



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: \_\_\_\_\_



1131583

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:  Yes  No

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

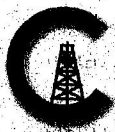
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD 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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	IA Operating, Inc.
Well Name	Jenny 33-1
Doc ID	1131583

All Electric Logs Run

Geologist's Well Report
Dual Induction Log
Micro Log
Compensated Density/Neutron Log
Sonic Log



**CONSOLIDATED**  
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

TICKET NUMBER 39198

LOCATION Oakley, KS

FOREMAN Phillips Shaw

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-7-12	3826	Jenny # 33-1	33	25	24W	Worton
CUSTOMER			TRUCK #			
I.A. Operating			405	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			460	Jeremy Y		
CITY				Jeremy S		
STATE						
ZIP CODE						

JOB TYPE	PTA	HOLE SIZE	7 7/8	HOLE DEPTH		CASING SIZE & WEIGHT	
CASING DEPTH		DRILL PIPE		TUBING		OTHER	
SLURRY WEIGHT	13.8	SLURRY VOL	1.4	WATER gal/sk		CEMENT LEFT in CASING	
DISPLACEMENT		DISPLACEMENT PSI		MIX PSI		RATE	

REMARKS: Safety meeting and rig up on Discovery drilling the plug as ordered  
 1st 25 SK @ 2025'  
 2nd 100 SK @ 1225'  
 3rd 40 SK @ 325'  
 4th 10 SK @ 40' 20 SK @ 40' per Pencil To # Hosed  
 30 SKs RH  
 15 SKs RH

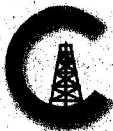
Thanks Mitch & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5405N	1	PUMP CHARGE	1325.00	1325.00
5406	75	MILEAGE	5.00	375.00
5407	9.46 Tons	Ton mileage delivery	1.67	1184.86
1131	220 SKs	60/40 placement	15.10	3322.00
1118B	756 #	Bentonite seal	.25	189.00
1107	55 #	Flased	2.82	155.10
4432	1	8 5/8" Redden Water Plug	96.00	96.00
			Subtotal	6646.96
			less 10% discount	6646.99
			Subtotal	5982.27
			SALES TAX	
			ESTIMATED TOTAL	

RAVIN 3737

AUTHORIZATION Cliff Mayfield TITLE Toolpusher DATE 12/7/12

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



**CONSOLIDATED**  
Oil Well Services, LLC

TICKET NUMBER 39194  
LOCATION Oakley KS  
FOREMAN Mike Shaw

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-1-12	3520	Jenny #33-1	33	25	24W	Merlan
CUSTOMER			US			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
I. A. Operators			357	Damon M		
			400	Mike M		
CITY		STATE	ZIP CODE			

JOB TYPE Surfice HOLE SIZE 12 1/4 HOLE DEPTH 263 CASING SIZE & WEIGHT 8 5/8" 24 #  
 CASING DEPTH 263 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.8 SLURRY VOL 1.36 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
 DISPLACEMENT 15 1/2 bbls DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting and rig upon DISCOVERY drilling #1 Circulate casing  
Mix 175 SWS Commercial with 38 calcium 28 gel displace 15 1/2 bbls water  
Shut in Cement did Circulate 5 bbls to pit

*Thanks Mike & crew*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401S	1	PUMP CHARGE	1085. <sup>00</sup>	1085. <sup>00</sup>
5406	60	MILEAGE	5. <sup>00</sup>	300. <sup>00</sup>
5407A	8.22 TONS	Ten mileage delivery	11.67	823.64
1104S	175 SWS	Common Class A Cement	17.65	3088.75
1102	493 #	Calcium Chloride	.89	438.77
1118B	329 #	Bentonite gel	.25	82.25
			Subtotal	5816.91
			1085 108 discount	581.89
			Subtotal	5239.02
			SALES TAX	
			ESTIMATED	
			TOTAL	1

AUTHORIZATION [Signature] TITLE Toolpusher DATE 12/1/12

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

# ROBERT STOLZLE

## CONSULTING PETROLEUM GEOLOGIST

6211 O. 281st ST.W. Goddard, MO 67032 - 6240 (910) 704 - 2400

APOG Corp. # 3244

### DRILLING TIME AND SAMPLE LOG

OPERATOR: **TA Operating, Inc.**

LEASE: **Jenny** WELL NO.: **33-1**

FIELD: **Wilkeat**

LOCATION: **802'FSL, 1959'FWL (approx NW SE SW)**

SEC.: **33** TWP: **25** RANGE: **24W**

COUNTY: **Norton** STATE: **KS**

API NO.: **15-137-20630-00-00**

CONTRACTOR: **Discovery Drilling, Inc, Rig #1**

COMMENCED: **December 1, 2012** COMPLETED: **12/7/12**

ROTARY TOTAL DEPTH: **3695'** LOG TOTAL DEPTH: **3700'**

GEOLOGICAL SUPERVISION FROM: **3400'** to: **T.D.**

LWD-UP DEPTH: **2906'** LWD TYPE: **Chemical Polymer**

FORMATION	SAMPLE		LOG		STRUCTURAL DEVIATION
	TOP	SESSA	TOP	SESSA	
Stone Corral Anh. 1999 (+454)			2000 (+453)		-3'
Base Anhydrite 2028 (+425)			2030 (+423)		-1'
Topaka. Em.	3233 (-780)		3234 (-781)		-8'
Heabncht shale 3408 (-955)			3410 (-957)		-7'
Toronto ls.	3437 (-984)		3441 (-988)		-8'
Lansing Group 3449 (-996)			3453 (-1000)		-8'
Lansing Zone 3478 (-1025)			3481 (-1028)		-8'
Lansing T' Zone 3584 (-1131)			3589 (-1136)		-9'
Base K3. City Gp. 3632 (-1179)			3636 (-1183)		-7'
Ragan Sandstone 3672 (-1219)			N.A.		-2'
Total Depth	3695		3700		

### ELEVATIONS

KB **2453'**  
GL **2445'**

Measurements are all from KB

### CASING RECORD

SURFACE: **858' @ 263' K.B. Circ.**

PROJECTION: **None - P.A.**

### WIRELINE SURVEYS

**NABORS - Comp.**  
**Density/Neutron,**  
**Dual Induction,**  
**Micro Electric**  
**and Sonic logs**  
**and RUN.**

LOCATION MAP	
33	
Location	
Jenny 33-1	

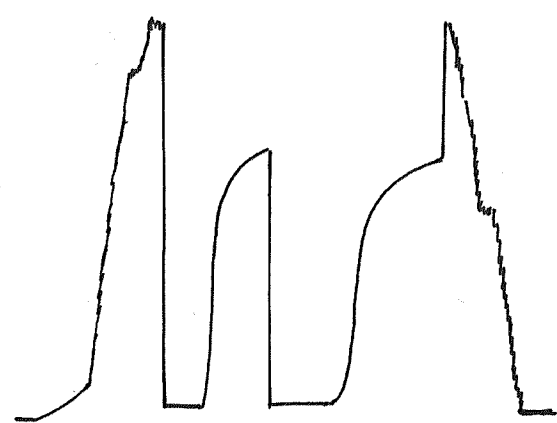
Reference Well for Structural Comparison: **J.A. Oper. Maddy #4-1, SW 1/4 T35-R24W**  
Comments and Recommendations: **Recommended Well be plugged and abandoned**

DST # 1 ZONE: Lansing 'B' & 'C' Zones  
INTERVAL: 3457'-3485'

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1689 psi	40' Gas + Oil cut Mud
2. Initial Flow: Start	0	22 psi	(5% gas, 30% oil)
3. Initial Flow: End	30	28 psi	
4. Initial Shut-in: End	60	1131 psi	Blow Desc:
5. Final Flow: Start	0	34 psi	I.F. - built to 2"
6. Final Flow: End	60	39 psi	I.S.I. - No blow
7. Final Shut-in: End	90	1072 psi	F.F. - built to 1 1/2"
8. Final Hydrostatic		1693 psi	F.S.I. - No blow

BHT: 94°F  
Rv: \_\_\_\_\_

DST # 1 8648 Chart  
Interval: 3457'-85' Depth: 3458'

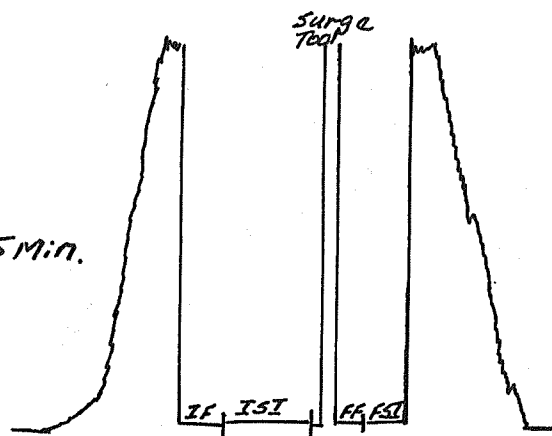


DST # 2 ZONE: Lansing 'D' & 'F' Zones  
INTERVAL: 3486'-3520'

DST # 2 8648 Chart  
Interval: 3486'-3520' Depth: N.A.

Pressures:	Time	Press.
1. Initial Hydrostatic		1716 psi
2. Initial Flow: Start	0	21 psi
3. Initial Flow: End	30	22 psi
4. Initial Shut-in: End	60	35 psi
5. Final Flow: Start	0	22 psi
6. Final Flow: End	30	25 psi
7. Final Shut-in: End	30	35 psi
8. Final Hydrostatic		1736 psi

RECOVERY  
 5' Mud  
 Note: Flushed  
 Cool in F.F., No  
 change, No problems  
 Blow Desc:  
 I.F. - Surf. blow, died 5 min.  
 I.S.I. - No blow  
 F.F. - No blow  
 F.S.I. - No blow



'D' Zone appears to be pressure depleted.

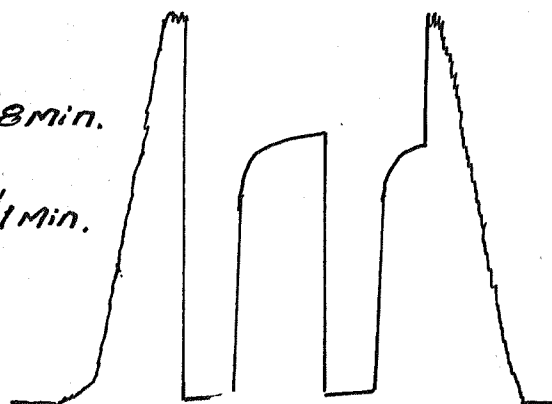
DST # 3 ZONE: LKC 'J' & 'K' Zones  
 INTERVAL: 3560'-3610'

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1771 psi	61' Mud
2. Initial Flow: Start	0	22 psi	
3. Initial Flow: End	30	41 psi	Blow Desc:
4. Initial Shut-in: End	60	1227 psi	I.F. - Surf. blow, died 8 min.
5. Final Flow: Start	0	44 psi	I.S.I. - No blow
6. Final Flow: End	30	49 psi	F.F. - Surf. blow, died 1 min.
7. Final Shut-in: End	30	1170 psi	F.S.I. - No blow
8. Final Hydrostatic		1772 psi	

BHT: 92°F  
 Rv: \_\_\_\_\_

DST # 3  
 Interval 3560'-3610'

8648 Chart  
 Depth: 3561



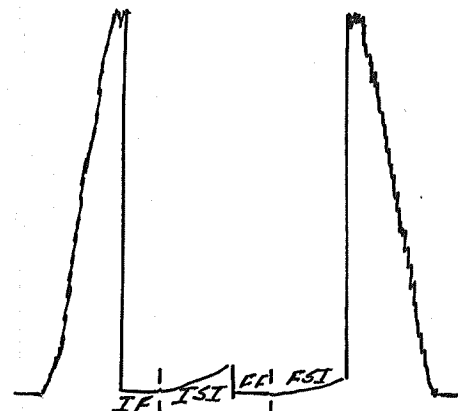
DST # 4 ZONE: Reagan Sandstone  
 INTERVAL: 3630'-3695'

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1814 psi	5' Mud
2. Initial Flow: Start	0	24 psi	
3. Initial Flow: End	30	26 psi	
4. Initial Shut-in: End	60	162 psi	
5. Final Flow: Start	0	28 psi	
6. Final Flow: End	30	88 psi	
7. Final Shut-in: End	60	88 psi	
8. Final Hydrostatic		1790 psi	

BHT: 93°F  
 Rv: \_\_\_\_\_

DST # 4  
 Interval: 3630'-95'

8648 Chart  
 Depth: 3631'



ABBREVIATIONS USED:

ROCK TYPES:

Lo - Limestone

FABRIC:

Fn. grn - finegrained

MODIFIERS:

gd - Good





Base of  
Anhydrite  
(+425')

2050

Start 1<sup>st</sup> drilling time  
at 3200'

3200

Topeka Fm.  
(-780')

3250

3300



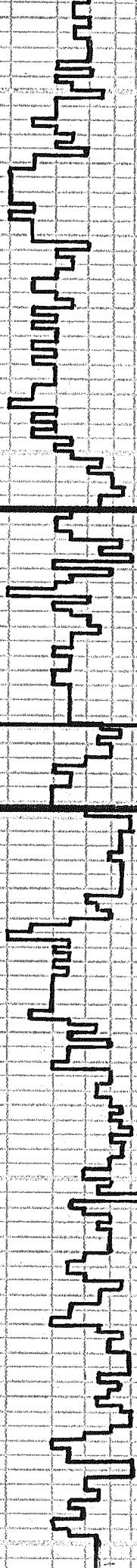
3350

3400

3450

3500

3550



start 10ft. wet and dry  
Samples at 3400'

Mudco / service Mud  
Mud Check @ 3398'  
M.W. 9.0 lb./gal.  
Vis. 54 sec. / qt.  
W.L. 6.4 ml. / 30 min.  
chl. 1,000 ppm.  
Solids 4.9 %  
LCM. 2 lbs. / bbl.

Ls. crm. - lt. gry., hrd., dns., VEG  
mxln., mic., tr. rex. fd., tr.  
foss., abund. sh. sand.  
NO NSFOC

Ls. A.A., dec. sandy. NO NSFOC

Sh. dk. gry. - blk., sft. - m. sft., dns.  
earthy, carb.

Sh. A.A.

Ls. crm. - tan, hrd., dns., occ. foss.  
occ. sh. sand. 1 prop. sft. NO NSFOC  
tr. ss. gry., tan, VEG, sh. l., NO NSFOC  
occ. Ls. pet. - A.A. NO NSFOC

Sh. gry. - rd. brn., sft. clayey.  
m. hrd. - earthy. 10cc. sandy.  
silty

Sh. A.A., tr. v. sandy. - sh. l. ss. NO

Ls. crm., hrd., dns., VEG - mxln.  
mic., tr. foss. NO NSFOC

Ls. crm. - wh., hrd., dns., VEG - mxln. Toronto Ls.  
mic., occ. foss. &ool. tr. pr.  
int. part. Vug.  $\phi$  NSFOC

Ls. crm., hrd., dns., VEG - mxln.  
mic., tr. chiky., tr. sh. sand.  
tr.ool. NO NSFOC

Ls. crm. - lt. gry., hrd., dns., VEG -  
mxln., mic. occ. sandy. v. sandy -  
CALC. ss. gry., m. hrd., dns., VEG  
w. cm. to. w. sft. NO NSFOC

Ls. crm., hrd. - m. hrd., VEG - mxln.  
mic. occ. foss. &ool. w. l. qd. -  
ex. Vug.  $\phi$ . 1 some moldic. tr. qd.  
stn. qd. odor., No F.P. qd. cut. sft.

Ls. A.A., 1-2 pc. blk. oil. tr. F.O.  
poss. 1-2 wk. v. stn., less  $\phi$

Sh. rd. brn. - gry. gn., m. sft. - m. hrd.  
dns., earthy

Ls. crm. - tan, hrd., dns., VEG mxln., foss.  
&ool. w. l. qd. - ex. int. part. Vug.  $\phi$   
occ. moldic. qd. brn. stn., dec. blk.  
o.g., SFD, wk. o.d.p., qd. cut. sft.

Ls. A.A. crm. - gry. tr. p. + show A.A.  
Sh. gry. gn., m. sft., dns., sandy  
w. rd. brn., sandy. - silty, earthy

Ls. crm. - wh., hrd., dns., VEG -  
mxln., mic. 10cc. chiky, tr. foss.  
ool. w. l. 3pc. pr. int. part. Vug.  $\phi$   
dk. brn. - blk. + dd. stn. v. v. wk. show

Sh. rd. brn. - gry., m. hrd., dns., occ.  
sandy, earthy

Ls. wh. - crm. - lt. gry., hrd. - m. sft.  
&chiky, ool., mxln. - mxln. NO NSFOC

Ls. crm. - gry., hrd., dns., mxln. -  
mxln., tr. chiky., occ. foss. &  
ool. NO NSFOC

Sh. rd. brn. - gry. gn., m. sft., earthy

Sh. rd. brn. - gry. gn., m. hrd. -  
m. sft., dns., earthy. - hackly

Ls. crm. - lt. gry., hrd., dns., VEG  
mxln., mic., occ. sft., chiky,  
occ. foss. &ool. NO NSFOC

Haabner Sh.  
(-955')

Lansing Gp.  
(-996')

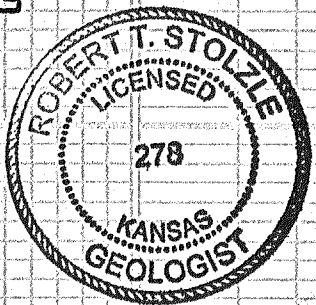
DST# 13457-BS'  
Rec. 40' G + 0 CM  
30% oil  
daviation 10

Good Show

Good Show

DST# 2 3486-3520'  
Rec. 5' Mud  
(Press. Depleted)

Mud Check  
@ 3485'  
M.W. 8.9  
Vis. 60  
W.L. 6.8  
chl. 1200  
Solids 4.3 %  
LCM 2#



Ls: A.A., mod. & foss. NQNSFOC

Sh: rd. brn., sft. & clayey - m. hrd.  
earthly, occ. silty.

DST# 3 3560-3610  
Rec. 61' Mud

Sh: rd. brn - gry., sft. & clayey -  
m. hrd. dms., occ. silty,  
earthly

Ls: crm., hrd., dms. VEG - mxln, mic.  
occ.ool. & foss. w/ fr. - pr. fr.  
VEG. Vug. & chert part. fl. fr. brn.  
stn. ifr. odor., gd. cut & fl., 2 perm.

Weak Show

Ls: A.A., tr. pr. & w/ show A.A.  
Ss: prn., m. hrd. - m. sft., occ. fr. fr.  
fr. - VEG, mod. w. sft., w. contd.  
dk. oil stn., gd. odor., 1 perm.

Weak Show

Ls: wh. - crm., hrd., dms., VEG xln.  
pyr., occ. pr. fr. Vug. & fr. lg. vugs  
fr. brn. stn., gd. cut & fl., No F.O.  
wk. odor., 2 perm.

Weak Show

Ls: crm. - tan, hrd., dms., fr. xln - mxln.  
mic., tr. chik., foss., NQNSFOC  
Sh: rd. brn - gry., mod., m. sft., dms.  
earthly & clayey

Mud Check @ 3610'  
M.W. 9.0 Solids 4.9  
Vis. 62 LCM 2  
w.l. 6.4  
chl. 1,300

Sh: A.A.  
Ls: crm. - gry., hrd., dms., VEG - mxln  
mic., tr. chik., foss., ABUN.  
rd. sh. stnd. NQNSFOC  
Ls: A.A. NQNSFOC

Base of  
Kansas City  
Group (-1179')

Sh: rd. - rd. brn., sft. - v. sft.,  
earthly - clayey  
Sh: rd. - rd. brn., sft., clayey -  
earthly

Ls: crm. - H. gry., hrd., dms., VEG -  
mxln, mic., rare foss., tr.  
gl. mic., tr. sh. stnd. NQNSFOC

DST# 4 3630-95'  
Rec. 5' Mud

Sh: rd. brn., sft. & clayey - earthly

Ls: crm. - gry., hrd., dms., VEG xln.  
tr. foss. NQNSFOC

Ss: gry., hrd. - m. hrd., dms., med.  
v. fr. grnd., pr. sft., ang. - mod.  
fr. fr. mic. w. contd., calc. cont.  
Bk. dd. stn., No odor. No Vis. &  
wk. cut & fl., No F.O.

Reagan Ss.  
v. Weak Show  
(-1219')

Ss: wh. - rd. brn., hrd. - m. hrd., pr.  
sft., med. - fr. grnd., w. rnd. sh.  
stnd., calc. cont. No Vis. NQNSFOC  
Cgl: sh. rd. - ylw. v. sft., clayey, tr.  
Ss: AA, tr. Ls. pebb.

Deviation 1 1/4°

D.T.D. 3695'

L.T.D. 3700'

Robert Stolzie  
12/7/12

3600

4

3650

3700



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

I.A. Operating, Inc.  
I.A. Operating, Inc.  
9915 W 21st St. STE B  
Wichita KS, 67205  
ATTN: Bob Stolzle

**SW 33 - 2S - 24W**

**Jenny # 33-1**

Job Ticket: 51382

**DST#: 1**

Test Start: 2012.12.04 @ 00:17:00

## GENERAL INFORMATION:

Formation: **Lansing "B-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:18:15

Time Test Ended: 07:54:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 43

**Interval: 3457.00 ft (KB) To 3485.00 ft (KB) (TVD)**

Reference Elevations: 2453.00 ft (KB)

Total Depth: 3485.00 ft (KB) (TVD)

2448.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8648**

**Inside**

Press @ Run Depth: 38.79 psig @ 3458.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.12.04

End Date:

2012.12.04

Last Calib.:

2012.12.05

Start Time: 00:17:05

End Time:

07:53:59

Time On Btm:

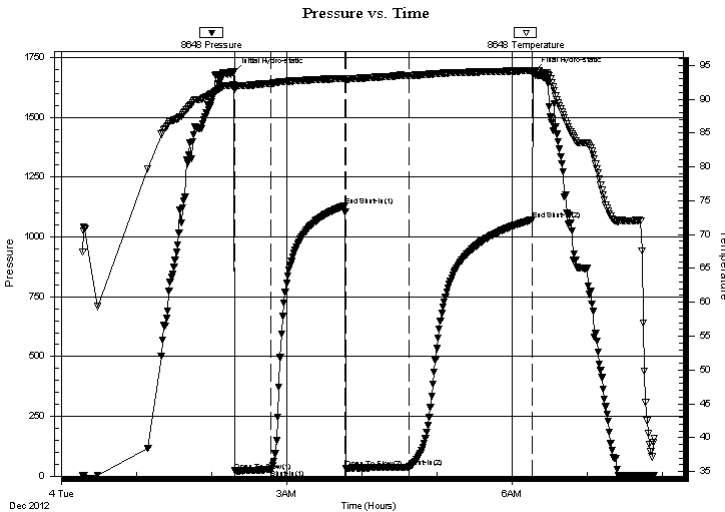
2012.12.04 @ 02:18:00

Time Off Btm:

2012.12.04 @ 06:17:15

**TEST COMMENT:** 30 IF - Surface blow built to 2"  
60 ISI - No return  
60 FF - Surface blow started @ 1 min built to 1 1/2"  
90 FSI No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1688.89	92.08	Initial Hydro-static
1	21.68	91.38	Open To Flow (1)
29	27.88	92.32	Shut-In(1)
89	1131.05	93.08	End Shut-In(1)
89	33.54	92.70	Open To Flow (2)
140	38.79	93.50	Shut-In(2)
238	1071.98	94.22	End Shut-In(2)
240	1692.53	94.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
40.00	GOCM - 5%G - 30%o - 65%M	0.20

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

I.A. Operating, Inc.

**SW 33 - 2S - 24W**

I.A. Operating, Inc.  
9915 W 21st St. STE B  
Wichita KS, 67205  
ATTN: Bob Stolzle

**Jenny # 33-1**

Job Ticket: 51382

**DST#: 1**

Test Start: 2012.12.04 @ 00:17:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

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

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 1.00 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
40.00	GOCM - 5%G - 30%o - 65%M	0.197

Total Length: 40.00 ft      Total Volume: 0.197 bbl

Num Fluid Samples: 0

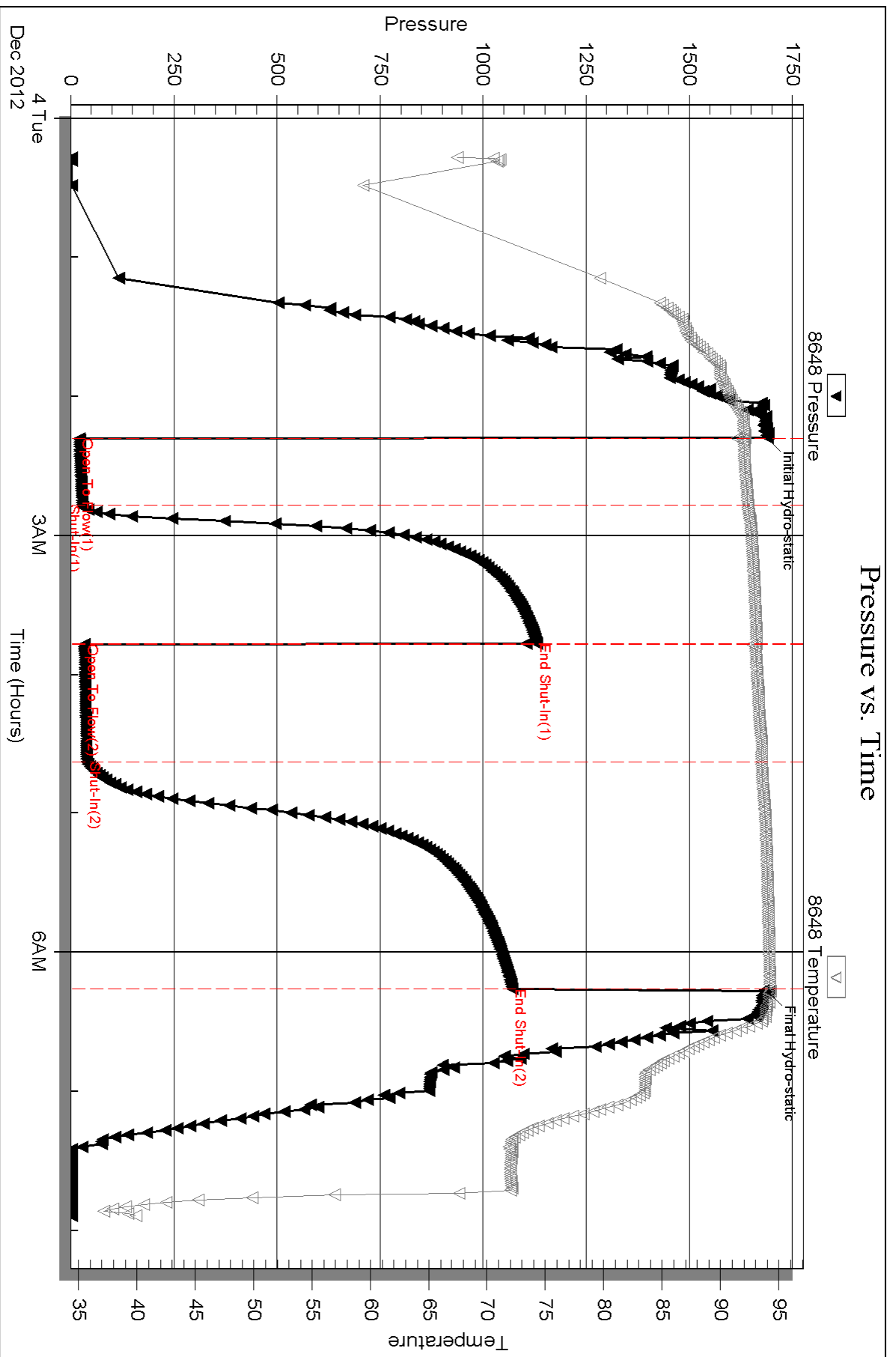
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

I.A. Operating, Inc.  
 9915 W 21st St. STE B  
 Wichita KS, 67205  
 ATTN: Bob Stolzle

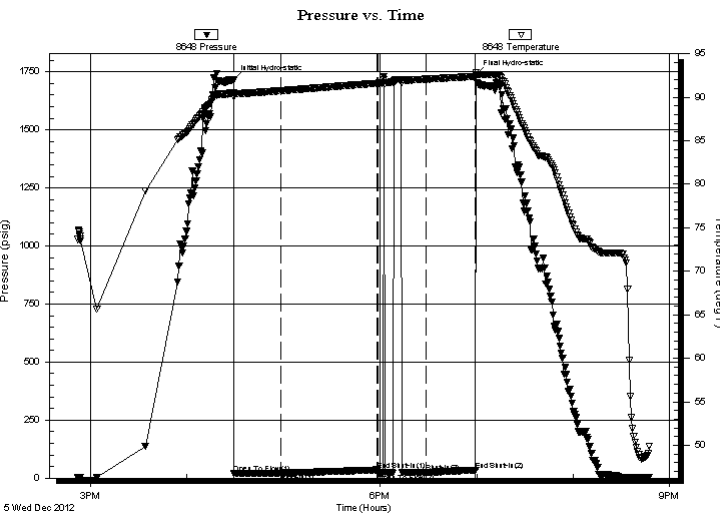
**SW 33 - 2S - 24W**  
**Jenny # 33-1**  
 Job Ticket: 51383 **DST#: 2**  
 Test Start: 2012.12.05 @ 14:52:00

## GENERAL INFORMATION:

Formation: **LKC "D-F"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:29:15  
 Time Test Ended: 20:47:30  
 Interval: **3486.00 ft (KB) To 3520.00 ft (KB) (TVD)**  
 Total Depth: 3520.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ryan Nichols  
 Unit No: 43  
 Reference Elevations: 2453.00 ft (KB)  
 2448.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8648 Inside**  
 Press @ Run Depth: 25.29 psig @ 3487.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.12.05 End Date: 2012.12.05 Last Calib.: 2012.12.05  
 Start Time: 14:52:05 End Time: 20:47:29 Time On Btm: 2012.12.05 @ 16:29:00  
 Time Off Btm: 2012.12.05 @ 18:59:30

**TEST COMMENT:** 30 IF - Surface blow died @ 5 min  
 60 ISI - No return  
 30 FF - No blow flushed tool @ 1 min weak surge died in less than 30 secs  
 30 FSI - No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1716.17	90.50	Initial Hydro-static
1	21.15	90.09	Open To Flow (1)
30	21.92	90.75	Shut-In(1)
89	35.40	91.61	End Shut-In(1)
90	21.96	91.61	Open To Flow (2)
120	25.29	92.09	Shut-In(2)
151	34.81	92.41	End Shut-In(2)
151	1736.34	92.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100%	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

I.A. Operating, Inc.  
9915 W 21st St. STE B  
Wichita KS, 67205  
ATTN: Bob Stolzle

**SW 33 - 2S - 24W**  
**Jenny # 33-1**  
Job Ticket: 51383      **DST#: 2**  
Test Start: 2012.12.05 @ 14:52:00

**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: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1200.00 ppm			
Filter Cake: 1.00 inches			

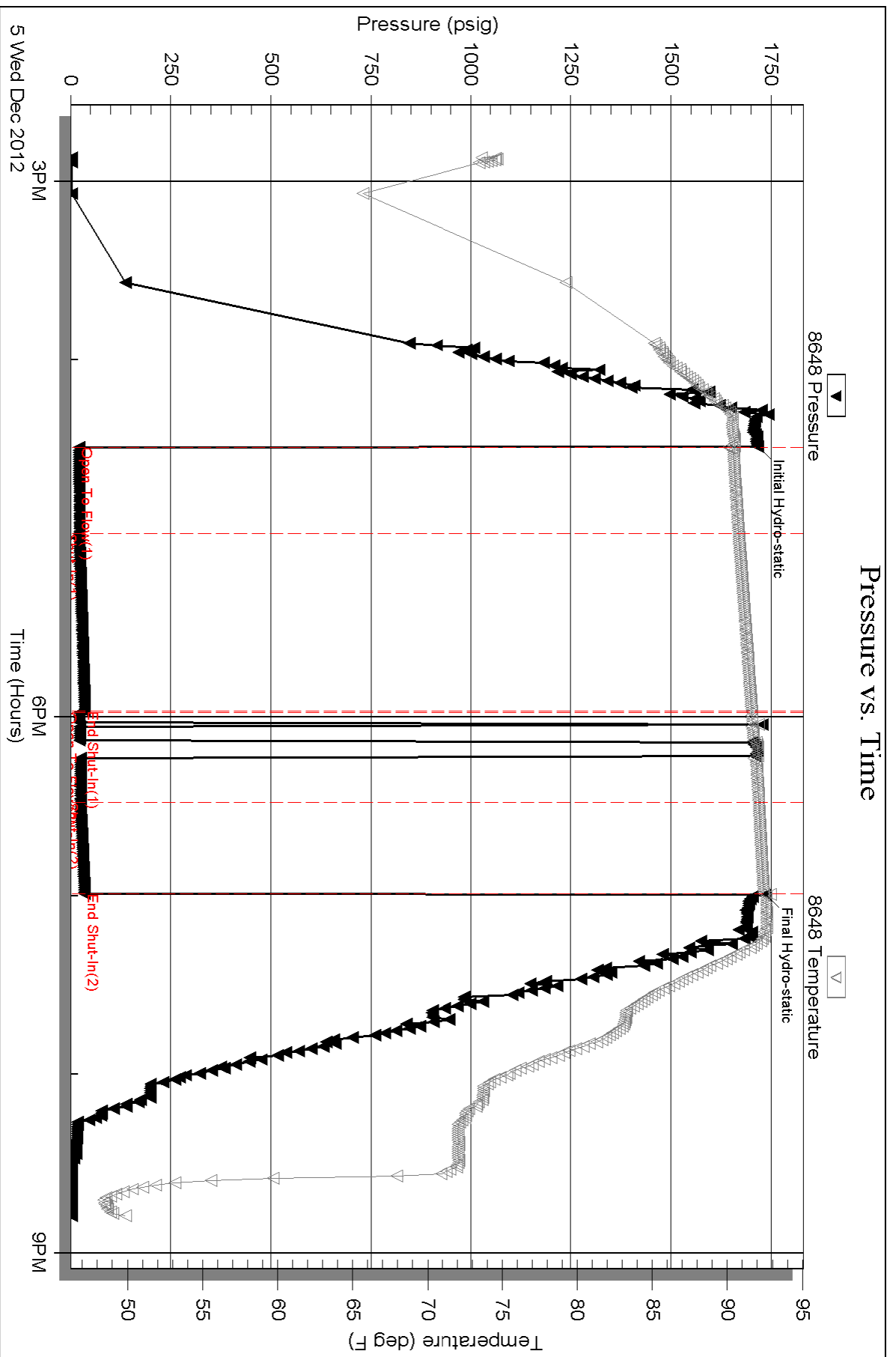
**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud - 100%	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

I.A. Operating, Inc.  
 9915 W 21st St. STE B  
 Wichita KS, 67205  
 ATTN: Bob Stolzle

**SW 33 - 2S - 24W**

**Jenny # 33-1**

Job Ticket: 51384

**DST#: 3**

Test Start: 2012.12.06 @ 06:43:00

## GENERAL INFORMATION:

Formation: **LKC "J-K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:17:45  
 Time Test Ended: 12:18:15  
 Interval: **3560.00 ft (KB) To 3610.00 ft (KB) (TVD)**  
 Total Depth: 3610.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ryan Nichols  
 Unit No: 43  
 Reference Elevations: 2453.00 ft (KB)  
 2448.00 ft (CF)  
 KB to GR/CF: 5.00 ft

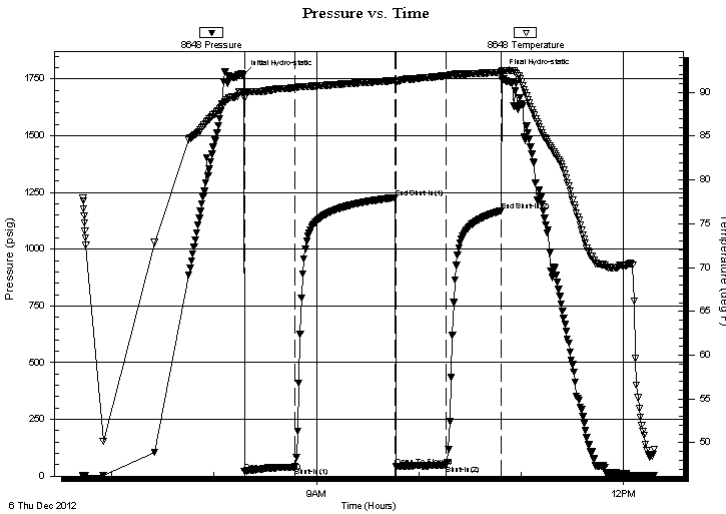
## Serial #: 8648

Inside

Press @ Run Depth: 49.15 psig @ 3561.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.12.06 End Date: 2012.12.06 Last Calib.: 2012.12.06  
 Start Time: 06:43:05 End Time: 12:18:14 Time On Btm: 2012.12.06 @ 08:17:30  
 Time Off Btm: 2012.12.06 @ 10:48:45

TEST COMMENT: 30 IF - Surface blow died @ 8 mins  
 60 ISI - No return  
 30 FF - Surface blow died @ 1 min  
 30 FSI - No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1770.55	90.02	Initial Hydro-static
1	21.58	89.33	Open To Flow (1)
30	40.63	90.52	Shut-In(1)
89	1226.93	91.34	End Shut-In(1)
90	44.29	91.13	Open To Flow (2)
119	49.15	91.88	Shut-In(2)
151	1169.52	92.29	End Shut-In(2)
152	1772.25	92.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
61.00	Mud - 100%	0.30

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

I.A. Operating, Inc.

**SW 33 - 2S - 24W**

9915 W 21st St. STE B  
Wichita KS, 67205

**Jenny # 33-1**

Job Ticket: 51384

**DST#: 3**

ATTN: Bob Stolzle

Test Start: 2012.12.06 @ 06:43:00

## 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: 54.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
61.00	Mud - 100%	0.300

Total Length: 61.00 ft      Total Volume: 0.300 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

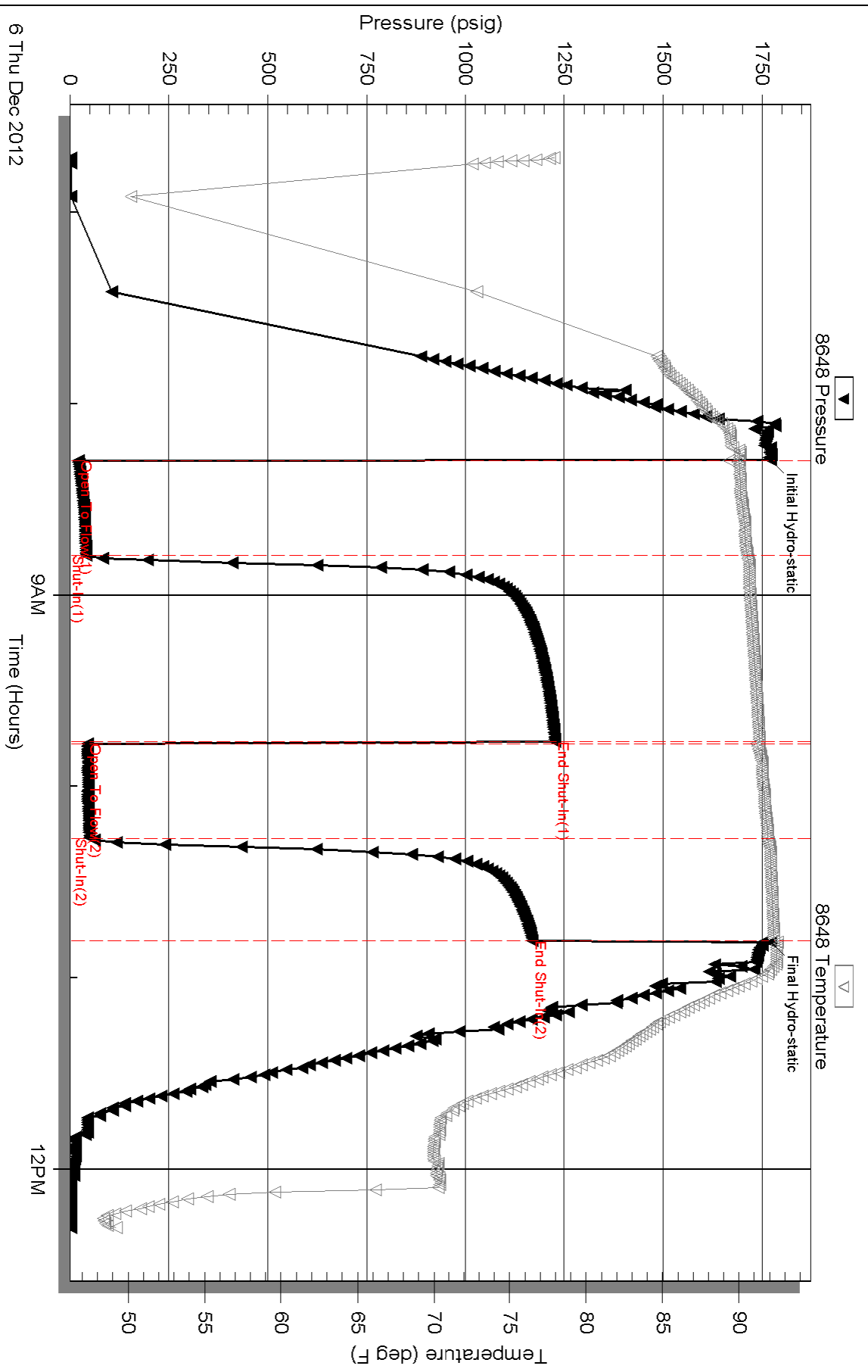
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

IA Operating, Inc.  
9915 W 21st St. STE B  
Wichita KS, 67205  
ATTN: Bob Stolzle

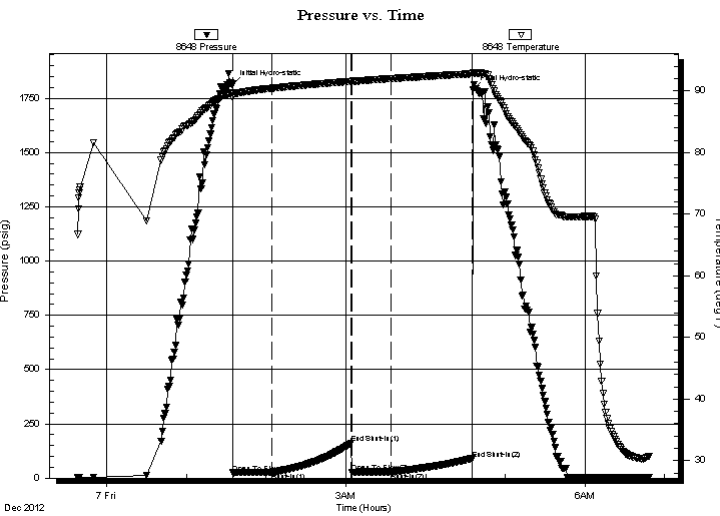
**SW 33 - 2S - 24W**  
**Jenny # 33-1**  
Job Ticket: 51385 **DST#: 4**  
Test Start: 2012.12.06 @ 23:38:00

## GENERAL INFORMATION:

Formation: **Regan SS.**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 01:35:00  
Time Test Ended: 06:49:15  
Interval: **3630.00 ft (KB) To 3695.00 ft (KB) (TVD)**  
Total Depth: 3695.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Ryan Nichols  
Unit No: 43  
Reference Elevations: 2453.00 ft (KB)  
2448.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8648 Inside**  
Press @ Run Depth: 28.84 psig @ 3631.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.12.06 End Date: 2012.12.07 Last Calib.: 2012.12.07  
Start Time: 23:38:05 End Time: 06:49:14 Time On Btm: 2012.12.07 @ 01:34:45  
Time Off Btm: 2012.12.07 @ 04:35:45

**TEST COMMENT:** 30 IF - Surface blow built to 1/4" died @ 11 mins  
60 ISI - No return  
30 FF - No blow  
60 FSI - no return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1814.24	89.76	Initial Hydro-static
1	24.16	88.89	Open To Flow (1)
30	26.48	90.46	Shut-In(1)
90	161.77	91.59	End Shut-In(1)
90	28.20	91.56	Open To Flow (2)
120	28.84	92.03	Shut-In(2)
181	88.19	92.80	End Shut-In(2)
181	1789.66	93.03	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100%	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

IA Operating, Inc.

**SW 33 - 2S - 24W**

9915 W 21st St. STE B  
Wichita KS, 67205

**Jenny # 33-1**

Job Ticket: 51385

**DST#: 4**

ATTN: Bob Stolzle

Test Start: 2012.12.06 @ 23:38:00

## 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: 54.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud - 100%	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

