



Confidentiality Requested:

Yes  No

**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	Date Reached TD	Completion Date or
Recompletion Date		Recompletion Date

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: \_\_\_\_\_



1221422

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
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

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

<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> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Waugh B 3
Doc ID	1221422

All Electric Logs Run

Compensated Density Neutron Log
Micro Resistivity Log
Dual Induction Log
Cement Bond Log

Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Waugh B 3
Doc ID	1221422

Tops

Name	Top	Datum
Mississippi	2286'	(-987)
Kinderhook	2628'	(-1329)
Hunton	2771'	(-1472)
Maquoketa	2813'	(-1514)
Viola	2880'	(-1581)
Simpson Sand	3002'	(-1703)
Arbuckle	3052'	(-1753)
L.T.D.	3110'	(-1811)

## Summary of Changes

Lease Name and Number: Waugh B 3

API/Permit #: 15-197-20299-00-00

Doc ID: 1221422

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	10/29/2013	09/03/2014
Date of First or Resumed Production or SWD or Enhr Fracturing Question 1		08/28/2014 No
LocationInfoLink	<a href="https://solar.kgs.ku.edu/kcc/detail/locationInformation.cfm?section=18&amp;t">https://solar.kgs.ku.edu/kcc/detail/locationInformation.cfm?section=18&amp;t</a>	<a href="https://kolar.kgs.ku.edu/kcc/detail/locationInformation.cfm?section=18&amp;t">https://kolar.kgs.ku.edu/kcc/detail/locationInformation.cfm?section=18&amp;t</a>
Producing Method Pumping	No	Yes
Production - Barrels Oil		30.00
Production - Barrels of Water		0.00
Save Link	<a href="https://solar.kgs.ku.edu/kcc/detail/operatorEditDetail.cfm?docID=1165547">../kcc/detail/operatorEditDetail.cfm?docID=1165547</a>	<a href="https://kolar.kgs.ku.edu/kcc/detail/operatorEditDetail.cfm?docID=1221422">../kcc/detail/operatorEditDetail.cfm?docID=1221422</a>
Well Type	SLOW	OIL



**CONFIDENTIAL**

**WELL COMPLETION FORM**

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

**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
-----------------------------------	-----------------	---

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 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](mailto: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 Geologist Report / Mud Logs <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
--	---

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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	---	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Waugh B 3
Doc ID	1165547

All Electric Logs Run

Compensated Density Neutron Log
Micro Resistivity Log
Dual Induction Log
Cement Bond Log



Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Waugh B 3
Doc ID	1165547

Tops

Name	Top	Datum
Mississippi	2286'	(-987)
Kinderhook	2628'	(-1329)
Hunton	2771'	(-1472)
Maquoketa	2813'	(-1514)
Viola	2880'	(-1581)
Simpson Sand	3002'	(-1703)
Arbuckle	3052'	(-1753)
L.T.D.	3110'	(-1811)

Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Waugh B 3
Doc ID	1165547

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3002-10' (Simpson Sand)	None - completed natural	



Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



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

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

Sam Brownback, Governor

October 28, 2013

Marge Schulte  
Farmer, John O., Inc.  
370 W WICHITA AVE  
PO BOX 352  
RUSSELL, KS 67665-2635

Re: ACO1  
API 15-197-20299-00-00  
Waugh B 3  
SW/4 Sec.18-15S-12E  
Wabaunsee County, Kansas

Dear Production Department:

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

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

Respectfully,  
Marge Schulte



**CONSOLIDATED**  
Oil Well Services, LLC

**ENTERED**

TICKET NUMBER 43341  
LOCATION Eureka  
FOREMAN Steve Reed

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
7-24-13	4027	Waugh B-3	18	155	12E	Wabawnee
CUSTOMER John O. Farmer			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS P.O. Box 352			485	Alan M		
CITY Russell			479	Calvin		
STATE KS		ZIP CODE 67665				

JOB TYPE Surface 0 HOLE SIZE 12 1/4 HOLE DEPTH 317' CASING SIZE & WEIGHT 8 3/8  
CASING DEPTH 304 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
DISPLACEMENT 18 1/2 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting. Rig up to 8 3/8 casing. Break circulation & pump 5 bbl fresh water. Mix 175 sks Class A cement w/ 3% case, 2% gel + 1/4" Flo Celc pulp. Displace w/ 18 1/2 bbls fresh water. Shut well in. Good cement. Returns to surface 15 bbls to pit. Job complete. Rig down.

*Thank you*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	870.00	870.00
5406	70	MILEAGE	4.20	294.00
11043	175 sks	Class A Cement	15.70	2747.50
1102	494 #	Case 3%	.78	385.32
111813	330 #	Gel 2%	.22	72.60
1107	50 #	Flo Celc 1/4" pulp	2.47	123.50
5407A	8.23 ton	Ton mileage Bulk Truck	6.41	812.30
			Subtotal	5305.22
		260931	SALES TAX 7.65%	354.66
			ESTIMATED TOTAL	5659.88

AUTHORIZATION Mick Staffa TITLE Tool Pusher DATE 7-24-13

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

**ENTERED**

TICKET NUMBER 43351

LOCATION Eureka

FOREMAN Kevin McCoy

Shannon Feck

**FIELD TICKET & TREATMENT REPORT**

CEMENT API # 15-197-20299

KS

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

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
7-30-13	4027	WAUGH B #3	18	155	12E	WHAUNSEE
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
John O. Farmer						
MAILING ADDRESS						
P.O. Box 352						
CITY	STATE	ZIP CODE				
Russell	Ks	67665				

Gulick  
Delq.

JOB TYPE Longstring 0 HOLE SIZE 7 7/8 HOLE DEPTH 3110' K.B. CASING SIZE & WEIGHT 5 1/2 15.50" new  
 CASING DEPTH 3103 K.B. DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 13.6" SLURRY VOL 40 BBL WATER gal/sk 9.0 CEMENT LEFT in CASING 14'  
 DISPLACEMENT 75.8 BBL DISPLACEMENT PSI 700 PSI 1100 Bump Plug RATE 5 BPM

REMARKS: Safety Meeting: Rig up to 5 1/2 casing w/ Rotating Swivel & Cement Head. BREAK  
Circulation w/ 5 BBL fresh water. Pump 12 BBL (500 gals) Silt Suspender Pre-Flush, 10 BBL KCL  
water spacer, 5 BBL fresh water. MIXED 120 SKS THICK SET Cement w/ 5" KOL-SEAL /SK @ 13.6" /  
9AL, yield 1.85, wash out Pump & Lines. Shut down. Release Latch down Plug. Displace Plug to  
Seat w/ 75.8 BBL fresh water. FINAL Pumping Pressure 700 PSI. Bump Plug to 1100 PSI, wait 2  
Mins. Release Pressure. Float & Plug Held. Good Circulation @ ALL times while Cementing. Rotated  
Casing. Plug RAT Hole w/ 30 SKS. Job Complete. Rig down.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	1085.00	1085.00
5406	70	MILEAGE	4.20	294.00
1126 A	150 SKS	THICK SET Cement	20.16	3024.00
1110 A	750 *	KOL-SEAL 5" /SK	.46	345.00
5407 A	8.25 TONS	70 miles Bulk Delv.	1.41	814.27
1143	2 946	Silt Suspender Pre-Flush	42.42	84.84
1142	2 946	KCL	35.18	70.36
4203	1	5 1/2 Guide Shoe	168.00	168.00
4228 B	1	5 1/2 AFU INSERT FV	180.75	180.75
4104	1	5 1/2 Cement Basket	240.00	240.00
4130	6	5 1/2 Centralizers	50.50	303.00
4454	1	5 1/2 Latch down Plug	266.75	266.75
5611	1	Rental on 5 1/2 Rotating Swivel	100.00	100.00
			Sub Total	6975.98
			SALES TAX	358.23
			ESTIMATED TOTAL	7334.21

THANK YOU 7.65%  
M 061054

Revin 3737

AUTHORIZATION Ann Weasley

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

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.



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer

**18-15s-12e Wabaunsee KS**

Po box 352  
Russell KS, 67665

**Waugh B #3**

Job Ticket: 53938

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2013.07.28 @ 12:48:00

## GENERAL INFORMATION:

Formation: **Simpson Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:27:15

Time Test Ended: 21:32:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 2989.00 ft (KB) To 3014.00 ft (KB) (TVD)**

Reference Elevations: 1299.00 ft (KB)

Total Depth: 3014.00 ft (KB) (TVD)

1291.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6799 Inside**

Press @ Run Depth: 116.37 psig @ 2990.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.28

End Date: 2013.07.28

Last Calib.: 2013.07.28

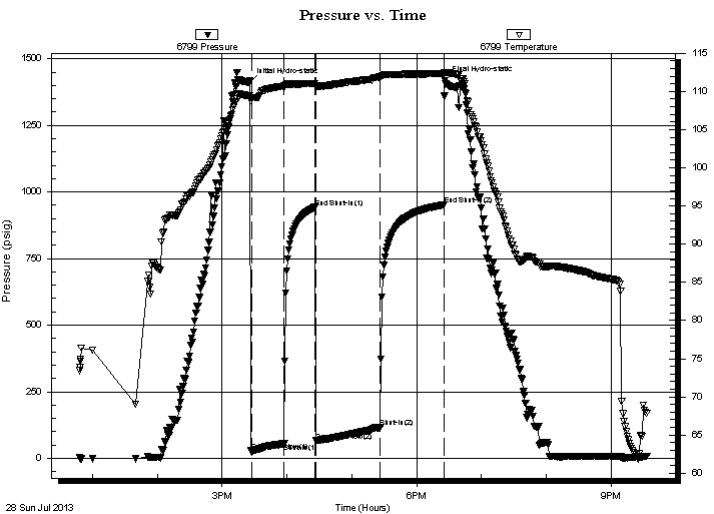
Start Time: 12:48:05

End Time: 21:32:45

Time On Btm: 2013.07.28 @ 15:25:15

Time Off Btm: 2013.07.28 @ 18:26:15

**TEST COMMENT:** 30 - IF- 2" blow  
30 - IS- No return  
FF- 3" blow  
FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1412.09	109.43	Initial Hydro-static
2	26.40	109.03	Open To Flow (1)
32	54.64	110.62	Shut-In(1)
60	942.22	111.06	End Shut-In(1)
62	65.63	110.72	Open To Flow (2)
121	116.37	111.87	Shut-In(2)
180	951.56	112.32	End Shut-In(2)
181	1417.32	112.51	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	MCO, 50%O, 50%M	0.61
62.00	MCO, 40%M, 60%O	0.30
62.00	SOCM, 5%O, 95%M	0.30
5.00	Free oil, 100%O	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer

**18-15s-12e Wabaunsee KS**

Po box 352  
Russell KS, 67665

**Waugh B #3**

Job Ticket: 53938

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2013.07.28 @ 12:48:00

## 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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	MCO, 50%O, 50%M	0.610
62.00	MCO, 40%M, 60%O	0.305
62.00	SOCM, 5%O, 95%M	0.305
5.00	Free oil, 100%O	0.025

Total Length: 253.00 ft      Total Volume: 1.245 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

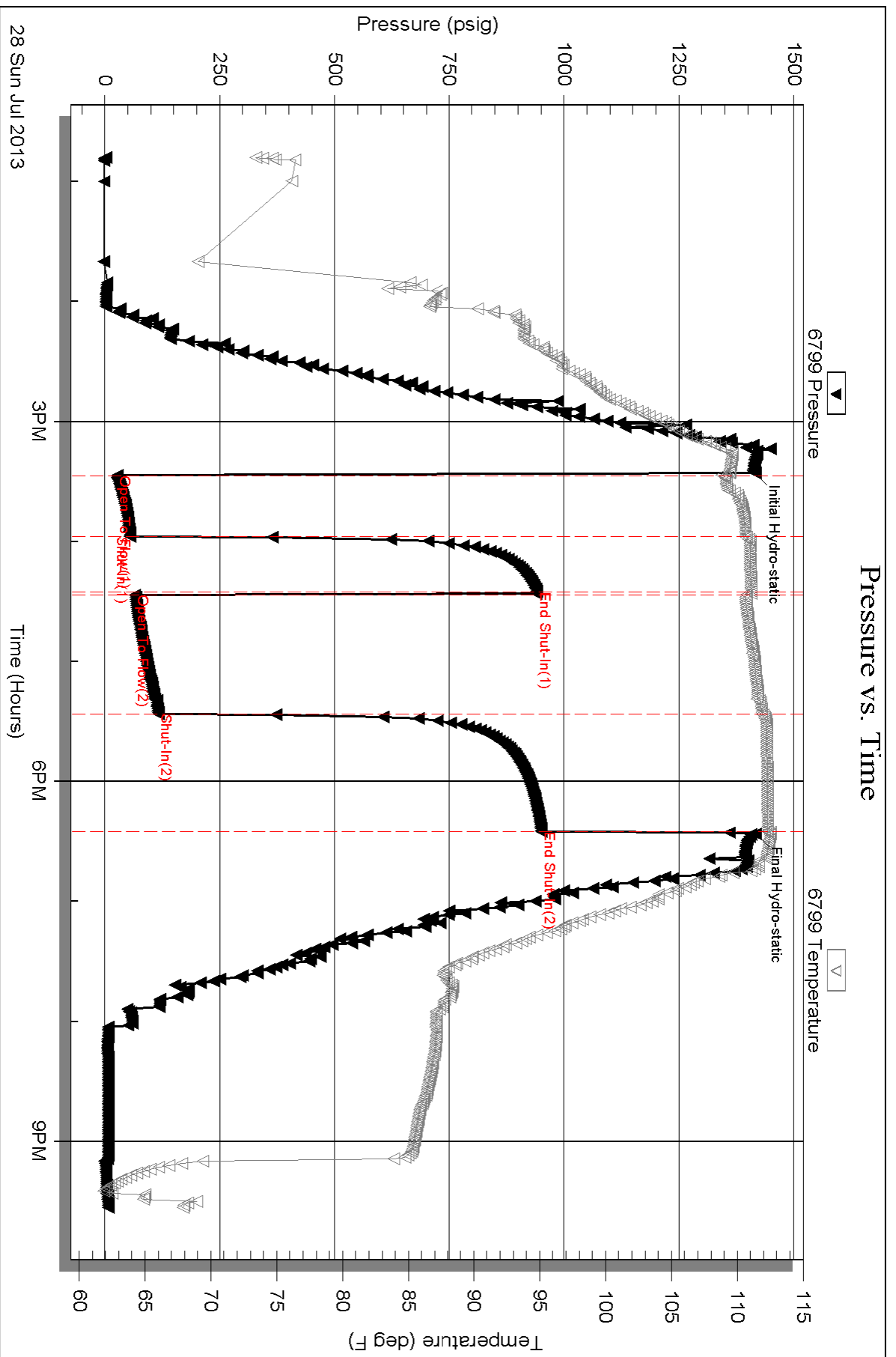
Serial #:

Laboratory Name:

Laboratory Location:

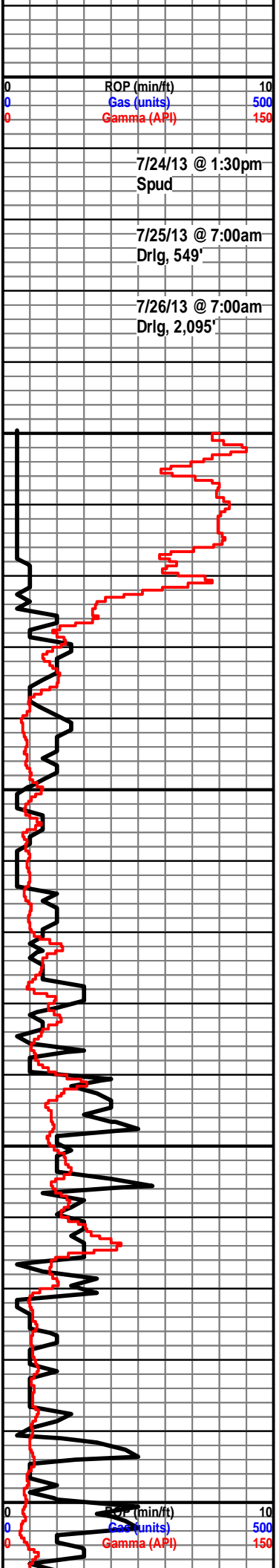
Recovery Comments: oil w as VERY thick.





28 Sun Jul 2013





2200  
2250  
2300  
2350  
2400

following:

Miss	2286	-987
Kinderhook	2628	-1329
Hunton	2771	-1472
Maq	2813	-1514
Viola	2880	-1581
Simp. SD	3002	-1703
Arbuckle	3052	-1753
RTD		
LTD	3110	-1811

Sh: blk, carb, few pcs pyrite

Sh: drk gry-blk, carb, fissile, pyrite, scatt ls

Sh: blk, carb, blk, few pcs ss, vry fn grn

**Mississippian 2285' (-986)**

Dolo: off wh-lt gry, fn xln, DNS, poor int xln porosity

Dolo: tan-brn, fn-md xln, mostly DNS, vry hard, sl chalky

Dolo: off wh-tan, fn-sub xln, mostly DNS, hard, few pcs w/ poor int xln porosity, sl chalky, chert-off wh

Dolo: ala

Dolo: off wh-cream, fn xln, poor int xln porosity, chalky, scat chert

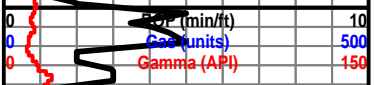
Sh: drk gry

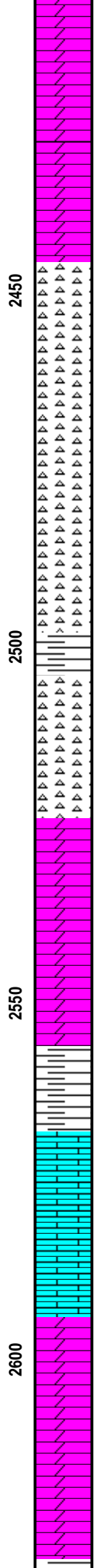
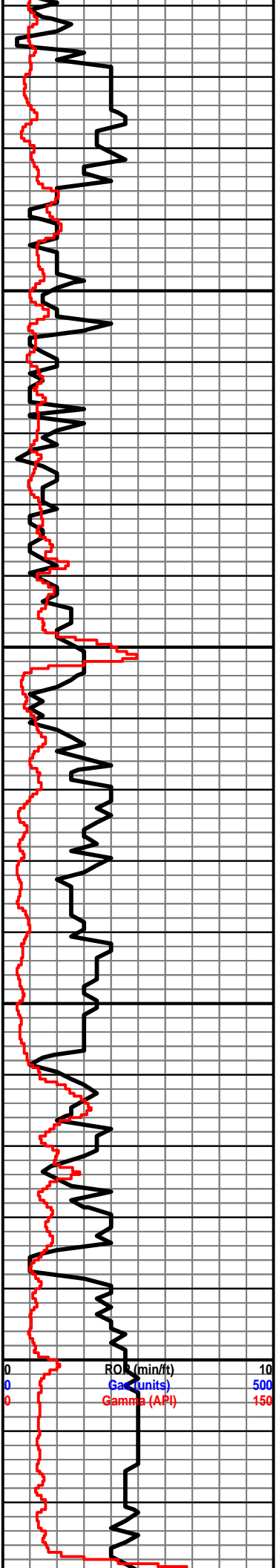
Dolo: off wh-tan, fn-sub xln, mostly DNS, poor int xln porosity, hvy chert-off wh-crm

Dolo: tan-brn, fn xln, poor int xln porosity, chalky, hvy chert-off wh, NSFO

Sh: drk gry

Dolo: ala





Dolo: tan, vry fn xln, mostly DNS, vry hard, sl chalky, chert-cream

Dolo: tan-lt brn, fn xln, poor int xln porosity, hvy chert-off wh-gry, scat pyrite, sl chalky, NSFO

Chert: tan-off wh, Dolo: ala

Chert: off wh, sharp, vry DNS

Chert: ala

Sh: drk gry, chalky, hvy chert-off wh-cream, vry DNS, sharp

Chert: off wh-cream, sharp, vry DNS, scat dolo and sh: ala

Dolo: off wh-cream, vry fn xln, poor int xln porosity, mostly DNS

Dolo: off wh-cream, fn xln, vry poor int xln porosity, scat fair sucrosic xln porosity, NSFO

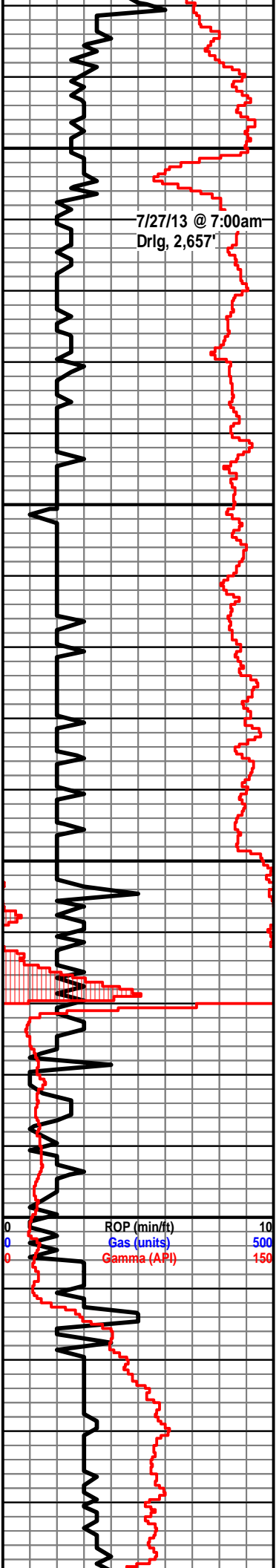
Sh: drk gry-blk, blk

Ls: tan-gry, fn xln, poor int xln porosity, sl chalky, NSFO

Ls: ala, scat dolo, scat chert-off wh

Dolo: tan-cream, fn xln, poor int xln porosity, NSFO, scat Ls: ala, hvy chert-off wh-tan

Dolo: ala, scat pyrite



7/27/13 @ 7:00am  
Drig, 2,657'

ROP (min/ft) 10  
Gas (units) 500  
Gamma (API) 150

2650

2700

2750

2800

3000

Sh: drk gry, fissile, blk, few pcs blk, scat pyrite

Sh: lt-drk gry, soft, scat pyrite

Sh: ala

Sh: lt gry, soft, smooth, scat pyrite

Sh: ala

Sh: lt gry, vry soft, few pcs blk carb

Sh: lt gry, smooth, soft, scat chalk, scat pyrite

Sh: ala

Sh: lt gry, soft, smooth, scat pyrite

**Hunton 2770' (-1471)**

Chert: wh-lt gry, mostly DNS, scat qtz: ss, fn grn, fair int grn porosity, dead oil st, poor-fair odor

Chert: wh-lt gry, sltst: drk gry-brn, NSFO

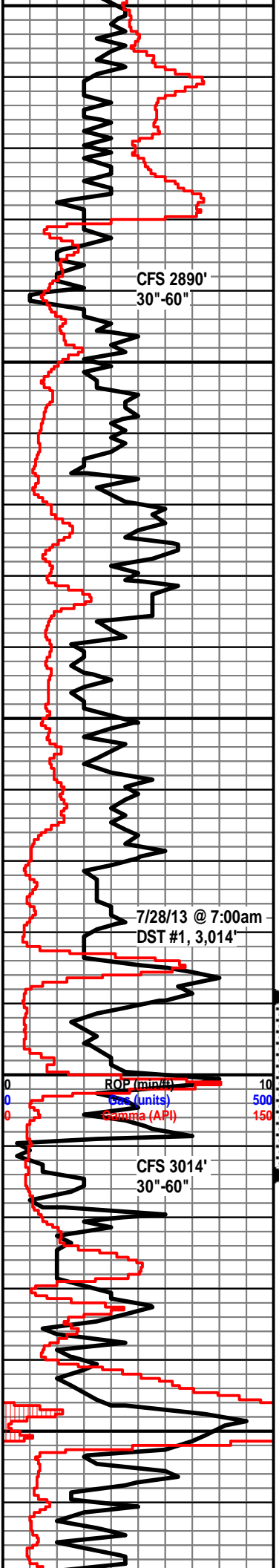
Chert: lt gry-off wh, vry DNS, sl chalky

**Maquoketa 2809' (-1510)**

Slstst: lt gry-lt grn, mostly DNS, no porosity, scat pyrite, scat drk gry-blk shale

Slstst: ala

Slstst: lt gry, mostly DNS, gritty, no porosity, NSFO, scat pyrite, scat drk gry shale



Siltst: ala

**Viola 2874' (-1575)**

Dolo: off wh-tan, fn-md xln, fair-good int xln porosity, fair show heavy free oil, good odor, dull fluor, bright yel streaming cut

Dolo: off wh-lt gry, fn-sub xln, mostly DNS, poor int xln porosity, poor show heavy free oil, fair-good odor, no yel fluor, scat chert-off wh

Dolo: lt gry-lt brn, fn xln, poor int xln porosity, mostly DNS, NSFO, no odor, sl chert-off wh

Dolo: tan-brn, fn xln, poor int xln porosity, mostly DNS, vry hard, sl chert-off wh

Dolo: ala

Dolo: drk brn-tan, fn xln, poor int xln porosity, mostly DNS, vry hard, NSFO, no odor, sl chert-off wh-lt gry

Dolo: ala, few pcs drk gry shale

**Simpson Dolo 2982' (-1683)**

Dolo: drk brn, fn xln, poor int xln porosity, FSFO, fair-good odor, scat chert-off wh-tan, scat ss: fn grn, fair int grn porosity, SSFO

**Simpson Sand 3000' (-1701)**

Ss: qtz, off wh-drk brn, vry fn-fn grn, fairly well rounded, fairly well sorted, fair int grn porosity, poorly cemented-friable, good oil saturation, FSFO, good odor, fair yel fluor

Sh: lt-drk gry-brn-blk  
 Ss: qtz, wh, vry fn-fn grn, well rounded, fair-poorly sorted, poor int grn porosity, well cemented, dead oil st, NSFO, sl odor, no yel fluor, scat pyrite

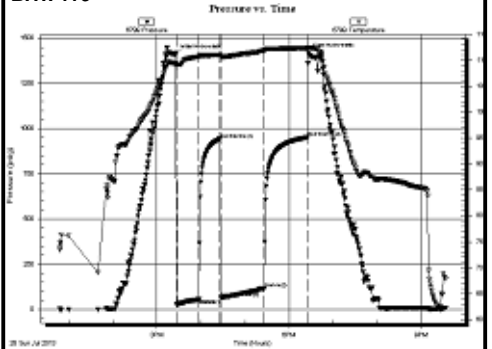
Sh: drk gry-grn, few pcs soft, hvy pyrite

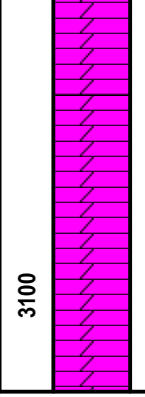
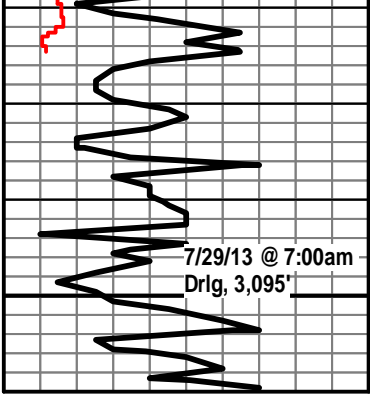
**Arbuckle 3051' (-1752)**

Dolo: tan-lt brn, fn xln, vry poor int xln porosity, mostly DNS, sl chert-wh-off wh, scat pyrite, NSFO

Dolo: off wh-lt tan, fn-md xln, poor int xln porosity,

DST #1 2,989'-3,014' (Top 12' of Simpson Sd)  
 IF: weak blow built to 2", no blow back  
 FF: weak blow built to 3", no blow back  
 Rec: 5' CO  
 62' HMCO (40% M, 60% O)  
 124' HMCO (50% M, 50% O)  
 62' OCM (5% O, 95% M)  
 FP: 25-55, 66-116#  
 SIP: 942-952#  
 HP: 1,412-1,417#  
 BHT: 113





Dolo: ...  
mostly DNS, hvy chert-off wh, sl chalky, scat  
pyrite

Dolo: lt tan, fn xln, poor int xln porosity, mostly  
DNS, scat pyrite, sl chalky, chert-off wh

Dolo: ala

