

ORIGINAL

10/24/12

CONFIDENTIAL

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 8914  
Name: H&C Oil Operating, Inc.  
Address 1: P.O. Box 86  
Address 2: \_\_\_\_\_  
City: Plainville State: KS Zip: 67663 + \_\_\_\_\_  
Contact Person: Charles Ramsay  
Phone: ( 785 ) 434-7434  
CONTRACTOR: License # 33493  
Name: American Eagle Drilling LLC  
Wellsite Geologist: Marc Downing  
Purchaser: Coffeyville Resources

Designate Type of Completion:  
 New Well     Re-Entry     Workover  
 Oil     WSW     SWD     SIOW  
 Gas     D&A     ENHR     SIGW  
 OG     GSW     Temp. Abd.  
 CM (Coal Bed Methane)  
 Cathodic     Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:  
Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_  
09/07/2011    09/14/2011    10/19/2011  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 065-23758-00-00  
Spot Description: \_\_\_\_\_  
SE SE SE Sec. 23 Twp. 8 S. R. 22  East  West  
330 Feet from  North /  South Line of Section  
330 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Graham  
Lease Name: Desbien Well #: 23-1  
Field Name: Mickelson Northeast  
Producing Formation: Lansing Kansas City  
Elevation: Ground: 2164 Kelly Bushing: 2169  
Total Depth: 3820 Plug Back Total Depth: 3779  
Amount of Surface Pipe Set and Cemented at: 267 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 1677 Feet  
If Alternate II completion, cement circulated from: 1677  
feet depth to: surface w/ 310 sx cmt.

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

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**OCT 24 2011**  
**KCC WICHITA**

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

**AFFIDAVIT**  
I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.  
Signature: Charles R Ramsay  
Title: President Date: 10/20/11

**KCC Office Use ONLY**  
 Letter of Confidentiality Received  
Date: 10-24-11 thru 10-24-12  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: NY Date: 11-7-11

Operator Name: H&C Oil Operating, Inc. Lease Name: Desbien Well #: 23-1  
 Sec. 23 Twp. 8 S. R. 22  East  West County: Graham

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: Microresistivity, Dual compensated porosity, Dual induction, Borehole Compensated sonic, Sonic Cement Bond	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>Anhydrite</td> <td>1697</td> <td>+472</td> </tr> <tr> <td>Topeka</td> <td>3147</td> <td>-978</td> </tr> <tr> <td>Heebner</td> <td>3360</td> <td>-1191</td> </tr> <tr> <td>Toronto</td> <td>3383</td> <td>-1214</td> </tr> <tr> <td>Lansing</td> <td>3400</td> <td>-1231</td> </tr> <tr> <td>BKC</td> <td>3605</td> <td>-1436</td> </tr> <tr> <td>Marmaton</td> <td>3660</td> <td>-1491</td> </tr> </table>	Name	Top	Datum	Anhydrite	1697	+472	Topeka	3147	-978	Heebner	3360	-1191	Toronto	3383	-1214	Lansing	3400	-1231	BKC	3605	-1436	Marmaton	3660	-1491
Name	Top	Datum																							
Anhydrite	1697	+472																							
Topeka	3147	-978																							
Heebner	3360	-1191																							
Toronto	3383	-1214																							
Lansing	3400	-1231																							
BKC	3605	-1436																							
Marmaton	3660	-1491																							

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	267	common	160	3%cc, 2% gel
Production	7 7/8"	5 1/2"	14	3813	common	180	10% salt, 5% gilsonite
					QMDC	310	1/4# floreal

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
4	3580-3587	500 Gal. 15% MCA	3580
		2000 Gal 20% NEEF	3580
		<b>CONFIDENTIAL</b>	
		<b>OCT 24</b>	
		<b>KCC</b>	

TUBING RECORD: Size: <u>2 3/8"</u> Set At: <u>3774</u> Packer At: <u>NONE</u>		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>10/20/2011</u>	Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls. <u>92</u>	Gas Mcf <u>0</u> Water Bbls. <u>0</u> Gas-Oil Ratio _____

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 <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>3580-3587</u>
---	--	--

# QUALITY OILWELL CEMENTING, INC.

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

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

No. 3854  
9-8-11

Date	7-7-11	Sec.	23	Twp.	8	Range	22	County	Graham	State	Ks	On Location		Finish	12:30 AM	
Lease	Desbian		Well No.	23-1		Location Bogue, Ks - S to Curve, W to O&B,										
Contractor	American Eagle #3		Owner	2w, W/S												
Type Job	Surface		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.													
Hole Size	12 1/4" / 8 5/8"		T.D.	269'												
Csg.			Depth	269'												
Tbg. Size			Depth	Charge To H+C oil operating												
Tool			Depth	Street												
Cement Left in Csg.	15'		Shoe Joint	15'												
Meas Line			Displace	16 BCS												
			Cement Amount Ordered	160 5x Common 3%CL												

**EQUIPMENT**

Pumptrk	1	No.	Cement Helper	Cisco	Common	160
Bulkirk	14	No.	Driver	Michael	Poz. Mix	
Bulkirk	p.u.	No.	Driver	Rick	Gel.	3

**JOB SERVICES & REMARKS**

Remarks:	Cement did Circulate.					
Rat Hole	Salt					
Mouse Hole	Flowseal					
Centralizers	Kol-Seal					
Baskets	Mud CLR 48					
D/V or Port Collar	CFL-117 or CD110 CAF 38					
	Sand					
	Handling 168					
	Mileage					

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**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge Surface  
Mileage 45

Signature *Burford Parker*

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Discount  
KCC WICHITA  
Total Charge

# QUALITY OILWELL CEMENTING, INC.

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

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

No. 5202

Date	9/15/11	Sec.	23	Twp.	8	Range	22	County	Graham	State	KS	On Location		Finish	11:00 AM
Lease	Dehien			Well No.	23-1			Location	Bogue, Sto ORA, 3W, N into						
Contractor	American Eagle Rig #3							Owner	To Quality Oilwell Cementing, Inc.						
Type Job	Bottom Stage							You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Hole Size	7 7/8"			T.D.	3820'			Charge To	H+C Oil Operating, Inc.						
Csg.	5 1/2" 14 #			Depth	3807'			Street							
Tbg. Size								City	State						
Tool	DV Jt # 51			Depth	1688'			The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg.	22'			Shoe Joint	22'			Cement Amount Ordered	180 ex Com 10% Salt						
Meas Line				Displace	92 1/4 Bbls.			5% Gelsolite							

### EQUIPMENT

Pumptrk	9	No.	Cement Helper	Paul	Common
Bulktrk	4	No.	Driver	Matt	Poz. Mix
Bulktrk	A	No.	Driver	Brian	Gel.

### JOB SERVICES & REMARKS

Remarks:	Calcium
Rat Hole	Hulls
Mouse Hole	Salt
Centralizers	Flowseal
Baskets	Kol-Seal
D/V	Mud CLR 48 500 gal.
Est Circ - 1 hour	CFL-117 or CD110 CAF 38
Pump 500gal Mud CLR-48	Sand
Mix 180 sx	Handling
Displace	Mileage
Land Plug	5 1/2" FLOAT EQUIPMENT
Float held	Guide Shoe
	Centralizer 12-Turbos
	Baskets 4
	AFU Inserts
	Float Shoe 1
	Latch Down

Thank You!!

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Pumptrk Charge KCC

Mileage

Discount  
Total Charge  
KCC-WICHITA

Signature *Charles Ramsey*

Date	9/15/11	Sec.	23	Twp.	8	Range	22	County	Graham	State	KS	On Location		Finish	1:00 PM								
Case	Desbrien		Well No.	23-1		Location																	
Contractor										American Eagle #3													
Type Job										Top Stage													
Hole Size										7 7/8"													
Csg.										5 1/2" 14 #		T.D.		3820		Depth		3807'		Charge To		H+C Oil Operating Inc.	
Log. Size												Depth				Street				State			
Tool										DU J+ #51		Depth		1688'		City				The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.												Shoe Joint				Cement Amount Ordered		350 sx Q-MOC		H+C Field			
Weas Line												Displace		41 Bbls.									

**EQUIPMENT**

Pumptrk	9	No.	Cementer	Paul	Common
			Helper		
Bulktrk		No.	Driver	Matt	Poz. Mix
			Driver		
Bulktrk	PV	No.	Driver	Doug	Gal.
			Driver		

**JOB SERVICES & REMARKS**

Remarks:  
 Rat Hole 30sx  
 Mouse Hole  
 Centralizers  
 Baskets  
 DIV of ~~Paul~~ J+ #51 - 1688'  
 Open Tool  
 Circ. - 1 hour  
 Plug Rat Hole  
 Mix ~~310sx~~ 310sx  
 Displace  
 Land Plug / Close Tool  
 Cement Circulated

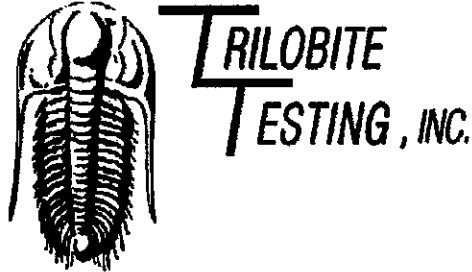
Thank  
 You!!

Signature *Chris Ramsey*

Common
Poz. Mix
Gal.
Calcium
Hulls
Salt
Flowseal
Kol-Seal
Mud CLR 48
CFL-117 or CD110 CAF 38
Sand
Handling
Mileage
5 1/2" FLOAT EQUIPMENT
Guide Shoe
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down
See Ticket
#5200
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Pumptrk Charge
Mileage
OCT 24 2012
KCC
Tax
Discount
Total Charge

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Sonic Cement Bond  
Borehole Compensated  
Sonic  
Dual induction  
Micro



### DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating Inc**

PO Box 86  
Plainville, KS 67663+0086

ATTN: Charles R Ramsay

**23-8s-22w Graham,KS**

**Desbien #23-1**

Start Date: 2011.09.11 @ 15:19:49

End Date: 2011.09.11 @ 22:10:19

Job Ticket #: 44628                      DST #: 1

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**OCT 24 2012**

**KCC**

Trilobite Testing, Inc

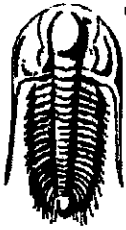
PO Box 362 Hays, KS 67601

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

Printed: 2011.09.19 @ 14:41:59

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**OCT 24 2011**  
**KCC WICHITA**

H&C Oil Operating Inc  
Desbien #23-1  
23-8s-22w Graham,KS  
DST # 1  
LKC-A  
2011.09.11



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc  
PO Box 86  
Plainville, KS 67663+0086  
ATTN: Charles R Ramsay

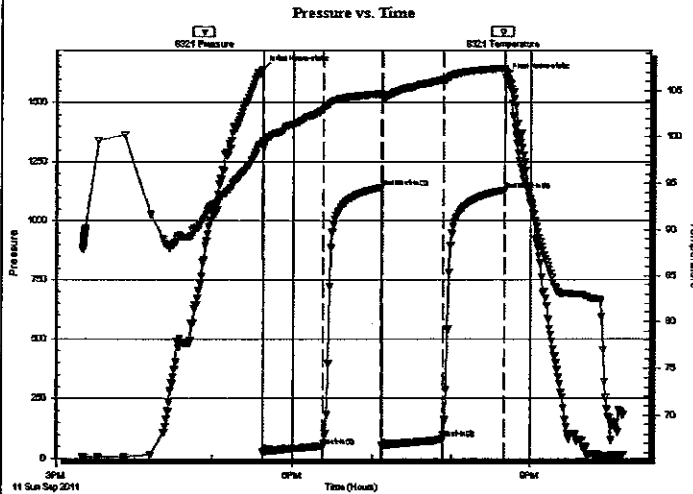
**Desbien #23-1**  
**23-8s-22w Graham,KS**  
Job Ticket: 44628      **DST#: 1**  
Test Start: 2011.09.11 @ 15:19:49

## GENERAL INFORMATION:

Formation: **LKC-A**  
Deviated: **No Whipstock:**                      ft (KB)      Test Type: **Conventional Bottom Hole (Initial)**  
Time Tool Opened: 17:37:19      Tester: **Jeff Brown**  
Time Test Ended: 22:10:19      Unit No: **44**  
  
Interval: **3389.00 ft (KB) To 3415.00 ft (KB) (TVD)**      Reference Elevations:      2169.00 ft (KB)  
Total Depth: **3415.00 ft (KB) (TVD)**      2164.00 ft (CF)  
Hole Diameter: **7.88 inches** Hole Condition: **Fair**      KB to GRVCF:      5.00 ft

**Serial #: 8321**      **Inside**  
Press@RunDepth: **85.06 psig @ 3392.00 ft (KB)**      Capacity:      8000.00 psig  
Start Date: **2011.09.11**      End Date:      2011.09.11      Last Calib.:      2011.09.11  
Start Time: **15:19:50**      End Time:      22:10:19      Time On Btm:      2011.09.11 @ 17:36:49  
Time Off Btm:      2011.09.11 @ 20:40:19

TEST COMMENT: IFP-Good Blow BOB in 23 1/2 min  
ISI-Dead no blow back  
FFP-Good blow BOB in 17 1/2 min  
FSI-Weak surface blow back



## PRESSURE SUMMARY

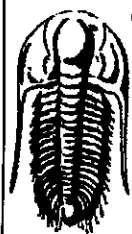
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1638.61	99.57	Initial Hydro-static
1	27.12	98.83	Open To Flow (1)
46	52.76	102.90	Shut-In(1)
90	1143.40	104.66	End Shut-In(1)
91	54.11	104.21	Open To Flow (2)
136	85.06	106.19	Shut-In(2)
183	1131.82	107.40	End Shut-In(2)
184	1607.99	107.15	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
93.00	MCOG 10%G50%O40%M	1.30
62.00	Gassy Oil 30%G70%O	0.87
0.00	310 GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating Inc  
 PO Box 86  
 Plainville, KS 67663+0086  
 ATTN: Charles R Ramsay

**Desbien #23-1**  
**23-8s-22w Graham,KS**  
 Job Ticket: 44628      DST#: 1  
 Test Start: 2011.09.11 @ 15:19:49

**Tool Information**

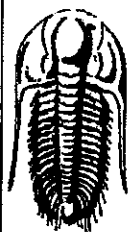
Drill Pipe:	Length: 3382.00 ft	Diameter: 3.80 inches	Volume: 47.44 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 47.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3389.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3370.00	
Shut In Tool	5.00			3375.00	
Hydraulic tool	5.00			3380.00	
Packer	4.00			3384.00	20.00      Bottom Of Top Packer
Packer	5.00			3389.00	
Stubb	1.00			3390.00	
Perforations	2.00			3392.00	
Recorder	0.00	8321	Inside	3392.00	
Recorder	0.00	8737	Outside	3392.00	
Perforations	20.00			3412.00	
Bullnose	3.00			3415.00	26.00      Bottom Packers & Anchor

**Total Tool Length: 46.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Desbien #23-1**

PO Box 86  
Plainville, KS 67663+0086

**23-8s-22w Graham,KS**

Job Ticket: 44628      **DST#: 1**

ATTN: Charles R Ramsay

Test Start: 2011.09.11 @ 15:19:49

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 36 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.18 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1000.00 ppm		
Filter Cake: inches		

## Recovery Information

Recovery Table

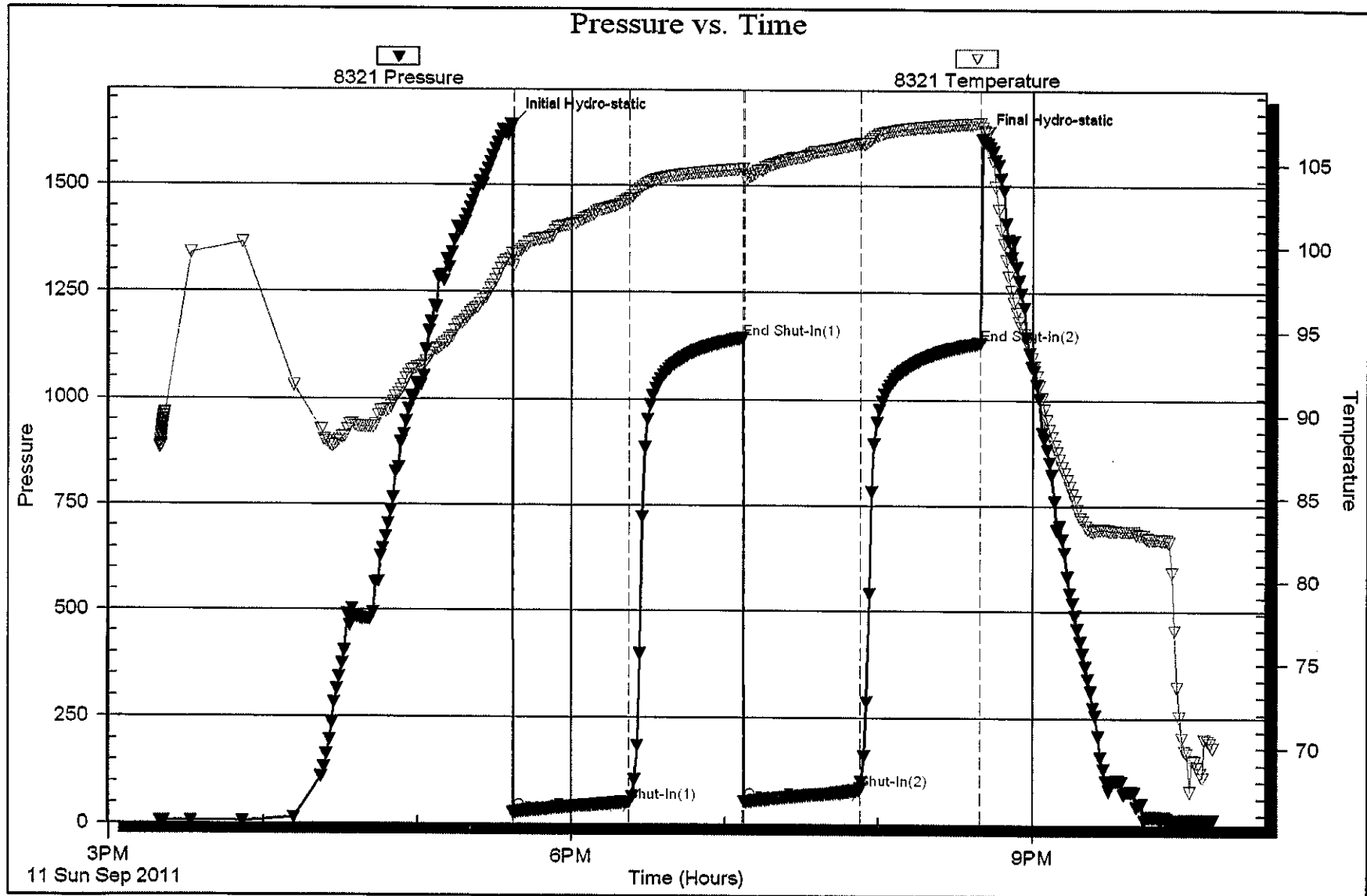
Length ft	Description	Volume bbl
93.00	MGO 10%G50%O40%M	1.305
62.00	Gassy Oil 30%G70%O	0.870
0.00	310 GIP	0.000

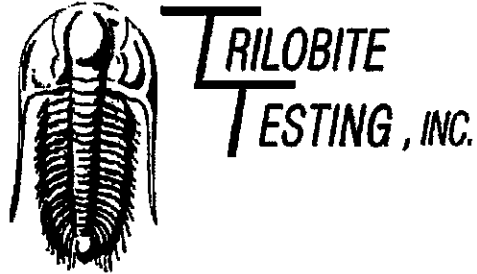
Total Length: 155.00ft      Total Volume: 2.175 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating Inc**

PO Box 86  
Plainville, KS 67663+0086

ATTN: Charles R Ramsay

**23-8s-22w Graham,KS**

**Desbien #23-1**

Start Date: 2011.09.12 @ 05:00:09

End Date: 2011.09.12 @ 11:01:09

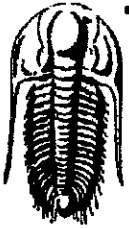
Job Ticket #: 44629                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

H&C Oil Operating Inc    Desbien #23-1    23-8s-22w Graham,KS    DST # 2    LKC-C    2011.09.12



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc  
PO Box 86  
Plainville, KS 67663+0086  
ATTN: Charles R Ramsay

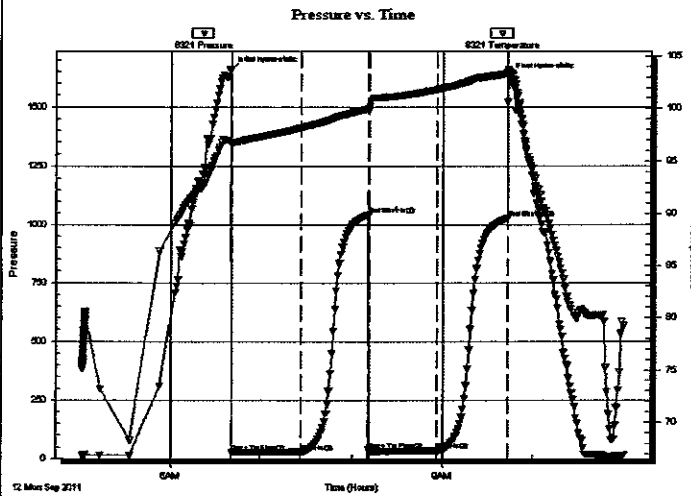
**Desbien #23-1**  
**23-8s-22w Graham,KS**  
Job Ticket: 44629      **DST#: 2**  
Test Start: 2011.09.12 @ 05:00:09

## GENERAL INFORMATION:

Formation: **LKC-C**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 06:40:39  
Time Test Ended: 11:01:09  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jeff Brown  
Unit No: 44  
Interval: **3416.00 ft (KB) To 3442.00 ft (KB) (TVD)**  
Reference Elevations: 2169.00 ft (KB)  
Total Depth: 3442.00 ft (KB) (TVD)                      2164.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair                      KB to GR/CF: 5.00 ft

**Serial #: 8321      Inside**  
Press@RunDepth: 34.52 psig @ 3419.00 ft (KB)                      Capacity: 8000.00 psig  
Start Date: 2011.09.12      End Date: 2011.09.12                      Last Calib.: 2011.09.12  
Start Time: 05:00:10      End Time: 11:01:09                      Time On Btm: 2011.09.12 @ 06:40:09  
Time Off Btm: 2011.09.12 @ 09:44:09

**TEST COMMENT:** IFP-Weak blow built to 3 1/2 in  
ISI-Dead no blow back  
FFP-Fair blow built to 4 1/2 in  
FSI-Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1654.81	96.81	Initial Hydro-static
1	26.23	96.68	Open To Flow (1)
47	29.50	98.17	Shut-In(1)
91	1043.39	99.98	End Shut-In(1)
91	37.95	99.78	Open To Flow (2)
136	34.52	101.81	Shut-In(2)
183	1026.41	103.30	End Shut-In(2)
184	1624.82	103.72	Final Hydro-static

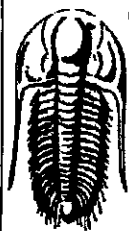
## Recovery

Length (ft)	Description	Volume (bbl)
12.00	HOCM 40%O60%M	0.17
8.00	Free Oil	0.11
0.00	93 GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating Inc  
PO Box 86  
Plainville, KS 67663+0086  
ATTN: Charles R Ramsay

**Desbien #23-1**  
**23-8s-22w Graham,KS**  
Job Ticket: 44629      **DST#: 2**  
Test Start: 2011.09.12 @ 05:00:09

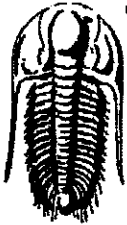
### Tool Information

Drill Pipe:	Length: 3409.00 ft	Diameter: 3.80 inches	Volume: 47.82 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 47.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3416.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3397.00	
Shut In Tool	5.00			3402.00	
Hydraulic tool	5.00			3407.00	
Packer	4.00			3411.00	20.00      Bottom Of Top Packer
Packer	5.00			3416.00	
Stubb	1.00			3417.00	
Perforations	2.00			3419.00	
Recorder	0.00	8321	Inside	3419.00	
Recorder	0.00	8737	Outside	3419.00	
Perforations	20.00			3439.00	
Bullnose	3.00			3442.00	26.00      Bottom Packers & Anchor

**Total Tool Length: 46.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Desbien #23-1**

PO Box 86  
Plainville, KS 67663+0086

**23-8s-22w Graham,KS**

Job Ticket: 44629

DST#: 2

ATTN: Charles R Ramsay

Test Start: 2011.09.12 @ 05:00:09

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
12.00	HOCM 40% O60%M	0.168
8.00	Free Oil	0.112
0.00	93 GIP	0.000

Total Length: 20.00 ft

Total Volume: 0.280 bbl

Num Fluid Samples: 0

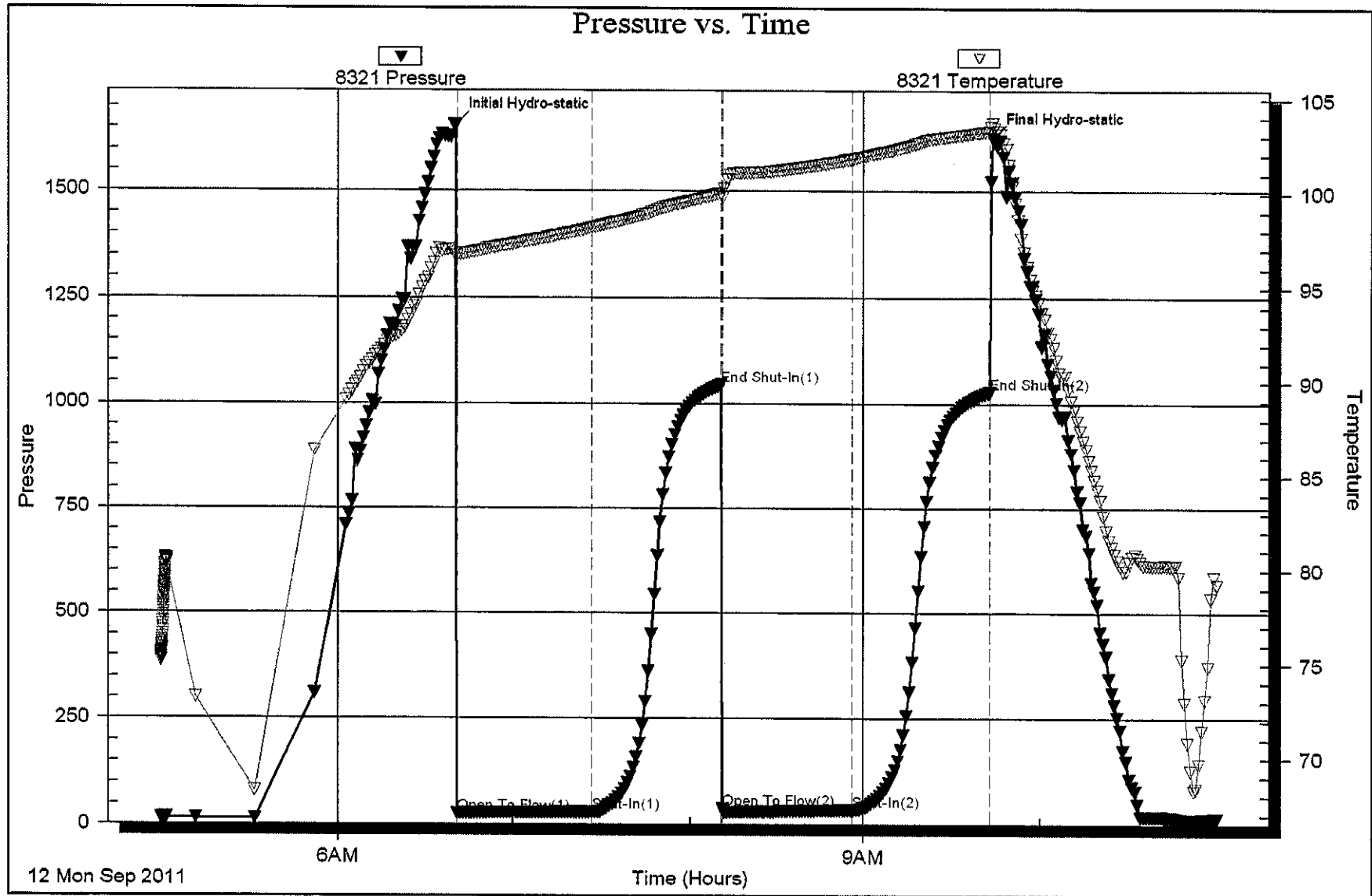
Num Gas Bombs: 0

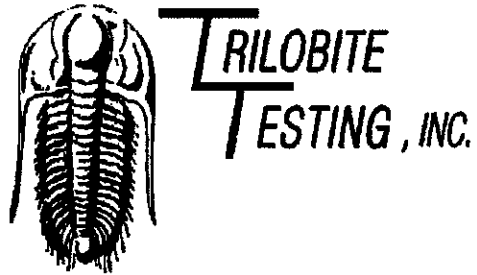
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating Inc**

PO Box 86  
Plainville, KS 67663+0086

ATTN: Charles R Ramsay

**23-8s-22w Graham,KS**

**Desbien #23-1**

Start Date: 2011.09.12 @ 19:24:26

End Date: 2011.09.13 @ 01:58:56

Job Ticket #: 44630                      DST #: 3

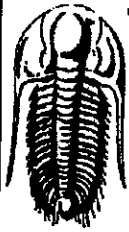
Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.09.19 @ 14:42:40

H&C Oil Operating Inc  
Desbien #23-1  
23-8s-22w Graham,KS  
DST # 3  
LKC-E&F  
2011.09.12







**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating Inc  
 PO Box 86  
 Plainville, KS 67663+0086  
 ATTN: Charles R Ramsay

**Desbien #23-1**  
**23-8s-22w Graham,KS**  
 Job Ticket: 44630 **DST#: 3**  
 Test Start: 2011.09.12 @ 19:24:26

### Tool Information

Drill Pipe:	Length: 3444.00 ft	Diameter: 3.80 inches	Volume: 48.31 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 48.31 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3458.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3439.00	
Shut In Tool	5.00			3444.00	
Hydraulic tool	5.00			3449.00	
Packer	4.00			3453.00	20.00 Bottom Of Top Packer
Packer	5.00			3458.00	
Stubb	1.00			3459.00	
Perforations	2.00			3461.00	
Recorder	0.00	8321	Inside	3461.00	
Recorder	0.00	8737	Outside	3461.00	
Perforations	23.00			3484.00	
Bullnose	3.00			3487.00	29.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Desbien #23-1**

PO Box 86  
Plainville, KS 67663+0086

**23-8s-22w Graham, KS**

Job Ticket: 44630

**DST#: 3**

ATTN: Charles R Ramsay

Test Start: 2011.09.12 @ 19:24:26

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
78.00	HOOGMM 10%G50%O5%W35%M	1.094
110.00	Gassy Oil	1.543
0.00	341' GIP	0.000

Total Length: 188.00 ft

Total Volume: 2.637 bbl

Num Fluid Samples: 0

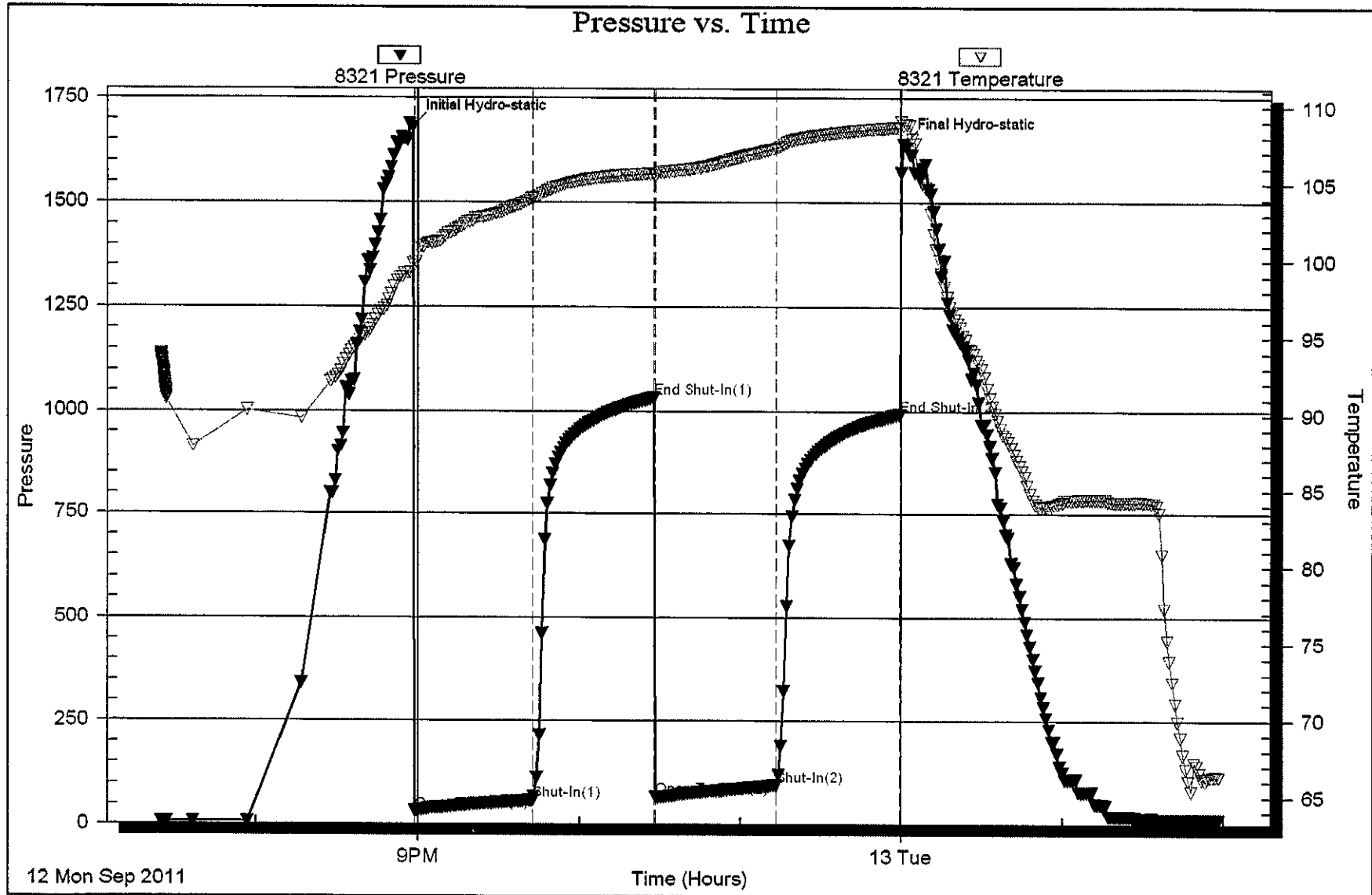
Num Gas Bombs: 0

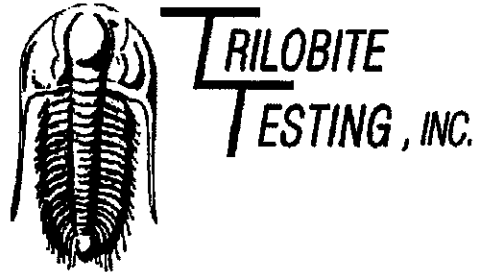
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating Inc**

PO Box 86  
Plainville, KS 67663+0086

ATTN: Charles R Ramsay

**23-8s-22w Graham,KS**

**Desbien #23-1**

Start Date: 2011.09.13 @ 11:20:00

End Date: 2011.09.13 @ 17:51:00

Job Ticket #: 44631                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.09.19 @ 14:43:00

H&C Oil Operating Inc

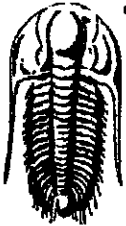
Desbien #23-1

23-8s-22w Graham,KS

DST # 4

LKC-H&J

2011.09.13



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc  
PO Box 86  
Plainville, KS 67663+0086  
ATTN: Charles R Ramsay

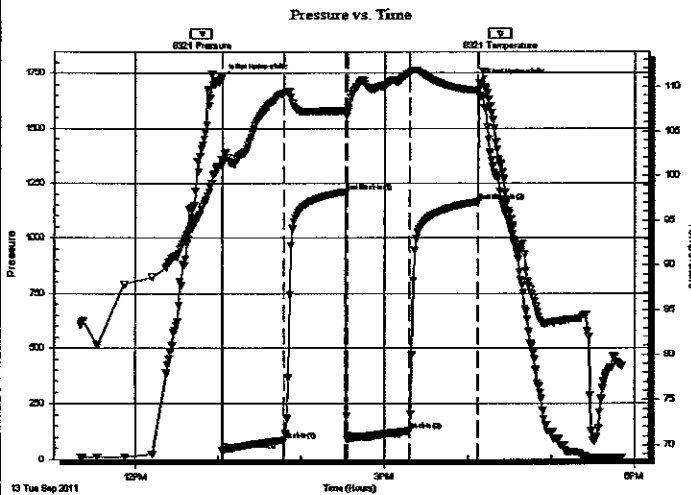
**Desbien #23-1**  
**23-8s-22w Graham,KS**  
Job Ticket: 44631 **DST#: 4**  
Test Start: 2011.09.13 @ 11:20:00

## GENERAL INFORMATION:

Formation: **LKC-H&J**  
Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole (Reset)**  
Time Tool Opened: **13:03:00** Tester: **Jeff Brown**  
Time Test Ended: **17:51:00** Unit No: **44**  
Interval: **3510.00 ft (KB) To 3570.00 ft (KB) (TVD)** Reference Elevations: **2169.00 ft (KB)**  
Total Depth: **3570.00 ft (KB) (TVD)** **2164.00 ft (CF)**  
Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **5.00 ft**

**Serial #: 8321** **Inside**  
Press@RunDepth: **128.79 psig @ 3547.00 ft (KB)** Capacity: **8000.00 psig**  
Start Date: **2011.09.13** End Date: **2011.09.13** Last Calib.: **2011.09.13**  
Start Time: **11:20:01** End Time: **17:51:00** Time On Btm: **2011.09.13 @ 13:02:30**  
Time Off Btm: **2011.09.13 @ 16:08:00**

**TEST COMMENT:** IFF-Good blow BOB in 14 1/2 min  
ISI-Weak blow back built to 1/4 in died back to a surface blow  
FFP-Good blow BOB in 12 1/2 min  
FSI-Weak blow back built to 1 in Died back to a 1/2 in



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1728.96	101.78	Initial Hydro-static
1	42.80	101.41	Open To Flow (1)
45	87.63	109.24	Shut-In(1)
90	1212.03	107.27	End Shut-In(1)
91	90.66	107.26	Open To Flow (2)
135	128.79	111.52	Shut-In(2)
185	1167.13	109.51	End Shut-In(2)
186	1707.48	109.06	Final Hydro-static

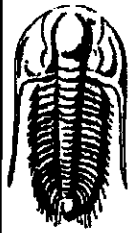
## Recovery

Length (ft)	Description	Volume (bbl)
124.00	MOGO 20%G30%M50%O	1.74
112.00	MCO 50%M50%O	1.57
0.00	496 GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating Inc  
PO Box 86  
Plainville, KS 67663+0086  
ATTN: Charles R Ramsay

**Desbien #23-1**  
**23-8s-22w Graham,KS**  
Job Ticket: 44631      **DST#: 4**  
Test Start: 2011.09.13 @ 11:20:00

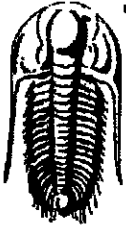
**Tool Information**

Drill Pipe:	Length: 3503.00 ft	Diameter: 3.80 inches	Volume: 49.14 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 49.14 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3510.00 ft			Final 38000.00 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
Change Over Sub	1.00			3491.00	
Shut In Tool	5.00			3496.00	
Hydraulic tool	5.00			3501.00	
Packer	4.00			3505.00	20.00      Bottom Of Top Packer
Packer	5.00			3510.00	
Stubb	1.00			3511.00	
Perforations	3.00			3514.00	
Change Over Sub	1.00			3515.00	
Drill Pipe	31.00			3546.00	
Change Over Sub	1.00			3547.00	
Recorder	0.00	8321	Inside	3547.00	
Recorder	0.00	8737	Outside	3547.00	
Perforations	20.00			3567.00	
Bullnose	3.00			3570.00	60.00      Bottom Packers & Anchor

**Total Tool Length: 80.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Desbien #23-1**

PO Box 86  
Plainville, KS 67663+0086

**23-8s-22w Graham,KS**

Job Ticket: 44631      **DST#: 4**

ATTN: Charles R Ramsay

Test Start: 2011.09.13 @ 11:20:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	MCO 20%G30%M50%O	1.739
112.00	MCO 50%M50%O	1.571
0.00	496 GIP	0.000

Total Length: 236.00 ft      Total Volume: 3.310 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

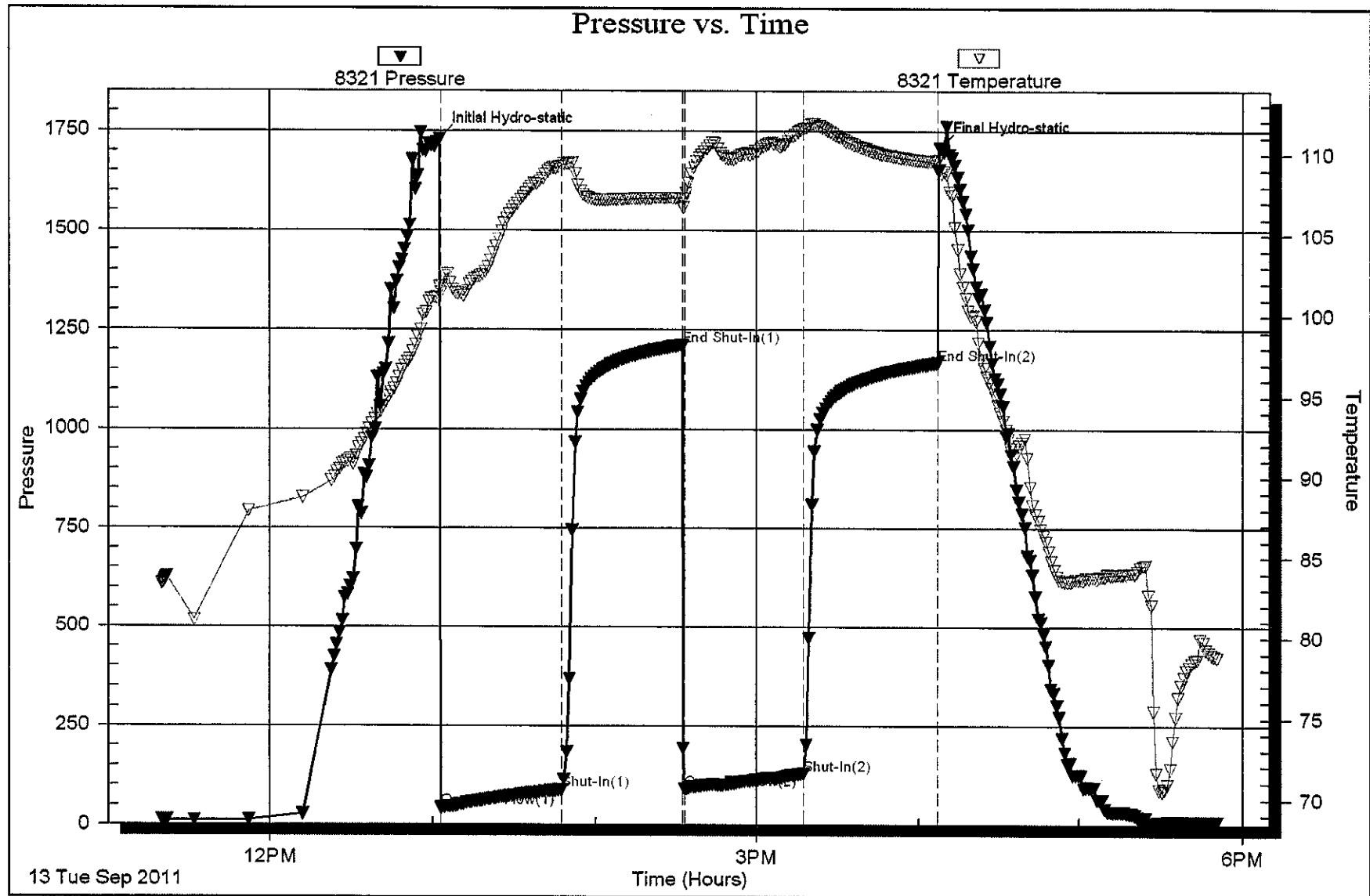
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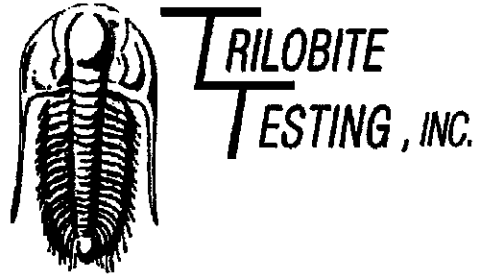
Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating Inc**

PO Box 86  
Plainville, KS 67663+0086

ATTN: Charles R Ramsay

**23-8s-22w Graham,KS**

**Desbien #23-1**

Start Date: 2011.09.13 @ 23:53:28

End Date: 2011.09.14 @ 05:47:58

Job Ticket #: 44632                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

H&C Oil Operating Inc

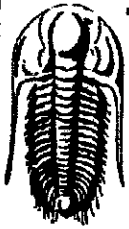
Desbien #23-1

23-8s-22w Graham,KS

DST # 5

LKC "K-L"

2011.09.13



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

H&C Oil Operating Inc  
PO Box 86  
Plainville, KS 67663+0086  
ATTN: Charles R Ramsay

**Desbien #23-1**  
**23-8s-22w Graham, KS**  
Job Ticket: 44632      **DST#: 5**  
Test Start: 2011.09.13 @ 23:53:28

### GENERAL INFORMATION:

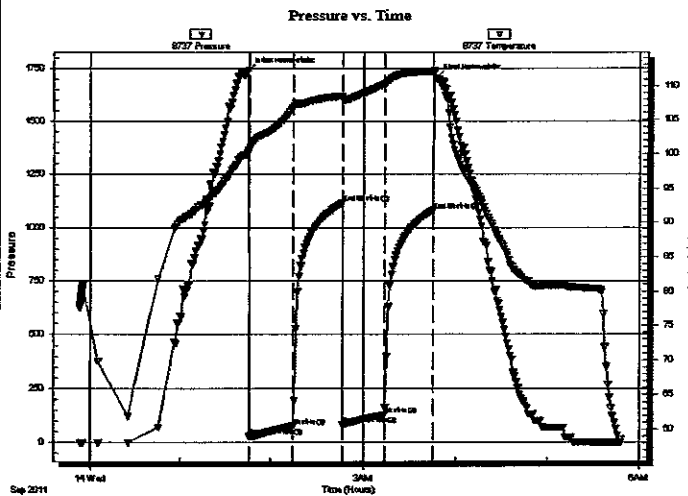
Formation: **LKC "K-L"**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 01:45:28  
Time Test Ended: 05:47:58  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Brian Fairbank  
Unit No: 44  
Interval: **3569.00 ft (KB) To 3604.00 ft (KB) (TVD)**  
Reference Elevations:                      2169.00 ft (KB)  
Total Depth: 3604.00 ft (KB) (TVD)                      2164.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair                      KB to GR/CF: 5.00 ft

### Serial #: 8737

Outside

Press@RunDepth: 126.12 psig @ 3576.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2011.09.13      End Date: 2011.09.14      Last Calib.: 2011.09.14  
Start Time: 23:53:29      End Time: 05:47:58      Time On Btm: 2011.09.14 @ 01:44:28  
Time Off Btm: 2011.09.14 @ 03:46:58

TEST COMMENT: IFP - BOB 3 1/2 min  
ISI - 5" blow back  
FFP - BOB 10 min  
FSI - 7" blow back



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1734.24	100.07	Initial Hydro-static
1	28.25	100.59	Open To Flow (1)
30	75.05	106.75	Shut-In(1)
62	1114.94	108.46	End Shut-In(1)
62	83.60	108.08	Open To Flow (2)
89	126.12	110.20	Shut-In(2)
121	1082.04	112.02	End Shut-In(2)
123	1702.13	111.08	Final Hydro-static

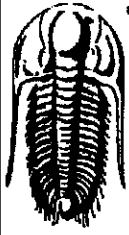
### Recovery

Length (ft)	Description	Volume (bbl)
40.00	GMO 30%G, 40%O, 30%M	0.56
260.00	FREE OIL 95%O, 5%M	3.65
0.00	590' GIP	0.00

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

H&COil Operating Inc  
 PO Box 86  
 Plainville, KS 67663+0086  
 ATTN: Charles R Ramsay

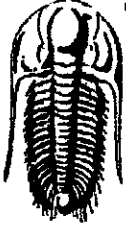
**Desbien #23-1**  
**23-8s-22w Graham,KS**  
 Job Ticket: 44632      **DST#: 5**  
 Test Start: 2011.09.13 @ 23:53:28

**Tool Information**

Drill Pipe:	Length: 3566.00 ft	Diameter: 3.80 inches	Volume: 50.02 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 50.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 37000.00 lb
Depth to Top Packer:	3569.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3550.00	
Shut In Tool	5.00			3555.00	
Hydraulic tool	5.00			3560.00	
Packer	4.00			3564.00	20.00      Bottom Of Top Packer
Packer	5.00			3569.00	
Stubb	1.00			3570.00	
Perforations	6.00			3576.00	
Recorder	0.00	8321	Inside	3576.00	
Recorder	0.00	8737	Outside	3576.00	
Perforations	25.00			3601.00	
Bullnose	3.00			3604.00	35.00      Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Desbien #23-1**

PO Box 86  
Plainville, KS 67663+0086

**23-8s-22w Graham, KS**

Job Ticket: 44632

**DST#: 5**

ATTN: Charles R Ramsay

Test Start: 2011.09.13 @ 23:53:28

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	GMO 30%G, 40%O, 30%M	0.561
260.00	FREE OIL 95%O, 5%M	3.647
0.00	590' GIP	0.000

Total Length: 300.00 ft      Total Volume: 4.208 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

