



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1146731
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(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: _____

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

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1146731

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input 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

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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

June 11, 2013

Charles Ramsay
H & C Oil Operating Inc.
PO BOX 86
PLAINVILLE, KS 67663-0086

Re: ACO1
API 15-065-23923-00-00
Keith-Ficken 17-2
SW/4 Sec.17-09S-24W
Graham County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Charles Ramsay

Marc Downing
 Consulting Petroleum Geologist
 1411 Washington Circle
 Hays, KS 67601
 Phone: 620-428-1356 (cell) 785-621-2286

GEOLOGIC REPORT LOG

COMPANY **H&C Oil Operating, Inc.**
 WELL **Keith-Fiskem # 17-2**
 FIELD **Waldkat**

LOCATION **1980 Esc + S2a Furl**

SEC. **17** TWP. **9S** RGE. **24W**

COUNTY **Graham**

STATE **Kansas**

OPERATOR **H&C Oil Operating, Inc.**
 CONTRACTOR **American Eagle Rig #3**
 COMM. **4-27-13** COM. **5-3-13**

Drilling Measured from: **KB**
 Samples Saved from: **3800** to **TD**
 Drilling Time from: **3500** to **TD**
 Samples Examined from: **3800** to **TD**
 Geological Supervision from: **3500** to total depth

Wellsite Geologist: **Marc Downing**
 Checked Survey: **Plummer**
 CML/CDL

SURF: **5 1/2" @ 4100'**
 PROD: **5 1/2" @ 4100'**
 TOTAL DEPTH DRILLERS: **4105'**
 TOTAL DEPTH LOG: **4105'**

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
Tog Anhydrite	2173	2173	+334	-1
Base Anhydrite	2210	2207	+300	-1
Tanaka	3588	3586	-1579	-2
Heebner	3803	3802	-1295	-2
Taranta	3828	3826	-1319	-2
LKC	3841	3842	-1353	-2
BKC	4064	4063	-1556	-2

REFERENCE WELL FOR STRUCTURE **H&C Oil Operating, Inc.**
Keith-Fiskem #17-1 **1300 Esc + 900 Furl** **Sec. 17-9S-24W**

DRILL STEM TESTS

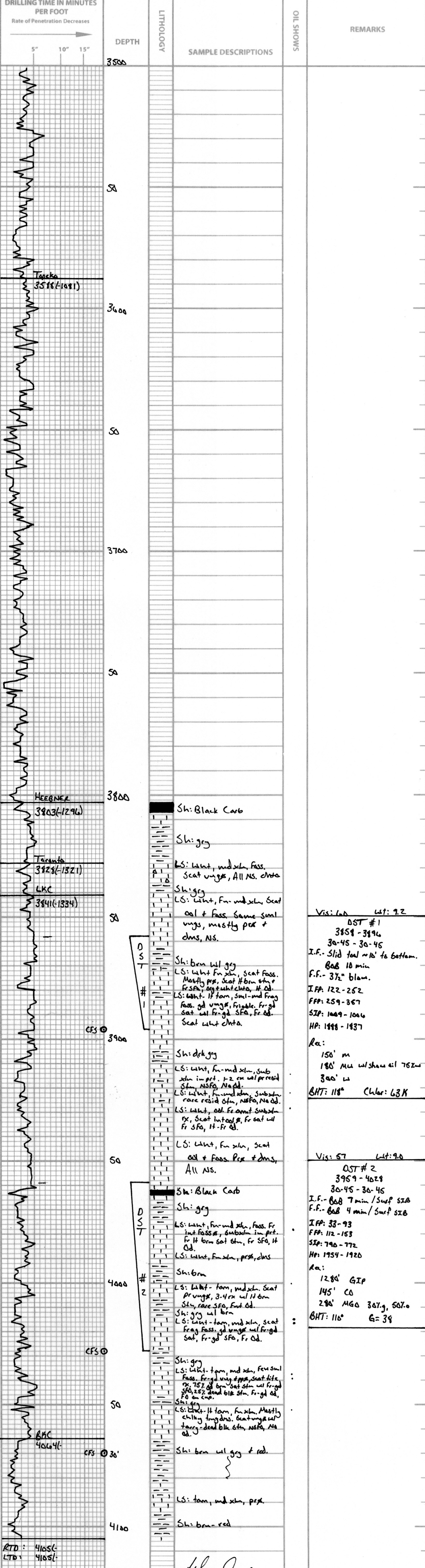
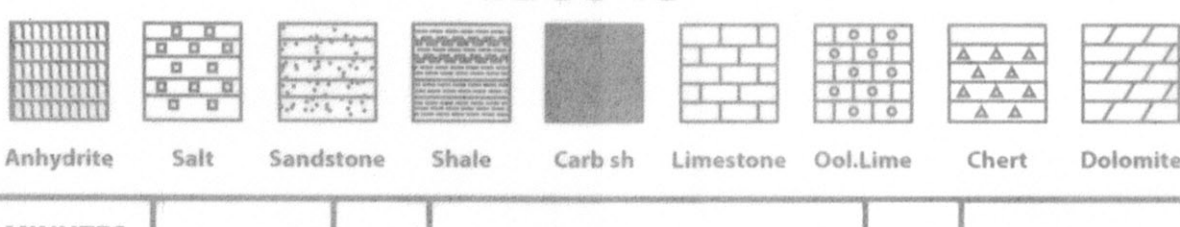
No.	Interval	IFT/Time	ISP/Time	FFP/Time	ESP/Time	HR-FHP	RECOVERY

REMARKS AND RECOMMENDATIONS: **Due to structural position, DST recovery, & log evaluation, it was decided to set 5 1/2" production casing for completion.**

Perforations:
 LKC "5" : 4017-23
 "H" : 3975-78 (Before Abandonment)
 "F" : 3923-26 (Before Abandonment)

Marc Downing

LEGEND



Marc Downing



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663-0086

ATTN: Charles Ramsay

Keith-Ficken #17-2

17-9s-24w Graham,KS

Start Date: 2013.05.01 @ 12:55:19

End Date: 2013.05.01 @ 20:27:28

Job Ticket #: 52573 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.10 @ 09:42:56



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

17-9s-24w Graham,KS
Keith-Ficken #17-2
Job Ticket: 52573 **DST#: 1**
Test Start: 2013.05.01 @ 12:55:19

GENERAL INFORMATION:

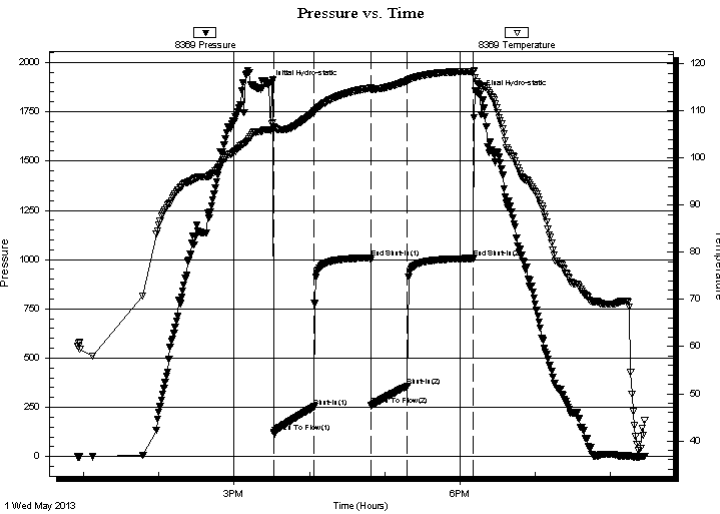
Formation: LKC C-D			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened: 15:31:29		Tester: Ray Schwager	
Time Test Ended: 20:27:28		Unit No: 42	
Interval: 3858.00 ft (KB) To 3896.00 ft (KB) (TVD)		Reference Elevations: 2507.00 ft (KB)	
Total Depth: 3896.00 ft (KB) (TVD)		2502.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft	

Serial #: 8369

Inside

Press @ Run Depth: 357.52 psig @ 3869.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2013.05.01	End Date: 2013.05.01
Start Time: 12:55:19	End Time: 20:27:28
	Last Calib.: 2013.05.01
	Time On Btm: 2013.05.01 @ 15:27:44
	Time Off Btm: 2013.05.01 @ 18:14:58

TEST COMMENT: 30-IFP-strg bl in 10 min slid tool approx 10' to bottom
45-ISIP-no bl bk
30-FFP-w k to a fr bl 1/4" to 3 1/2" bl
45FSIP-no bl bk



PRESSURE SUMMARY

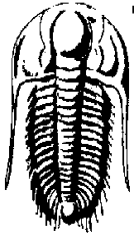
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1888.41	106.04	Initial Hydro-static
4	122.46	106.63	Open To Flow (1)
36	252.95	109.77	Shut-In(1)
81	1009.17	114.83	End Shut-In(1)
82	259.33	114.60	Open To Flow (2)
111	357.52	116.33	Shut-In(2)
163	1006.38	118.29	End Shut-In(2)
168	1837.80	115.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	Mud	2.10
180.00	MW 25%M75%W w/show of oil	2.52
300.00	Water	4.21

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

17-9s-24w Graham, KS
Keith-Ficken #17-2
 Job Ticket: 52573 **DST#: 1**
 Test Start: 2013.05.01 @ 12:55:19

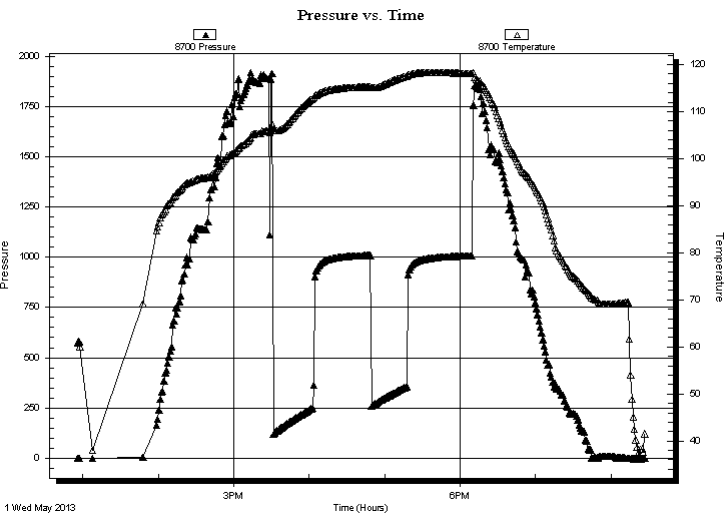
GENERAL INFORMATION:

Formation: **LKC C-D**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 15:31:29 Tester: Ray Schwager
 Time Test Ended: 20:27:28 Unit No: 42
 Interval: **3858.00 ft (KB) To 3896.00 ft (KB) (TVD)** Reference Elevations: 2507.00 ft (KB)
 Total Depth: 3896.00 ft (KB) (TVD) 2502.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8700 Outside

Press @ Run Depth: psig @ 3869.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.01 End Date: 2013.05.01 Last Calib.: 2013.05.01
 Start Time: 12:56:02 End Time: 20:26:41 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP-strg bl in 10 min slid tool approx 10' to bottom
 45-ISIP-no bl bk
 30-FFP-w k to a fr bl 1/4" to 3 1/2" bl
 45FSIP-no bl bk



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
150.00	Mud	2.10
180.00	MW 25%M75%W w/show of oil	2.52
300.00	Water	4.21

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 Ramsay

17-9s-24w Graham,KS
Keith-Ficken #17-2
 Job Ticket: 52573 **DST#: 1**
 Test Start: 2013.05.01 @ 12:55:19

Tool Information

Drill Pipe:	Length: 3867.00 ft	Diameter: 3.80 inches	Volume: 54.24 bbl	Tool Weight:	2200.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 54.24 bbl</u>	Tool Chased	10.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	3858.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	59.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3838.00	
Shut In Tool	5.00			3843.00	
Hydraulic tool	5.00			3848.00	
Packer	5.00			3853.00	21.00 Bottom Of Top Packer
Packer	5.00			3858.00	
Stubb	1.00			3859.00	
Perforations	10.00			3869.00	
Recorder	0.00	8369	Inside	3869.00	
Recorder	0.00	8700	Outside	3869.00	
Perforations	24.00			3893.00	
Bullnose	3.00			3896.00	38.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

17-9s-24w Graham,KS
Keith-Ficken #17-2
Job Ticket: 52573 **DST#: 1**
Test Start: 2013.05.01 @ 12:55:19

Mud and Cushion Information

Mud Type: Water	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	63000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1300.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	Mud	2.104
180.00	MW 25%M75%W w/show of oil	2.525
300.00	Water	4.208

Total Length: 630.00 ft Total Volume: 8.837 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .15@55F

Serial #: 8369

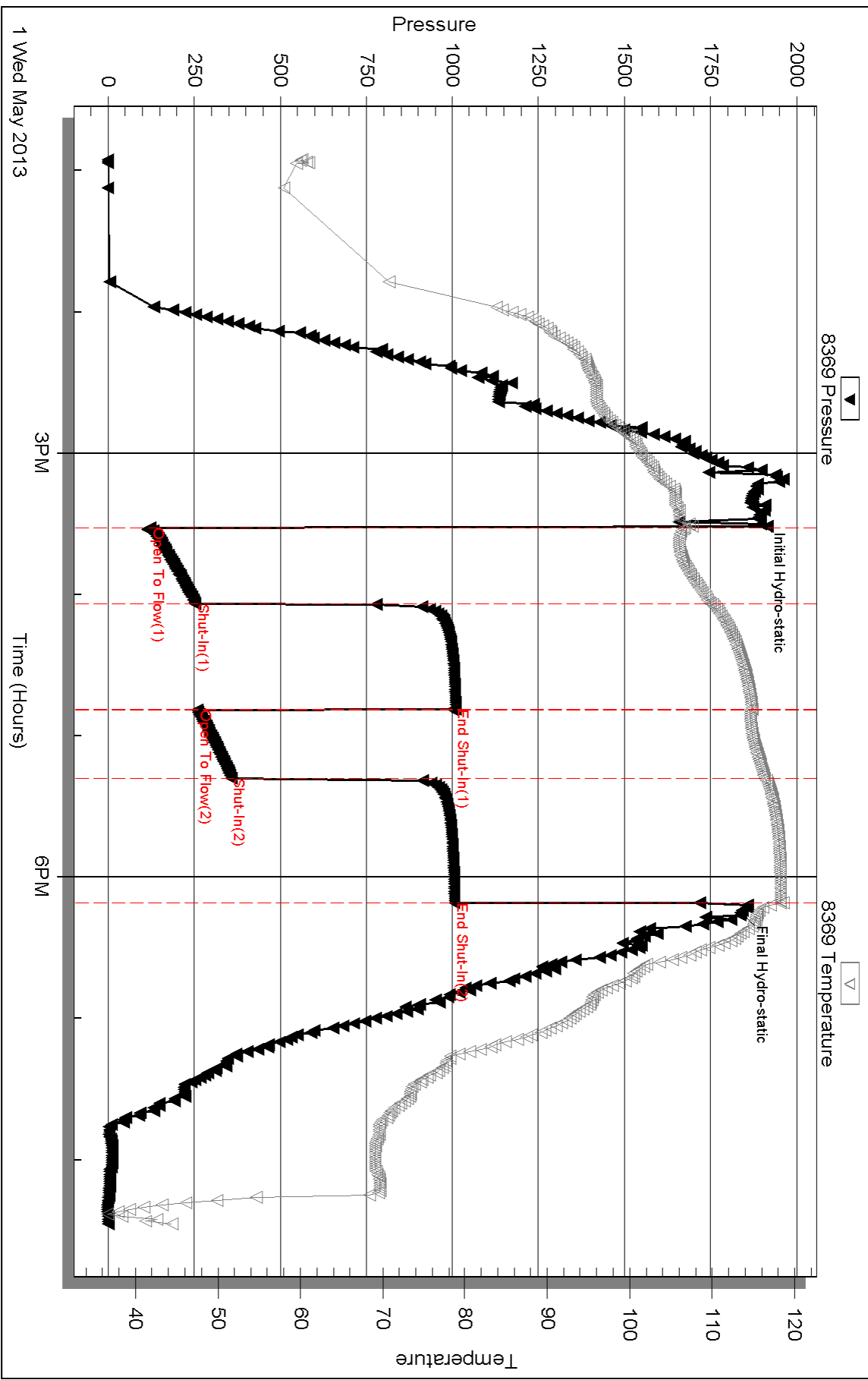
Inside

H&C Oil Operating Inc

Keith-Ecken #17-2

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 52573

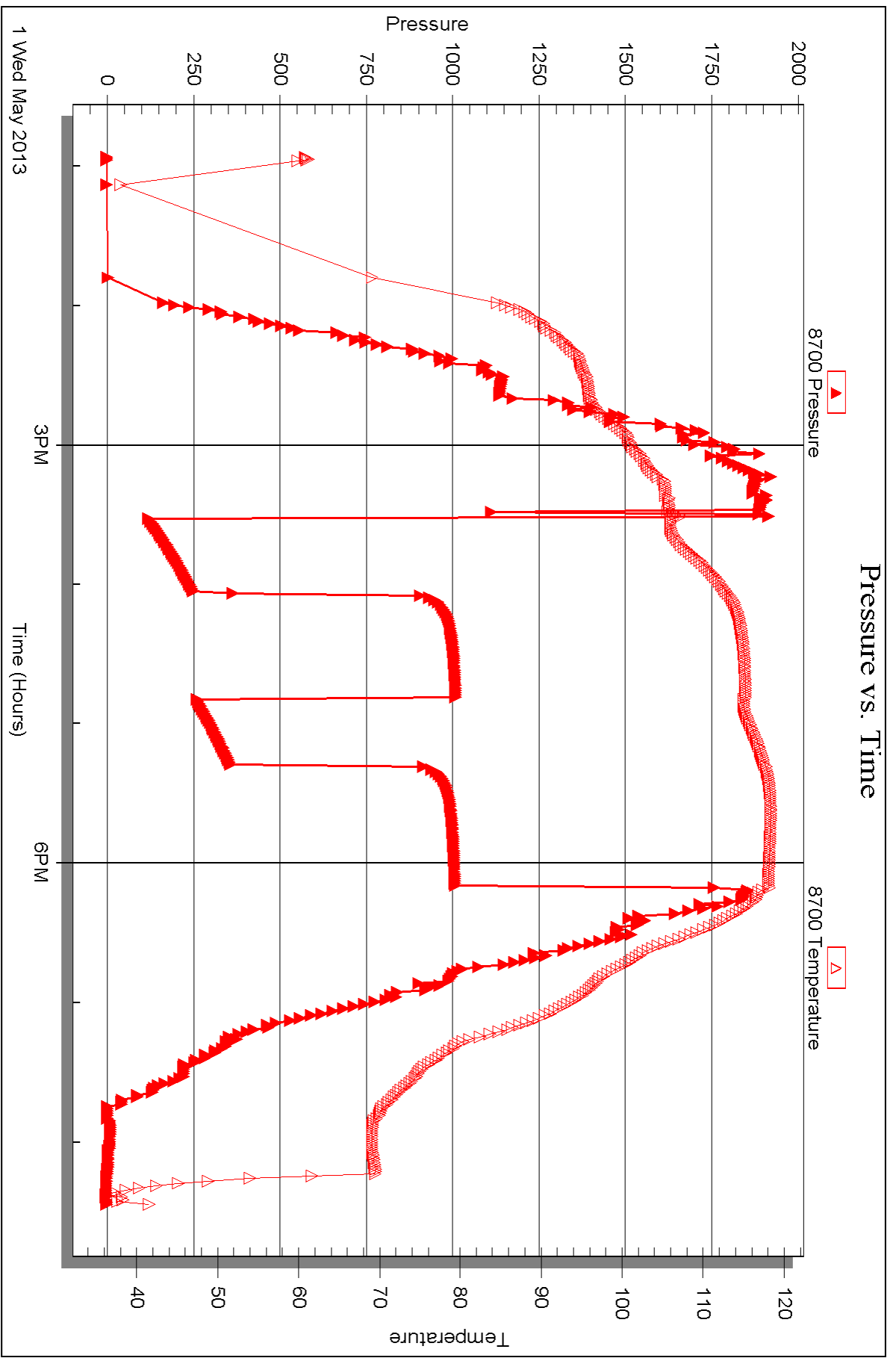
Printed: 2013.05.10 @ 09:42:59

Serial #: 8700

Outside H&C Oil Operating Inc

Keith-Eicken #17-2

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 52573

Printed: 2013.05.10 @ 09:42:59



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663-0086

ATTN: Charles Ramsay

Keith-Ficken #17-2

17-9s-24w Graham,KS

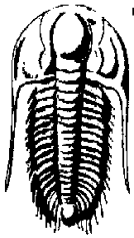
Start Date: 2013.05.02 @ 23:15:27

End Date: 2013.05.03 @ 06:48:06

Job Ticket #: 52574 DST #: 2

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

Printed: 2013.05.10 @ 09:42:19



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

17-9s-24w Graham,KS
Keith-Ficken #17-2
 Job Ticket: 52574 **DST#: 2**
 Test Start: 2013.05.02 @ 23:15:27

GENERAL INFORMATION:

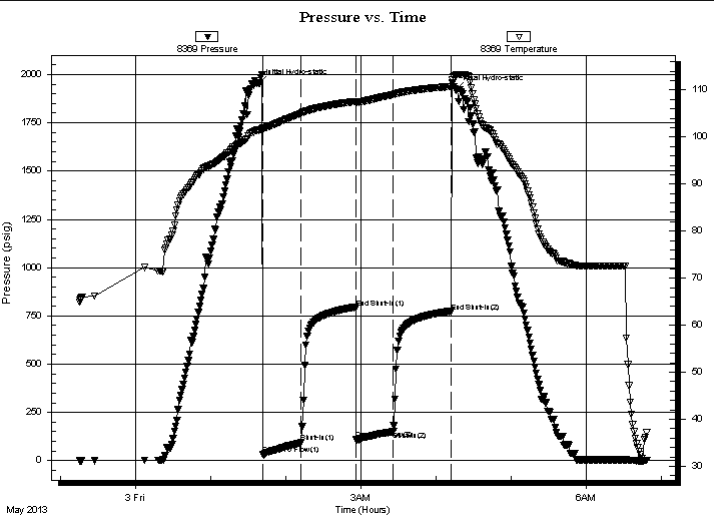
Formation: **LKC H-J**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 01:41:52 Tester: Ray Schwager
 Time Test Ended: 06:48:06 Unit No: 42
 Interval: **3959.00 ft (KB) To 4028.00 ft (KB) (TVD)** Reference Elevations: 2507.00 ft (KB)
 Total Depth: 4028.00 ft (KB) (TVD) 2502.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8369

Inside

Press @ Run Depth: 153.91 psig @ 3963.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.02 End Date: 2013.05.03 Last Calib.: 2013.05.03
 Start Time: 23:15:27 End Time: 06:48:06 Time On Btm: 2013.05.03 @ 01:38:07
 Time Off Btm: 2013.05.03 @ 04:15:36

TEST COMMENT: 30-IFP-w k to strg in 7 min
 45-ISIP-surface bl bk
 30-FFP-w k to strg in 4 min
 45-FSIP-surface bl bk



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1954.03	101.50	Initial Hydro-static
4	33.86	101.74	Open To Flow (1)
34	93.45	105.03	Shut-In(1)
78	790.11	107.60	End Shut-In(1)
79	112.08	107.41	Open To Flow (2)
108	153.91	109.03	Shut-In(2)
154	772.13	110.76	End Shut-In(2)
158	1920.98	113.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1280'GIP	0.00
145.00	CO	2.03
280.00	MGO 30%G20%M50%O	3.93

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

17-9s-24w Graham, KS
Keith-Ficken #17-2
Job Ticket: 52574 **DST#: 2**
Test Start: 2013.05.02 @ 23:15:27

GENERAL INFORMATION:

Formation: **LKC H-J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:41:52
Time Test Ended: 06:48:06
Interval: 3959.00 ft (KB) To 4028.00 ft (KB) (TVD)
Total Depth: 4028.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Ray Schwager
Unit No: 42
Reference Elevations: 2507.00 ft (KB)
2502.00 ft (CF)
KB to GR/CF: 5.00 ft

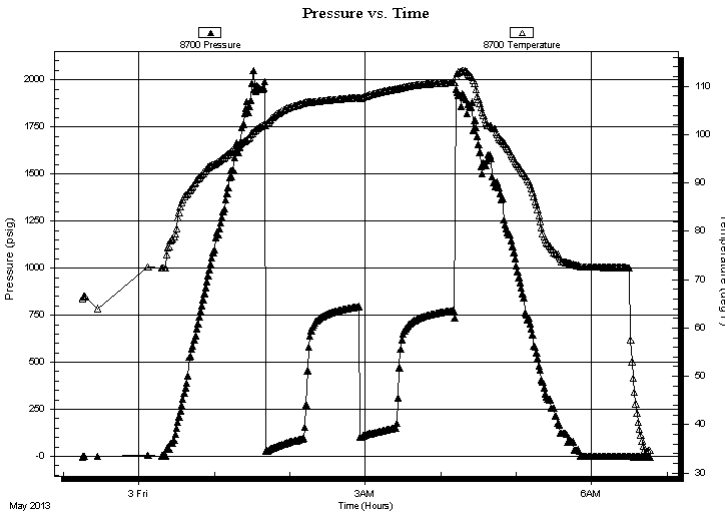
Serial #: 8700

Outside

Press @ Run Depth: psig @ 3963.00 ft (KB)
Start Date: 2013.05.02 End Date: 2013.05.03
Start Time: 23:15:20 End Time: 06:46:29
Capacity: 8000.00 psig
Last Calib.: 2013.05.03
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IFP-w k to strg in 7 min
45-ISIP-surface bl bk
30-FFP-w k to strg in 4 min
45-FSIP-surface bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1280'GIP	0.00
145.00	CO	2.03
280.00	MGO 30%G20%M50%O	3.93

* 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 Ramsay

17-9s-24w Graham,KS
Keith-Ficken #17-2
Job Ticket: 52574 **DST#: 2**
Test Start: 2013.05.02 @ 23:15:27

Tool Information

Drill Pipe:	Length: 3961.00 ft	Diameter: 3.80 inches	Volume: 55.56 bbl	Tool Weight: 2200.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 55.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3959.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3939.00	
Shut In Tool	5.00			3944.00	
Hydraulic tool	5.00			3949.00	
Packer	5.00			3954.00	21.00 Bottom Of Top Packer
Packer	5.00			3959.00	
Stubb	1.00			3960.00	
Perforations	3.00			3963.00	
Recorder	0.00	8369	Inside	3963.00	
Recorder	0.00	8700	Outside	3963.00	
Perforations	62.00			4025.00	
Bullnose	3.00			4028.00	69.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

17-9s-24w Graham,KS
Keith-Ficken #17-2
Job Ticket: 52574 **DST#: 2**
Test Start: 2013.05.02 @ 23:15:27

Mud and Cushion Information

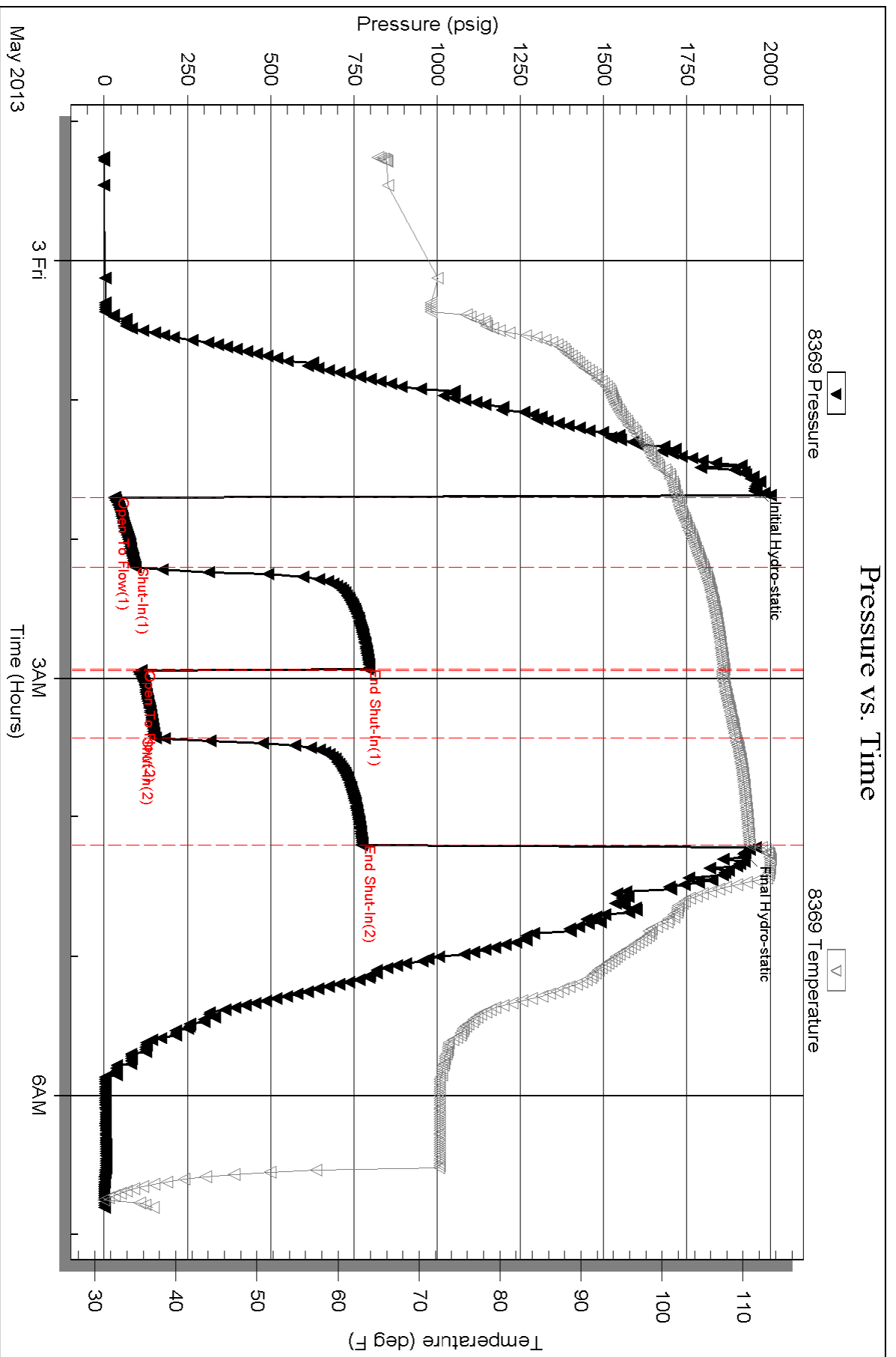
Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.17 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1600.00 ppm		
Filter Cake: 1.00 inches		

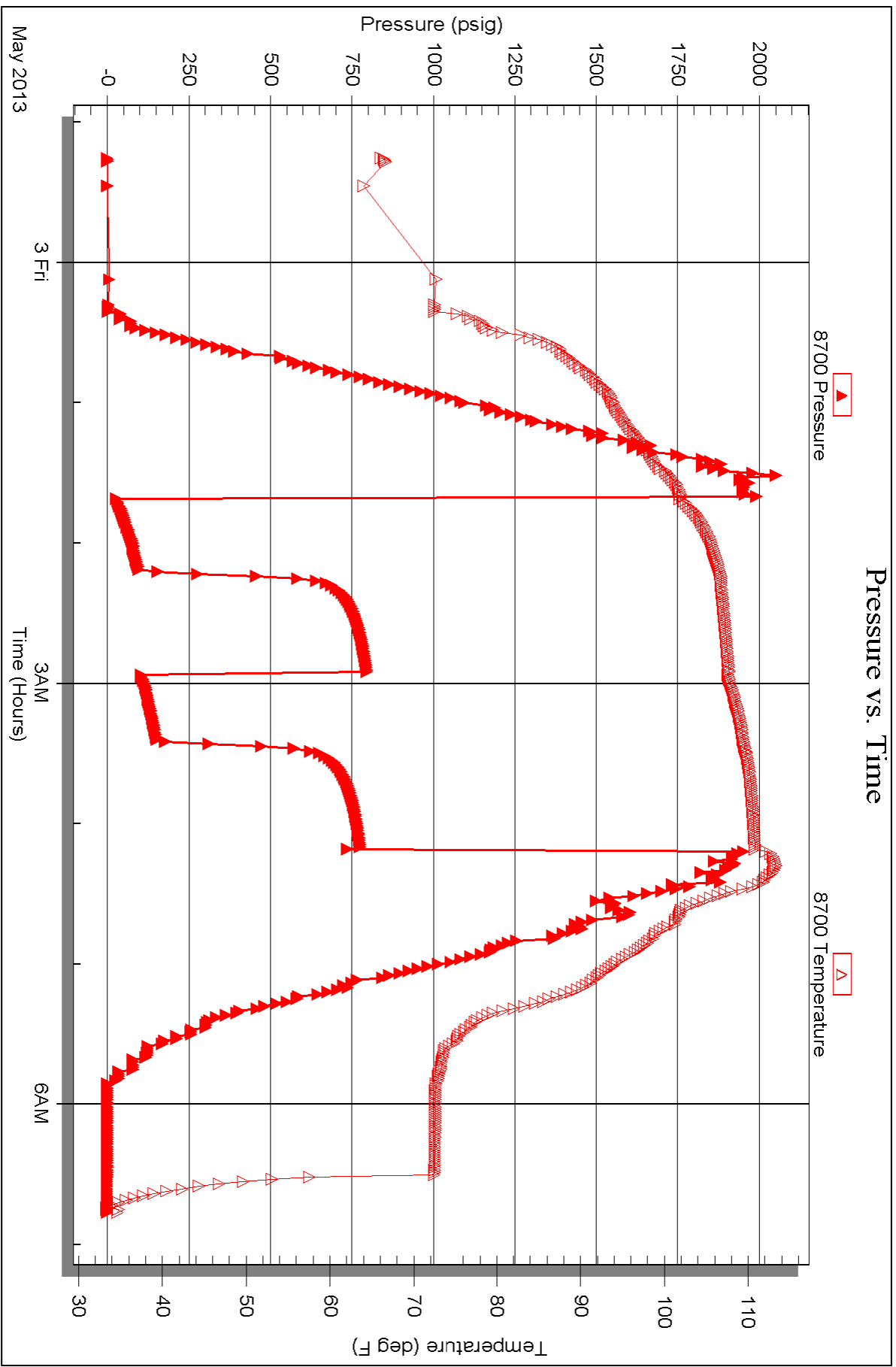
Recovery Information

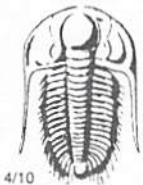
Recovery Table

Length ft	Description	Volume bbl
0.00	1280'GIP	0.000
145.00	CO	2.034
280.00	MGO 30%G20%M50%O	3.928

Total Length: 425.00 ft Total Volume: 5.962 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52573

Well Name & No. Keith-Ficken #17-2 Test No. 1 Date 5-1-13
 Company H+C Oil Operating Inc Elevation 2507 KB 2502 GL
 Address PO Box 86 Plainville, Mo 67663-0086
 Co. Rep / Geo. MARC Downing Rig Am Eagle rig 3
 Location: Sec. 17 Twp. 9^s Rge. 24^w Co. GRAHAM State K

Interval Tested 3858-3896 Zone Tested LKC C-0
 Anchor Length 38 Drill Pipe Run 3867 Mud Wt. 9.2
 Top Packer Depth 3853 Drill Collars Run - Vis 60
 Bottom Packer Depth 3858 Wt. Pipe Run - WL 7.2
 Total Depth 3896 Chlorides 1300 ppm System LCM 2#

Blow Description IFP - STRONG BLOW IN 10 MIN
ISTP - NO BLOW
FFP - WEAK TO A FAIR BLOW 1/4 TO 3 1/2" BLOW
FSTP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>Mud</u>				
<u>180</u>	<u>MUD w/show of oil</u>			<u>75</u>	<u>25</u>
<u>300</u>	<u>WATER</u>				

Rec Total 630 BHT 118 Gravity - API RW .15 @ 55 °F Chlorides 63000 ppm
 (A) Initial Hydrostatic 1888 Test 1150 T-On Location 1030
 (B) First Initial Flow 122 Jars - T-Started 1255
 (C) First Final Flow 252 Safety Joint - T-Open 1530
 (D) Initial Shut-In 1009 Circ Sub - T-Pulled 1800
 (E) Second Initial Flow 259 Hourly Standby - T-Out 2027
 (F) Second Final Flow 357 Mileage 125RT 193.75 Comments Slid Tool Approx 10' To Bottom
 (G) Final Shut-In 1006 Sampler - Ruined Shale Packer -
 (H) Final Hydrostatic 1837 Straddle - Ruined Packer -

Initial Open 30 Extra Packer - Extra Copies -
 Initial Shut-In 45 Extra Recorder - Sub Total 0
 Final Flow 30 Day Standby - Total 1343.75
 Final Shut-In 45 Accessibility - MP/DST Disc't -
 Sub Total 1343.75

Approved By _____ Our Representative Ray Schwager *Thank you*
 Triobite 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52574

Well Name & No. Keith-Ticken #17-2 Test No. 2 Date 5-2-13
 Company H + C OIL OPERATING INC Elevation 2507 KB 2502 GL
 Address PO Box 86 PLAINVILLE, KS 67663-0086
 Co. Rep / Geo. MARC DOWNING Rig AM EAGLE RIG 3
 Location: Sec. 17 Twp. 9^s Rge. 24^w Co. GRAHAM State K

Interval Tested 3959-4028 Zone Tested LKC H-J
 Anchor Length 69 Drill Pipe Run 3961 Mud Wt. 9
 Top Packer Depth 3954 Drill Collars Run - Vis 57
 Bottom Packer Depth 3959 Wt. Pipe Run - WL 7.2
 Total Depth 4028 Chlorides 1600 ppm System LCM 2#

Blow Description IFP - WEAK TO STRONG IN 7 MIN
ISIP - SURFACE BLOW BACK
FFP - WEAK TO STRONG IN 4 MIN
FSIP - SURFACE BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>1280</u>	<u>GIP</u>				
<u>145</u>	<u>CO</u>				
<u>280</u>	<u>MGO</u>	<u>30</u>	<u>50</u>		<u>20</u>

Rec Total 425 BHT 110 Gravity 38 API RW - @ -° F Chlorides - ppm

(A) Initial Hydrostatic 1954 Test 1150 T-On Location ~~2215~~ 2215
 (B) First Initial Flow 33 Jars _____ T-Started 2315
 (C) First Final Flow 93 Safety Joint _____ T-Open 0140
 (D) Initial Shut-In 790 Circ Sub _____ T-Pulled 0410
 (E) Second Initial Flow 112 Hourly Standby _____ T-Out 0648
 (F) Second Final Flow 153 Mileage 387.50 Comments _____
 (G) Final Shut-In 772 Sampler _____ loaded tools 5/3 15:00
 (H) Final Hydrostatic 1920 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 45 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1537.50
 Final Shut-In 45 Accessibility _____ MP/DST Disc't _____
 Sub Total 1537.50

Approved By _____ Our Representative Ray Schwager hart
509

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.

Federal Tax I.D.# 20-2886107

6747

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

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

No.

Date	4-26-13	17	9	24	Graham	KS	On Location	11.45 AM	
Lease	Keith Ficken								
Contractor	American Ecol 3								
Type Job	Surface								
Hole Size	12 1/4								
Csg.	658								
Tbg. Size									
Tool									
Cement Left in Csg.	20 FT								
Meas Line	Displace 13.24								
EQUIPMENT									
Pumptrk	5	No.	Cementer	Job					
Bulktrk	12	No.	Driver	Breth					
Bulktrk	pk	No.	Driver	Heath					
JOB SERVICES & REMARKS									
Remarks:									
Rat Hole									
Mouse Hole									
Centralizers									
Baskets									
D/V or Port Collar									
FLOAT EQUIPMENT									
Guide Shoe									
Centralizer									
Baskets									
AFU Inserts									
Float Shoe									
Latch Down									
Pumptrk Charge	Surface								
Mileage	45								
Tax									
Discount									
Total Charge									

Well No. 17-2

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish
cement and helper to assist owner or contractor to do work as listed.

Charge To Hand C
Street
City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered ~~150~~ Can 300 CE
2 Pkgel 150 7
Common 150

Poz. Mix
Gel. 3
Calcium 3

JOB SERVICES & REMARKS

Cement Cir

Franks

Signature
Gustaf Paulsen

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-288610.

No. 6789

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

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

Date	5-11-13	Sec.	17	Twp.	9	Range	24	County	Corabam	State	KS	On Location		Finish	8:00 p.m.
Lease	Keith F. Ken														
Contractor	American Eagle #3														
Type Job	Production string														
Hole Size	7 7/8														
Csg.	5 1/2														
Tbg. Size															
Tool															
Cement Left in Csg.	21.12														
Meas Line	Displace 99BC'12														

Well No. 17-2

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.

Charge To
HRC

Street
T.D. 4105

City
Depth 4104

State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered
150 10% salt 50 gal. salt 14778

Common
150

Pumptrk	No.	Cement	
14	No.	Driver	Goody
Bulktrk	No.	Driver	Clayton
Bulktrk	No.	Driver	Heath

EQUIPMENT

Remarks:	
Rat Hole	30SK
Mouse Hole	
Centralizers	
Baskets	
DV or Port Collar	

5 1/2 size @ 4104 180 gal @ 4082.88

Est. Circulation. Pump 500 gal mud flush &

10 BL spacer. Plug Rathole with DSK.

Cement + 5 1/2 with 50 SK Clear lines

4 Displace Phos. Plug label @ 2200'

Handling	620	FLOAT EQUIPMENT
Mileage		
Guide Shoe		
Centralizer	10 Turbo's	
Baskets	7	
AFU Inserts		
Float Shoe	1	
Latch Down	1	

Cement Grouted!

Pumptrk Charge	Proced Long String	Tax
Mileage	45	Discount
		Total Charge

X Signature
Keith Kenney