



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1194989  
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: \_\_\_\_\_

1194989

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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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 <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Younger Energy Company
Well Name	Schartz 1-34
Doc ID	1194989

All Electric Logs Run

Dual Induction Log
Dual Compensated Porosity Log
Microresistivity Log
Borehole Compensated Sonic Log
Computer Procesed Interpretation
Mud Log / Geologist Report
Cement Bond Log

Form	ACO1 - Well Completion
Operator	Younger Energy Company
Well Name	Schartz 1-34
Doc ID	1194989

Tops

Name	Top	Datum
Queen Hill	3266	-1288
Heebner	3371	-1393
Douglas	3404	-1426
Brown Lime	3482	-1504
Lansing	3492	-1514
Base KC	3722	-1744
Conglomerate	3810	-1832
Viola	3832	-1854
Simpson	3858	-1880
Simpson Sand	3914	-1936
Arbuckle	3918	-1940



**OPERATOR**

Company: Younger Energy Company  
 Address: 9415 E. Harry  
 Suite 403, Bldg. 400  
 Wichita, KS 67207

Contact Geologist:  
 Contact Phone Nbr: 316-681-2542  
 Well Name: Schartz #1-34  
 Location: Sec. 34 - T21S - R15W  
 Pool:  
 State: Kansas

API: 15-145-21738-0000  
 Field: Hurray  
 Country: USA



Scale 1:240 Imperial

Well Name: Schartz #1-34  
 Surface Location: Sec. 34 - T21S - R15W  
 Bottom Location:  
 API: 15-145-21738-0000  
 License Number: 30705  
 Spud Date: 11/29/2013  
 Region: Pawnee County  
 Drilling Completed: 12/10/2013  
 Surface Coordinates: 770' FSL & 1405' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1967.00ft  
 K.B. Elevation: 1978.00ft  
 Logged Interval: 3200.00ft  
 Total Depth: 3965.00ft  
 Formation: Arbuckle  
 Drilling Fluid Type: Chemical/Fresh Water Gel

Time: 00:00  
 Time: 07:55  
 To: 3965.00ft

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude:  
 N/S Co-ord: 770' FSL  
 E/W Co-ord: 1405' FEL

Latitude:

**LOGGED BY**

**Keith Reavis**  
*Consulting Geologist*

Company: Keith Reavis, Inc.  
 Address: 3420 22nd Street  
 Great Bend, KS 67530

Phone Nbr: 620-617-4091  
 Logged By: KLG #136

Name: Keith Reavis

**CONTRACTOR**

Contractor: Duke Drilling Company  
 Rig #: 10  
 Rig Type: mud rotary  
 Spud Date: 11/29/2013  
 TD Date: 12/10/2013  
 Rig Release:

Time: 00:00  
 Time: 07:55  
 Time:

**ELEVATIONS**

K.B. Elevation: 1978.00ft  
 K.B. to Ground: 11.00ft

Ground Elevation: 1967.00ft

**NOTES**

Due to favorable results of DST #4 in the Simpson Sand, and favorable structural position and log analysis of the Arbuckle, it was recommended and agreed upon by all parties that 5 1/2" production casing be set and cemented and the Schartz #1-34 be further tested through perforations and stimulation in the Simpson Sand and Arbuckle.

A Bloodhound gas detection system operated by Bluestem Environmental was employed on this well. ROP and gas curves were imported from said system into this mudlog. Gamma ray and caliper curves were also imported from the electrical log suite. Sample tops were generally within 1 ft of log tops, therefore, neither curve was shifted to provide an exact match but rather left as recorded in the field.

A gas kick recorded in the Howard Limestone warrants scrutiny, and while this zone does not calculate on electrical logs, it should warrant testing before abandonment of this well.

Respectfully submitted,  
 Keith Reavis

**Younger Energy Company**  
**daily drilling report**

DATE	7:00 AM DEPTH	REMARKS
12/04/2013	3203	Geologist Keith Reavis on location @ 1600 hrs, 3371 ft, drilling ahead Topeka, Heebner, Douglas, Lansing
12/05/2013	3624	drilling ahead, Lansing/KC, BKC, Marmaton, Conglomerate, short trip
12/06/2013	3872	drilling conglomerate, Viola, Simpson, show in Viola warrants test, ctch, TOH for DST #1, conducting DST #1, mis-run, packer failure, TOH and back in with long anchor, conduct DST #2
12/07/2013	3872	complete DST #2, successful test, TIH w/bit, frozen standpipe, TOH, thaw rig run in hole with bit, ctch, resume drilling, Simpson, Arbuckle
12/08/2013	3918	show in Simpson Sand warrants test, TOH w/bit, conduct DST #3, mis-run, packer failure, OOH w/tools, reset anchor interval, conduct DST #4, successful test, TIH w/bit
12/09/2013	3918	under pump repairs, resume drilling Arbuckle, show warrants test, conduct DST #5, complete DST #5, plugged tool
12/10/2013	3965	rathole ahead to TD 3965 ft @ 0755 hrs, ctch, TOH for logs, conduct logging operations, geologist off loc. @ 1615 hrs

**Any Oil Company**  
**well comparison sheet**

Formation	DRILLING WELL Schartz #1-34 770' FSL & 1405' FEL Sec 34-T21S-R15W				COMPARISON WELL F & M - Shartz #1 C N/2 SE SE Sec 34-T21S-R15W				COMPARISON WELL Ritchie - Shartz #1 SW SE SE Sec 34-T21S-R15W			
	1978 KB	Log	Sub-Sea	Relationship	1975 KB	Log	Sub-Sea	Relationship	1975 KB	Log	Sub-Sea	Relationship
Howard	2932	-954	2931	-953	2930	-955	1	2	2932	-957	3	4
Queen Hill	3266	-1288	3266	-1288	3268	-1293	5	5	3258	-1283	-5	-5
Heebner	3370	-1392	3371	-1393	3372	-1397	5	4	3362	-1387	-5	-6
Douglas	3404	-1426	3404	-1426	3405	-1430	4	4	3395	-1420	-6	-6
Brown Lime	3481	-1503	3482	-1504	3482	-1507	4	3	3471	-1496	-7	-8
Lansing	3491	-1513	3492	-1514	3491	-1516	3	2	3481	-1506	-7	-8
BKC	3720	-1742	3722	-1744	3724	-1749	7	5	3714	-1739	-3	-5
Cong. Chert	3809	-1831	3810	-1832	3810	-1835	4	3	3799	-1824	-7	-8
Viola	3831	-1853	3832	-1854	3834	-1859	6	5	3832	-1857	4	3
Simpson	3857	-1879	3858	-1880	3864	-1889	10	9	3862	-1887	8	7
Simp. Sand	3914	-1936	3914	-1936	3916	-1941	5	5	3913	-1938	2	2
Arbuckle	3917	-1939	3918	-1940	3919	-1944	5	4	3916	-1941	2	1
Total Dept	3965	-1987	3959	-1981	3920	-1945	-42	-36	3923	-1948	-39	-33

Note, depths in red are driller/sample tops

**Drill Stem Test #2**

**DRILL STEM TEST REPORT**

Younger Energy Co. 34-21s-15w Pawnee, KS

9415 E Harry St. Schartz #1-34  
 Ste. 403 Bldg. 400  
 Wichita, KS 67207  
 ATTN: Keith Reavis

Job Ticket: 55433 DST#: 2  
 Test Start: 2013.12.06 @ 15:38:30

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**GENERAL INFORMATION:**

Formation: **Viola**  
 Deviated: No Whipstock ft (KB)  
 Time Tool Opened: 21:59:15  
 Time Test Ended: 04:40:30

Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brannan L  
 Unit No: 70

Interval: **3714.00 ft (KB) To 3872.00 ft (KB) (TVD)**  
 Total Depth: 3872.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches-Hole Condition: Fair  
 Reference Elevations: 1978.00 ft (KB)  
 1967.00 ft (CF)  
 KB to GR/CF: 11.00 ft

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**Serial #: 8369 Inside**

Press@RunDepth: 59.87 psig @ 3737.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.12.06 End Date: 2013.12.07 Last Calib.: 2013.12.07  
 Start Time: 15:38:35 End Time: 04:40:30 Time On Btm: 2013.12.06 @ 21:59:00  
 Time Off Btm: 2013.12.07 @ 01:11:15

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**TEST COMMENT:** 10- IF- Built to 1/2"  
 60- IS- No blow  
 45- FF- No blow Flushed tool @ 15mins Built to 1/4"  
 75- FS- No blow

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**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1894.65	106.98	Initial Hydro-static
1	37.28	106.06	Open To Flow (1)
11	40.71	106.58	Shut-in (1)
70	259.40	107.27	Open Shut-in (1)
72	43.19	107.21	End Shut-in (2)
117	59.87	107.73	Shut-in (2)
192	163.47	108.19	End Shut-in (2)
193	1848.96	108.68	Final Hydro-static



2880  
2900  
2920  
2940  
2960  
2980  
3000  
3020  
3040  
3060  
3080  
3100  
3120  
3140  
3160  
3180  
3200  
3220  
3240  
3260  
3280  
3300  
3320  
3340  
3360  
3380  
3400  
3420  
3440  
3460

**Howard 2932 -954**

begin 20 ft wet and dry samples at 3200 ft.

limestone, gray to light gray, microcrystalline, grainy, fossiliferous, some mottled pelletal, limestone, white, chalky, soft, poor visible porosity, no shows

limestone as above

**Queen Hill 3266 -1288**

shale, brownish/black carbonaceous

limestone, cream to light gray, micro-cryptocrystalline, fossiliferous to lithographic, poor visible porosity, chalky in part, some chalk, no shows

as above, trace oolitic, chalky, no framework

limestone, mixed grainy chalky fossiliferous, some chalky bioclastic, marked increase in chalk in samples, poor visible porosity, no shows

**Heebner 3370 -1392**

**Toronto 3391 -1413**

limestone, white to cream, microcrystalline, fossiliferous to bioclastic, some grainy, some chalky, poor visible porosity, no shows

**Douglas 3404 -1426**

shale, gray to green, silty to micaceous

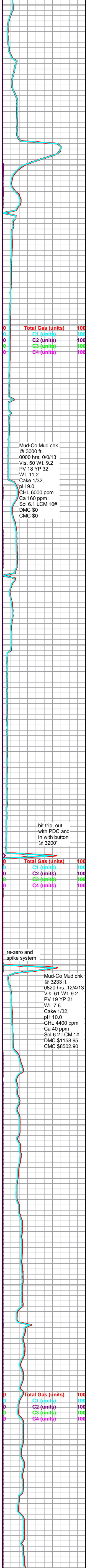
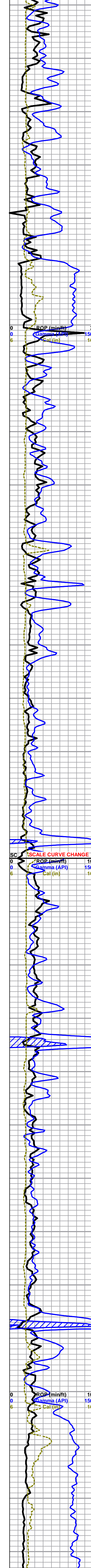
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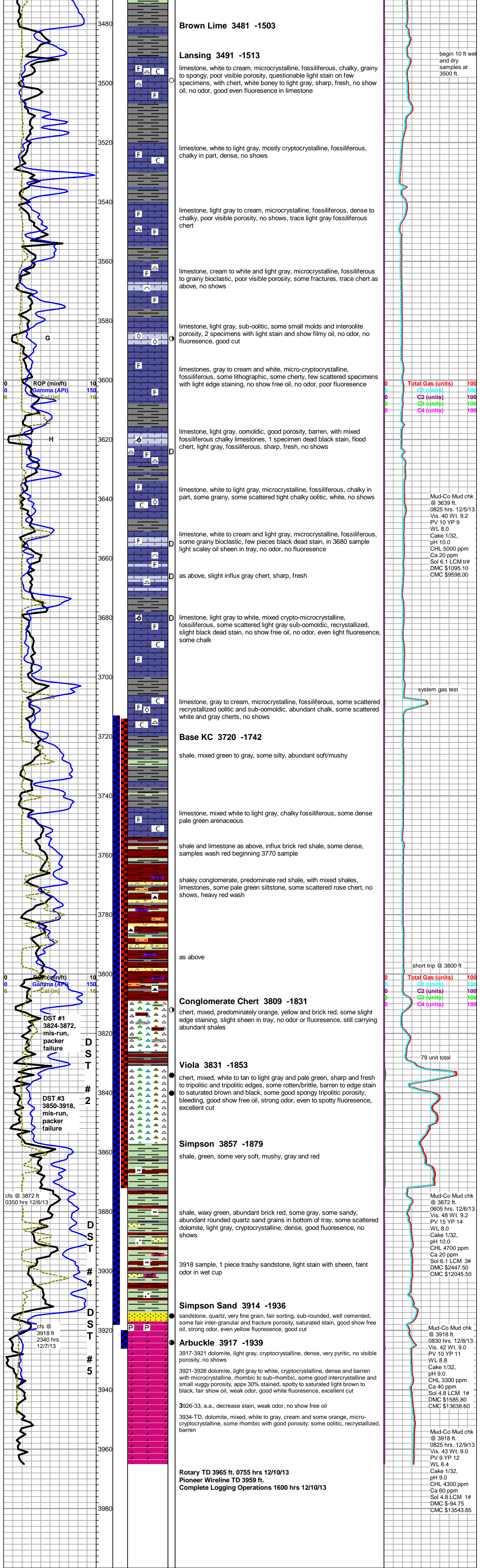
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**Brown Lime 3481 -1503**

**Lansing 3491 -1513**

limestone, white to cream, microcrystalline, fossiliferous, chalky, grainy to spongy, poor visible porosity, questionable light stain on few specimens, with chert, white boney to light gray, sharp, fresh, no show oil, no odor, good even fluorescence in limestone

begin 10 ft wet and dry samples at 3500 ft.

limestone, white to light gray, mostly cryptocrystalline, fossiliferous, chalky in part, dense, no shows

limestone, light gray to cream, microcrystalline, fossiliferous, dense to chalky, poor visible porosity, no shows, trace light gray fossiliferous chert

limestone, cream to white and light gray, microcrystalline, fossiliferous to grainy bioclastic, poor visible porosity, some fractures, trace chert as above, no shows

limestone, light gray, sub-oolitic, some small molds and interoolite porosity, 2 specimens with light stain and show filmy oil, no odor, no fluorescence, good cut

limestones, gray to cream and white, micro-cryptocrystalline, fossiliferous, some lithographic, some cherty, few scattered specimens with light edge staining, no show free oil, no odor, poor fluorescence

limestone, light gray, oomoldic, good porosity, barren, with mixed fossiliferous chalky limestones, 1 specimen dead black stain, flood chert, light gray, fossiliferous, sharp, fresh, no shows

limestone, white to light gray, microcrystalline, fossiliferous, chalky in part, some grainy, some scattered tight chalky oolitic, white, no shows

Mud-Co Mud chk @ 3639 ft. 0825 hrs. 12/5/13 Vis. 40 Wt. 9.2 PV 10 YP 9 WL 8.0 Cake 1/32, pH 10.0 CHL 5000 ppm Ca 20 ppm Sol 6.1 LCM tr# DMC \$1095.10 CMC \$9598.00

limestone, white to cream and light gray, microcrystalline, fossiliferous, some grainy bioclastic, few pieces black dead stain, in 3680 sample light scaly oil sheen in tray, no odor, no fluorescence

as above, slight influx gray chert, sharp, fresh

limestone, light gray to white, mixed crypto-microcrystalline, fossiliferous, some scattered light gray sub-oomoldic, recrystallized, slight black dead stain, no show free oil, no odor, even light fluorescence, some chalk

limestone, gray to cream, microcrystalline, fossiliferous, some scattered recrystallized oolitic and sub-oomoldic, abundant chalk, some scattered white and gray cherts, no shows

system gas test

**Base KC 3720 -1742**

shale, mixed green to gray, some silty, abundant soft/mushy

limestone, mixed white to light gray, chalky fossiliferous, some dense pale green arenaceous

shale and limestone as above, influx brick red shale, some dense, samples wash red beginning 3770 sample

shaly conglomerate, predominate red shale, with mixed shales, limestones, some pale green siltstone, some scattered rose chert, no shows, heavy red wash

as above

short trip @ 3800 ft

**Conglomerate Chert 3809 -1831**

chert, mixed, predominately orange, yellow and brick red, some slight edge staining, slight sheen in tray, no odor or fluorescence, still carrying abundant shales

**Viola 3831 -1853**

chert, mixed, white to tan to light gray and pale green, sharp and fresh to tripolitic and tripolitic edges, some rotten/brittle, barren to edge stain to saturated brown and black, some good spongy tripolitic porosity, bleeding, good show free oil, strong odor, even to spotty fluorescence, excellent cut

79 unit total

**Simpson 3857 -1879**

shale, green, some very soft, mushy, gray and red

shale, waxy green, abundant brick red, some gray, some sandy, abundant rounded quartz sand grains in bottom of tray, some scattered dolomite, light gray, cryptocrystalline, dense, good fluorescence, no shows

Mud-Co Mud chk @ 3872 ft. 0605 hrs. 12/6/13 Vis. 48 Wt. 9.2 PV 15 YP 14 WL 8.0 Cake 1/32, pH 10.0 CHL 4700 ppm Ca 20 ppm Sol 6.1 LCM 3# DMC \$2447.50 CMC \$12045.50

3918 sample, 1 piece trashy sandstone, light stain with sheen, faint odor in wet cup

**Simpson Sand 3914 -1936**

sandstone, quartz, very fine grain, fair sorting, sub-rounded, well cemented, some fair inter-granular and fracture porosity, saturated stain, good show free oil, strong odor, even yellow fluorescence, good cut

Mud-Co Mud chk @ 3918 ft. 0830 hrs. 12/8/13 Vis. 42 Wt. 9.0 PV 10 YP 11 WL 8.8 Cake 1/32, pH 9.0 CHL 3300 ppm Ca 40 ppm Sol 4.8 LCM 1# DMC \$1585.80 CMC \$13638.60

**Ar buckle 3917 -1939**

3917-3921 dolomite, light gray, cryptocrystalline, dense, very pyritic, no visible porosity, no shows

3921-3926 dolomite, light gray to white, cryptocrystalline, dense and barren with microcrystalline, rhombic to sub-rhombic, some good intercrystalline and small vuggy porosity, appx 30% stained, spotty to saturated light brown to black, fair show oil, weak odor, good white fluorescence, excellent cut

3926-33, a.a., decrease stain, weak odor, no show free oil

3934-TD, dolomite, mixed, white to gray, cream and some orange, micro-cryptocrystalline, some rhombic with good porosity, some oolitic, recrystallized, barren

Mud-Co Mud chk @ 3918 ft. 0825 hrs. 12/9/13 Vis. 43 Wt. 9.0 PV 9 YP 12 WL 8.4 Cake 1/32, pH 9.0 CHL 4300 ppm Ca 60 ppm Sol 4.8 LCM 1# DMC \$-94.75 CMC \$13543.85

Rotary TD 3965 ft. 0755 hrs 12/10/13  
Pioneer Wireline TD 3959 ft.  
Complete Logging 1600 hrs 12/10/13

ROP (min/ft) 10  
Gamma (API) 150  
Cal (in) 16

DST #1 3824-3872, mis-run, packer failure

D  
S  
T  
#  
2

DST #3 3850-3918, mis-run, packer failure

D  
S  
T  
#  
4

cfs @ 3872 ft 0350 hrs 12/6/13

D  
S  
T  
#  
5

cfs @ 3918 ft 2340 hrs 12/7/13



## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Co.**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207

ATTN: Keith Reavis

### **Schartz #1-34**

#### **34-21s-15w Pawnee,KS**

Start Date: 2013.12.06 @ 06:35:24

End Date: 2013.12.06 @ 15:17:54

Job Ticket #: 55432                      DST #: 1

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

Printed: 2013.12.11 @ 14:52:19







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Co.

**34-21s-15w Pawnee, KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55432

**DST#: 1**

Test Start: 2013.12.06 @ 06:35:24

## Tool Information

Drill Pipe:	Length: 3631.00 ft	Diameter: 3.75 inches	Volume: 49.60 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 77000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 73000.00 lb
Depth to Top Packer:	3824.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3798.00	
Shut In Tool	5.00			3803.00	
Hydraulic tool	5.00			3808.00	
Jars	5.00			3813.00	
Safety Joint	2.00			3815.00	
Packer	5.00			3820.00	27.00 Bottom Of Top Packer
Packer	4.00			3824.00	
Stubb	1.00			3825.00	
Perforations	5.00			3830.00	
Change Over Sub	1.00			3831.00	
Recorder	0.00	8369	Inside	3831.00	
Recorder	0.00	8700	Outside	3831.00	
Drill Pipe	32.00			3863.00	
Change Over Sub	1.00			3864.00	
Perforations	5.00			3869.00	
Bullnose	3.00			3872.00	48.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>75.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Younger Energy Co.

**34-21s-15w Pawnee,KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55432

**DST#: 1**

Test Start: 2013.12.06 @ 06:35:24

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.98 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 4700.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	M	1.106

Total Length: 200.00 ft      Total Volume: 1.106 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

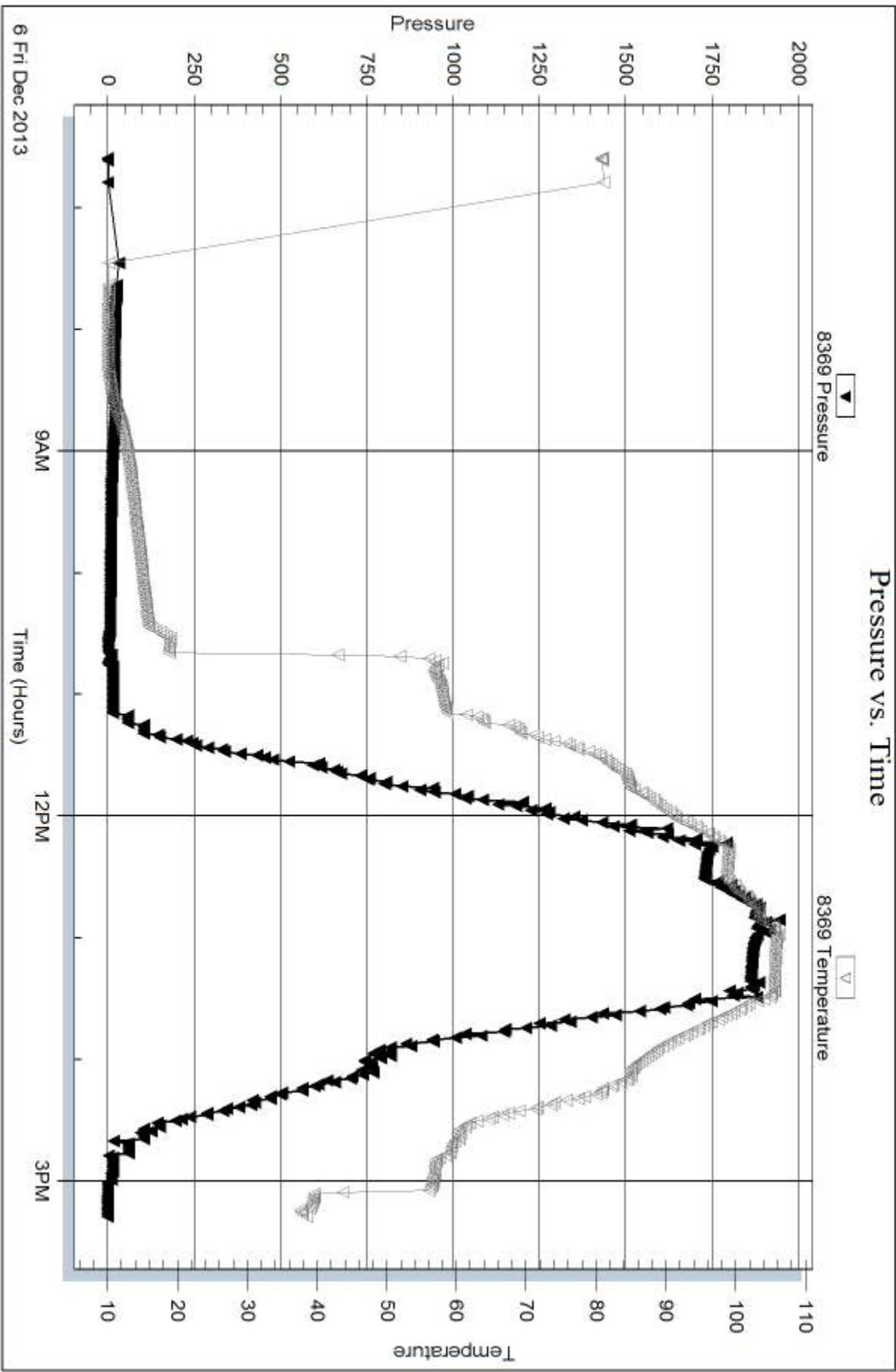
Serial #: 8369

Inside

Younger Energy Co.

Schantz #1-34

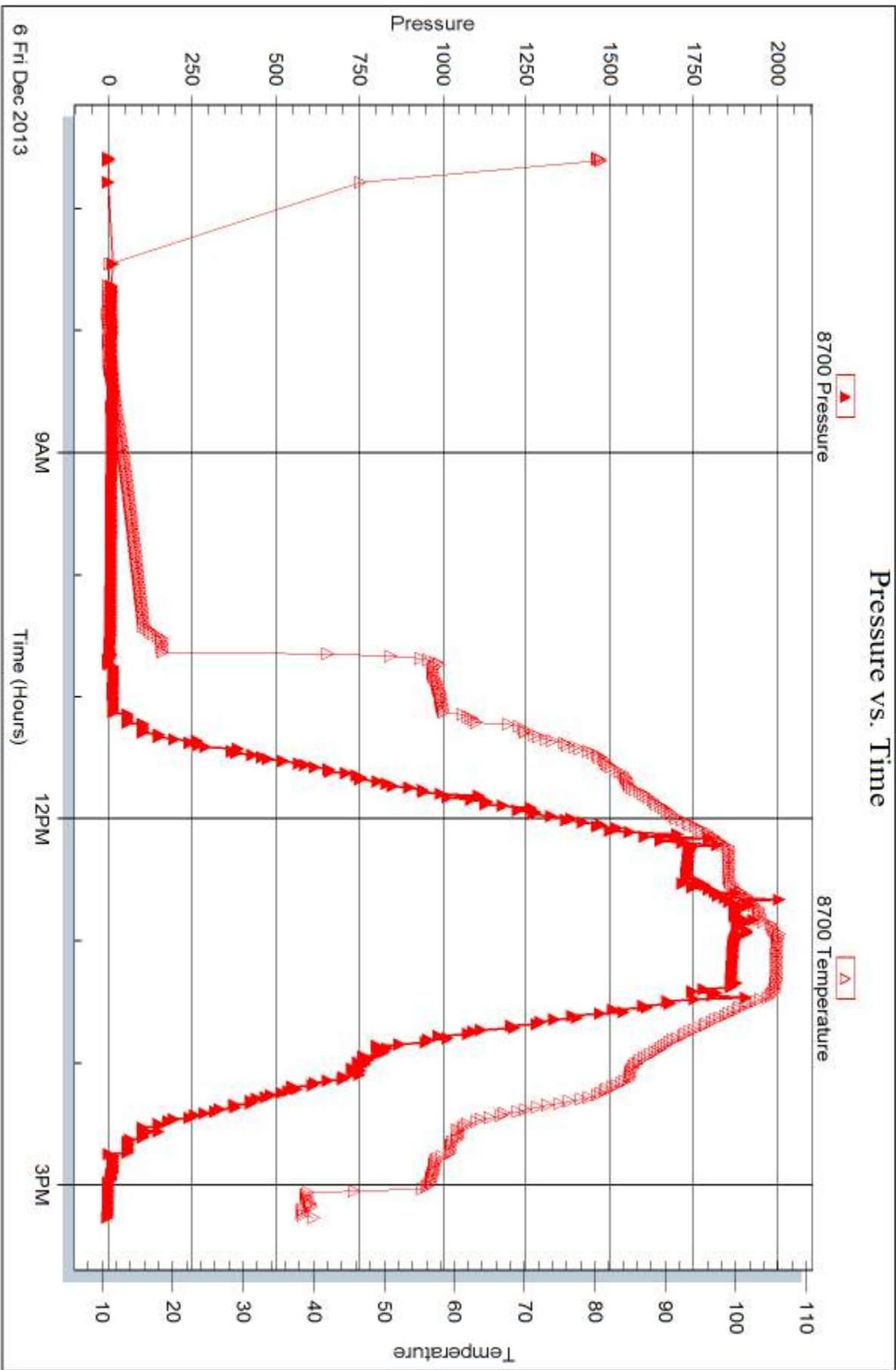
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 55432

Printed: 2013.12.11 @ 14:52:22







## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Co.**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207

ATTN: Keith Reavis

### **Schartz #1-34**

#### **34-21s-15w Pawnee,KS**

Start Date: 2013.12.06 @ 15:38:30

End Date: 2013.12.07 @ 04:40:30

Job Ticket #: 55433                      DST #: 2

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

Printed: 2013.12.11 @ 14:51:51



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Younger Energy Co.

**34-21s-15w Pawnee, KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55433

**DST#: 2**

Test Start: 2013.12.06 @ 15:38:30

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:59:15

Time Test Ended: 04:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 70

**Interval: 3714.00 ft (KB) To 3872.00 ft (KB) (TVD)**

Reference Elevations: 1978.00 ft (KB)

Total Depth: 3872.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8369 Inside**

Press@RunDepth: 59.87 psig @ 3737.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.06 End Date: 2013.12.07

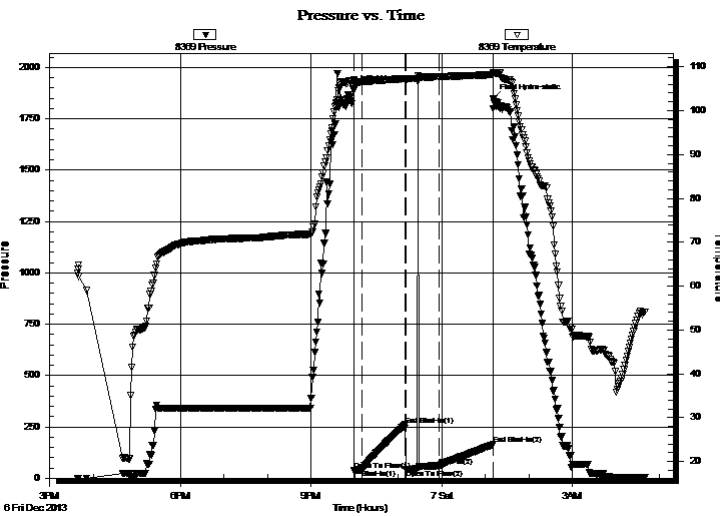
Last Calib.: 2013.12.07

Start Time: 15:38:35 End Time: 04:40:30

Time On Btm: 2013.12.06 @ 21:59:00

Time Off Btm: 2013.12.07 @ 01:11:15

**TEST COMMENT:** 10- IF- Built to 1/2"  
60- IS- No blow  
45- FF- No blow Flushed tool @ 15 mins Built to 1/4"  
75- FS- No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1894.65	106.98	Initial Hydro-static
1	37.28	106.06	Open To Flow (1)
11	40.71	106.58	Shut-In(1)
70	259.40	107.27	End Shut-In(1)
72	43.19	107.21	Open To Flow (2)
117	59.87	107.73	Shut-In(2)
192	163.47	108.19	End Shut-In(2)
193	1848.96	108.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	M	0.15

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Co.

**34-21s-15w Pawnee, KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55433

**DST#: 2**

Test Start: 2013.12.06 @ 15:38:30

## Tool Information

Drill Pipe:	Length: 3508.00 ft	Diameter: 3.75 inches	Volume: 47.92 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	78000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	73000.00 lb
Depth to Top Packer:	3714.00 ft			Final	73000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	158.00 ft				
Tool Length:	185.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3688.00	
Shut In Tool	5.00			3693.00	
Hydraulic tool	5.00			3698.00	
Jars	5.00			3703.00	
Safety Joint	2.00			3705.00	
Packer	5.00			3710.00	27.00 Bottom Of Top Packer
Packer	4.00			3714.00	
Stubb	1.00			3715.00	
Perforations	21.00			3736.00	
Change Over Sub	1.00			3737.00	
Recorder	0.00	8369	Inside	3737.00	
Recorder	0.00	8700	Outside	3737.00	
Drill Pipe	126.00			3863.00	
Change Over Sub	1.00			3864.00	
Perforations	5.00			3869.00	
Bullnose	3.00			3872.00	158.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>185.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Younger Energy Co.

**34-21s-15w Pawnee,KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55433

**DST#: 2**

Test Start: 2013.12.06 @ 15:38:30

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 48.00 sec/qt  
Water Loss: 7.98 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4700.00 ppm  
Filter Cake: inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M	0.148

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 0

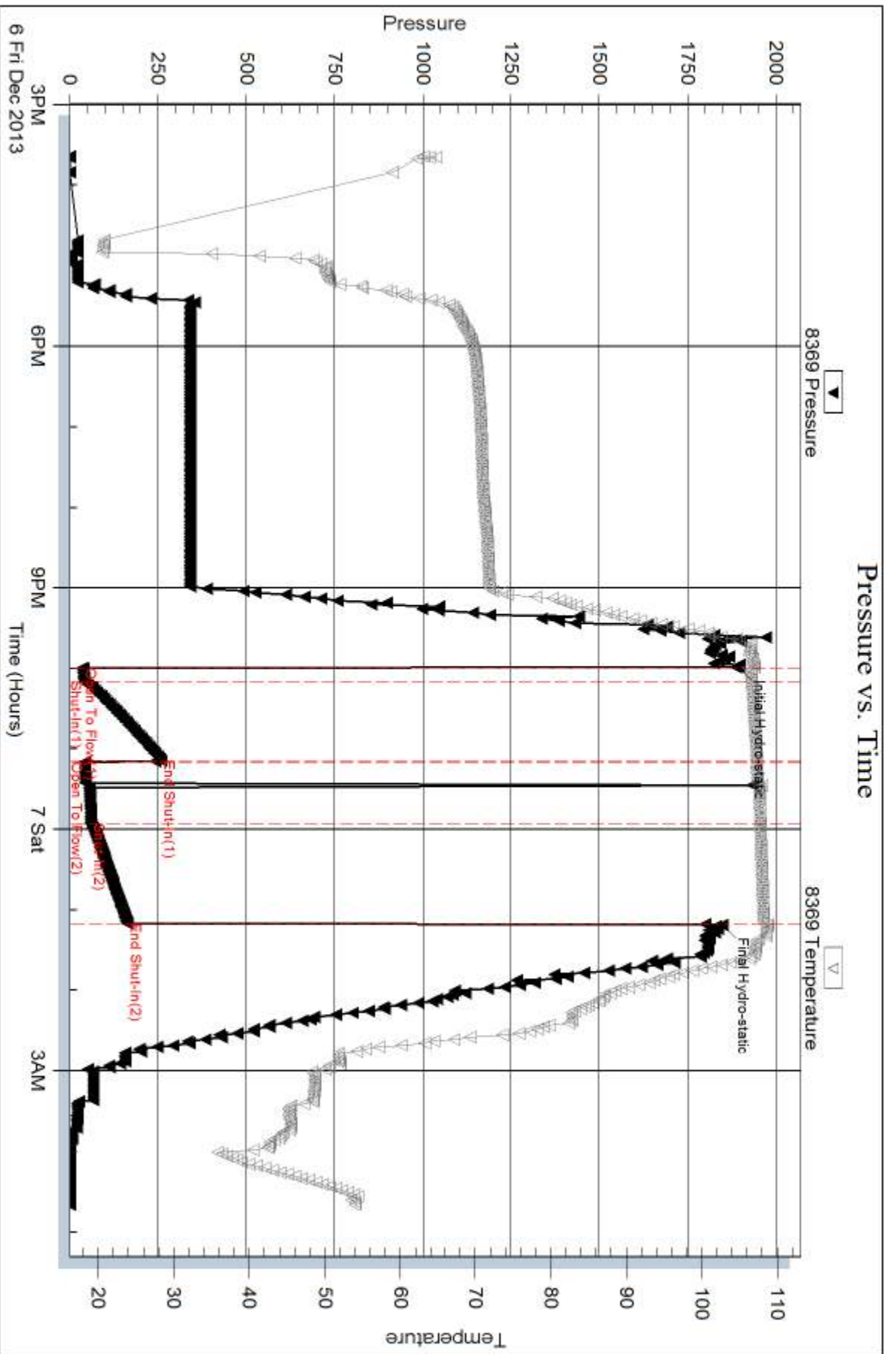
Num Gas Bombs: 0

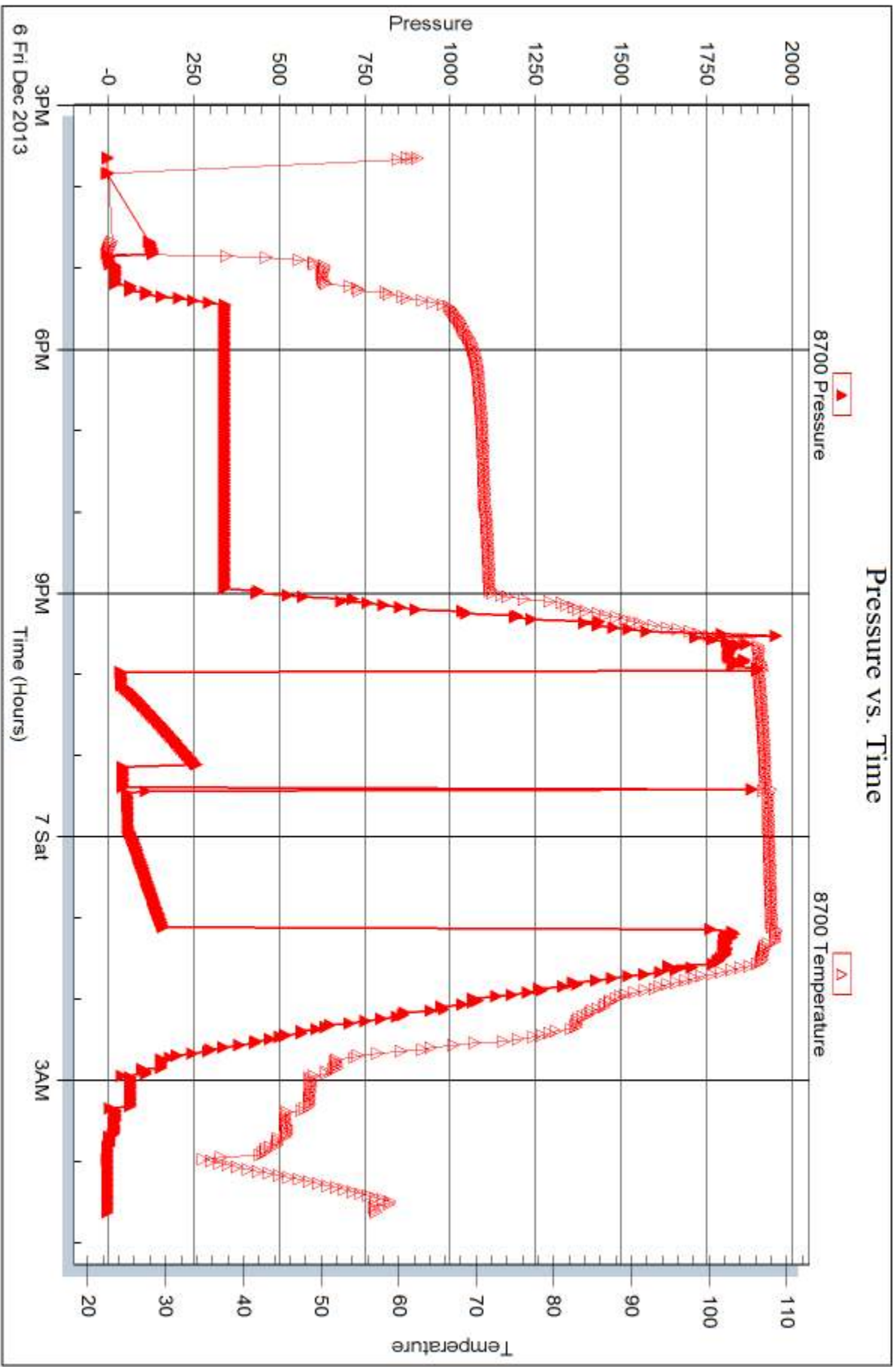
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Co.**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207

ATTN: Keith Reavis

### **Schartz #1-34**

#### **34-21s-15w Pawnee,KS**

Start Date: 2013.12.08 @ 03:37:44

End Date: 2013.12.08 @ 12:07:29

Job Ticket #: 55434                      DST #: 3

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

Printed: 2013.12.11 @ 14:51:21









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Co.

**34-21s-15w Pawnee, KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55434

**DST#: 3**

Test Start: 2013.12.08 @ 03:37:44

## Tool Information

Drill Pipe:	Length: 3665.00 ft	Diameter: 3.75 inches	Volume: 50.07 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
				String Weight: Initial	76000.00 lb
Drill Pipe Above KB:	28.00 ft			Final	77000.00 lb
Depth to Top Packer:	3850.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	68.00 ft				
Tool Length:	95.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3824.00	
Shut In Tool	5.00			3829.00	
Hydraulic tool	5.00			3834.00	
Jars	5.00			3839.00	
Safety Joint	2.00			3841.00	
Packer	5.00			3846.00	27.00 Bottom Of Top Packer
Packer	4.00			3850.00	
Stubb	1.00			3851.00	
Perforations	25.00			3876.00	
Change Over Sub	1.00			3877.00	
Recorder	0.00	8369	Inside	3877.00	
Recorder	0.00	8700	Outside	3877.00	
Drill Pipe	32.00			3909.00	
Change Over Sub	1.00			3910.00	
Perforations	5.00			3915.00	
Bullnose	3.00			3918.00	68.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>95.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Younger Energy Co.

**34-21s-15w Pawnee,KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55434

**DST#: 3**

Test Start: 2013.12.08 @ 03:37:44

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 42.00 sec/qt

Water Loss: 8.79 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 3300.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	M	1.106

Total Length: 200.00 ft      Total Volume: 1.106 bbl

Num Fluid Samples: 0

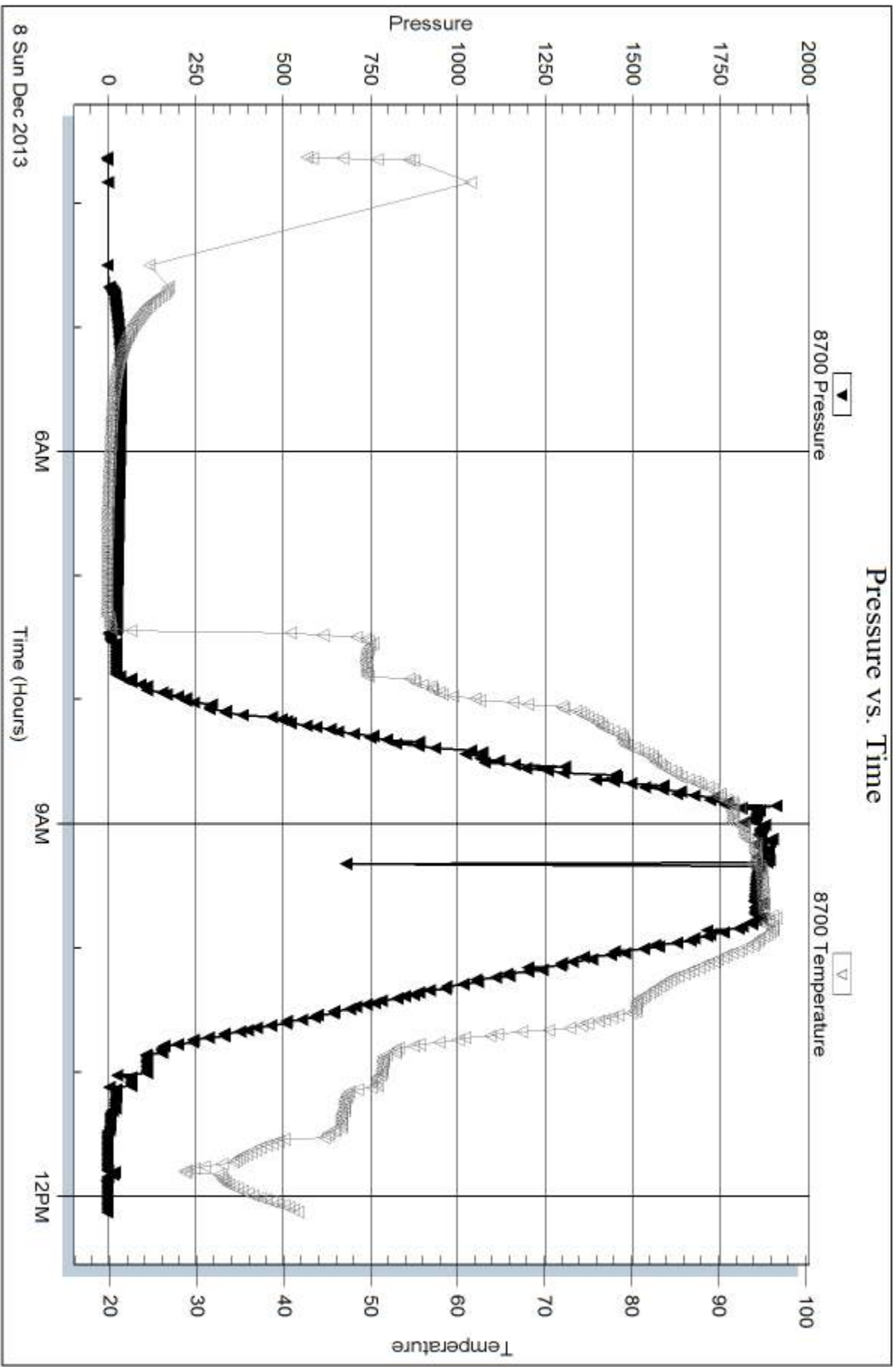
Num Gas Bombs: 0

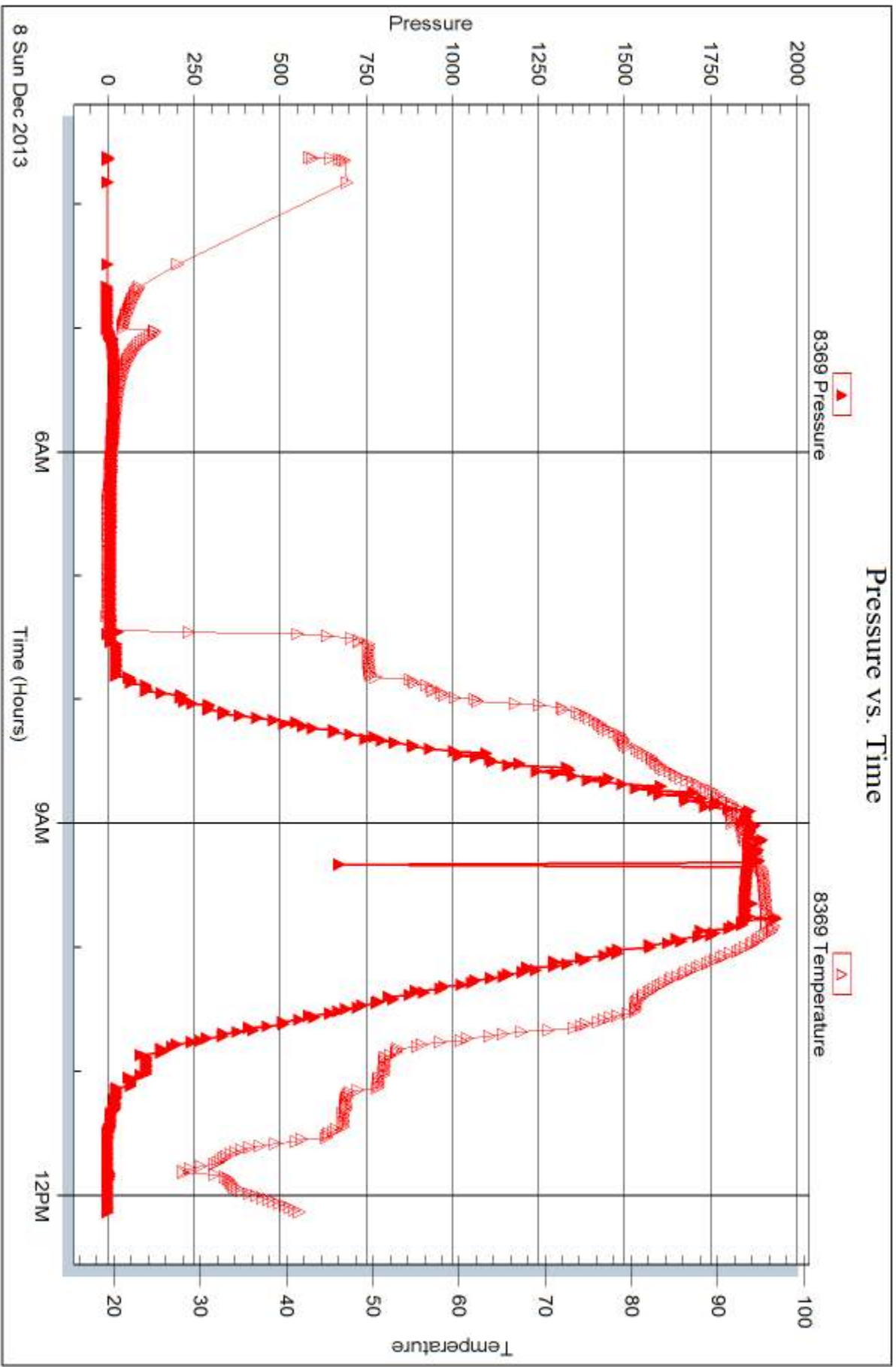
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Co.**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207

ATTN: Keith Reavis

### **Schartz #1-34**

#### **34-21s-15w Pawnee,KS**

Start Date: 2013.12.08 @ 12:31:24

End Date: 2013.12.08 @ 21:12:24

Job Ticket #: 55435                      DST #: 4

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

Printed: 2013.12.11 @ 14:50:48



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Younger Energy Co.

**34-21s-15w Pawnee, KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55435

**DST#: 4**

Test Start: 2013.12.08 @ 12:31:24

## GENERAL INFORMATION:

Formation: **Simpson Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:54:09

Time Test Ended: 21:12:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 70

**Interval: 3713.00 ft (KB) To 3918.00 ft (KB) (TVD)**

Reference Elevations: 1978.00 ft (KB)

Total Depth: 3918.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8700 Outside**

Press@RunDepth: 161.43 psig @ 3716.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.08

End Date: 2013.12.08

Last Calib.: 2013.12.08

Start Time: 12:31:29

End Time: 21:12:24

Time On Btm: 2013.12.08 @ 14:52:24

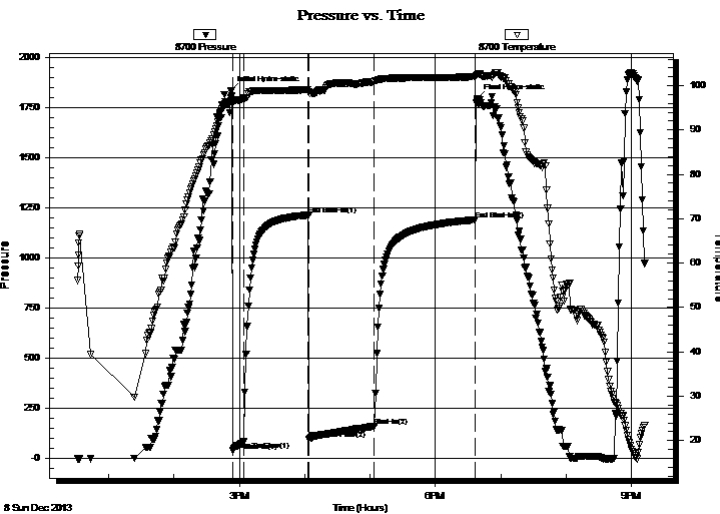
Time Off Btm: 2013.12.08 @ 18:38:39

**TEST COMMENT:** 10- IF- Built very quickly to 4" and then slowly to 6"

60- IS- No blow

60- FF- BOB 35 mins

90- FS- Surface blow died after 26 mins



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1834.63	96.66	Initial Hydro-static
2	40.52	96.14	Open To Flow (1)
12	82.04	97.16	Shut-In(1)
71	1215.02	99.09	End Shut-In(1)
72	93.56	98.60	Open To Flow (2)
132	161.43	100.96	Shut-In(2)
225	1191.38	102.03	End Shut-In(2)
227	1794.40	102.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	MCO, 80%O	0.22
285.00	OCM, 85%M	2.66
0.00	50' 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**

Younger Energy Co.

**34-21s-15w Pawnee,KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55435

**DST#: 4**

Test Start: 2013.12.08 @ 12:31:24

## Tool Information

Drill Pipe:	Length: 3508.00 ft	Diameter: 3.75 inches	Volume: 47.92 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume:</u>	Tool Chased	2.00 ft
				String Weight: Initial	76000.00 lb
Drill Pipe Above KB:	8.00 ft			Final	76000.00 lb
Depth to Top Packer:	3713.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	205.00 ft				
Tool Length:	232.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3687.00	
Shut In Tool	5.00			3692.00	
Hydraulic tool	5.00			3697.00	
Jars	5.00			3702.00	
Safety Joint	2.00			3704.00	
Packer	5.00			3709.00	27.00 Bottom Of Top Packer
Packer	4.00			3713.00	
Stubb	1.00			3714.00	
Perforations	1.00			3715.00	
Change Over Sub	1.00			3716.00	
Recorder	0.00	8369	Inside	3716.00	
Recorder	0.00	8700	Outside	3716.00	
Drill Pipe	189.00			3905.00	
Change Over Sub	1.00			3906.00	
Perforations	9.00			3915.00	
Bullnose	3.00			3918.00	205.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>232.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Younger Energy Co.

**34-21s-15w Pawnee,KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55435

**DST#: 4**

Test Start: 2013.12.08 @ 12:31:24

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 42.00 sec/qt  
Water Loss: 8.79 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 3300.00 ppm  
Filter Cake: inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	MCO, 80%O	0.221
285.00	OCM, 85%M	2.661
0.00	50' GIP	0.000

Total Length: 330.00 ft      Total Volume: 2.882 bbl

Num Fluid Samples: 0

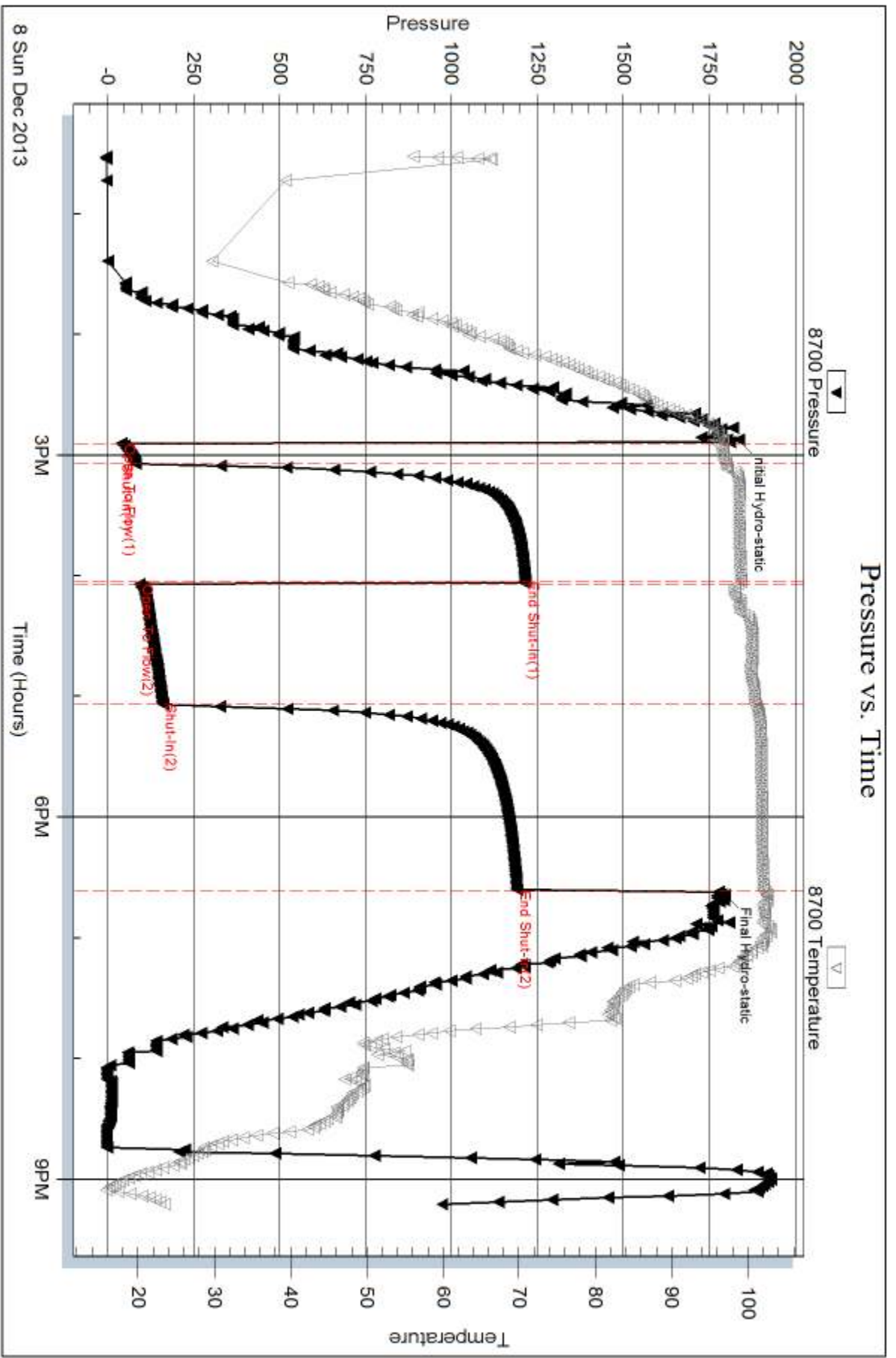
Num Gas Bombs: 0

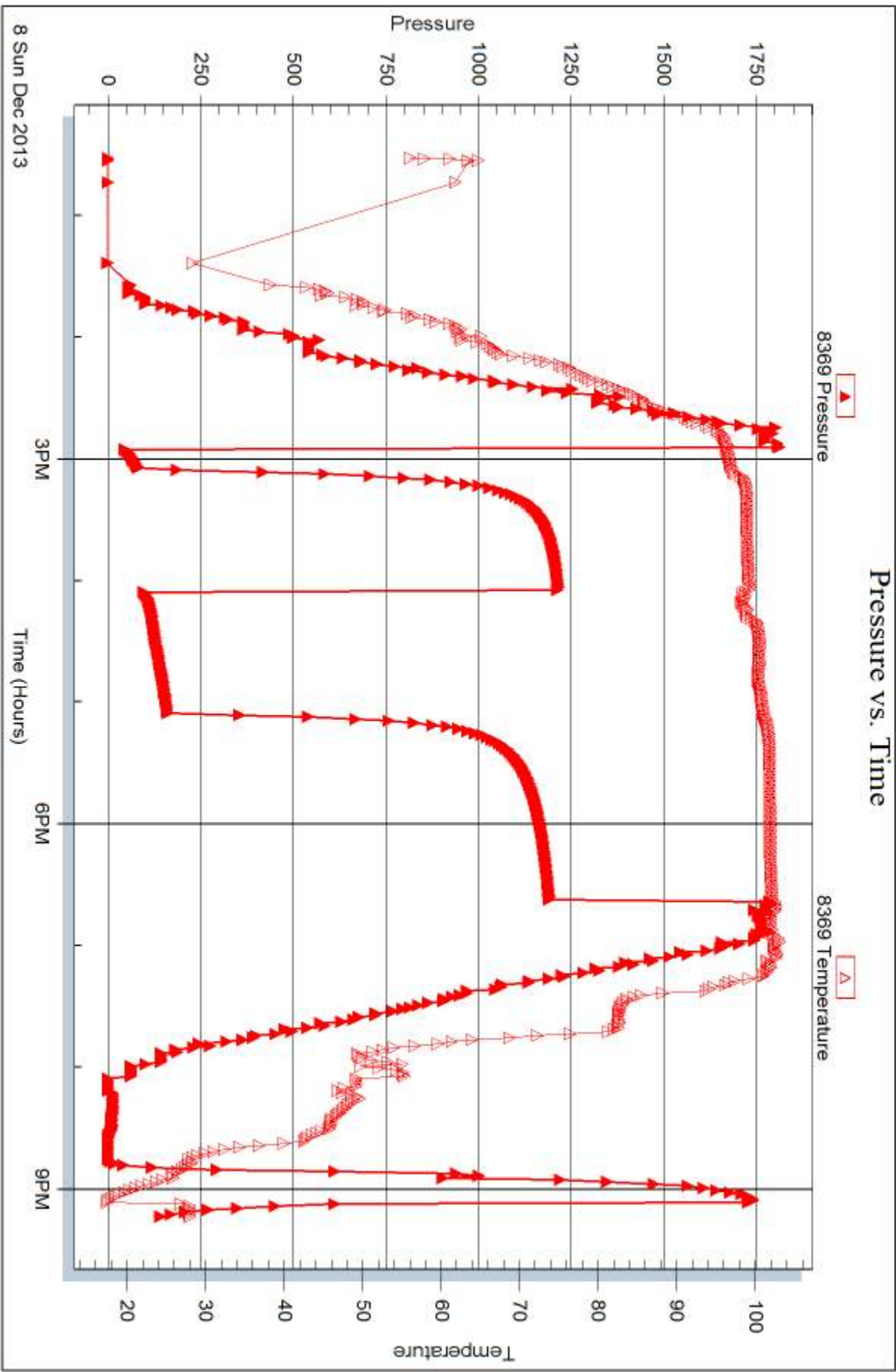
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Co.**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207

ATTN: Keith Reavis

### **Schartz #1-34**

#### **34-21s-15w Pawnee,KS**

Start Date: 2013.12.09 @ 13:02:44

End Date: 2013.12.10 @ 00:15:59

Job Ticket #: 55436                      DST #: 5

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

Printed: 2013.12.11 @ 14:50:04









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Co.

**34-21s-15w Pawnee, KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55436

**DST#: 5**

Test Start: 2013.12.09 @ 13:02:44

## Tool Information

Drill Pipe:	Length: 3728.00 ft	Diameter: 3.75 inches	Volume: 50.93 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume:</u>	Tool Chased	3.00 ft
			- bbl	String Weight: Initial	74000.00 lb
Drill Pipe Above KB:	15.00 ft			Final	74000.00 lb
Depth to Top Packer:	3921.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	5.00 ft				
Tool Length:	27.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3900.00	
Shut In Tool	5.00			3905.00	
Hydraulic tool	5.00			3910.00	
Jars	5.00			3915.00	
Safety Joint	2.00			3917.00	
Packer	4.00			3921.00	22.00 Bottom Of Top Packer
Stubb	1.00			3922.00	
Perforations	1.00			3923.00	
Recorder	0.00	8369	Inside	3923.00	
Recorder	0.00	8700	Outside	3923.00	
Bullnose	3.00			3926.00	5.00 Anchor Tool

**Total Tool Length: 27.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Younger Energy Co.

**34-21s-15w Pawnee,KS**

9415 E. Harry St.  
Ste. 403 Bldg. 400  
Wichita, KS 67207  
ATTN: Keith Reavis

**Schartz #1-34**

Job Ticket: 55436

**DST#: 5**

Test Start: 2013.12.09 @ 13:02:44

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 47.00 sec/qt

Water Loss: 8.39 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	M	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

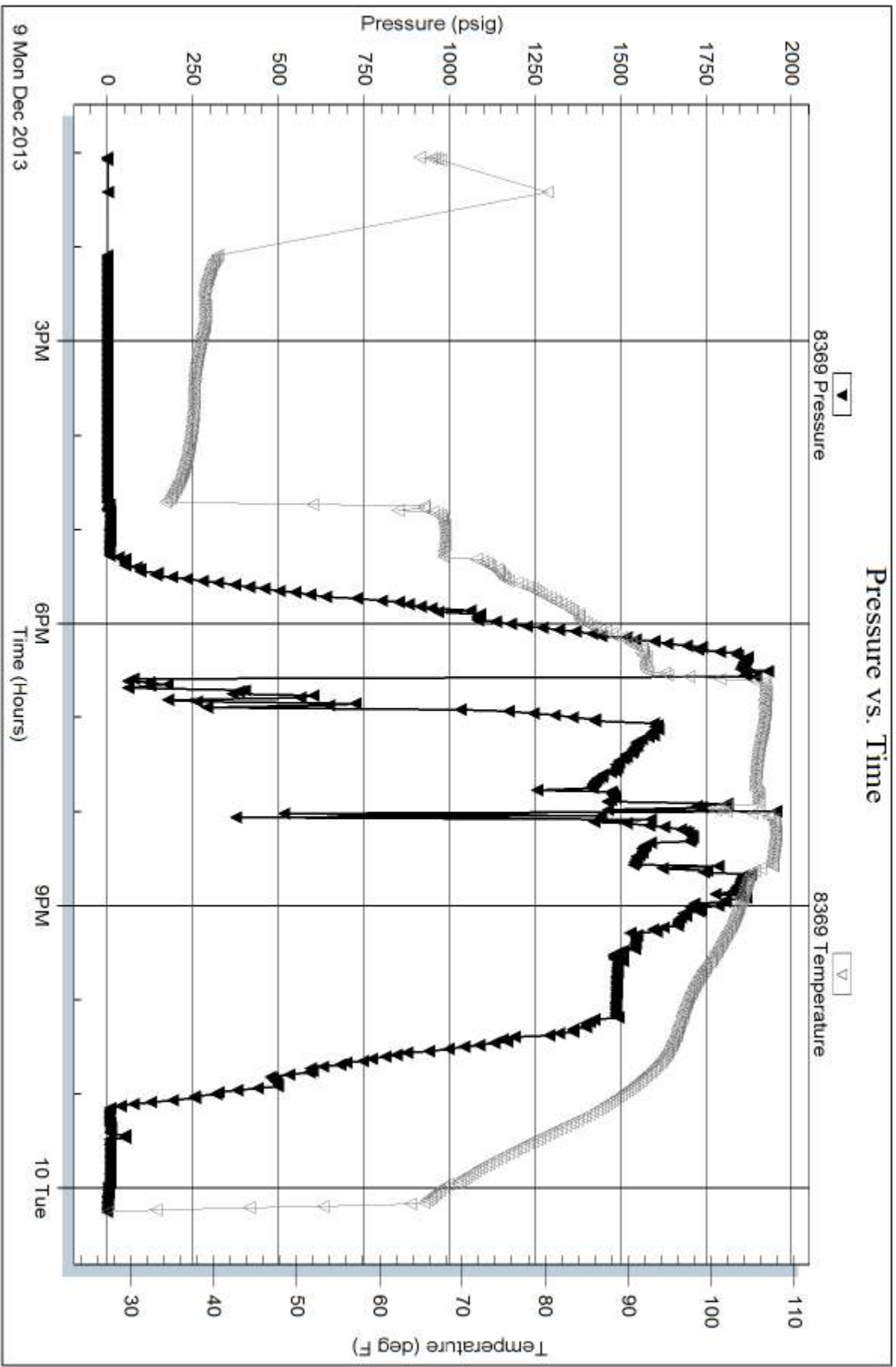
Num Gas Bombs: 0

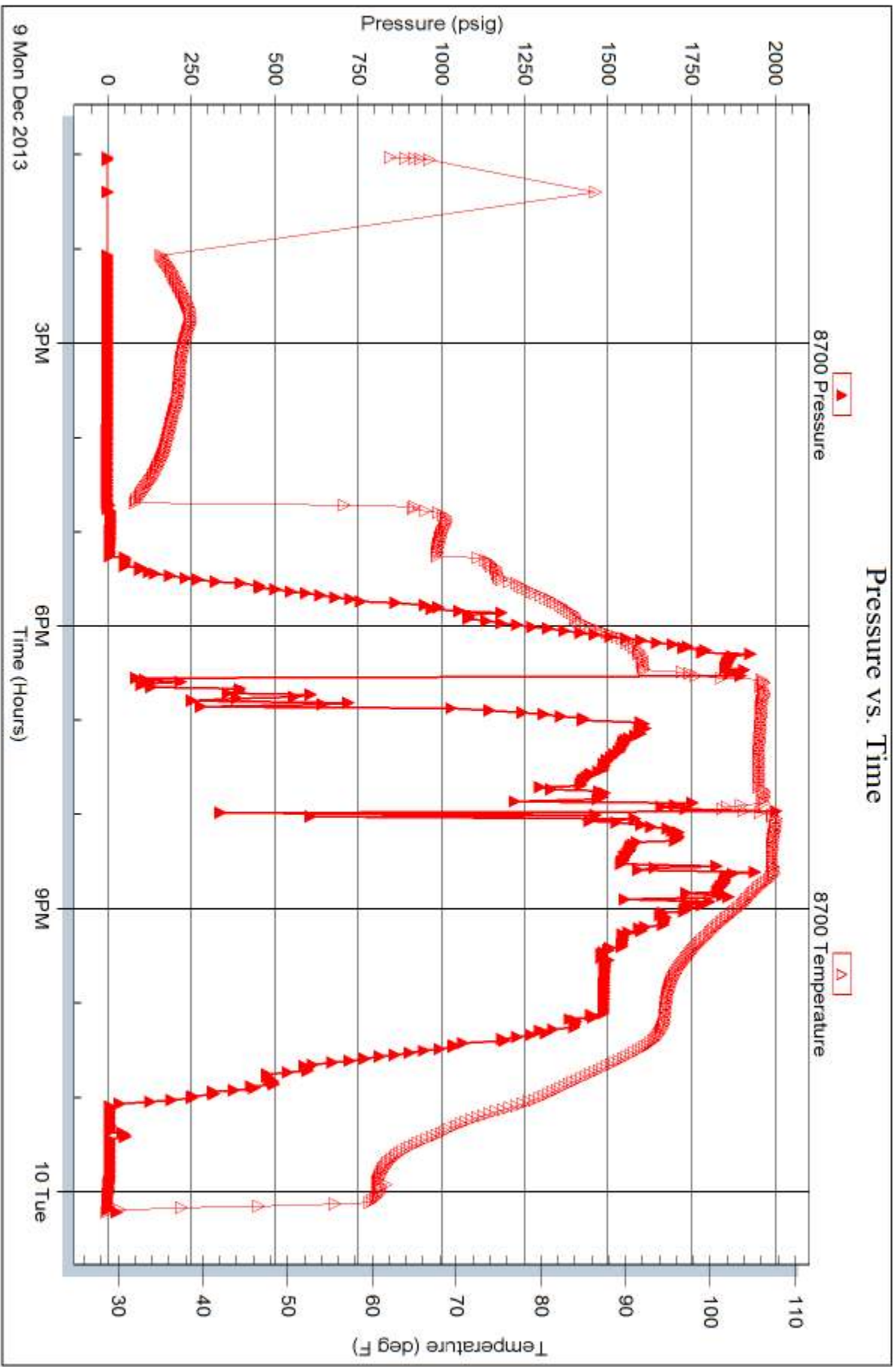
Serial #:

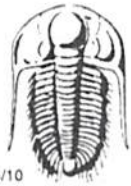
Laboratory Name:

Laboratory Location:

Recovery Comments:







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55432

Well Name & No. Schartz #1-34 Test No. 1 Date 12/6/13  
 Company Younger Energy Co. Elevation 1978 KB 1967 GL  
 Address 9415 E. Harry St. Ste. 403 Bldg 400 Wichita, KS 67207  
 Co. Rep / Geo. Keith Reavis Rig Bruke #10  
 Location: Sec. 34 Twp. 21s Rge. 15w Co. Pawnee State KS

Interval Tested 3824-3872 Zone Tested Viola  
 Anchor Length 48' Drill Pipe Run 3631 Mud Wt. 9.2  
 Top Packer Depth 3819 Drill Collars Run 186 Vis 48  
 Bottom Packer Depth 3824 Wt. Pipe Run — WL 8.0  
 Total Depth 3872 Chlorides 4,700 ppm System LCM 3#

Blow Description \_\_\_\_\_  
Packer Failure

Rec	Feet of	%gas	%oil	%water	%mud
<u>200</u>	<u>M</u>				
_____	_____				
_____	_____				
_____	_____				
_____	_____				

Rec Total 200 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test 950 T-On Location 0615  
 (B) First Initial Flow \_\_\_\_\_  Jars 250 T-Started 0635  
 (C) First Final Flow \_\_\_\_\_  Safety Joint 75 T-Open 1255  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled 1302  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 1517  
 (F) Second Final Flow \_\_\_\_\_  Mileage 90rt 146 RT 139.50 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 1414.50  
 Final Flow \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_ Sub Total 1414.50

Approved By \_\_\_\_\_ Our Representative Brannan L

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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55433

Well Name & No. Schantz #1-34 Test No. 2 Date 12/6/13  
 Company Younger Energy Co Elevation 1978 KB 1967 GL  
 Address 9415 E. Harry St. Ste. 403 Bldg 400 Wichita, KS 67207  
 Co. Rep / Geo. Kath Reavis Rig Duke #10  
 Location: Sec. 34 Twp. 21s Rge. 15w Co. Pawnee State K.S

Interval Tested 3714-3872 Zone Tested Viola  
 Anchor Length 158' Drill Pipe Run 3508 Mud Wt. 9.2  
 Top Packer Depth 3709 Drill Collars Run 186 Vis 48  
 Bottom Packer Depth 3714 Wt. Pipe Run --- WL 8.0  
 Total Depth 3872 Chlorides 4,700 ppm System LCM 3#

Blow Description IF - 1/2"  
ISI - No blow  
FF - No blow flushed tool after 15 mins built to 1/4"  
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>M</u>				

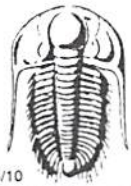
Rec Total 30 BHT 108° Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic 1895  Test 1150 T-On Location 1517  
 (B) First Initial Flow 37  Jars 250 T-Started 1538  
 (C) First Final Flow 41  Safety Joint 75 T-Open 2159  
 (D) Initial Shut-In 259  Circ Sub --- T-Pulled 0109  
 (E) Second Initial Flow 43  Hourly Standby 4h 400 T-Out 0440  
 (F) Second Final Flow 60  Mileage 146 RT Comments ---  
 (G) Final Shut-In 163  Sampler ---  
 (H) Final Hydrostatic 1849  Straddle ---  Ruined Shale Packer ---  
 Shale Packer ---  Ruined Packer ---

Initial Open 10  Extra Packer ---  Extra Copies ---  
 Initial Shut-In 60  Extra Recorder --- Sub Total 0  
 Final Flow 45  Day Standby --- Total 1875  
 Final Shut-In 75  Accessibility --- MP/DST Disc't ---  
 Sub Total 1875

Approved By \_\_\_\_\_ Our Representative Brannan L

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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55434

Well Name & No. Schantz #1-34 Test No. 3 Date 12/8/13  
 Company Younger Energy Co. Elevation 1978 KB 1967 GL  
 Address 9415 E. Harry St. Ste. 403 Bldg. 400 Wichita, KS 67207  
 Co. Rep / Geo. Kath Reavis Rig Duke #10  
 Location: Sec. 34 Twp. 21s Rge. 15w Co. Pawnee State KS

Interval Tested 3850-3918 Zone Tested Simpson Sand  
 Anchor Length 68' Drill Pipe Run 3665 Mud Wt. 9.0  
 Top Packer Depth 3845 Drill Collars Run 186 Vis 42  
 Bottom Packer Depth 3850 Wt. Pipe Run --- WL 8.8  
 Total Depth 3918 Chlorides 3,300 ppm System LCM 1#

Blow Description PACKER FAILURE

Rec	Feet of	%gas	%oil	%water	%mud
<u>200</u>	<u>M</u>				

Rec Total 200 BHT --- Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic ---  Test 950 T-On Location 0325  
 (B) First Initial Flow ---  Jars 250 T-Started 0337  
 (C) First Final Flow ---  Safety Joint 75 T-Open 0913  
 (D) Initial Shut-In ---  Circ Sub --- T-Pulled 0938  
 (E) Second Initial Flow ---  Hourly Standby --- T-Out 1209  
 (F) Second Final Flow ---  Mileage 146 RT 139.50  
 (G) Final Shut-In ---  Sampler ---  
 (H) Final Hydrostatic ---  Straddle ---  Ruined Shale Packer ---  
 Shale Packer ---  Ruined Packer ---

Initial Open 10  Extra Packer ---  Extra Copies ---  
 Initial Shut-In ---  Extra Recorder --- Sub Total 0  
 Final Flow ---  Day Standby --- Total 1414.50  
 Final Shut-In ---  Accessibility --- MP/DST Disc't ---  
 Sub Total 1414.50

Approved By --- Our Representative Brannon L

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55435

Well Name & No. Schartz #1-34 Test No. 4 Date 12/8/13  
 Company Younger Energy Co. Elevation 1978 KB 1967 GL  
 Address 1415 E Harry St. Ste. 403 Bldg. 400 Wichita, KS 67207  
 Co. Rep / Geo. Keith Reavis Rig Duke #10  
 Location: Sec. 34 Twp. 21s Rge. 15w Co. Pawnee State KS

Interval Tested 3713-3918 Zone Tested Simpson Sand  
 Anchor Length 205' Drill Pipe Run 3508 Mud Wt. 9.0  
 Top Packer Depth 3708 Drill Collars Run 186 Vis 42  
 Bottom Packer Depth 3713 Wt. Pipe Run \_\_\_\_\_ WL 8.8  
 Total Depth 3918 Chlorides 3300 ppm System LCM 1#

Blow Description IF - Built very quickly to 4" then slowly to 6"  
ISI - No blow  
FF - BOB 35 mins  
FSI - Surface blow died after 20 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>MCO</u>	<u>30</u>		<u>20</u>	
<u>285</u>	<u>OCM</u>	<u>15</u>		<u>85</u>	
	<u>50' GID</u>				

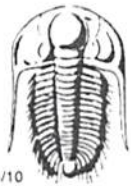
Rec Total 330' BHT 102° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1835</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1209</u>
(B) First Initial Flow <u>41</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1231</u>
(C) First Final Flow <u>82</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1454</u>
(D) Initial Shut-In <u>1215</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1834</u>
(E) Second Initial Flow <u>94</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>2113</u>
(F) Second Final Flow <u>161</u>	<input checked="" type="checkbox"/> Mileage <u>146 RT</u>	Comments _____
(G) Final Shut-In <u>1191</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1794</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>10</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1475</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1475</u>	

Approved By \_\_\_\_\_ Our Representative Brannan L

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55436

Well Name & No. Schartz #1-34 Test No. 5 Date 12/9/13  
 Company Younger Energy Co. Elevation 1978 KB 1967 GL  
 Address 9415 E. Harry St. Ste. 403 Bldg. 400 Wichita, KS 67207  
 Co. Rep / Geo. Keith Beavis Rig Duke #10  
 Location: Sec. 34 Twp. 21s Rge. 15w Co. Pawnee State KS

Interval Tested 3921-3926 Zone Tested Arbuckle  
 Anchor Length 5' Drill Pipe Run 3728 Mud Wt. 9.0  
 Top Packer Depth \_\_\_\_\_ Drill Collars Run 186 Vis 47  
 Bottom Packer Depth 3921 Wt. Pipe Run \_\_\_\_\_ WL 8.4  
 Total Depth 3926 Chlorides 4,500 ppm System LCM 1#

Blow Description IF - Built to 1/2"  
ISI - No blow  
FF - No blow flushed tool No blow  
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>M</u>				
_____	_____				
_____	_____				
_____	_____				
_____	_____				

Rec Total 10' BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test 950 T-On Location 1230  
 (B) First Initial Flow \_\_\_\_\_  Jars 250 T-Started 1302  
 (C) First Final Flow \_\_\_\_\_  Safety Joint 75 T-Open 1833  
 (D) Initial Shut-In Plugged  Circ Sub \_\_\_\_\_ T-Pulled 2033  
 (E) Second Initial Flow tool  Hourly Standby \_\_\_\_\_ T-Out 0015  
 (F) Second Final Flow \_\_\_\_\_  Mileage 146 RT 139.50  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 10  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 60  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 35  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 15  Day Standby \_\_\_\_\_ Total 1414.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1414.50

Approved By \_\_\_\_\_ Our Representative Brannen L

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PO Box 93999  
Southlake, TX 76092

RECEIVED DEC 16 2013

# INVOICE

Invoice Number: 140164  
Invoice Date: Dec 1, 2013  
Page: 1

Voice: (817) 546-7282  
Fax: (817) 246-3361

<b>Bill To:</b>
Younger Energy Co. 9415 E. Harry St. STE #403 Wichita, KS 67207-5083

Customer ID	Field Ticket #	Payment Terms	
Youn	61038	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Great Bend	Dec 1, 2013	12/31/13

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Shartz #1-34		
150.00	CEMENT MATERIALS	Class A Common	17.90	2,685.00
1,010.00	CEMENT MATERIALS	Chloride	0.80	808.00
225.00	CEMENT MATERIALS	Light Weight	15.95	3,588.75
57.00	CEMENT MATERIALS	Flo Seal	2.97	169.29
414.67	CEMENT SERVICE	Cubic Feet Charge	2.48	1,028.38
359.00	CEMENT SERVICE	Ton Mileage Charge	2.60	933.40
1.00	CEMENT SERVICE	Surface	2,058.50	2,058.50
20.00	CEMENT SERVICE	Pump Truck Mileage	7.70	154.00
20.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	88.00
1.00	EQUIPMENT SALES	8-5/8 Baffle Plate	67.50	67.50
3.00	EQUIPMENT SALES	8-5/8 Centralizer	37.50	112.50
1.00	EQUIPMENT SALES	8-5/8 Rubber Plug	76.25	76.25
1.00	CEMENT SUPERVISOR	Tim Dickson		
1.00	OPERATOR ASSISTANT	Marilyn Spangenberg		

Subtotal	11,769.57
Sales Tax	611.84
Total Invoice Amount	12,381.41
Payment/Credit Applied	
<b>TOTAL</b>	<b>12,381.41</b>

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 3,223.72

ONLY IF PAID ON OR BEFORE  
Dec 26, 2013

9157.69

Schartz 434  
JIB

SW

# ALLIED OIL & GAS SERVICE, LLC 061038

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Armat Bend K

DATE <u>12-1-13</u>	SEC. <u>34</u>	TWP. <u>21</u>	RANGE <u>15</u>	11-30-13 CALLED OUT <u>10:00 PM</u>	12-1-13 ON LOCATION <u>12:00 AM</u>	JOB START <u>6:45 AM</u>	JOB FINISH <u>7:50 AM</u>
LEASE <u>Shanty</u>		WELL # <u>1-34</u>		LOCATION <u>K-15 &amp; Padum Bldg - 3 West</u>		COUNTY <u>Powder</u>	STATE <u>K</u>
OLD OR NEW (Circle one) <u>NEW</u>				<u>2 North, 1/2 West, North into</u>			

CONTRACTOR Duke 10 OWNER Same

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 995' CEMENT

CASING SIZE 8 5/8 DEPTH 989.72' AMOUNT ORDERED 225 sb 65/35 (620 lb), 350 cc,

TUBING SIZE DEPTH 1/2 float/ft - 150 lb (down) + 30 cc,

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX 6000# MINIMUM 200# COMMON 150 @ 17.90 2,685.00

MEAS. LINE SHOE JOINT 42.49' POZMIX @

CEMENT LEFT IN CSG. 42.49' GEL @

PERFS. CHLORIDE 1010 @ .80 808.00

DISPLACEMENT 60-33 bbls ASC @

EQUIPMENT 225 5x 6 1/2 @ 15.95 3,588.75

PUMP TRUCK CEMENTER Tom Dickson 1600 cc @ 2.97 169.32

# 597 HELPER Marilyn Spangenberg @

BULK TRUCK DRIVER Terrence Tijerina @

# 610-241 DRIVER @

BULK TRUCK DRIVER @

# DRIVER @

HANDLING 414.67 @ 2.48 1028.38

MILEAGE 17.95 x 20 x 2.60 933.90

TOTAL 9,212.82

**REMARKS:**

Ran 989' of 8 5/8" hole circulation  
Pumped 5 bbls H2O. Mixed 225 sb 65/35 (620 lb)  
350 cc, 1/2 float/ft followed by 150 lb (down) +  
30 cc. Released plug. Displaced with fresh  
H2O. Landed plug at 600#. Shut in

Cement did circulate.

T. Dickson

**SERVICE**

DEPTH OF JOB 989.72'

PUMP TRUCK CHARGE 2058.50

EXTRA FOOTAGE @

MILEAGE HUM 20 @ 7.70 154.00

MANIFOLD @

HUM 20 @ 4.40 88.00

TOTAL 2300.50

CHARGE TO: Younger Energy

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

8 5/8"

Baffle Plate @ 67.50 67.50

3- centralizers @ 37.50 112.50

Rubber Plug @ 76.25 76.25

TOTAL 256.25

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

PRINTED NAME X Dan Browning

SIGNATURE X Dan Browning

SALES TAX (if Any) \_\_\_\_\_

TOTAL CHARGES 11,769.57

DISCOUNT 3,223.72 IF PAID IN 30 DAYS

8,545.85



PO Box 93999  
Southlake, TX 76092

Voice: (817) 546-7282  
Fax: (817) 246-3361

# INVOICE

Invoice Number: 140272  
Invoice Date: Dec 11, 2013  
Page: 1

RECEIVED DEC 23 2013

<b>Bill To:</b>
Younger Energy Co. 9415 E. Harry St. STE #403 Wichita, KS 67207-5083

Customer ID	Field Ticket #	Payment Terms	
Youn	61044	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Great Bend	Dec 11, 2013	1/10/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Schantz #1-34		
30.00	CEMENT MATERIALS	Class A Common	17.90	537.00
20.00	CEMENT MATERIALS	Pozmix	9.35	187.00
1.00	CEMENT MATERIALS	Gel	23.40	23.40
180.00	CEMENT MATERIALS	ASC	20.90	3,762.00
900.00	CEMENT MATERIALS	Kol Seal	0.98	882.00
54.00	CEMENT MATERIALS	FL-160	18.90	1,020.60
25.00	CEMENT MATERIALS	Defoamer	9.80	245.00
500.00	CEMENT MATERIALS	DV-1100	1.27	635.00
283.84	CEMENT SERVICE	Cubic Feet Charge	2.48	703.92
184.05	CEMENT SERVICE	Ton Mileage Charge	2.60	478.53
1.00	CEMENT SERVICE	Production Casing	2,558.75	2,558.75
15.00	CEMENT SERVICE	Pump Truck Mileage	7.70	115.50
15.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	66.00
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
1.00	EQUIPMENT SALES	5-1/2 Guide Shoe	153.10	153.10
1.00	EQUIPMENT SALES	5-1/2 AFU Insert	171.80	171.80
2.00	EQUIPMENT SALES	5-1/2 Baskets	159.40	318.80
10.00	EQUIPMENT SALES	5-1/2 Turbolizer	48.30	483.00
1.00	EQUIPMENT SALES	5-1/2 Rubber Plug	51.25	51.25
1.00	CEMENT SUPERVISOR	Tim Dickson		

DP

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 3,217.11

ONLY IF PAID ON OR BEFORE  
Jan 5, 2014

Subtotal	Continued
Sales Tax	Continued
Total Invoice Amount	Continued
Payment/Credit Applied	
<b>TOTAL</b>	<b>Continued</b>

Schantz 1-31  
J B



# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 140272  
Invoice Date: Dec 11, 2013  
Page: 2

Voice: (817) 546-7282  
Fax: (817) 246-3361

<b>Bill To:</b>
Younger Energy Co. 9415 E. Harry St. STE #403 Wichita, KS 67207-5083

Customer ID	Field Ticket #	Payment Terms	
Youn	61044	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Great Bend	Dec 11, 2013	1/10/14

Quantity	Item	Description	Unit Price	Amount
1.00	EQUIPMENT OPERATOR	Kevin Eddy		
1.00	EQUIPMENT OPERATOR	Daniel Casper		
1.00	OPERATOR ASSISTANT	Andy Fimple		

Subtotal	12,667.65
Sales Tax	690.30
Total Invoice Amount	13,357.95
Payment/Credit Applied	
<b>TOTAL</b>	<b>13,357.95</b>

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 3,217.11

ONLY IF PAID ON OR BEFORE  
Jan 5, 2014

10,140.84

# ALLIED OIL & GAS SERVICES, LLC 061044

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Heart Bend K.

DATE <u>12-11-13</u>	SEC. <u>34</u>	TWP. <u>21</u>	RANGE <u>15</u>	CALLED OUT <u>12:00 AM</u>	ON LOCATION <u>4:30 AM</u>	JOB START <u>11:30 AM</u>	JOB FINISH <u>12:30 PM</u>
LEASE <u>Schantz</u>		WELL # <u>1-34</u>		LOCATION <u>K-19a Rodwin Rd, 3 West</u>		COUNTY <u>Polk</u>	STATE <u>Ks</u>
OLD OR NEW (Circle one) <u>NEW</u>				<u>1 North, 1/4 West, 1/4 Note</u>			

CONTRACTOR Dale 10 OWNER Same

TYPE OF JOB <u>Production</u>	
HOLE SIZE <u>7 7/8"</u>	T.D. <u>39165'</u>
CASING SIZE <u>5 1/2"</u>	DEPTH <u>39163'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX <u>1200#</u>	MINIMUM <u>1600#</u>
MEAS. LINE	SHOE JOINT <u>21"</u>
CEMENT LEFT IN CSG. <u>21"</u>	
PERFS.	
DISPLACEMENT <u>93.8</u>	

CEMENT  
AMOUNT ORDERED 180 cu ASC, 10% Salt  
(200 Suppl, 270 Med, 35 Fl-160, 14 Asphomen)  
50 cu 169/40 47% Sol, 500 gal Du-1100

COMMON	<u>30</u>	@ <u>17.90</u>	<u>537.00</u>
POZMIX	<u>26</u>	@ <u>9.35</u>	<u>187.00</u>
GEL	<u>1</u>	@ <u>23.40</u>	<u>23.40</u>
CHLORIDE		@	
ASC	<u>180</u>	@ <u>20.90</u>	<u>3,762.00</u>
	<u>Kal seal 900</u>	@ <u>.98</u>	<u>882.00</u>
	<u>Fl-160 54</u>	@ <u>18.90</u>	<u>1,020.60</u>
	<u>DF 25</u>	@ <u>9.80</u>	<u>245.00</u>
	<u>Du 1100 500</u>	@ <u>1.27</u>	<u>635.00</u>
		@	
		@	
		@	
		@	
HANDLING	<u>283.84</u>	@ <u>2.48</u>	<u>703.93</u>
MILEAGE	<u>13.27 x 15 x</u>	<u>2.60</u>	<u>478.03</u>
TOTAL			<u>8,474.00</u>

**EQUIPMENT**

PUMP TRUCK	CEMENTER <u>Tom Anderson</u>
# <u>316</u>	HELPER <u>Ravin Eddy</u>
BULK TRUCK	
# <u>871-112</u>	DRIVER <u>Don Cooper</u>
BULK TRUCK	
#	DRIVER <u>Andy Fimple</u>

**REMARKS:**

Run 39163' of 5 1/2" cy. Brule circulation  
circulated 1 hr. Pulled 5 H<sub>2</sub>O, 500 gal  
Du-1100, 5 H<sub>2</sub>O. Mixed 180 cu ASC.  
Washed line clean. Released plug  
Deployed with H<sub>2</sub>O bonded plug  
at 1200#. Released + 8000' Hold  
Plugged Rathole w/ 30 cu 69/40 47% Sol  
Washed hole w/ 20 cu.

7ally error  
Piper set e  
3954' per  
log-tech  
Don Browning

**SERVICE**

DEPTH OF JOB <u>39163'</u>		
PUMP TRUCK CHARGE	<u>2558.25</u>	
EXTRA FOOTAGE	@	
MILEAGE <u>Hum 15</u>	@ <u>7.70</u>	<u>115.50</u>
MANIFOLD <u>Hum 15</u>	@ <u>4.40</u>	<u>66.00</u>
<u>Heart Bend</u>	@ <u>275.00</u>	<u>275.00</u>
	@	

TOTAL 3,015.25

CHARGE TO: Younger Energy  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

<u>5 1/2"</u>		
<u>Guidance</u>	@ <u>153.10</u>	<u>153.10</u>
<u>AFU Insert</u>	@ <u>171.80</u>	<u>171.80</u>
<u>2 - Baskets</u>	@ <u>159.40</u>	<u>318.80</u>
<u>10 - Turbos Centralizer</u>	@ <u>48.30</u>	<u>483.00</u>
<u>Reelin Plug</u>	@ <u>51.25</u>	<u>51.25</u>
TOTAL <u>1,177.95</u>		

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

SALES TAX (If Any) \_\_\_\_\_  
TOTAL CHARGES 12,667.65  
DISCOUNT 3,217.11 IF PAID IN 30 DAYS

PRINTED NAME X Don Browning  
SIGNATURE X Don Browning

9,450.54