



KANSAS CORPORATION COMMISSION 1096342  
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: PO BOX 86  
Address 2: \_\_\_\_\_  
City: PLAINVILLE State: KS Zip: 67663 + 0086  
Contact Person: Charles Ramsay  
Phone: ( 785 ) 434-7434  
CONTRACTOR: License # 31548  
Name: Discovery Drilling  
Wellsite Geologist: Marc Downing  
Purchaser: \_\_\_\_\_

Designate Type of Completion:

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

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_

<u>03/20/2012</u>	<u>03/27/2012</u>	<u>3/28/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-063-21980-00-00  
Spot Description: \_\_\_\_\_  
NE NE SE SW Sec. 27 Twp. 13 S. R. 26  East  West  
1100 Feet from  North /  South Line of Section  
2460 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Gove  
Lease Name: Herl Well #: 27-1  
Field Name: \_\_\_\_\_  
Producing Formation: Lansing Kansas City  
Elevation: Ground: 2395 Kelly Bushing: 2403  
Total Depth: 4308 Plug Back Total Depth: 4303  
Amount of Surface Pipe Set and Cemented at: 223 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 1820 Feet  
If Alternate II completion, cement circulated from: \_\_\_\_\_  
feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 17000 ppm Fluid volume: 480 bbls  
Dewatering method used: Evaporated  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Deanna Garriso Date: 10/18/2012



1096342

Operator Name: H & C Oil Operating Inc. Lease Name: Herl Well #: 27-1  
 Sec. 27 Twp. 13 S. R. 26  East  West County: Gove

**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: <b>Attached</b>	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum Attached Attached Attached
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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	12.25	8.625	23	223	common	150	3% cc, 2% gel
Production	7.8750	5.5	14	4305	common	170	10% salt, 5% gilsonite

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ 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	3918' - 3927'	4500 gallons acid	3927'

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. _____		Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input 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: _____ _____
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Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Herl 27-1
Doc ID	1096342

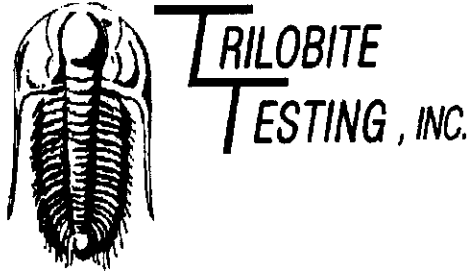
All Electric Logs Run

Microresistivity
Dual Compensated Porosity
Borehole Compensated Sonic
Dual Induction
Sonic Cement Bond Log

Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Herl 27-1
Doc ID	1096342

Tops

Top Anhydrite	1904	+499
Base Anhydrite	1945	+458
Heebner	3645	-1242
Lansing	3685	-1282
Stark	3908	-1505
BKC	3958	-1555
Pawnee	4104	-1701
Fort Scott	4164	-1761
Cherokee Shale	4188	-1785
Mississippi/Warsaw	4266	-1863



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

**Well #27-1**

**27-13s-26w Gove,KS**

Start Date: 2012.03.25 @ 00:58:18

End Date: 2012.03.25 @ 06:21:27

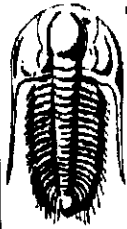
Job Ticket #: 45037                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.30 @ 09:33:15



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating  
 PO Box 86  
 Plainville, KS 67663  
 ATTN: Marc Downing

**27-13s-26w Gove,KS**  
**Herl #27-1**  
 Job Ticket: 45037 **DST#: 1**  
 Test Start: 2012.03.25 @ 00:58:18

## GENERAL INFORMATION:

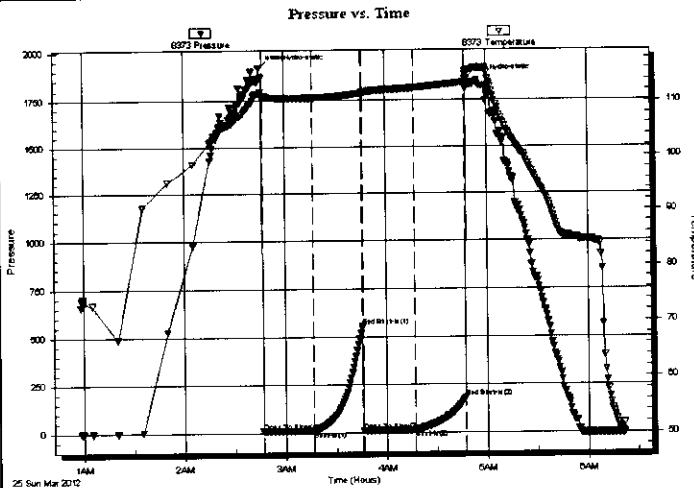
Formation: **LKC J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:46:28  
 Time Test Ended: 06:21:27  
 Interval: **3881.00 ft (KB) To 3908.00 ft (KB) (TVD)**  
 Total Depth: 3908.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brandon Turley  
 Unit No: 60  
 Reference Elevations: 2402.00 ft (KB)  
 2395.00 ft (CF)  
 KB to GR/CF: 7.00 ft

## Serial #: 8373

Inside

Press@RunDepth: 14.95 psig @ 3882.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.03.25 End Date: 2012.03.25 Last Calib.: 2012.03.25  
 Start Time: 00:58:18 End Time: 06:21:27 Time On Btm: 2012.03.25 @ 02:44:43  
 Time Off Btm: 2012.03.25 @ 04:47:58

TEST COMMENT: IF: Surface blow built to 1/2"  
 IS: No return.  
 FF: Surface blow built to 1"  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1917.89	111.42	Initial Hydro-static
2	10.00	110.64	Open To Flow (1)
32	12.26	110.63	Shut-In(1)
61	551.97	111.49	End Shut-In(1)
62	12.10	111.23	Open To Flow (2)
93	14.95	112.37	Shut-In(2)
123	181.27	113.37	End Shut-In(2)
124	1856.19	115.29	Final Hydro-static

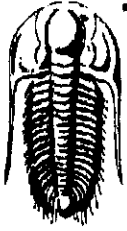
## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mco 60%o 40%m	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating

**27-13s-26w Gove, KS**

PO Box 86  
Plainville, KS 67663

**Herl #27-1**

Job Ticket: 45037

**DST#: 1**

ATTN: Marc Downing

Test Start: 2012.03.25 @ 00:58:18

### Tool Information

Drill Pipe:	Length: 3854.00 ft	Diameter: 3.80 inches	Volume: 54.06 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: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 75000.00 lb
		<u>Total Volume:</u>	<u>54.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3881.00 ft			Final 60000.00 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	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			3862.00	
Shut In Tool	5.00			3867.00	
Hydraulic tool	5.00			3872.00	
Packer	5.00			3877.00	20.00 Bottom Of Top Packer
Packer	4.00			3881.00	
Stubb	1.00			3882.00	
Recorder	0.00	8373	Inside	3882.00	
Recorder	0.00	8356	Outside	3882.00	
Perforations	21.00			3903.00	
Bullnose	5.00			3908.00	27.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>47.00</b>				





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating

**27-13s-26w Gove,KS**

PO Box 86  
Plainville, KS 67663

**Herl #27-1**

Job Ticket: 45037

**DST#: 1**

ATTN: Marc Downing

Test Start: 2012.03.25 @ 00:58:18

### 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: 61.00 sec/qt

Cushion Volume:

bbl

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

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mco 60%o 40%m	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

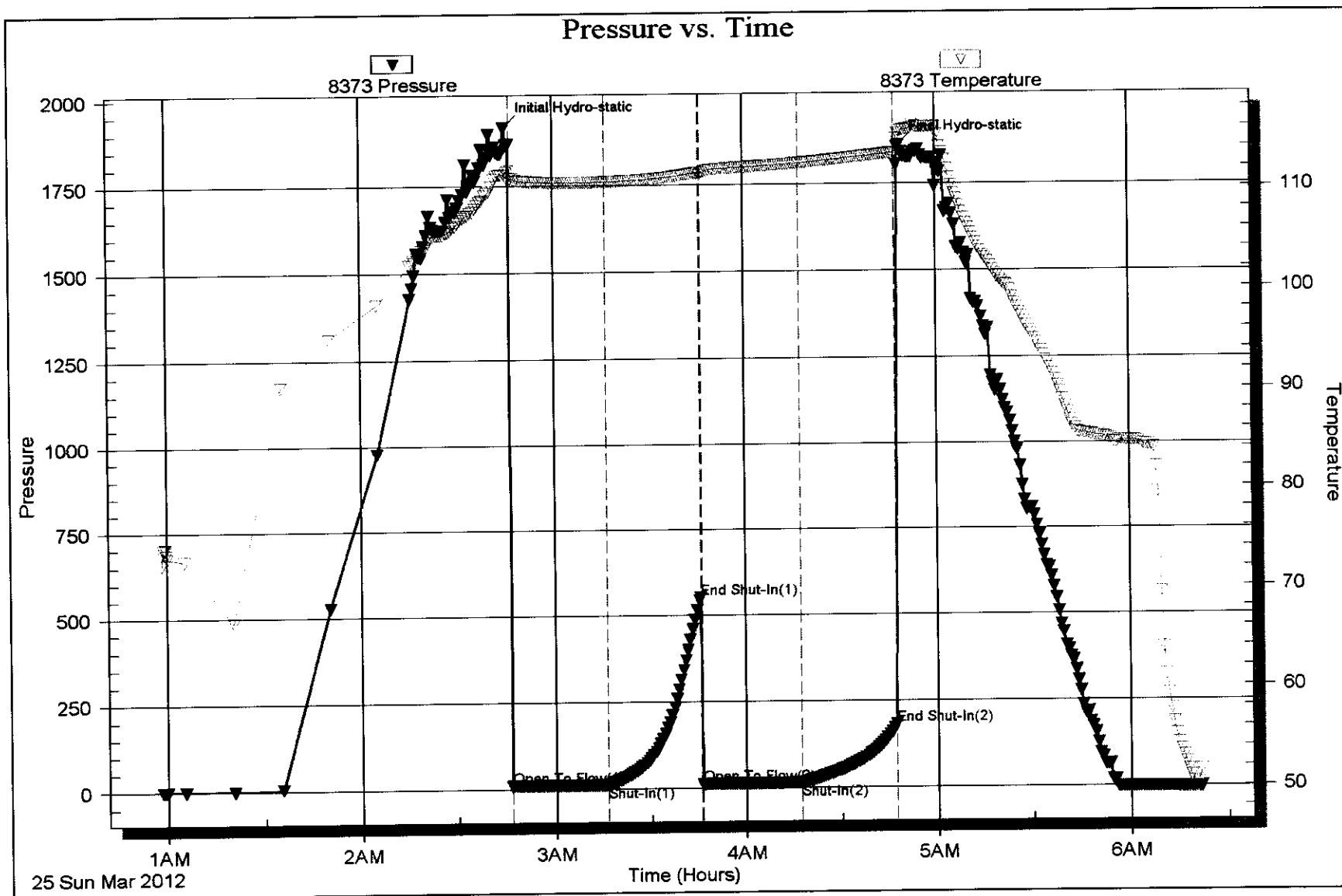
Num Gas Bombs: 0

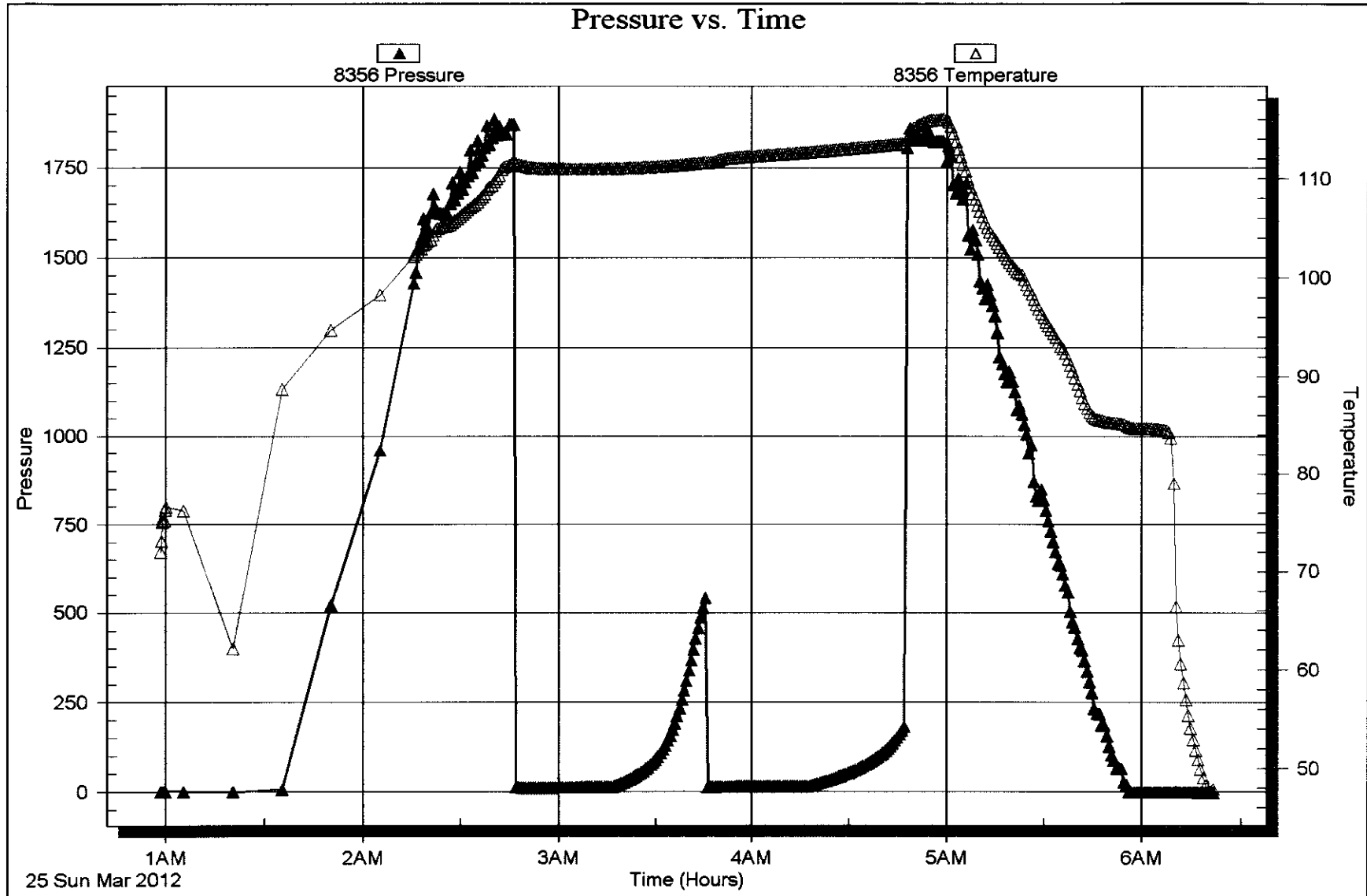
Serial #:

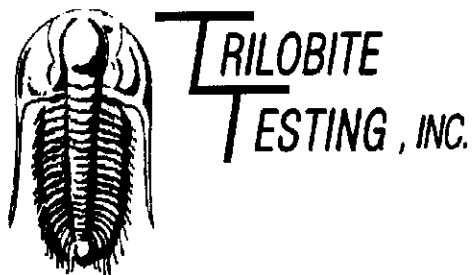
Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

**Herl #27-1**

**27-13s-26w Gove,KS**

Start Date: 2012.03.25 @ 12:55:00

End Date: 2012.03.25 @ 18:05:09

Job Ticket #: 45038                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.30 @ 09:31:36

H&C Oil Operating  
27-13s-26w Gove,KS  
Herl #27-1  
DST # 2  
LKC-K  
2012.03.25



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating

**27-13s-26w Gove, KS**

PO Box 86  
Plainville, KS 67663

**Herl #27-1**

Job Ticket: 45038

**DST#: 2**

ATTN: Marc Downing

Test Start: 2012.03.25 @ 12:55:00

## GENERAL INFORMATION:

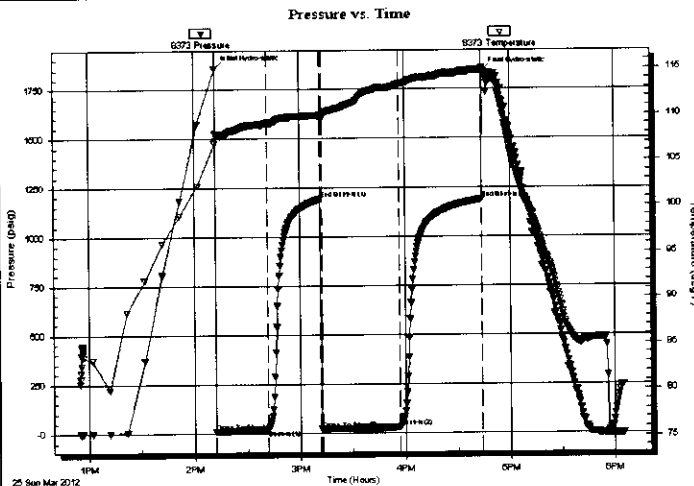
Formation: **LKC- K**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:12:10  
 Time Test Ended: 18:05:09  
 Interval: **3904.00 ft (KB) To 3930.00 ft (KB) (TVD)**  
 Total Depth: 3930.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brandon Turley  
 Unit No: 60  
 Reference Elevations: 2402.00 ft (KB)  
 2395.00 ft (CF)  
 KB to GR/CF: 7.00 ft

## Serial #: 8373

Inside

Press@RunDepth: 29.85 psig @ 3905.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.03.25 End Date: 2012.03.25 Last Calib.: 2012.03.25  
 Start Time: 12:55:00 End Time: 18:05:09 Time On Btm: 2012.03.25 @ 14:11:55  
 Time Off Btm: 2012.03.25 @ 16:44:10

**TEST COMMENT:** IF: Surface blow built to 1.  
 IS: No return.  
 FF: Surface blow built to 2 1/2.  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1858.54	106.86	Initial Hydro-static
1	12.31	107.90	Open To Flow (1)
30	21.82	109.06	Shut-In(1)
60	1190.64	109.89	End Shut-In(1)
61	23.31	109.42	Open To Flow (2)
105	29.85	113.30	Shut-In(2)
152	1187.01	114.80	End Shut-In(2)
153	1838.76	115.03	Final Hydro-static

## Recovery

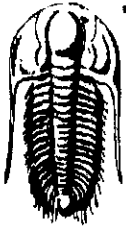
Length (ft)	Description	Volume (bbl)
40.00	ocm 10%o 90%m	0.28

\* 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

**27-13s-26w Gove, KS**

PO Box 86  
Plainville, KS 67663

**Herl #27-1**

Job Ticket: 45038

**DST#: 2**

ATTN: Marc Downing

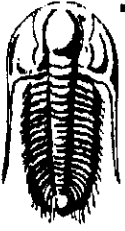
Test Start: 2012.03.25 @ 12:55:00

### Tool Information

Drill Pipe:	Length: 3858.00 ft	Diameter: 3.80 inches	Volume: 54.12 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3904.00 ft			Final 60000.00 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
Stubb	1.00			3885.00	
Shut In Tool	5.00			3890.00	
Hydraulic tool	5.00			3895.00	
Packer	5.00			3900.00	20.00 Bottom Of Top Packer
Packer	4.00			3904.00	
Stubb	1.00			3905.00	
Recorder	0.00	8373	Inside	3905.00	
Recorder	0.00	8356	Outside	3905.00	
Perforations	20.00			3925.00	
Bullnose	5.00			3930.00	26.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>46.00</b>				



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating

**27-13s-26w Gove, KS**

PO Box 86  
Plainville, KS 67663

**Herl #27-1**

Job Ticket: 45038

**DST#: 2**

ATTN: Marc Downing

Test Start: 2012.03.25 @ 12:55:00

### 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: 7.98 in<sup>3</sup>

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
40.00	ocm 10%o 90%m	0.279

Total Length: 40.00 ft      Total Volume: 0.279 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

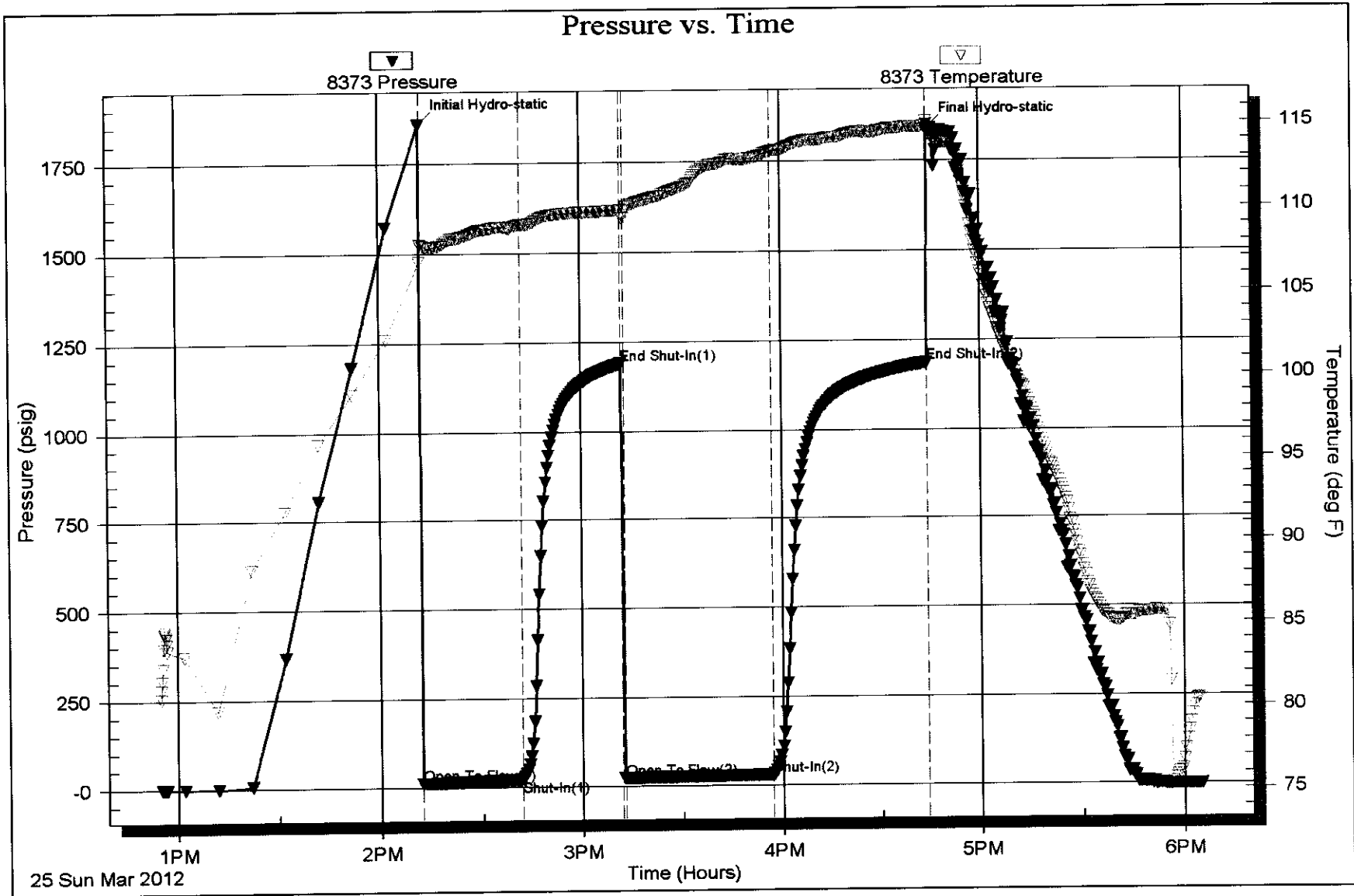
Serial #:

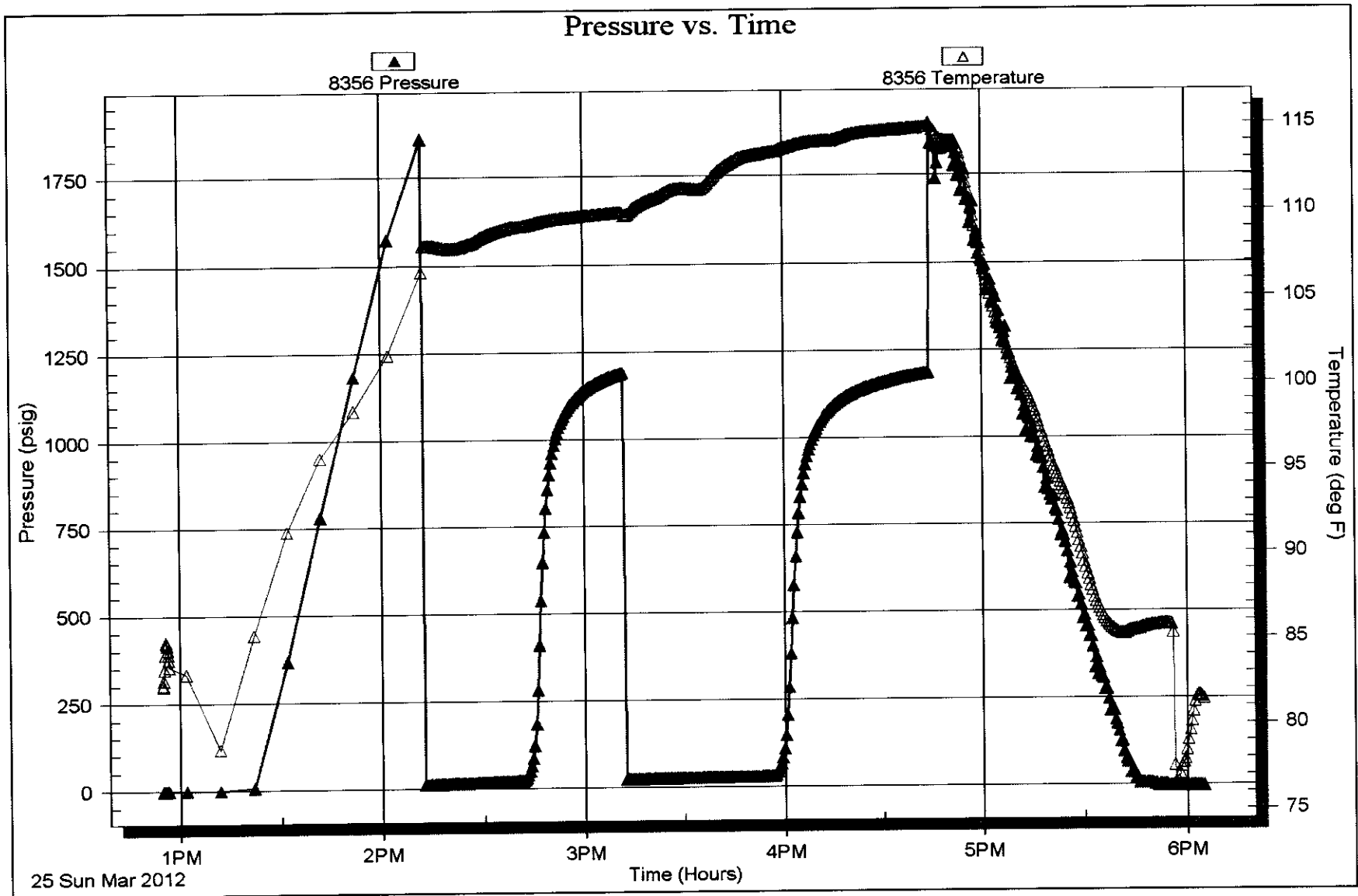
Laboratory Name:

Laboratory Location:

Recovery Comments:









# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

MAR 28 2012

NO. 45037

Well Name & No. Hep1 27-1 Test No. 1 Date 3-24-12  
 Company HDC oil operations Elevation 2402 KB 2395 GL  
 Address P.O. Box 86 Plainville, KS 67663  
 Co. Rep / Geo. MarL Rig Diso #1  
 Location: Sec. 27 Twp. 13 Rge. 26 Co. Gove State KS

Interval Tested 3881 3908 Zone Tested LKC J  
 Anchor Length 27 Drill Pipe Run 3854 Mud Wt. 8.9  
 Top Packer Depth 3876 Drill Collars Run 31 Vis 61  
 Bottom Packer Depth 3881 Wt. Pipe Run — WL 7.6  
 Total Depth 3908 Chlorides 800 ppm System LCM 2 1/2

Blow Description IF: surface blow built to 1/2.  
IS: NO return  
FF: Surface blow built to 1,  
FS: NO return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MCO</u>	<u>60</u>		<u>40</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

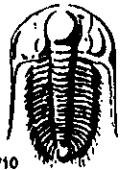
Rec Total 5 BHT 110 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1917  Test 1125' T-On Location 23:45  
 (B) First Initial Flow 10  Jars — T-Started 00:58  
 (C) First Final Flow 12  Safety Joint — T-Open 2:47  
 (D) Initial Shut-In 551  Circ Sub NIL T-Pulled 4:47  
 (E) Second Initial Flow 12  Hourly Standby — T-Out 6:25  
 (F) Second Final Flow 14  Mileage 136 RT 190,40 Comments —  
 (G) Final Shut-In 181  Sampler —  
 (H) Final Hydrostatic 1856  Straddle —  Ruined Shale Packer —

Initial Open 30  Shale Packer —  Ruined Packer —  
 Initial Shut-In 30  Extra Packer —  Extra Copies —  
 Final Flow 30  Extra Recorder — Sub Total 0  
 Final Shut-In 30  Day Standby — Total 1312.40  
 Accessibility — MP/DST Disc't —  
 Sub Total 1315.40

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

TriLOBITE TESTING Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
MAR 28 2012

## Test Ticket

NO. 45038

BY: \_\_\_\_\_

Well Name & No. Herl 27-1 Test No. 2 Date 3-25-12

Company HGC oil operating Elevation 2402 KB 2395 GL

Address \_\_\_\_\_

Co. Rep / Geo. Marc Downing Rig Discovery #1

Location: Sec. 27 Twp. 13 Rge. 26 Co. Gove State KS

Interval Tested 3904 3930 Zone Tested LKC - K

Anchor Length 26 Drill Pipe Run 3858 Mud Wt. 9.0

Top Packer Depth 3899 Drill Collars Run 31 Vis 53

Bottom Packer Depth 3904 Wt. Pipe Run \_\_\_\_\_ WL 8.0

Total Depth 3930 Chlorides 1500 ppm System LCM 2

Blow Description IF: Surface blow built to 1.  
IS: No return.  
FF: Surface blow built to 2 1/2.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>OCM</u>		<u>10</u>		<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 40 BHT 114 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1858  Test 1125' T-On Location 12:30

(B) First Initial Flow 12  Jars \_\_\_\_\_ T-Started 12:54

(C) First Final Flow 21  Safety Joint \_\_\_\_\_ T-Open 14:11

(D) Initial Shut-In 1190  Circ Sub N/C T-Pulled 16:41

(E) Second Initial Flow 23  Hourly Standby \_\_\_\_\_ T-Out 18:05

(F) Second Final Flow 29  Mileage 1360 RT x 7, 380.80 Comments 10 added 1:20 PM

(G) Final Shut-In 1187  Sampler \_\_\_\_\_ 3-27-12

(H) Final Hydrostatic 1838  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Shut-In 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

Final Flow 45  Extra Recorder \_\_\_\_\_ Sub Total 800

Final Shut-In 45  Day Standby 1 day & 19 1/4 hrs Total 2305.80

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

Sub Total 1505.80

Approved By \_\_\_\_\_ Our Representative

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# QUALITY OILWELL CEMENTING, INC.

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

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

No. 481

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-27-12	27	13	26	Gove	Kansas		11:45PM
Lease <i>Hert</i>	Well No. <i>27-1</i>		Location <i>I-70 1/2 Collier Rd 8 1/2 S 4 1/2 W Sinto</i>				
Contractor <i>Discovery Drilling Rigs</i>				Owner 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.			
Type Job <i>Long string</i>	T.D. <i>4308</i>		Charge To <i>H &amp; C Oil Operating</i>				
Hole Size <i>7 7/8</i>	Depth <i>4305</i>		Street				
Csg. <i>5E 1416</i>	Depth		City				
Tbg. Size	Depth <i>1914</i>		State				
Tool <i>Port Collar #59</i>	Shoe Joint <i>35.81</i>		The above was done to satisfaction and supervision of owner agent or contractor.				
Cement Left in Csg. <i>35.81</i>	Displace <i>104 2/3 Bbl</i>		Cement Amount Ordered <i>200 Common 100 Salt</i>				
EQUIPMENT				<i>500 Gal Mud Chem -48</i>			
Pumptrk <i>15</i>	No. Cementer <i>Steve</i>			Common <i>200</i>			
Bulktrk <i>14</i>	No. Driver <i>Rick</i>			Poz. Mix			
Bulktrk	No. Driver <i>Nick</i>			Gel.			
JOB SERVICES & REMARKS				Calcium			
Remarks:				Hulls			
Rat Hole <i>30</i>				Salt <i>17</i>			
Mouse Hole <i>15</i>				Flowseal			
Centralizers <i>4 7 8 10 12</i>				Kol-Seal <i>1000</i>			
Baskets <i>1 58 63 80</i>				Mud CLR 48 <i>500 Gal</i>			
D/V or Port Collar <i>#59 @ 1914'</i>				CFL-117 or CD110 CAF 38			
				Sand			
				Handling <i>22.7</i>			
				Mileage			
<i>Land plug @ psi</i>				FLOAT EQUIPMENT			
				Guide Shoe			
				Centralizer <i>7</i>			
				Baskets <i>4</i>			
				AFU Inserts			
				Float Shoe <i>1</i>			
				Latch Down <i>1</i>			
				<i>Port Collar</i>			
				Pumptrk Charge			
				Mileage <i>47</i>			
				Tax			
				Discount			
				Total Charge			
Signature <i>[Signature]</i>							

# QUALITY OILWELL CEMENTING, INC.

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

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

No. 479

Date	3-20-12	Sec.	27	Twp.	13	Range	26	County	Grave	State	Missouri	On Location		Finish	WINSTON				
Lease	Hecl	Well No.	27-1		Location														
Contractor												Discovery Drilling Rig 1				Owner			
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	T.D.	223		Charge To														
Csg.	8 3/8	Depth	223		H&L Operating														
Tbg. Size		Depth			Street														
Tool		Depth			City														
Cement Left in Csg.	10-15'	Shoe Joint			State														
Meas Line		Displace	13 1/2 Bbl		The above was done to satisfaction and supervision of owner agent or contractor.														
EQUIPMENT												Cement Amount Ordered							
												150 Common Well 2 1/2" bit							
Pumptrk	5	No.	Cementer	Steve	Common														
			Helper		150														
Bulktrk	14	No.	Driver	Brett	Poz. Mix														
			Driver																
Bulktrk		No.	Driver	Crady	Gel.														
			Driver		3														
JOB SERVICES & REMARKS												Calcium							
Remarks:												5							
Rat Hole												Hulls							
Mouse Hole												Salt							
Centralizers												Flowseal							
Baskets												Kol-Seal							
DNV or Port Collar												Mud CLR 48							
												CFL-117 or CD110 CAF 38							
												Sand							
												Handling							
Cement did Circulate												158							
												Mileage							
												FLOAT EQUIPMENT							
												Guide Shoe							
												Centralizer							
												Baskets							
												AFU Inserts							
												Float Shoe							
												Latch Down							
												SARGE							
												Pumptrk Charge							
												Surface							
												Mileage							
												47							
Signature												Tax							
												Discount							
												Total Charge							