN: Tom Funk

Test Start: 2010.04.04 @ 01:30:21

Tool Information

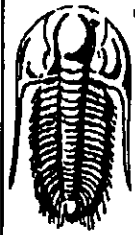
Drill Pipe:	Length: 4274.00 ft	Diameter: 3.80 inches	Volume: 59.95 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4408.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	117.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4389.00	
Shut In Tool	5.00			4394.00	
Hydraulic tool	5.00			4399.00	
Packer	5.00			4404.00	20.00 Bottom Of Top Packer
Packer	4.00			4408.00	
Stubb	1.00			4409.00	
Recorder	0.00	8373	Inside	4409.00	
Recorder	0.00	6772	Outside	4409.00	
Perforations	26.00			4435.00	
Change Over Sub	1.00			4436.00	
Drill Pipe	63.00			4499.00	
Change Over Sub	1.00			4500.00	
Bullnose	5.00			4505.00	97.00 Bottom Packers & Anchor

Total Tool Length: 117.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37075

DST#: 7

ATTN: Tom Funk

Test Start: 2010.04.04 @ 01:30:21

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.56 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
64.00	mud heavy oil spots 100%	0.315

Total Length: 64.00 ft

Total Volume: 0.315 bbl

Num Fluid Samples: 0

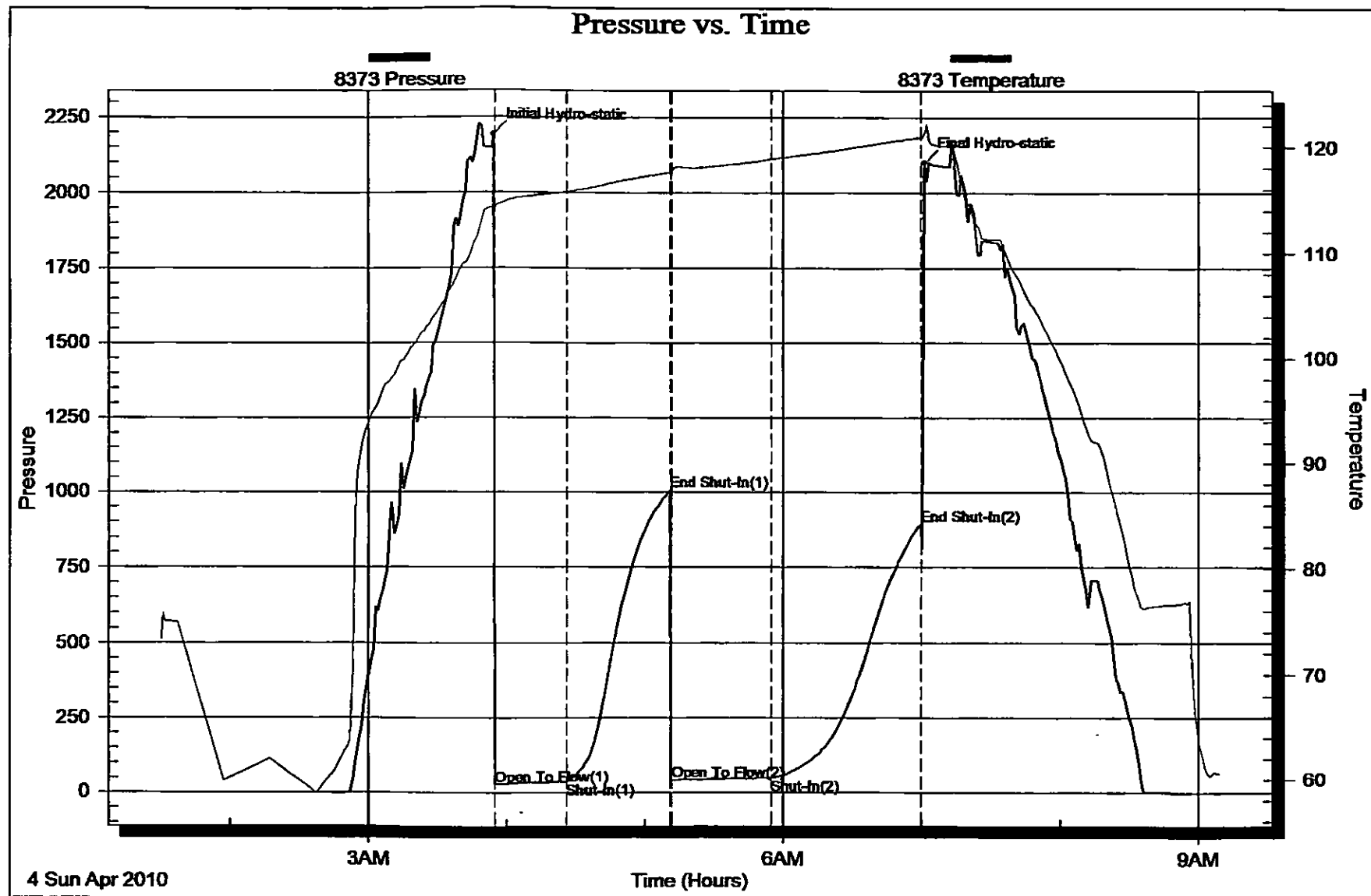
Num Gas Bombs: 0

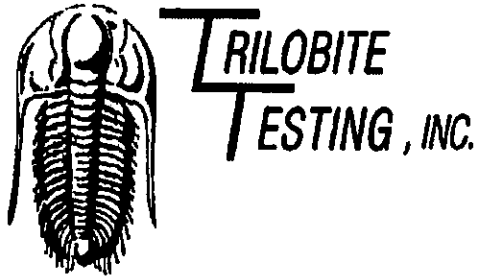
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

#2 Sharp Seed 14c

Start Date: 2010.04.04 @ 21:55:31

End Date: 2010.04.05 @ 06:25:40

Job Ticket #: 37826 DST #: 8

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37826

DST#: 8

ATTN: Tom Funk

Test Start: 2010.04.04 @ 21:55:31

GENERAL INFORMATION:

Formation: **Johnson**

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

Time Tool Opened: 01:02:41

Time Test Ended: 06:25:40

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **4507.00 ft (KB) To 4553.00 ft (KB) (TVD)**

Total Depth: **4553.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2919.00 ft (KB)**

2914.00 ft (CF)

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

Serial #: 8373

Inside

Press@RunDepth: **104.35 psig @ 4409.00 ft (KB)**

Start Date: **2010.04.04**

End Date:

2010.04.05

Start Time: **21:55:31**

End Time:

06:25:40

Capacity: **8000.00 psig**

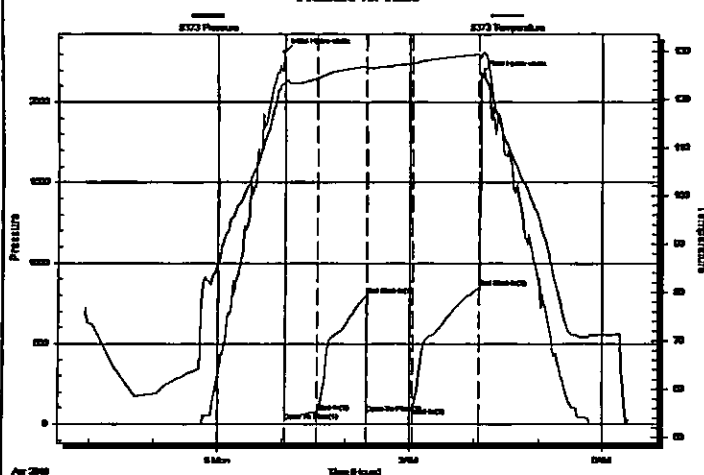
Last Calib.: **2010.04.05**

Time On Btm: **2010.04.05 @ 01:01:26**

Time Off Btm: **2010.04.05 @ 04:06:25**

TEST COMMENT: IF: BOB in 12 min.
IS: Surface blow never built.
FF: BOB in 10 min.
FS: Surface blow built to 3 in 60 min.

Pressure vs. Time



PRESSURE SUMMARY

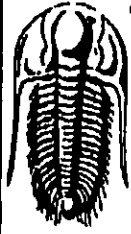
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2313.24	123.22	Initial Hydro-static
2	17.68	123.32	Open To Flow (1)
32	75.12	124.35	Shut-In(1)
78	800.63	126.84	End Shut-In(1)
79	69.35	126.47	Open To Flow (2)
122	104.35	127.52	Shut-In(2)
184	845.30	129.29	End Shut-In(2)
185	2177.30	128.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	mco 15%g 75%o 10%m	0.61
112.00	ocm 15%o 85%m	1.57
0.00	620 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37826

DST#: 8

ATTN: Tom Funk

Test Start: 2010.04.04 @ 21:55:31

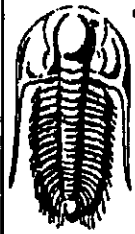
Tool Information

Drill Pipe:	Length: 4368.00 ft	Diameter: 3.80 inches	Volume: 61.27 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 61.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	104.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4408.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	66.00 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			4389.00	
Shut In Tool	5.00			4394.00	
Hydraulic tool	5.00			4399.00	
Packer	5.00			4404.00	20.00 Bottom Of Top Packer
Packer	4.00			4408.00	
Stubb	1.00			4409.00	
Recorder	0.00	8373	Inside	4409.00	
Recorder	0.00	6772	Outside	4409.00	
Perforations	7.00			4416.00	
Change Over Sub	1.00			4417.00	
Drill Pipe	31.00			4448.00	
Change Over Sub	1.00			4449.00	
Bullnose	5.00			4454.00	46.00 Bottom Packers & Anchor

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37826

DST#: 8

ATTN: Tom Funk

Test Start: 2010.04.04 @ 21:55:31

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	mcgo 15%g 75%o 10%m	0.610
112.00	ocm 15%o 85%m	1.571
0.00	620 GIP	0.000

Total Length: 236.00 ft

Total Volume: 2.181 bbl

Num Fluid Samples: 0

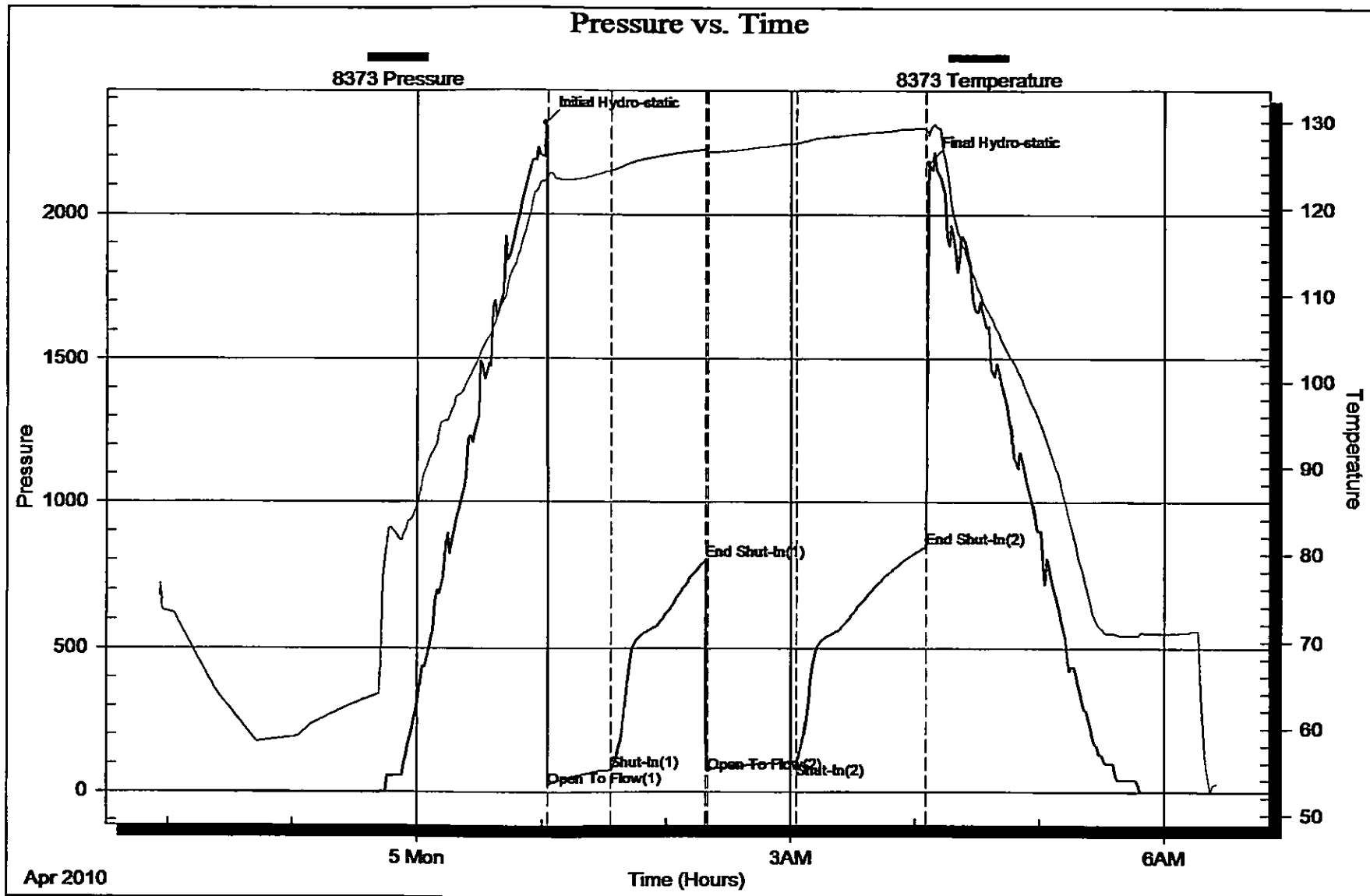
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N 700
Wichita, KS 67278

ATTN: Tom Funk

14-17s-31w Scott KS

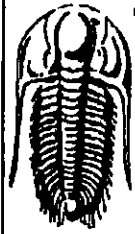
#2 Sharp Seed 14c

Start Date: 2010.04.05 @ 14:12:46

End Date: 2010.04.05 @ 19:45:55

Job Ticket #: 37827 DST #: 9

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37827 DST#: 9

ATTN: Tom Funk

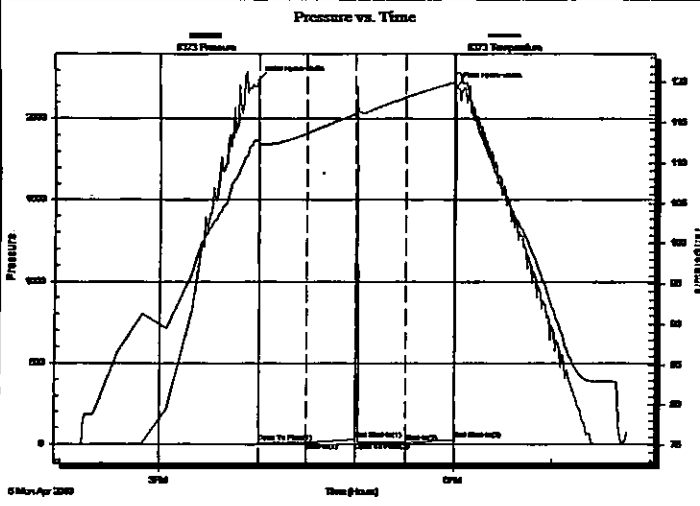
Test Start: 2010.04.05 @ 14:12:46

GENERAL INFORMATION:

Formation: **CK Sand**
 Deviated: **No Whipstock** ft (KB)
 Time Tool Opened: 16:00:56
 Time Test Ended: 19:45:55
 Interval: **4553.00 ft (KB) To 4595.00 ft (KB) (TVD)**
 Total Depth: **3926.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good**
 Test Type: **Conventional Bottom Hole**
 Tester: **Brandon Turley**
 Unit No: **35**
 Reference Elevations: **2919.00 ft (KB)**
2914.00 ft (CF)
 KB to GR/CF: **5.00 ft**

Serial #: 8373 Inside
 Press@RunDepth: **15.07 psig @ 4554.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2010.04.05** End Date: **2010.04.05** Last Calib.: **2010.04.05**
 Start Time: **14:12:46** End Time: **19:45:55** Time On Btm: **2010.04.05 @ 16:00:11**
 Time Off Btm: **2010.04.05 @ 18:01:26**

TEST COMMENT: IF: 1/4 blow died in 10 min.
 IS: No return.
 FF: No blow . Flushed tool no blow.
 FS: No return.



PRESSURE SUMMARY

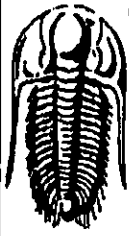
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2236.79	112.75	Initial Hydro-static
1	12.05	111.93	Open To Flow (1)
30	12.96	113.63	Shut-In(1)
60	31.83	116.09	End Shut-In(1)
61	13.13	116.09	Open To Flow (2)
91	15.07	118.11	Shut-In(2)
121	28.07	120.06	End Shut-In(2)
122	2193.83	121.26	Final Hydro-static

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.

#2 Sharp Seed 14c

8100 E 22nd St. N 700
Wichita, KS 67278

14-17s-31w Scott KS

Job Ticket: 37827

DST#: 9

ATTN: Tom Funk

Test Start: 2010.04.05 @ 14:12:46

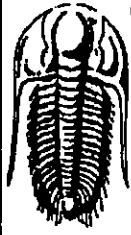
Tool Information

Drill Pipe:	Length: 4431.00 ft	Diameter: 3.80 inches	Volume: 62.16 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 62.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4553.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	62.00 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			4534.00	
Shut In Tool	5.00			4539.00	
Hydraulic tool	5.00			4544.00	
Packer	5.00			4549.00	20.00 Bottom Of Top Packer
Packer	4.00			4553.00	
Stubb	1.00			4554.00	
Recorder	0.00	8373	Inside	4554.00	
Recorder	0.00	6772	Outside	4554.00	
Perforations	3.00			4557.00	
Change Over Sub	1.00			4558.00	
Drill Pipe	31.00			4589.00	
Change Over Sub	1.00			4590.00	
Bullnose	5.00			4595.00	42.00 Bottom Packers & Anchor

Total Tool Length: 62.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.
8100 E 22nd St. N 700
Wichita, KS 67278
ATTN: Tom Funk

#2 Sharp Seed 14c
14-17s-31w Scott KS
Job Ticket: 37827 DST#: 9
Test Start: 2010.04.05 @ 14:12:46

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: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2300.00 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:

