



KANSAS CORPORATION COMMISSION 1166260
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- 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

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

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



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

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

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

Drill Stem Tests Taken <input 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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

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> _____				
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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Tengasco, Inc.
Well Name	Zerger A 2
Doc ID	1166260

Tops

Name	Top	Datum
Anhydrite	1458	+525
Topeka	2955	-942
Heebner	3162	-1149
Toronto	3188	-1175
Lansing	3203	-1190
BKC	3423	-1410
Arbuckle	3446	-1433
LTD	3550	-1537

MUD LOG
WellSight Systems
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Zerger A-2
Location: E/2 NE NE Sec. 21 ; Twnbsp. 8 s.; Rge. 19 w.
License Number: 34110
Spud Date: 9-10-2013
Surface Coordinates: 660' FNL 330' FEL
Region: Rooks County, KS
Drilling Completed: 9-17-2013

Bottom Hole
Coordinates:
Ground Elevation (ft): 2006
Logged Interval (ft): 2700 To: TD
Formation: Arbuckle
Type of Drilling Fluid: Chemical
K.B. Elevation (ft): 2013
Total Depth (ft): RTD 3555

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: TENGASCO, INC.
Address: 1327 Noose Rd.
Hays, KS. 67601

GEOLOGIST

Name: Mike Bair
Company: Basin Resources L.L.C.
Address: Longmont, CO.

FORMATION TOPS

Formation	Sample	Log
Anhy	1460 (+523)	1458 (+525)
Topeka	2961 (-948)	2955 (-942)
Heebner	3168 (-1155)	3162 (-1149)
Toronto	3189 (-1176)	3188 (-1175)
Lansing	3206 (-1193)	3203 (-1190)
BKC	3429 (-1416)	3423 (-1410)
Arbuckle	3455 (-1442)	3446 (-1433)
TD	3555 (-1542)	3550 (-1537)

DSTs

DST #1 3418-3465 Misrun
DST #2 3410-3465 45-45-30-30
IFP: weak blow through out ISIP: No blow back
FFP: No blow FSIP: No blow back
Rec: 5' socm (5% oil, 95% m)
FP (18-19)(20-21) SIP: 172-119

Comments

Based on relative structural position, log analysis and sample shows; it was decided by all parties to run production casing to further test the economic potential of the Arbuckle formation.

Strap at 2739'
short to Board
2.58'

MudCo 2847
Wt. 8.7
Vis 51
LCM 2#
Chr 1000

2850

2900

2950

3000

TOPEKA
2961 (-948)

Sh, gry; Ls, tan-gry, foss frags, ns, n/o

Ls, crm-gry, wkstn, some shly; Sh, gry, ns, n/o

Ls, crm-wh, wkstn-pkstn, ool; Slst, gry, mica, ns, n/o

a/a; Sh, gry-blk, ns, n/o

Slst to v f grn SS, argil to Ls, crm-tan, wkstn-pkstn, ns, n/o

a/a

Ls, crm-gry; slst-sh, gry, ns, n/o

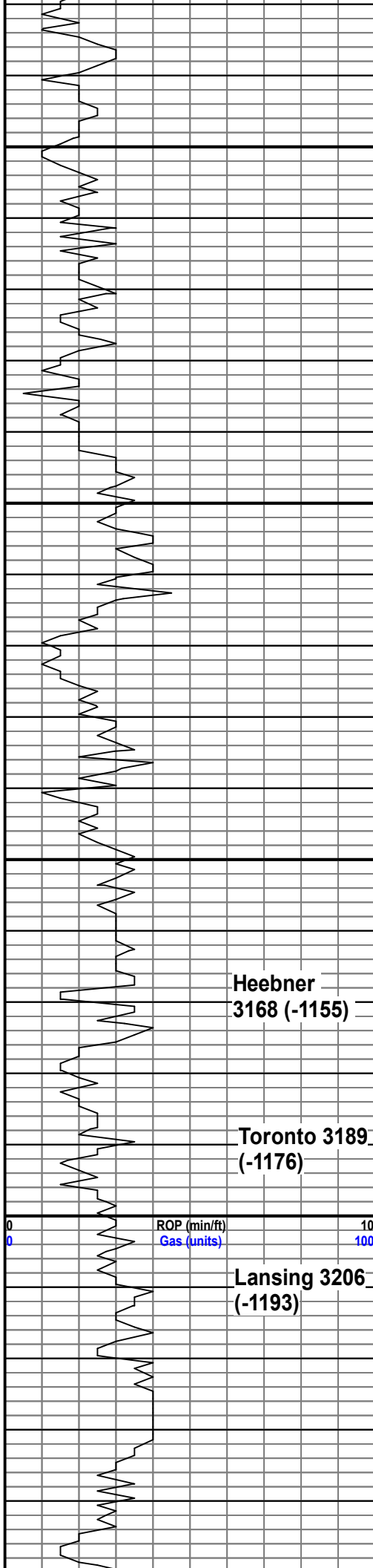
R pc Ls, wh, f gran, sl ixgran por, poss gil stn, nsfo, n/o

ROP (min/ft)
Gas (units)

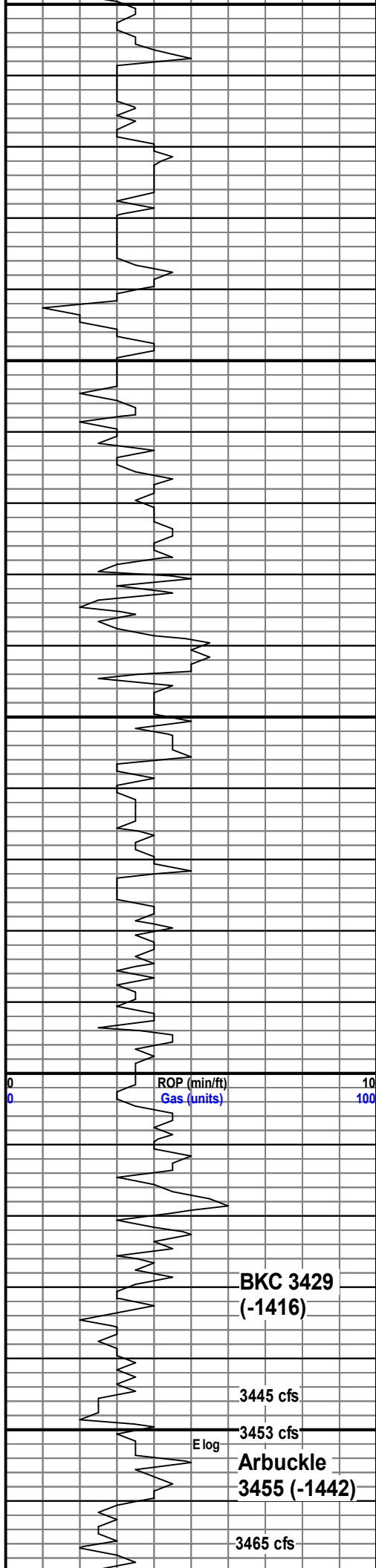
10
100

1

1000



3050	SH, blk; Ls, crm-gry, sn, n/o	
	Ls, crm-gry, some sl ixl por, sct'd foss frags, ns, n/o	
	Sh, gry-blk; Ls, crm-tan, mdstn-pkstn, spty ixgran por, ns, n/o	
	Ls, tan, gran, foss frags, some shly; Chert, crm-tan, fresh, dse, ns, n/o	
	a/a, sct'd cky, ns, n/o	
	Ls, tan, gran, poss ixgran por, ns, n/o 3100	
3100	Sh, gry, mrm, grn: Ls, crm-wh, fxl to ool, pr vis por, ns, n/o	
	Sh, blk; Ls, crm, shly to mot'd, ns, n/o	
	a/a to Ls, crm-tan, fxl to xl gran, ns, n/o	
	Ls, tan, wkstn, poss ixgran por, ns, n/o	
	Ls, gry-tan, fxl, fxl to gran, foss frags, some cky, ns, n/o	
	Chert, brn to op; Ls, of wh, flseh, pr vis to sl pp por, cal rexln, poss frac, sl-fr sfo in few rx wh bxn, fr rep, some cky, v sl odor 3160	
3150	Chert, tan; Ls, crm-tan, fxl, nvp, ns, n/o	
	SH, BLK, platy, sl carb 3180	
	Ls, crm-tan, fxl to R pc Ls, gry, mot'd, pr vis por, sfo on frac plane, n/o	
	Ls, tan, fxl to ool, pr to sl vis por, r pc Ls, flesh, v sl pp por, sl sfowh bxn; R pc Ls, gry, mot'd, lt sfo, sl ixl por, n/o 3200	
	Ls, crm-gry, some foss frags, mst pr vis por; Slst, argil, gry-grn, ns, n/o	
3200	Ls, wh, ool, sl ixool por, spt'd surf stn, sl sfo wh bxn, low rep, no odor 3220	1
	Ls, wh, few pc a/a to Ls, crm, fxl, v spt'd vg por to pr vis por, oil stn in vg; Ls, v f gran, lt surf stn to spty sat'd stn, v sl sfo, pr-sl por; abd't chert, crm, lt to lt fr odor 3230	
	Ls, wh, fxl, nvp, few pc a/a wk dor	
	Ls, wh, fxl, some cal rexln, ns, n/o 3250	
	Ls, wh, ool, spt'd surf stn, sl ixool to few fr ixool por; Dolo, tan, suc, small rhom xls on edges, few vgs, even sat'd stn, sl sfo, fr rep, fr - L gd odor 3260	
30	Ls, a/a, lt sct'd stn, fr no por, lt sfo to Dolo, a/a fr	1000



3225 Ls, a/a, lt sat'd stn, fr pp por, lt sfo to Dolo, a/a, fr suc por, occasional vg, v wk odor
Ls, crm, fxl, ns, n/o; few sluff fr above

Ls, wh-crm, fxl, some cky, poss v lt surf stn, nsfo, n/o; R pc Ls, wh, ool, v sl ixool por, spt'd surf stn

Ls, wh, ool, mst pr vis por, spt'd surf stn, v sl sfo wh bxn, med rep 3300, poss v wk odor

Ls, tna, fxl to gran, ool, few fr ixool-ixgran por to sct'd vg, lt sfo in few rx wh bxn, poss v wk odor 3310

3300 Ls, wh, fxl, sl cky, ns; Chert, wh, op to wh ool, ns
abt'd chert, tan - op, n/o

Sh, blk; Ls, gry, shly-mot'd, ns, n/o

Ls, brn, wkstn, ns, n/o pr vis por r pc Ls, wh, ool, pr-sl ixool por, spt'd surf stn, v sl sfo wh bxn, poss v wk odor 3350

3350 Ls, crm-tan, fxl, cky in pt, ns, n/o; some Chert

Ls, crm, fxl, fxl, ns, n/o; chert

Ls, wh, fxl, ns, r pc Dolo, brn, dse, few vy, sat'd stn, sl sfo in vg, lt odor 3380

Ls, wh-crm, fxl to m gran, ns, n/o

Ls, crm, v f gran, spt'd to sat'd stn, pr vis por, v sl sfo, low rep 3410

3400 Ls, wh, fxl, r pc ool, spt'd sl por, v sl sfo, n/o; Chert, tan to crm, fresh, dse, ns

Ls, crm-tan, gran, r pc ool, ns; 1 pc Ls, v f gran, lt surf stn, nsfo, some weathered Ls; Chert, wh, ool, fresh, dse, ns

Ls, wh-crm, fxl, ns, n/o

Wash red; Sh, red soft, sct'd Ss, qtz, v fgrn, fri, ns; Slst, gry-grn, ns, n/o 3435 60 min

a/a; Ls, wh, wkstn to pkst, some cky, ns, n/o 1 pc Dolo, brn, dse, sm vg w oil stn (sluff?)

3450 Dolo, wh, mxl, nvp, ns; 1 pc Dolo, wh, mxl, hvy blk oil stn on edge, nsfo, n/o 3461 20 min

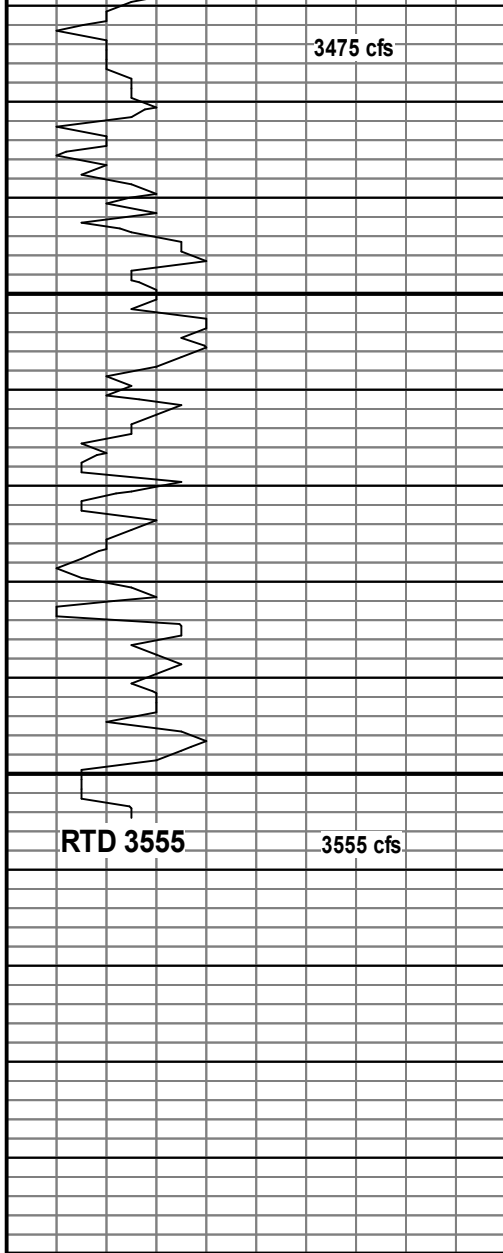
Dolo, crm, f-mxl, tight, sct'd fr-gd vy por, few rx w xl growth on frac face, spt'd surf stn, hvy blk oil stn on edge of some rx. L-fr sfo in few rx. mst

MudCo 3291
Wt. 9.15
Vis 48
LCM 1.5#
Chlr 1700

MudCo 3465
Wt. 9.4
Vis 64
LCM 3#
Chlr 1700

Dolo, a/a, few rx w spt'y gd vy por, hvy blk oil stn, mxl in vgs, L-fr sfo wh bxn, low rep, lt odor, mst barren 3465

1000



3500

3550

00

barren 3465 30 min

Dolo, wh, m-lg xls, fr-gd ixl por, fr-L gd sfo, sct'd gd vg por, sat'd stn, fr-L gd odor 3475

Dolo, wh, m-lg xls, fr-gd ixl por, fr-gd sfo, sat'd stn, poss v sl dec in odor, gd rep 3475 20 min

a/a, sl dec in show rx 40 min

Dolo, wh, mxl, fr-gd ixl por, gd vg por, sat'd stn, fr-L gd sfo, sl decr in odor, incr in barren; Sh, gry-grn 3475 60 min

Dolo, wh, decr in odor, decr in ixl por, sct'd gd vg por, fr-gd sfo, many rx tight, dense, fr odor, incr in barren rx 3490

Dolo, tan, f-mxl, tight, dse, pr-sl ixl por, r pc w fr vg por, sl-fr sfo in few rx, hvy blk oil stn, incr barren; washed white, soft wh chalk, wk-lt odor 3500

Dolo, crm-tan, fxl, pr vis por, sct'd sl surf stn, nsfo, gil stn?, mst barren, no odor 3510

a/a to Dolo, tan, cherty, nvp, r qtz xl, nsfo, gil stn, n/o 3520

a/a

Dolo, wh-crm, fxl to few lg xl, spt'd surf stn, gil stn to few pc w v sl show tarry oil, n/o, pr vis por, mst barren 3540

Dolo, crm, f-fmxl, nvp, ns, n/o

Strap 3.16' short to Bd 3465

3480 Incr. in odor, Dolo, wh, m-lg xl, good to vy gd ixl por, sct'd good vg por, good sfo, good rep, good odor; sh, mrn, gry. Free oil on top of smpl cup

qtz

Vis 69
Wt 9.4



DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Trembley

Zerger A #2

21-8s-19s Rooks,KS

Start Date: 2013.09.16 @ 08:05:00

End Date: 2013.09.16 @ 12:05:00

Job Ticket #: 54811 DST #: 1

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

Printed: 2013.09.17 @ 15:06:56



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54811

DST#: 1

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 08:05:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 09:40:00

Tester: Ray Schwager

Time Test Ended: 12:05:00

Unit No: 70

Interval: 3418.00 ft (KB) To 3465.00 ft (KB) (TVD)

Reference Elevations: 2013.00 ft (KB)

Total Depth: 3465.00 ft (KB) (TVD)

2006.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8369 Inside

Press @ Run Depth: psig @ 3427.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.16

End Date: 2013.09.16

Last Calib.: 2013.09.16

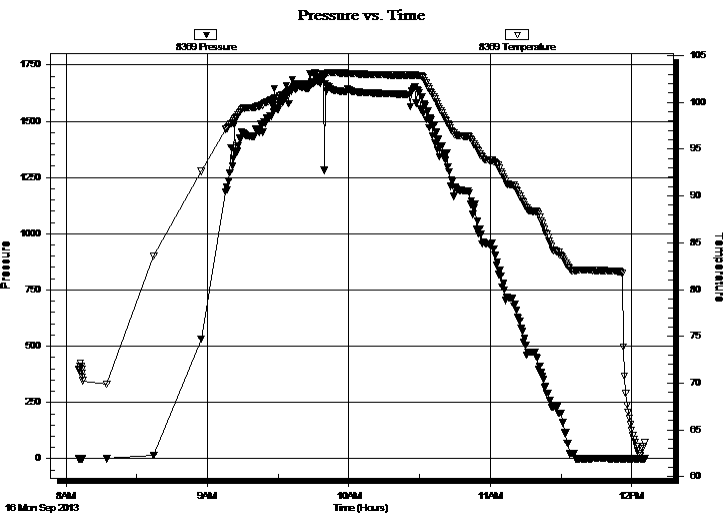
Start Time: 08:05:20

End Time: 12:05:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-opened tool, no packer seat, set twice
Misrun



PRESSURE SUMMARY

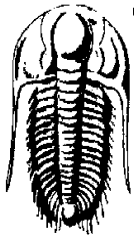
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Mud	1.40

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc

PO Box 458
Hays KS 67601

ATTN: Rod Trembley

21-8s-19s Rooks, KS

Zerger A #2

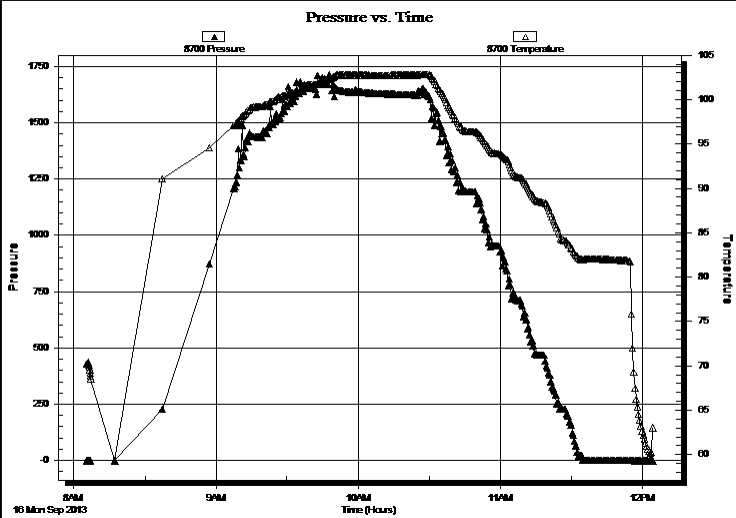
Job Ticket: 54811 **DST#: 1**
Test Start: 2013.09.16 @ 08:05:00

GENERAL INFORMATION:

Formation: Arbuckle			
Deviated: No Whipstock:	ft (KB)	Test Type:	Conventional Bottom Hole (Initial)
Time Tool Opened: 09:40:00		Tester:	Ray Schwager
Time Test Ended: 12:05:00		Unit No:	70
Interval: 3418.00 ft (KB) To 3465.00 ft (KB) (TVD)		Reference Elevations:	2013.00 ft (KB)
Total Depth: 3465.00 ft (KB) (TVD)			2006.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF:	7.00 ft

Serial #: 8700	Outside			
Press @ Run Depth: psig @	3427.00 ft (KB)	Capacity:	8000.00 psig	
Start Date: 2013.09.16	End Date: 2013.09.16	Last Calib.:	2013.09.16	
Start Time: 08:05:20	End Time: 12:04:30	Time On Btm:		
		Time Off Btm:		

TEST COMMENT: IFP-opened tool, no packer seat , set twice
Misrun



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Mud	1.40

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54811

DST#: 1

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 08:05:00

Tool Information

Drill Pipe:	Length: 3397.00 ft	Diameter: 3.80 inches	Volume: 47.65 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: 47.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3418.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3391.00	
Shut In Tool	5.00			3396.00	
Hydraulic tool	5.00			3401.00	
Jars	5.00			3406.00	
Safety Joint	2.00			3408.00	
Packer	5.00			3413.00	28.00 Bottom Of Top Packer
Packer	5.00			3418.00	
Stubb	1.00			3419.00	
Perforations	8.00			3427.00	
Recorder	0.00	8369	Inside	3427.00	
Recorder	0.00	8700	Outside	3427.00	
Blank Spacing	33.00			3460.00	
Bullnose	5.00			3465.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54811

DST#: 1

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 08:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	Mud	1.403

Total Length: 100.00 ft Total Volume: 1.403 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

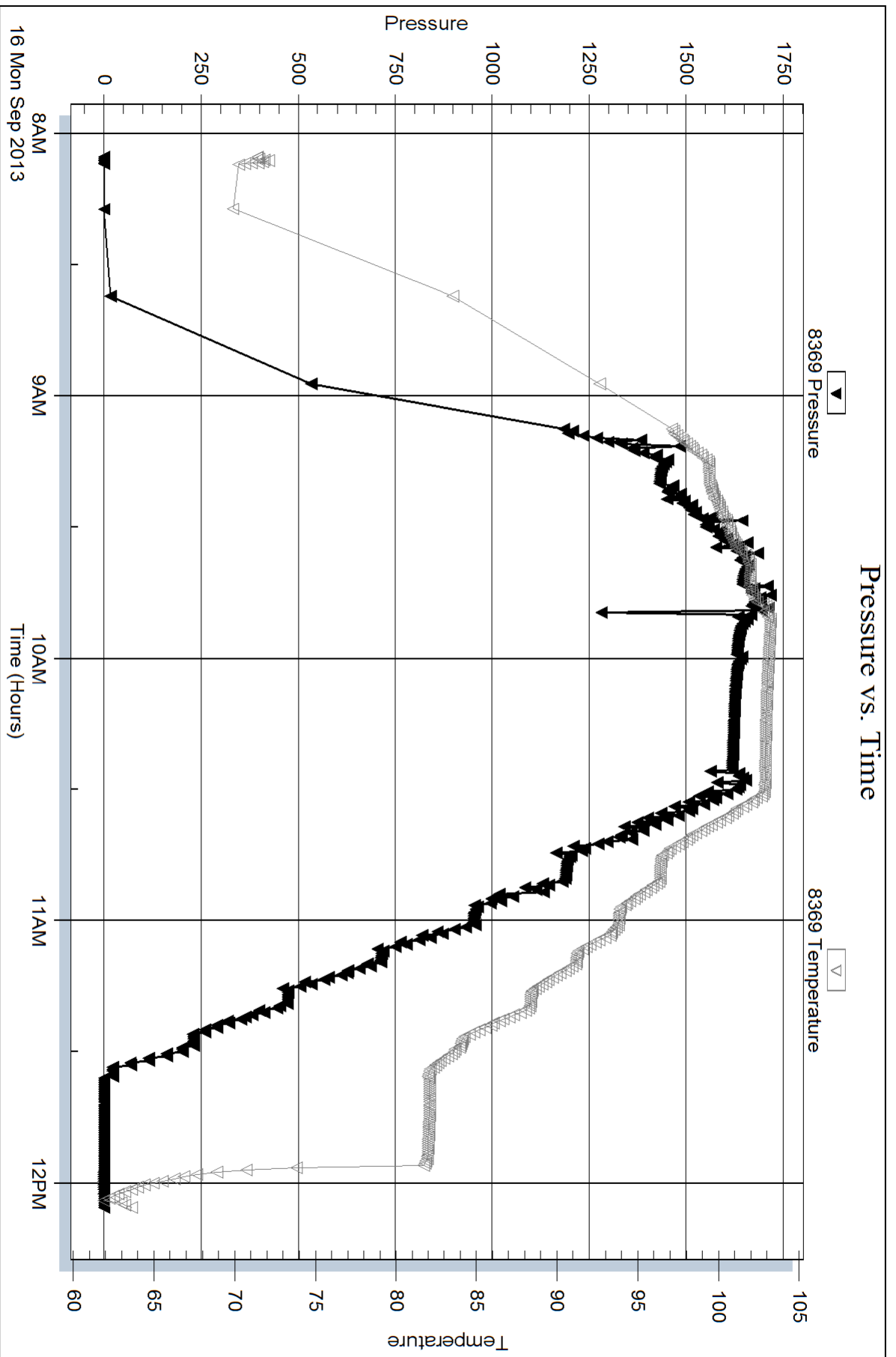
Serial #: 8369

Inside

Tengasco Inc

Zerger A #2

DST Test Number: 1

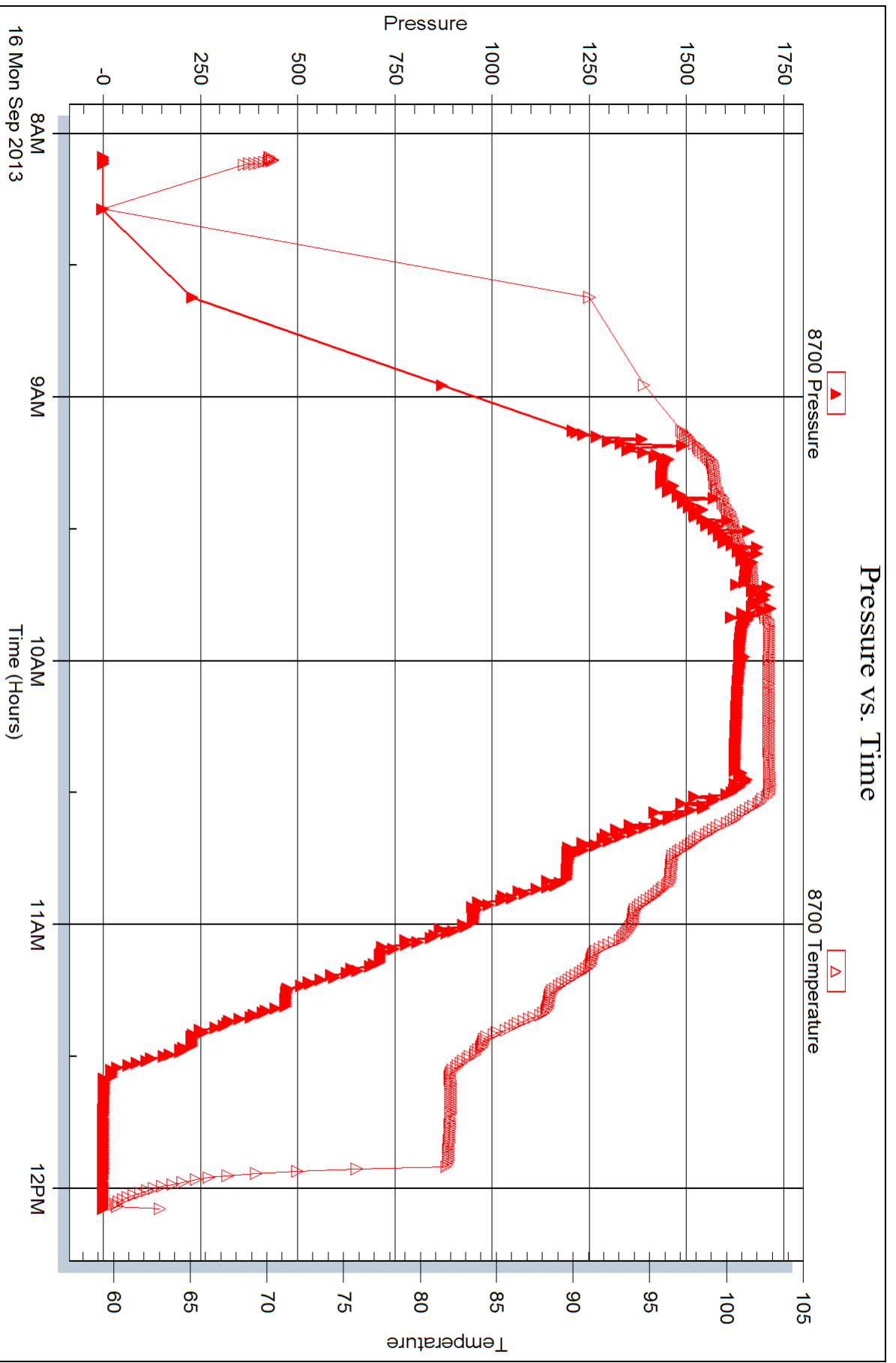


Serial #: 8700

Outside Tengasco Inc

Zerger A #2

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Trembley

Zerger A #2

21-8s-19s Rooks,KS

Start Date: 2013.09.16 @ 12:35:20

End Date: 2013.09.16 @ 18:04:59

Job Ticket #: 54812 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.17 @ 15:06:29



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc
 PO Box 458
 Hays KS 67601
 ATTN: Rod Trembley

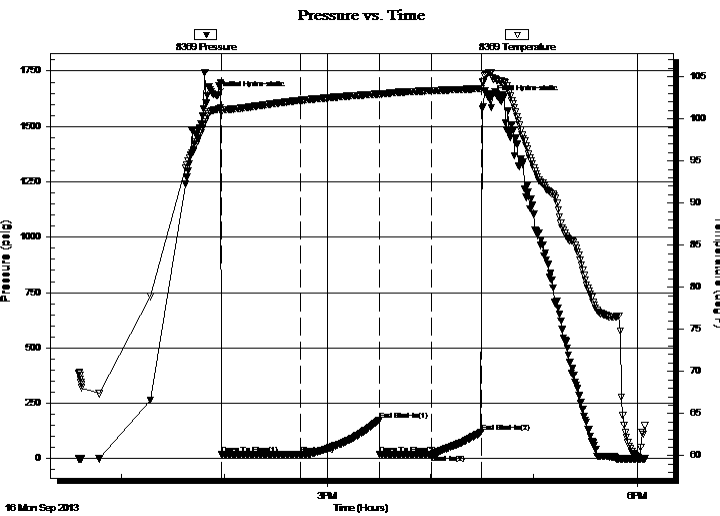
21-8s-19s Rooks, KS
Zerger A #2
 Job Ticket: 54812 **DST#: 2**
 Test Start: 2013.09.16 @ 12:35:20

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:58:30
 Time Test Ended: 18:04:59
 Interval: **3410.00 ft (KB) To 3465.00 ft (KB) (TVD)**
 Total Depth: 3465.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 2013.00 ft (KB)
 2006.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8369 Inside
 Press @ Run Depth: 21.00 psig @ 3411.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.16 End Date: 2013.09.16 Last Calib.: 2013.09.16
 Start Time: 12:35:20 End Time: 18:04:59 Time On Btm: 2013.09.16 @ 13:55:30
 Time Off Btm: 2013.09.16 @ 16:34:30

TEST COMMENT: 45-IFP-w k bl thru-out 1/4" to surface bl
 45-ISIP-no bl
 30-FFP-no bl
 30-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1641.03	101.08	Initial Hydro-static
3	18.59	100.75	Open To Flow (1)
49	19.55	102.19	Shut-In(1)
95	172.91	102.96	End Shut-In(1)
95	20.64	102.92	Open To Flow (2)
126	21.00	103.35	Shut-In(2)
154	119.93	103.60	End Shut-In(2)
159	1622.79	105.52	Final Hydro-static

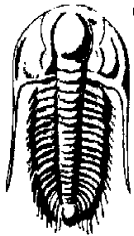
Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5% O95%M	0.07

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54812

DST#: 2

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 12:35:20

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:58:30

Time Test Ended: 18:04:59

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3410.00 ft (KB) To 3465.00 ft (KB) (TVD)

Total Depth: 3465.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2013.00 ft (KB)

2006.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8700 Outside

Press @ RunDepth: psig @ 3411.00 ft (KB)

Start Date: 2013.09.16

End Date: 2013.09.16

Capacity: 8000.00 psig

Last Calib.: 2013.09.16

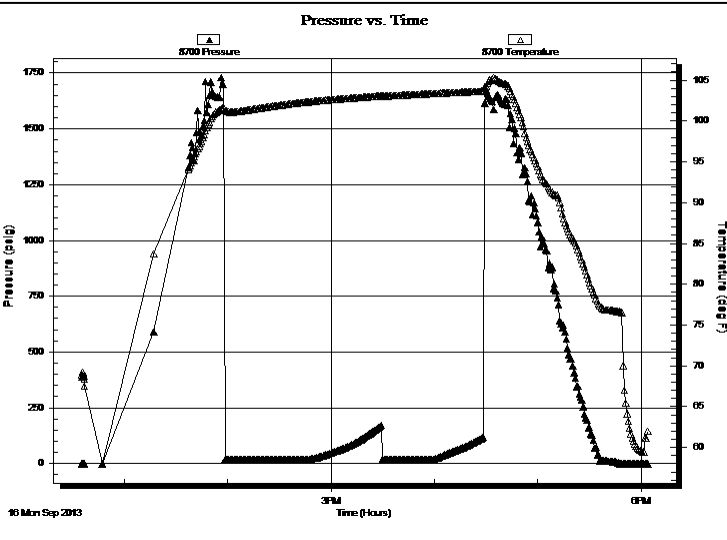
Start Time: 12:35:13

End Time: 18:03:37

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IFP-w k bl thru-out 1/4" to surface bl
45-ISIP-no bl
30-FFP-no bl
30-FSIP-no bl



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5% O95%M	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54812

DST#: 2

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 12:35:20

Tool Information

Drill Pipe:	Length: 3399.00 ft	Diameter: 3.80 inches	Volume: 47.68 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: 47.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3410.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3383.00	
Shut In Tool	5.00			3388.00	
Hydraulic tool	5.00			3393.00	
Jars	5.00			3398.00	
Safety Joint	2.00			3400.00	
Packer	5.00			3405.00	28.00 Bottom Of Top Packer
Packer	5.00			3410.00	
Stubb	1.00			3411.00	
Recorder	0.00	8369	Inside	3411.00	
Recorder	0.00	8700	Outside	3411.00	
Blank Spacing	33.00			3444.00	
Perforations	18.00			3462.00	
Bullnose	3.00			3465.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54812

DST#: 2

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 12:35:20

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 5%O95%M	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

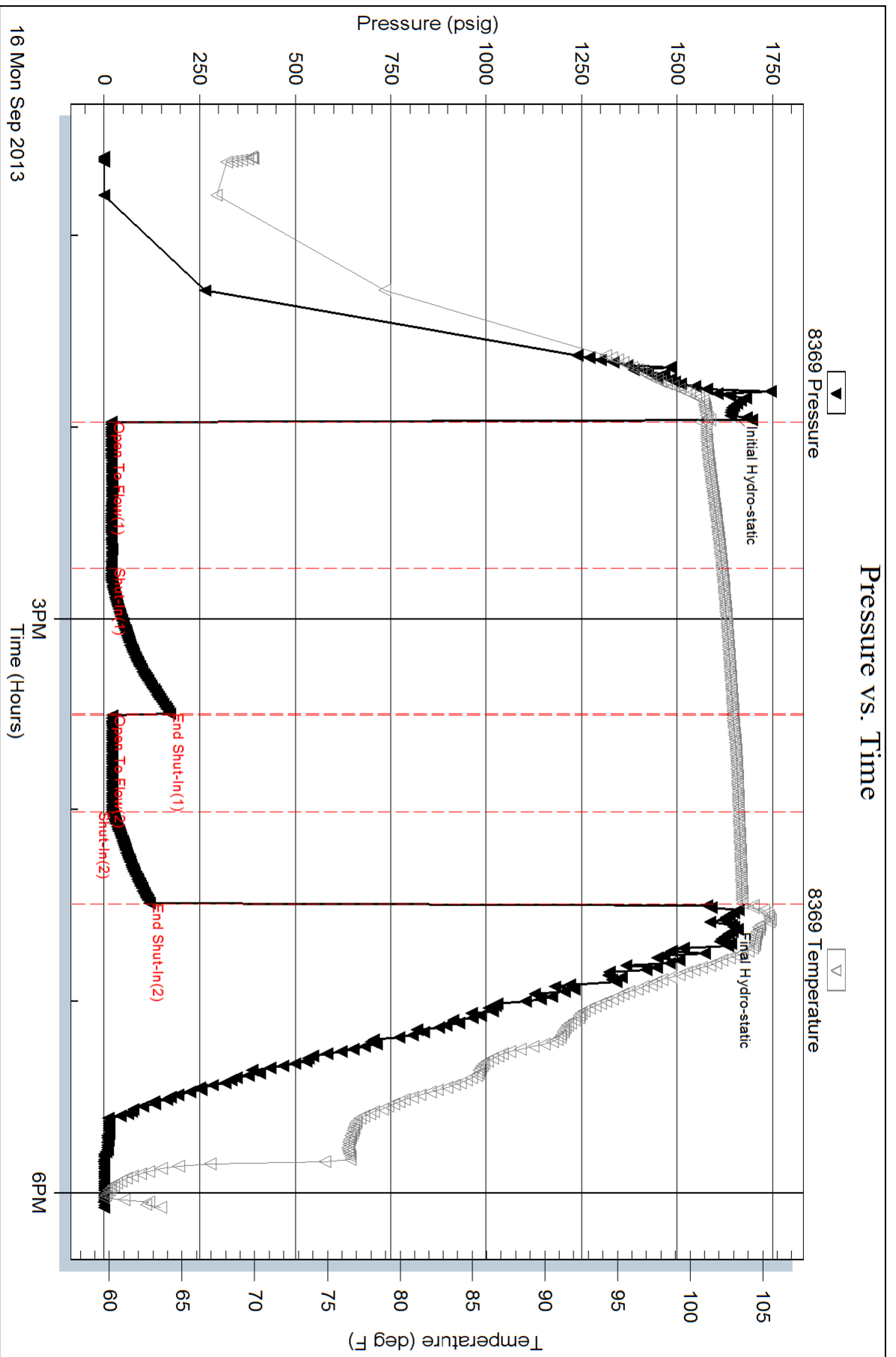
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

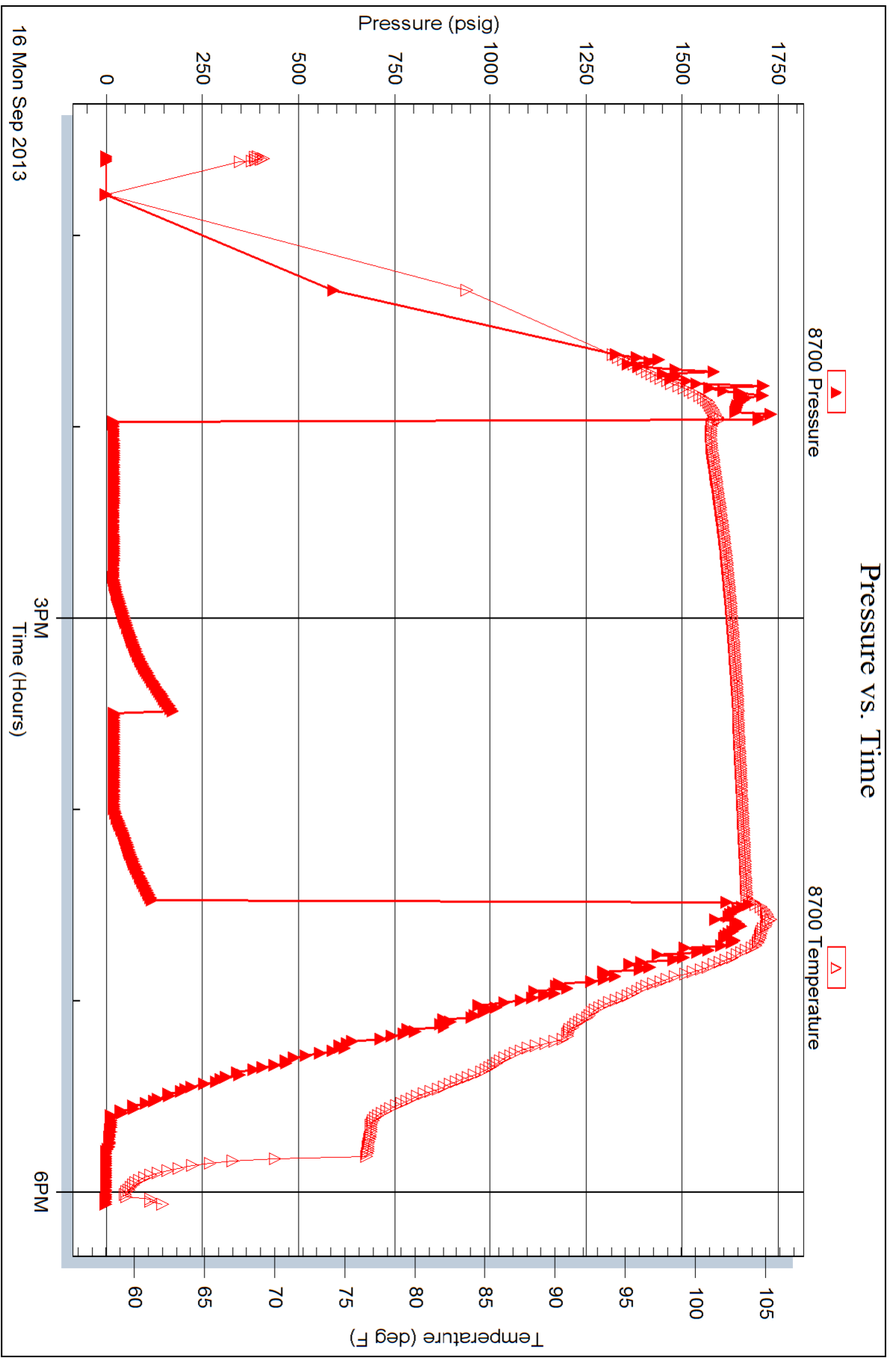


Serial #: 8700

Outside Tengasco Inc

Zerger A #2

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 54812

Printed: 2013.09.17 @ 15:06:30



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54811

Well Name & No. Zergee A-2 Test No. 1 Date 9-16-13
 Company Tengasco Inc Elevation 2013 KB 2006 GL
 Address 1327 Moose Rd, PO Box 458 Hays, Ks 67601
 Co. Rep / Geo. M. Ke Bair Rig Am Eagle rig 2
 Location: Sec. 21 Twp. 8^s Rge. 19^w Co. Rocko State Ks

Interval Tested 3418-3465 Zone Tested Arbuckle
 Anchor Length 47 Drill Pipe Run 3397 Mud Wt. 9.1
 Top Packer Depth 3413 Drill Collars Run - Vis 48
 Bottom Packer Depth 3418 Wt. Pipe Run - WL 7.6
 Total Depth 3465 Chlorides 1700 ppm System LCM 1 1/2#
 Blow Description IFP - opened TOOL, NO PACKERSPAT, SET TWICE
ESIP -

Rec	Feet of	%gas	%oil	%water	%mud
<u>100</u>	<u>Mud</u>				
	<u>MISRUN</u>				

Rec Total 100 BHT _____ Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test 1150 _____ T-On Location 0735
 (B) First Initial Flow _____ Jars 250 _____ T-Started 0805
 (C) First Final Flow _____ Safety Joint 75 _____ T-Open 0940
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled 0950
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 1205
 (F) Second Final Flow _____ Mileage 86 RT 133.30 _____ 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 1608.30
 Final Flow _____ Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ Sub Total 1608.30

Approved By _____ Our Representative Ray Schwann Thank you

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. 54812

Well Name & No. Zerger A-2 Test No. 2 Date 9-16-13
 Company Tengasco Inc Elevation 2013 KB 2006 GL
 Address 1327 Noose Rd. P.O Box 458 Hays, Ks 67601
 Co. Rep / Geo. MIKE BAIR Rig Am Eagle 1192
 Location: Sec. 21 Twp. 8^s Rge. 19^w Co. Rooks State Ks

Interval Tested 3410-3465 Zone Tested Arbuckle
 Anchor Length 55 Drill Pipe Run 3399 Mud Wt. 9.1
 Top Packer Depth 3405 Drill Collars Run - Vis 64
 Bottom Packer Depth 3410 Wt. Pipe Run - WL 7.6
 Total Depth 3465 Chlorides 1700 ppm System LCM 1 1/2 #

Blow Description IFF - Weak Blow thru-out 1/4" To surface blow
TSIP - NO Blow
FFP - NO Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50CM</u>	<u>5</u>		<u>95</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 103 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1641</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>1205</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>1235</u>
(C) First Final Flow <u>19</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1355</u>
(D) Initial Shut-In <u>172</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1625</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1804</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage 266.60	Comments <u>Loaded Tool 9-17-13</u>
(G) Final Shut-In <u>119</u>	<input type="checkbox"/> Sampler	<u>miles 86 RT</u>
(H) Final Hydrostatic <u>1622</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 45
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 30

Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1741.60
 MP/DST Disc't

Sub Total 1741.60

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

ALLIED OIL & GAS SERVICES, LLC 054785

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Russell KS

DATE <u>9-12-13</u>	SEC. <u>21</u>	TWP. <u>8</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>12:30 AM</u>	JOB FINISH <u>1:00 AM</u>
LEASE <u>Zerger</u>	WELL# <u>A-2</u>	LOCATION <u>Zurich KS 7 3/4 N Winto</u>			COUNTY <u>Roots</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR American Eagle #2
 TYPE OF JOB surface
 HOLE SIZE 12 1/4 T.D. 262
 CASING SIZE 8 7/8 23# DEPTH 261
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT 15
 CEMENT LEFT IN CSG. 15'
 PERFS.
 DISPLACEMENT 15 1/2 bbl

OWNER _____

CEMENT
 AMOUNT ORDERED 170 com 390cc 290gel

EQUIPMENT
 PUMP TRUCK CEMENTER Robert Y
 # 417 HELPER Woody O
 BULK TRUCK
 # 410 DRIVER Joe G
 BULK TRUCK
 # DRIVER

COMMON 170 @ 17.90 3043.00
 POZMIX @
 GEL 3 @ 23.40 70.20
 CHLORIDE 6 @ 64.00 384.00
 ASC @

HANDLING 173.51 frs @ 2.48 430.31
 MILEAGE 326.92 t/m @ 2.60 849.73
 TOTAL 4777.24

REMARKS:

run bits of 8 7/8 23# csg receive
circulation mix 170 com 390cc 290gel
displace 15 1/2 bbl shut in
Cement did circulate to
surface
Thank you

SERVICE

DEPTH OF JOB 262
 PUMP TRUCK CHARGE 1512.25
 EXTRA FOOTAGE @
 MILEAGE 39 HVMI @ 7.70 300.30
 MANIFOLD @
39-LVMI @ 4.40 171.60
 @

TOTAL 1984.15

CHARGE TO: Tengasco

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

@
 @
 @
 @
 @

TOTAL _____

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 6761.39

PRINTED NAME _____

DISCOUNT 1690.35 IF PAID IN 30 DAYS

SIGNATURE Keith Karlen

Net 5071.04

ALLIED OIL & GAS SERVICES, LLC 054866

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Russells

DATE <u>9.17.13</u>	SEC <u>21</u>	TWP <u>8</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>10:00 am</u>	JOB FINISH <u>11:00 am</u>
LEASE <u>Zenger</u>	WELL# <u>A-2</u>	LOCATION <u>Zurich, KS</u>	COUNTY <u>Wood</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one) <u>new</u>			<u>north 7 3/4 mile west 1st</u>				

CONTRACTOR Amerson Eng OWNER _____

TYPE OF JOB Production

HOLE SIZE 7 7/8 T.D. _____ CEMENT AMOUNT ORDERED 150 sk ASC

CASING SIZE 5 1/2 cas DEPTH 3555.81

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____ COMMON ~~48~~ @ _____

MEAS. LINE _____ SHOE JOINT 42' POZMIX @ _____

CEMENT LEFT IN CSG. 42 GEL @ _____

PERFS. _____ CHLORIDE @ _____

DISPLACEMENT 85.73 bbl @ 30 ASC @ 20.9 \$ 3,762.00

EQUIPMENT

PUMP TRUCK CEMENTER Tony P # 409 HELPER Dathan D mud flush

BULK TRUCK # 410 DRIVER Joe G. 12 1/2 @ 58.7 \$ 704.40

BULK TRUCK # _____ DRIVER _____ @ _____

BULK TRUCK # _____ DRIVER _____ @ _____

HANDLING 215.42 Ft @ 2.48 \$ 534.24

MILEAGE 378.57 m @ 2.60 \$ 984.59

TOTAL \$ 5,985.23

REMARKS:

- * Circulated Hole - Dropped ball - Circulated 1 hr.
- * Pumped 12 bbl mud/flush
- * Plugged RATHOLE @ 30SK = 5.06
- * Ran 150SK asc @ 30.98
- * Ran 5 1/2 later down @ 85.73 bbl @ 30 = Landed @ 1500psi.

SERVICE

DEPTH OF JOB 3555.81'

PUMP TRUCK CHARGE \$ 2443.75

EXTRA FOOTAGE @ _____

MILEAGE Heavy 39m @ 7.70 \$ 300.30

MANIFOLD Light 39m @ 4.40 \$ 171.60

TOTAL \$ 2,915.65

CHARGE TO: TENGAS CO

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

1x 5 1/2 Floe Shoe @ - \$ 339.30

1x 5 1/2 Latch Down @ - \$ 378.75

1x 5 1/2 Port Collar @ - \$ 1,831.25

2x 5 1/2 BASKET @ 159.40 \$ 318.80

5x 5 1/2 control/rov @ 28.40 \$ 142.00

TOTAL \$ 3,030.10

SALES TAX (if Any) _____

TOTAL CHARGES \$ 11,930.98

DISCOUNT \$ 4,786.18 IF PAID IN 30 DAYS

Net 10,150.80

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 _____

SIGNATURE Keith Karlin

ALLIED OIL & GAS SERVICES, LLC 054874

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Russell Ks

DATE <u>9.26.13</u>	SEC <u>4</u>	TWP. <u>21</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>1130 am</u>	JOB FINISH <u>1200 am</u>
LEASE <u>2091</u>	WELL# <u>A-2</u>	LOCATION <u>Zurich, Ks</u>			COUNTY <u>Reels</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)		<u>734 n w into.</u>					

CONTRACTOR <u>Fischer Well Service</u>	OWNER
TYPE OF JOB <u>Port Cement</u>	
HOLE SIZE _____ T.D. _____	CEMENT
CASING SIZE <u>5 1/2</u> DEPTH <u>1960'</u>	AMOUNT ORDERED <u>300 sk</u>
TUBING SIZE <u>2 7/8</u> DEPTH _____	<u>6 3/4 41.92</u>
DRILL PIPE _____ DEPTH _____	<u>2nd stand side.</u>
TOOL _____ DEPTH _____	
PRES. MAX _____ MINIMUM _____	COMMON <u>12.9 sk @ 17.9 \$2,309.10</u>
MEAS. LINE _____ SHOE JOINT _____	POZMIX <u>86 sk @ 9.35 \$ 804.10</u>
CEMENT LEFT IN CSG. _____	GEL <u>8.6 sk @ 23.4 \$ 201.24</u>
PERFS. _____	CHLORIDE _____ @ _____
DISPLACEMENT <u>8.53 sk H₂O</u>	ASC _____ @ _____

EQUIPMENT	@ _____
PUMP TRUCK CEMENTER <u>Tony P.</u>	<u>2 Sk SAND - @ 14.40 \$28.80</u>
# <u>409</u> HELPER <u>Nathan D</u>	@ _____
BULK TRUCK	@ _____
# <u>787</u> DRIVER <u>Jesse C.</u>	@ _____
BULK TRUCK	@ _____
# _____ DRIVER _____	@ _____
	HANDLING <u>319.20 \$ 1/2 @ 248 \$ 796.62</u>
	MILEAGE <u>500.07 1/2 @ 2.60 \$ 1,300.24</u>
	TOTAL <u>\$ 5,435.10</u>

REMARKS:

- * Tested Plug @ 700 psi.
- * Circulated Plug @ 4 1/2 hrs
- * Ran 215 cc H₂O @ 235.32 gpm cement to surface.
- * Displaced cement @ 8.53 sk H₂O cement to surface.
- * Washed around @ 20 sk H₂O

SERVICE

DEPTH OF JOB _____	@ _____
PUMP TRUCK CHARGE _____	<u>1960' @ 2,158.75</u>
EXTRA FOOTAGE _____	@ _____
MILEAGE <u>Heavy 37m</u>	<u>@ 7.70 \$ 284.70</u>
MANIFOLD <u>Light 37m</u>	<u>@ 4.40 \$ 162.80</u>
_____	@ _____
_____	@ _____

CHARGE TO: Tengasco Oil

STREET _____

CITY _____ STATE _____ ZIP _____

TOTAL \$ 2,606.45

PLUG & FLOAT EQUIPMENT

_____	@ _____
_____	@ _____
_____	@ _____
_____	@ _____
_____	@ _____

TOTAL _____

SALES TAX (If Any) _____

TOTAL CHARGES \$ 8,041.55

DISCOUNT \$ 2,010.38 IF PAID IN 30 DAYS

PRINTED NAME _____

SIGNATURE [Signature]

Net 603617

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.