



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1153815
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

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: _____



1153815

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	SPROUL ET AL 1-26
Doc ID	1153815

All Electric Logs Run

DIL
MICRO
POR
SONIC
SPECTRAL

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

August 01, 2013

CLAYTON CAMOZZI
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-137-20647-00-00
SPROUL ET AL 1-26
SW/4 Sec.26-04S-23W
Norton 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,
CLAYTON CAMOZZI



QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone:785-324-1041 fax:785-483-1087
 Email: cementing@ruraltel.net

Date: 4/17/2013
 Invoice # 6764

P.O.#:

Due Date: 5/17/2013

Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

DRLG COMP W/O LOE GG

Account	8200.138
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

RECEIVED

APR 26 2013

SAMUEL GARY JR. & ASSOCIATES, INC.

Reference:
 SPROUL ET AL 1-26

Description of Work:
 SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	No				
Common-Class A	250	\$ 3,403.71	Yes				
Bulk Truck Matl-Material Service Charge	265	\$ 575.43	No				
Pump Truck Mileage-Job to Nearest Camp	51	\$ 552.61	No				
Calcium Chloride	9	\$ 465.71	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	51	\$ 323.37	No				
Flo Seal	62	\$ 134.63	Yes				
Premium Gel (Bentonite)	5	\$ 88.38	Yes				

Invoice Terms:

Net 30

SubTotal: \$ 6,535.22

Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (980.28)

SubTotal for Taxable Items: \$ 3,478.56

SubTotal for Non-Taxable Items: \$ 2,076.37

Total: \$ 5,554.94

Tax: \$ 245.24

7.05% Norton County Sales Tax

Amount Due: \$ 5,800.18

Applied Payments:

Balance Due: \$ 5,800.18

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

6764

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

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

No.

Date	Sec.	Twp.	Range	County	State	On Location	Finish
8-14-13	26	4	23	NORTON	KANSAS		01:30
Location 2834 Hwy 9-w-2-N TOX-RO-1E-N/INTO							

Lease	Well No.	Owner	
SPROLL ET-AL	#1-26	SAM GARY JR.	
Contractor	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.		
Type Job	Charge To		
L. SURFACE	SAM GARY JR.		
Hole Size	T.D.	Street	
12 1/4"	514.84	1515 WYNKOOP - STE 700	
Csg.	Depth	City	
8 5/8" 23LB-NEW	514.84	DENVER	
Tbg. Size	Depth	State	
		CO, 80202	
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
		Cement Amount Ordered	
		250 Com - 3cc - 2% GEL - 1/4 ROSEAL	
Cement Left in Csg.	Shoe Joint		
	40.97		
Meas Line	Displace		
	30 Bbls		

EQUIPMENT

Pumptrk #9	No.	Cementer	
		Helper	TRAVIS H.
Bulktrk #	No.	Driver	
		Driver	LOWRIE W.
Bulktrk P14	No.	Driver	
		Driver	CISCO A.

Common	250
Poz. Mix	
Gel.	5
Calcium	9

JOB SERVICES & REMARKS

Remarks:
Rat Hole
Mouse Hole
Centralizers COUPLERS OF #1 & #10
Baskets PINS OF #2 & #11
D/V or Port Collar

Hulls
Salt
Flowseal 62#
Kol-Seal
Mud CLR 48
CFL-117 or CD110 CAF 38
Sand

CEMENT DID CIRCULATE!

Handling 265
Mileage

FLOAT EQUIPMENT

Guide Shoe
Centralizer 2-8 5/8"
Baskets 2-8 5/8"
AFU Inserts
Float Shoe
Latch Down
1-8 5/8 RUBBER PLUG

Pumptrk Charge B Long Surface
Mileage 51

THANK YOU!

X Signature *James A. Hamman*

Tax
Discount
Total Charge



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 4/22/2013
 Invoice # 6699

P.O.#:

Due Date: 5/22/2013

Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

RECEIVED

APR 26 2013

SAMUEL GARY JR.
& ASSOCIATES, INC.

Reference:
 SPROUL ET AL 1-26

Description of Work:
 PROD LONG STRING

DRLG COMP W/O LOE GG

Account	8300, 238
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

Services / Items Included:	Quantity	Price	Taxable
Labor		\$ 963.85	No
Common-Class A	225	\$ 2,978.25	Yes
Cement Port Collar, 5 1/2"	1	\$ 2,638.89	Yes
5 1/2" Basket	6	\$ 2,178.67	Yes
Gilsonite	1057	\$ 1,673.58	Yes
CFL 117	176	\$ 1,144.39	Yes
5 1/2" Turbolizer	12	\$ 734.67	Yes
Pump Truck Mileage-Job to Nearest Camp	51	\$ 537.26	No
Bulk Truck Matl-Material Service Charge	254	\$ 536.22	No
CD-110	117	\$ 494.00	Yes
Mud Clear	500	\$ 390.56	Yes

Item	Quantity	Price	Taxable
Defoamer A or CAP-38	50	\$369.44	Yes
Auto Fill Float Shoe, 5 1/2"	1	\$323.00	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	51	\$314.39	No
Salt (Fine)	19	\$279.98	Yes
Latch Down Plug & Baffle, 5 1/2"	1	\$236.44	Yes
Flo Seal	56	\$118.22	Yes
KCL	2	\$63.04	Yes

Invoice Terms:

Net 30

SubTotal: \$ 15,974.84
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (2,396.23)

SubTotal for Taxable Items:	\$ 11,579.66
SubTotal for Non-Taxable Items:	\$ 1,998.96
Total:	\$ 13,578.61
Tax:	\$ 816.37

7.05% Norton County Sales Tax

Thank You For Your Business!

Amount Due: \$ 14,394.98
Applied Payments:
Balance Due: \$ 14,394.98

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 6699

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-20-13	26	4	23	Worton	KS		10:00 AM

Location *Hill City N Hwy 9 2w 30 1/2 E into*

Lease	Well No.	Owner	
<i>SPROUL ETAL</i>	<i>1-26</i>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Contractor	Type Job	Charge To	
<i>Discovery # 2</i>	<i>Production String</i>	<i>Sam Gary Jr & Assoc</i>	
Hole Size	T.D.	Street	
<i>7 7/8</i>	<i>3850</i>		
Csg. <i>5 1/2</i>	Depth	City	
	<i>3848</i>	State	
Tbg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
	<i>1899</i>		
Tool <i>Port Collar</i>	Shoe Joint	Cement Amount Ordered	
	<i>42.42</i>	<i>225 QROC 10% gel + 5% gel + 5% gel</i>	
Cement Left in Csg. <i>42.42</i>	Displace	<i>1/4 #10 13% gel - 110 8% CFL-117 125 CAF-38</i>	
Meas Line		Common	
	<i>90/23C</i>	<i>225</i>	<i>50 gal mud seal</i>

EQUIPMENT

Pumptrk	No.	Cementer	Helper	Common
<i>9</i>		<i>Craig</i>		<i>225</i>
Bulktrk	No.	Driver	Driver	Poz. Mix
		<i>Edy</i>		
Bulktrk	No.	Driver	Driver	Gel.
<i>1</i>		<i>Clayton</i>		


JOB SERVICES & REMARKS

Remarks:	Salt
Rat Hole <i>30SK</i>	<i>19</i>
Mouse Hole <i>155C</i>	Flowseal <i>56#</i>
Centralizers	Kol-Seal <i>1057#</i>
Baskets	Mud CLR 48 <i>500 gal</i>
D/V or Port Collar	<i>CFL-117 or CD110 CAF-38</i> <i>50#</i>
<i>5 1/2 size 3848. Baffle 3805.60</i>	Sand <i>> 176#</i>
<i>Best Circulation. Pump special mud</i>	Handling <i>254</i>
<i>Clear + 100L water spacer Plug</i>	Mileage
<i>Ratholes + mousehole. Cement 5 1/2 with</i>	
<i>180SK. Clear lines Displace Plug</i>	
<i>Phy landed @ 1700ft. Held pressure.</i>	
<i>Release Pressure Dry.</i>	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	<i>4 8 Turbols</i>
Baskets	<i>3 Blue 3 RED</i>
AFU Inserts	
Float Shoe	<i>1</i>
Latch Down	<i>1</i>
	<i>Port Collar</i>

Pumptrk Charge	<i>51</i>	
Mileage	<i>prod Long String</i>	Tax
		Discount
		Total Charge

X Signature 



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 4/25/2013
Invoice # 6779
P.O.#:
Due Date: 5/25/2013
Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

Reference:
 SPROUL 1-26

Description of Work:
 PORT COLLAR JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,239.23	No				
mon, MetsoBeads, Plater, Gel, FloSeal, Calcium)	200	\$ 4,151.77	Yes				
Bulk Truck Matl-Material Service Charge	360	\$ 781.71	No				
Pump Truck Mileage-Job to Nearest Camp	51	\$ 552.61	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	51	\$ 323.37	No				
Flo Seal	87	\$ 188.91	Yes				
Premium Gel (Bentonite)	3	\$ 53.03	Yes				

Invoice Terms:
 Net 30

	SubTotal:	\$ 7,290.64
	Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	\$ (1,093.60)
<hr/>		
	SubTotal for Taxable Items:	\$ 3,734.66
	SubTotal for Non-Taxable Items:	\$ 2,462.39
<hr/>		
	Total:	\$ 6,197.04
	Tax:	\$ 263.29
	Amount Due:	\$ 6,460.33
	Applied Payments:	
	Balance Due:	\$ 6,460.33

7.05% Norton County Sales Tax

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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RECEIVED

APR 29 2013

SAMUEL GARY JR.
 & ASSOCIATES, INC.

DRLG COMP W/O LOE GG

Account	8300.217
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 6779

Date	4-24-13	Sec.		Twp.		Range		County	Norton	State	KS	On Location		Finish	12:30pm.
Lease								Well No.		Owner					
SPROU 1								1-26		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Contractor								Type Job							
Alliance								port collar							
Hole Size								T.D.		Charge To					
2 7/8										Sam County Jr + Assoc.					
Csg.								Depth		Street					
5 1/2															
Tbg. Size								Depth		City					
2 7/8										State					
Tool								Depth		The above was done to satisfaction and supervision of owner agent or contractor.					
Export								1908							
Cement Left in Csg.								Shoe Joint		Cement Amount Ordered					
										350 QmDC 1/4#410					
Meas Line								Displace		Common					
								9BL		USED 200SK 3611 10/11					
EQUIPMENT															
Pumptrk	9	No.	Cementer												
			Helper												
Bulktrk		No.	Driver												
			Driver												
Bulktrk	12	No.	Driver												
			Driver												
JOB SERVICES & REMARKS															
Remarks:								Hulls							
Rat Hole								Salt							
Mouse Hole								Flowseal 87#							
Centralizers								Kol-Seal							
Baskets								Mud CLR 48							
D/V or Port Collar								CFL-117 or CD110 CAF 38							
Test 5 1/2 to 1000ft Hold Open								Sand							
tagh pump 3# SK Gel v Est.								Handling 360							
Circulation - Mix 200SK + Cement								Mileage							
Circulation - Displace 9BL Close								FLOAT EQUIPMENT							
tool test to 1000ft. Hold. Run 5								Guide Shoe							
joints v wash clean.								Centralizer							
								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge							
								port collar Job							
								Mileage 51							
Tax															
Discount															
Total Charge															
X Signature															



QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 6/26/2013
 Invoice # 7956

P.O.#:

Due Date: 7/26/2013

Division: Russell

Invoice

Contact:

Samuel Gary Jr & Associates Inc

Address/Job Location:

Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

DRLG COMP W/O LOE GG

Account	8900.121
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

RECEIVED

JUL 03 2013

SAMUEL GARY JR.
& ASSOCIATES, INC.

Reference:

SPROUL ET AL 1-26

Description of Work:

SQUEEZ JOB

Services / Items Included:

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No				
Common-Class A	100	\$ 1,401.53	Yes				
Pump Truck Mileage-Job to Nearest Camp	51	\$ 568.86	No				
Bulk Truck Matl-Material Service Charge	200	\$ 447.06	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	51	\$ 332.88	No				
Sand	2	\$ 37.69	Yes				

Invoice Terms:

Net 30

SubTotal: \$ 3,808.56
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (571.28)

SubTotal for Taxable Items:	\$ 1,223.33
SubTotal for Non-Taxable Items:	\$ 2,013.94
Total:	\$ 3,237.28
Tax:	\$ 86.24

7.05% Norton County Sales Tax

Thank You For Your Business!

Amount Due: \$ 3,323.52
 Applied Payments:
 Balance Due: \$ 3,323.52

Past Due Invoices are subject to a service charge (annual rate of 24%)

This does not include any applicable taxes unless it is listed.

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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 7956

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-26-13				Norton	KS		11:45 A.M.
				Location Norton #283 & Hwy 9 3/4 1/2 E			

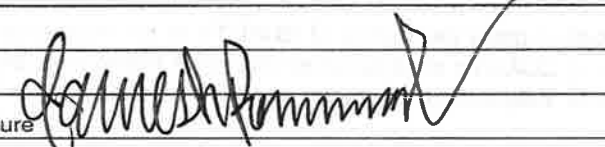
Lease	Spruiell ETAL	Well No.	1-26	Owner	To Quality Oilwell Cementing, Inc.
Contractor	Alliance Well Service	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job	Squeeze	Charge To	Sam Cary Jr. & Associates		
Hole Size	5 7/8	T.D.			
Csg. Size	5 1/2 15.50	Depth	Street		
Tbg. Size	2 7/8	Depth	City State		
Tool	Expert	Depth	The above was done to satisfaction and supervision of owner agent or contractor.		
Cement Left in Csg.		Shoe Joint	Cement Amount Ordered 200 Com		
Meas Line		Displace	USED 100SK 25 sand		

EQUIPMENT				Common	100
Pumptrk	17	No.	Cement Helper	Poz. Mix	
Bulktrk		No.	Driver	Gel.	
Bulktrk	14	No.	Driver	Calcium	
			Driver	Hulls	

JOB SERVICES & REMARKS		
Remarks:		Salt
Rat Hole		Flowseal
Mouse Hole		Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand 2
Aug set 3650 Test to 200'		Handling 200
Spot sand 3650 Perfs - 3438-41		Mileage
3454-58 3484-91		

FLOAT EQUIPMENT		
Rate 4BL @ 1500' Packer set to		Guide Shoe
Squeeze 3335 Mixed 100SK &		Centralizer
Shot off Wash around tool long way.		Baskets
Fill 2 joints & squeezed to 200'.		AFU Inserts
Shot in		Float Shoe
		Latch Down

Pumptrk Charge	Squeeze
Mileage	51

Signature 	Tax
	Discount
	Total Charge



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 7/1/2013
 Invoice # 7964
 P.O.#:
 Due Date: 7/31/2013
 Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

RECEIVED
 JUL 12 2013
 SAMUEL GARY JR.
 & ASSOCIATES, INC.

DRLG COMP W/O LOE GG

Account	8300-238
Well/Prospect	
Block	
AFE	
Approval	<i>[Signature]</i>
Description	

Reference:
 SPROUL ET AL 1-26

Description of Work:
 SQUEEZ JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	Yes				
Common-Class A	50	\$ 700.76	Yes				
Pump Truck Mileage-Job to Nearest Camp	51	\$ 568.86	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	51	\$ 332.88	Yes				
Bulk Truck Matl-Material Service Charge	50	\$ 111.76	Yes				

Invoice Terms:

Net 30

SubTotal:	\$	2,734.82
Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(410.22)
<hr/>		
SubTotal for Taxable Items:	\$	2,324.59
SubTotal for Non-Taxable Items:	\$	-
<hr/>		
Total:	\$	2,324.60
Tax:	\$	163.88
<hr/>		

7.05% Norton County Sales Tax

Thank You For Your Business!

Amount Due: \$ 2,488.48
Applied Payments:
Balance Due: \$ 2,488.48

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 7964

Date <u>7-1-13</u>	Sec.	Twp.	Range	County <u>Norton</u>	State <u>KS</u>	On Location	Finish <u>9:45AM.</u>
				Location <u>Norton S RD X 3/4 E Vinto</u>			

Lease <u>Sprossl ETAL</u>	Well No. <u>1-26</u>	Owner
Contractor <u>Alliance</u>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <u>Squeeze</u>		Charge To <u>Sam Coof Jr & Assoc.</u>
Hole Size <u>7 7/8</u>	T.D.	Street
Csg. <u>5 1/2</u>	Depth	City
Tbg. Size <u>2 7/8</u>	Depth	State
Tool <u>Expert</u>	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered <u>30 SK Com.</u>

Meas Line	Displace
-----------	----------

EQUIPMENT		Common <u>50</u>
Pumptrk <u>15</u> No.	Cementer <u>Craig</u>	Poz. Mix
	Helper <u>Wick</u>	Gel.
Bulktrk No.	Driver <u>Lantern</u>	Calcium
Bulktrk <u>14</u> No.	Driver	

JOB SERVICES & REMARKS	Hulls
-----------------------------------	-------

Remarks:	Salt
Rat Hole	Flowseal
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
<u>Parts - 3438-41 3484 91</u>	Handling <u>50</u>
<u>Spo - SDSK 3494. Wash Crane</u>	Mileage
<u>3332. Pul 1 joint to 3300.</u>	
<u>Load backside & shut in @ 500'. Squeeze</u>	
<u>to 2500'. & shut in.</u>	

	FLOAT EQUIPMENT
	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

	Pumptrk Charge <u>Squeeze</u>
	Mileage <u>51</u>

X Signature <u>James [Signature]</u>	Tax
	Discount
	Total Charge



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sam Gary Jr. and Associates Inc.

26-4s-23w

1515 Wynkoop STE 700
Denver, Co

Sproul #1-26

Job Ticket: 48524

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2013.04.17 @ 02:34:37

GENERAL INFORMATION:

Formation: **Toronto-Lans "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:28:57

Time Test Ended: 12:40:26

Test Type: Conventional Bottom Hole (Initial)

Tester: Jeff Brown/Daniel Fe

Unit No: 67

Interval: **3408.00 ft (KB) To 3466.00 ft (KB) (TVD)**

Reference Elevations: 2336.00 ft (KB)

Total Depth: 3466.00 ft (KB) (TVD)

2328.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 701.97 psig @ 3444.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.17 End Date: 2013.04.17

Last Calib.: 2013.04.17

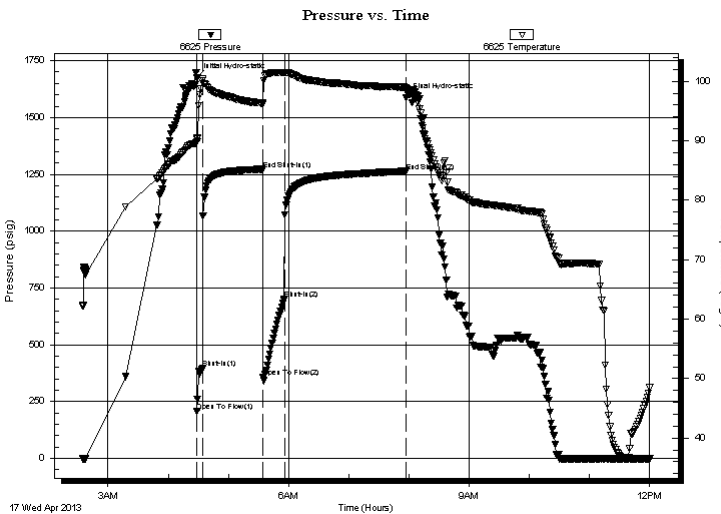
Start Time: 02:34:38 End Time: 12:01:26

Time On Btm: 2013.04.17 @ 04:28:47

Time Off Btm: 2013.04.17 @ 07:57:37

TEST COMMENT: IFP=5-min=Strong blow BOB in 1 min
 ISI=60-min=Dead no blow back
 FFP=22-min=Strong blow BOB in 1 min
 FSI=120-Min=Weak surface blow back built to 3 1/4 in

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1673.62	90.27	Initial Hydro-static
1	206.98	89.82	Open To Flow (1)
6	396.91	100.35	Shut-In(1)
66	1270.87	96.32	End Shut-In(1)
66	356.24	96.02	Open To Flow (2)
88	701.97	101.42	Shut-In(2)
209	1263.53	99.00	End Shut-In(2)
209	1585.68	99.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
122.00	Muddy water. 10% m / 90% w	1.45
935.00	OCMW. 20% o / 10 % m / 70% w	13.12
375.00	HOCGWM. 10% g / 40% o / 20% w / 30%	9.26
0.00	156 G.I.P.	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr. and Associates Inc.

26-4s-23w

1515 Wynkoop STE 700
Denver, Co

Sproul #1-26

Job Ticket: 48524

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2013.04.17 @ 02:34:37

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

53000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: 0.24 ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
122.00	Muddy water. 10% m / 90% w	1.447
935.00	OCMW. 20% o / 10 % m / 70% w	13.116
375.00	HOCGWM. 10% g / 40% o / 20% w / 30% m	5.260
0.00	156 G.I.P.	0.000

Total Length: 1432.00 ft

Total Volume: 19.823 bbl

Num Fluid Samples: 0

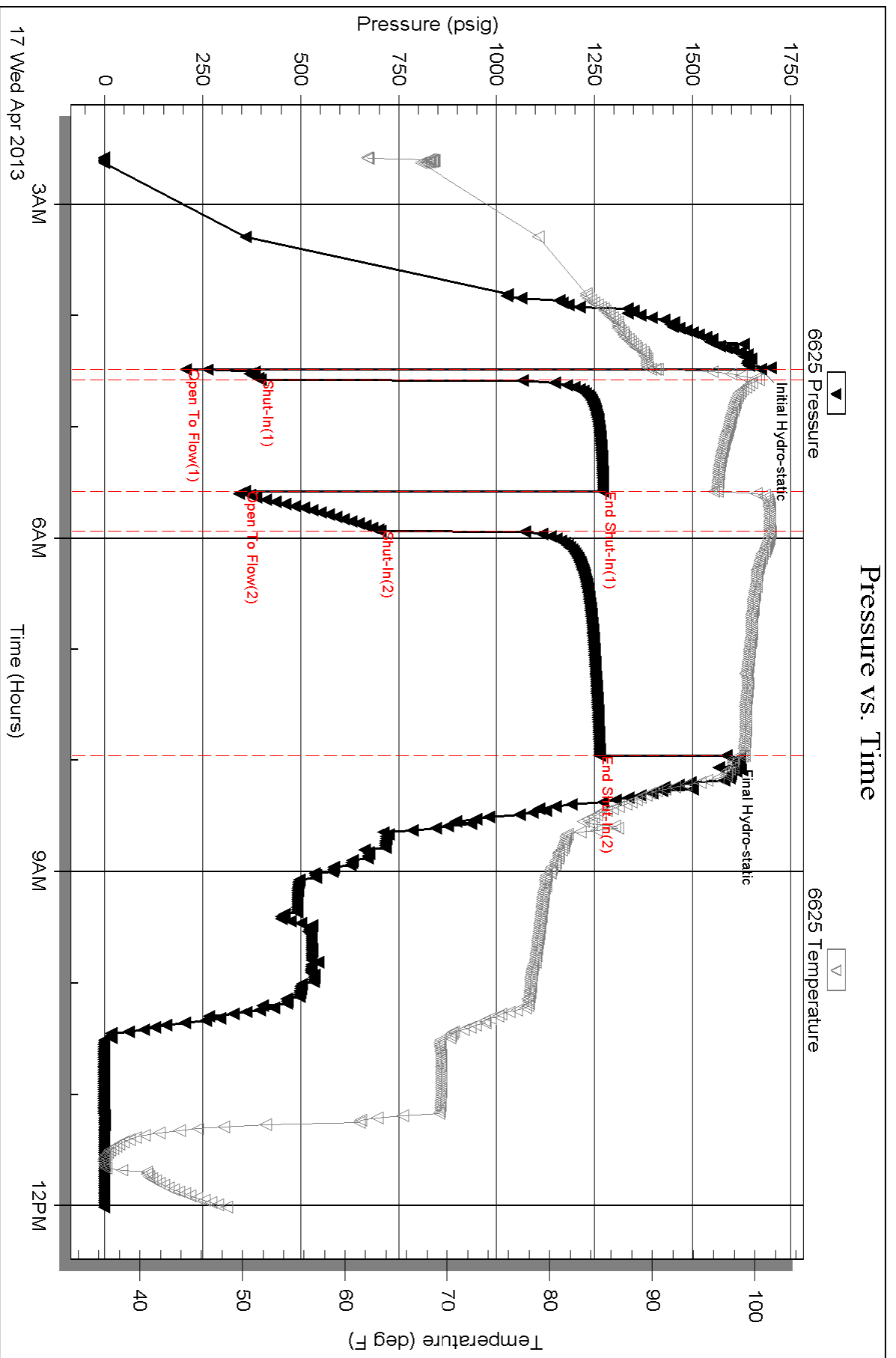
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 3000 MI Oil
310 Psi



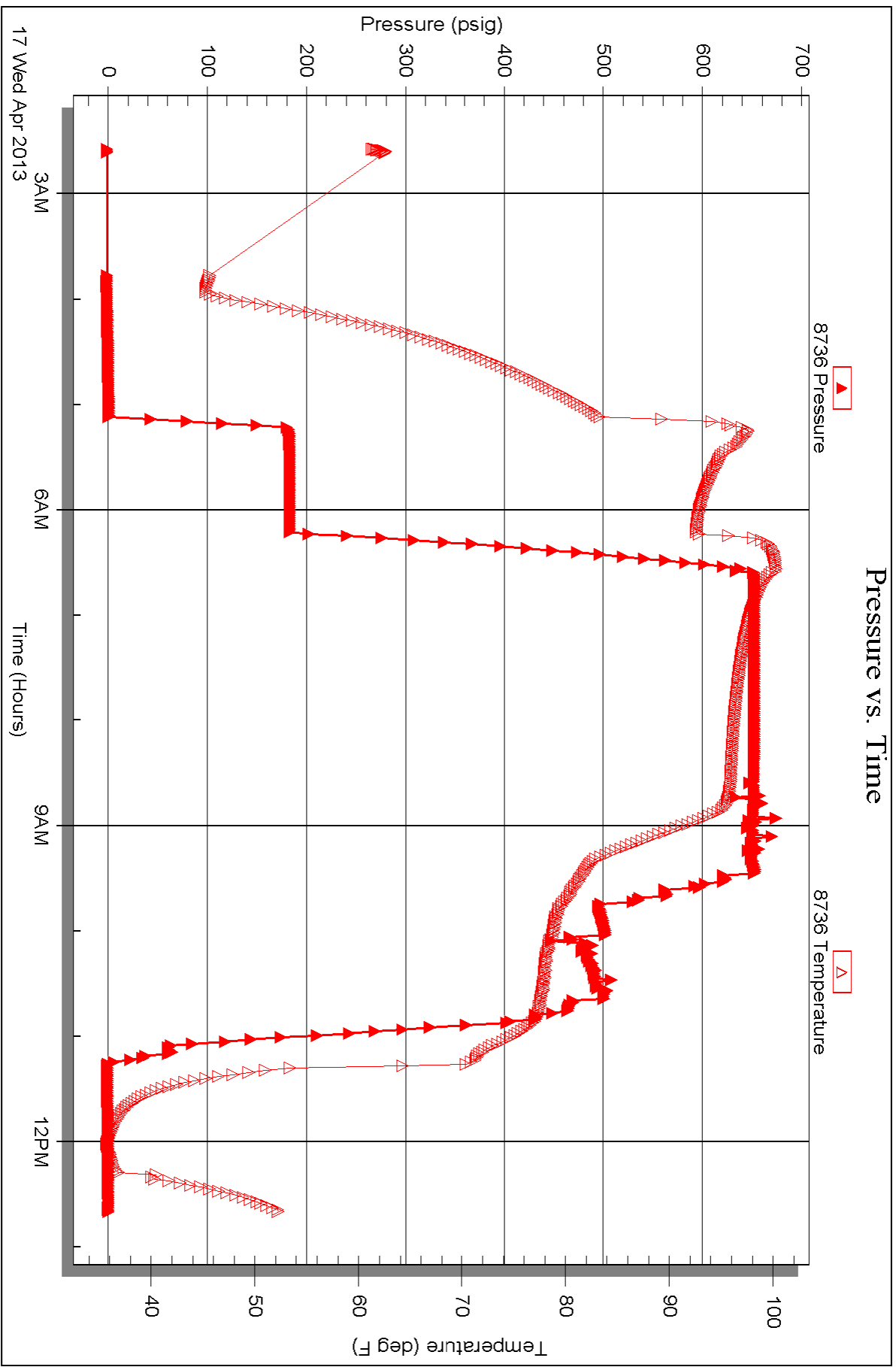
Serial #: 8736

Fluid

Sam Gary Jr. and Associates Inc.

Sprout #1-26

DST Test Number: 1





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary Jr. and Associates Inc.

26-4s-23w Norton KS

1515 Wynkoop STE 700
Denver, CO, 80202

Sproul #1-26

Job Ticket: 48525

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2013.04.18 @ 16:21:00

GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:21:00

Time Test Ended: 01:29:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn/Daniel

Unit No: 67

Interval: 3682.00 ft (KB) To 3723.00 ft (KB) (TVD)

Reference Elevations: 2336.00 ft (KB)

Total Depth: 3466.00 ft (KB) (TVD)

2328.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8679 Inside

Press @ Run Depth: 125.70 psig @ 3718.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.18

End Date:

2013.04.19

Last Calib.:

2013.04.19

Start Time: 16:21:01

End Time:

01:29:00

Time On Btm:

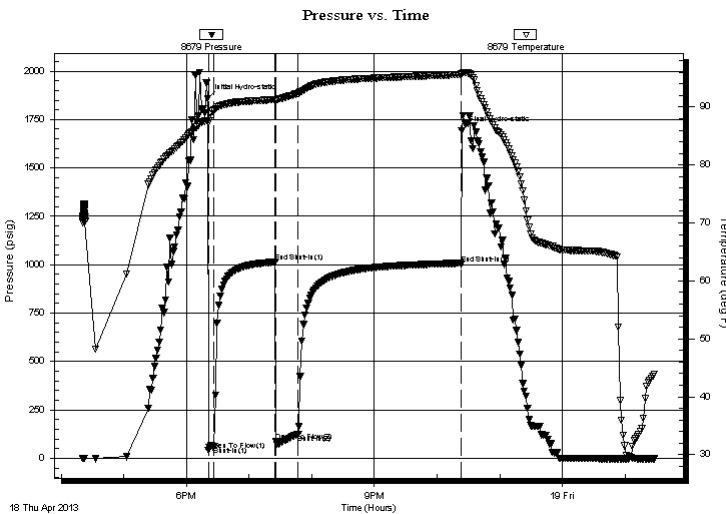
2013.04.18 @ 18:20:30

Time Off Btm:

2013.04.18 @ 22:23:30

TEST COMMENT: 05 - IFP- B.O.B in 5 Minutes
60 - ISF- Surface return
25 - FFP- B.O.B. in 4 Minutes
150 - FSF- 3/4" return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1859.50	87.70	Initial Hydro-static
1	42.48	87.29	Open To Flow (1)
6	61.41	89.49	Shut-In(1)
65	1013.59	91.29	End Shut-In(1)
65	90.19	91.05	Open To Flow (2)
87	125.70	92.36	Shut-In(2)
243	1002.07	95.62	End Shut-In(2)
243	1692.45	95.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GMCO - 10% g / 70% o / 20% m	0.61
124.00	GHOCM - 10% g / 40% o / 50% m	1.74
124.00	Free oil.	1.74

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr. and Associates Inc.

26-4s-23w Norton KS

1515 Wynkoop STE 700
Denver, CO, 80202

Sproul #1-26

Job Ticket: 48525

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2013.04.18 @ 16:21:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	GMCO - 10% g / 70% o / 20% m	0.606
124.00	GHOCM - 10% g / 40% o / 50% m	1.739
124.00	Free oil.	1.739

Total Length: 310.00 ft Total Volume: 4.084 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: G=24 @ 40 degrees = 26

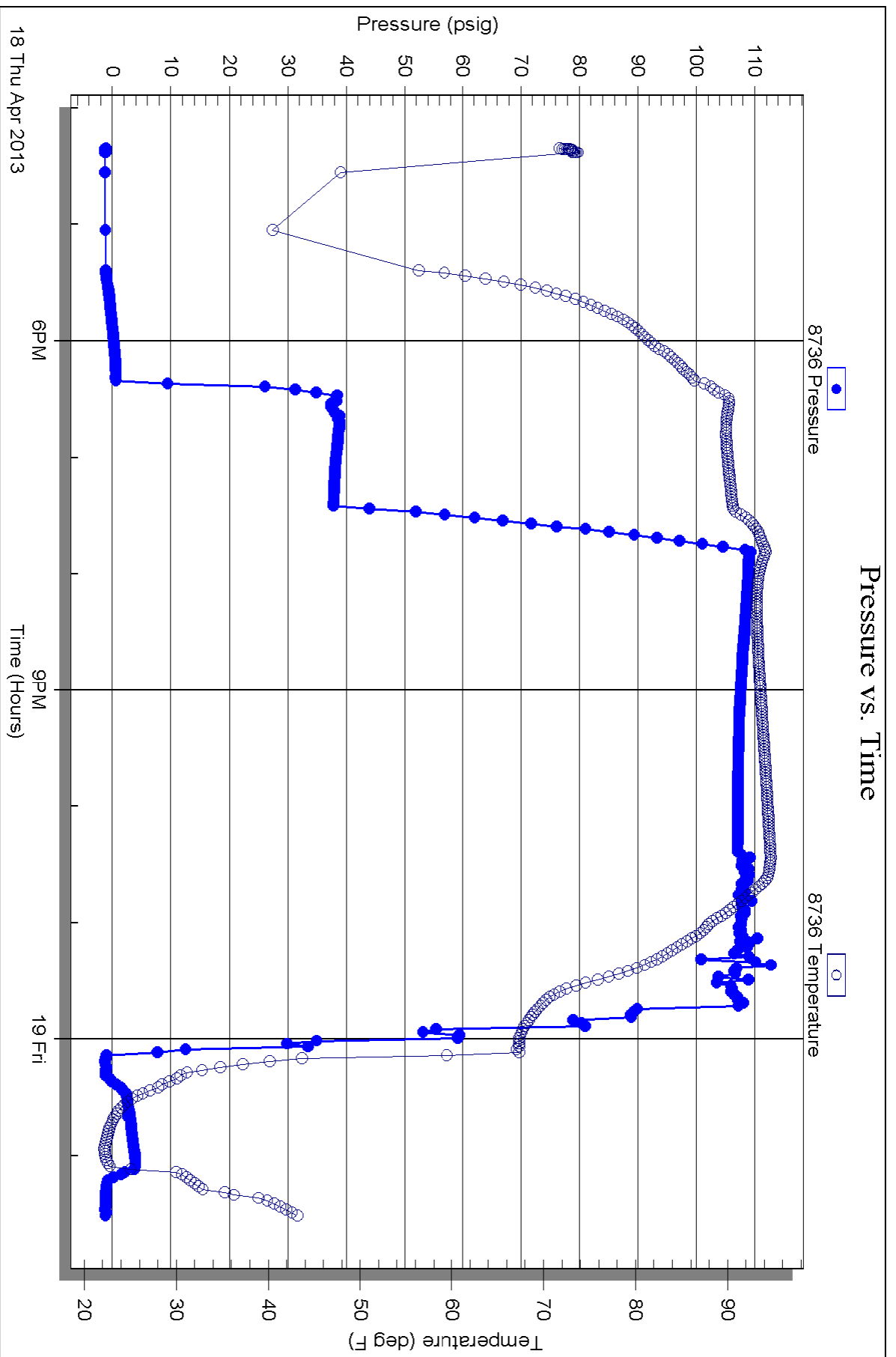
Serial #: 8736

Fluid

Sam Gary Jr. and Associates Inc.

Sprout #1-26

DST Test Number: 2





Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: SGA SPROUL ET AL 1-26
 Location: SEC. 26-4S-23W NORTON COUNTY, KANSAS
 License Number: 15-137-20647-0000 Region: WILDCAT
 Spud Date: April 13,2013 Drilling Completed: April 19,2013
 Surface Coordinates: 650' FSL & 2400' FWL

Bottom Hole Coordinates:
 Ground Elevation (ft): 2328' K.B. Elevation (ft): 2336'
 Logged Interval (ft): 3100' To: 3850' Total Depth (ft): 3850'
 Formation: Lansing, Arbuckle
 Type of Drilling Fluid: Natural Chemical

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Samuel Gary Jr. & Assoc.
 Address: 1515 Wynkoop, Ste. # 700
 Denver, Colo. 80202
 Geo: Clayton Camozzi

GEOLOGIST

Name: Schuyler Hedrick
 Company: Earth Tech OGL, Inc.
 Address: PO Box 683
 Hooker, Okla. 73945
 Off. 888-543-8378



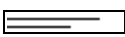
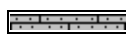
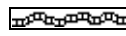



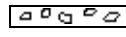



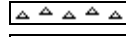






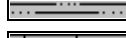



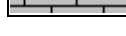

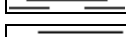



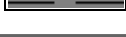
DST's Report

DST# 1 3408'-3466' 5-60-22-120
 IF- STRNG BLW BOB IN 1 MIN, ISI- DEAD NO BLW BCK, FF- STRNG BLW BOB IN 1 MIN, FSI- WK SURF.
 BLW BCK 3 1/4"
 IH- 1674, FH- 1586/ IF- 207 TO 397, FF- 356 TO 702/ ISI- 1271, FSI- 1264
 REC. 1432' OF TF./ 122' OF MUDDY WATER 90% WATER, 10% MUD/ 935' OF OCMW 20% OIL, 70% WATER,
 10% MUD/ 375' HOCGWM 10% GAS, 40% OIL, 20% WATER, 30% MUD/ 156' OF GIP/ BHT-99, GRAVITY- 31, API
 RW- .245 @ 42.3 DEG./ CHLOR.- 53,000 PPM

DST's Report

DST#2 3682' - 3723' 5 60 25 150
 IF- BOB 5MIN/ISI-SRFC BLO/FF- BOBO 4MIN./FSI- 3/4" BLO
 IH- 1860, FH- 1692/ IF- 42 TO 61, FF- 90 TO 126/ ISI- 104, FSI-1002
 REC.- 310' TF/ 124' FREE OIL, 100% O., 124' GOHCM, 10%G, 40% O., 50% M., 62' GMCO, 10%G. ,70% O., 20%
 M. BHT 95 DEG./ GRAVITY 26 PIT CHL- 800
 SAMPLER - 300 ML GAS/ 1600 ML OIL/ 100 ML MUD/ PRESS. 145 TOTAL 2000 ML

ROCK TYPES

 Anhy	 Gyp	 Shgy	 Sandylms
 Bent	 Igne	 Sltst	 Shale
 Brec	 Lmst	 Ss	 Sltstn
 Cht	 Meta	 Till	 Shlyslts
 Clyst	 Mrlst	 Carb sh	 Sltsh
 Coal	 Salt	 Dol	 Lms
 Congl	 Shale	 Dtd	
 Dol	 Shcol	 Gry sh	

ACCESSORIES

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr

- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Sltly

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn

- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang

- Angular

OIL SHOWS

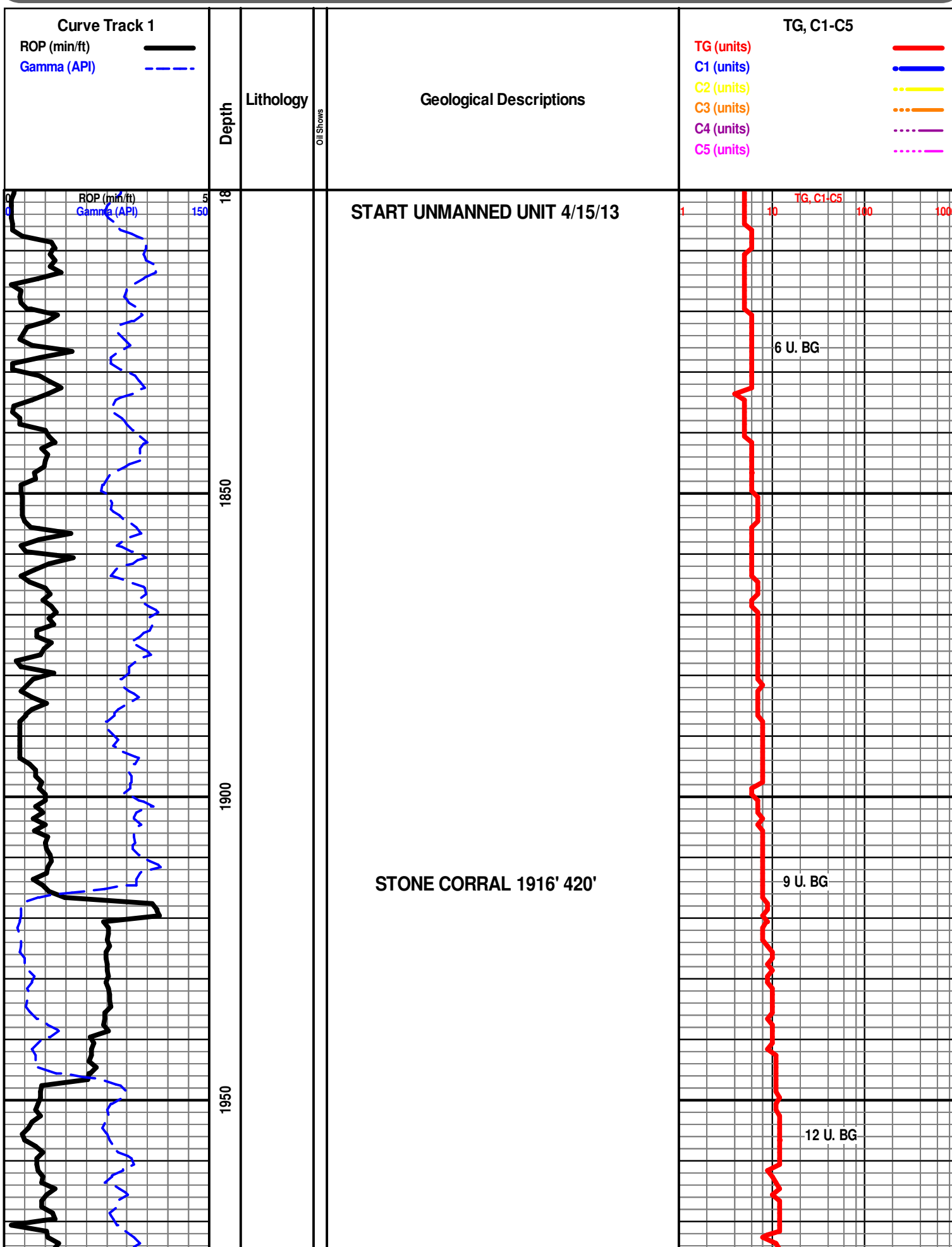
- Even
- Spotted
- Ques
- Dead
- Gas show

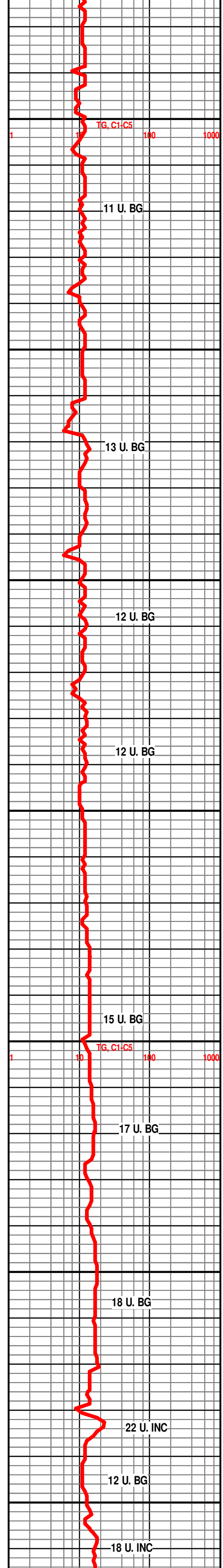
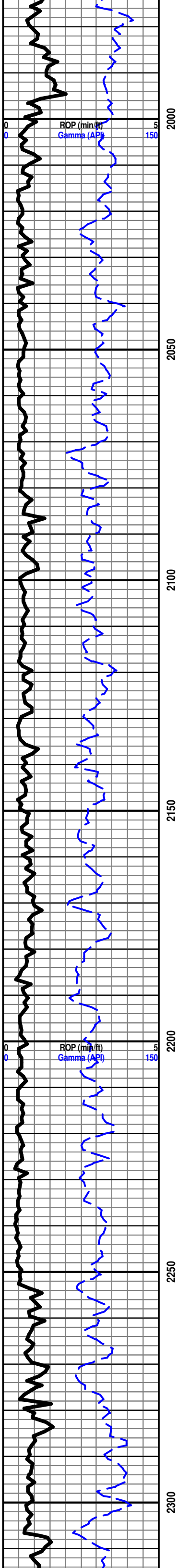
INTERVALS

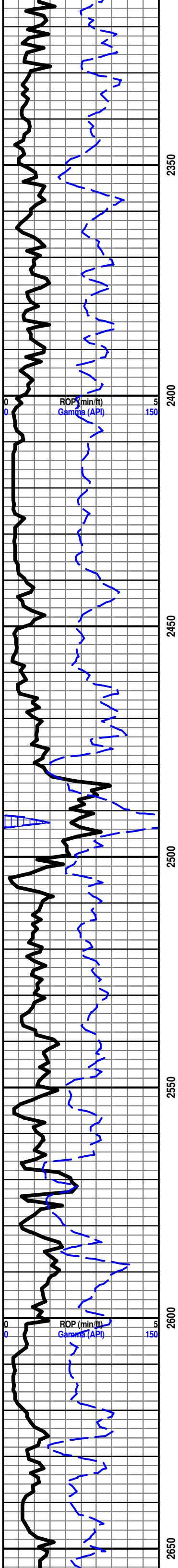
- Core
- Dst
- Dst

EVENTS

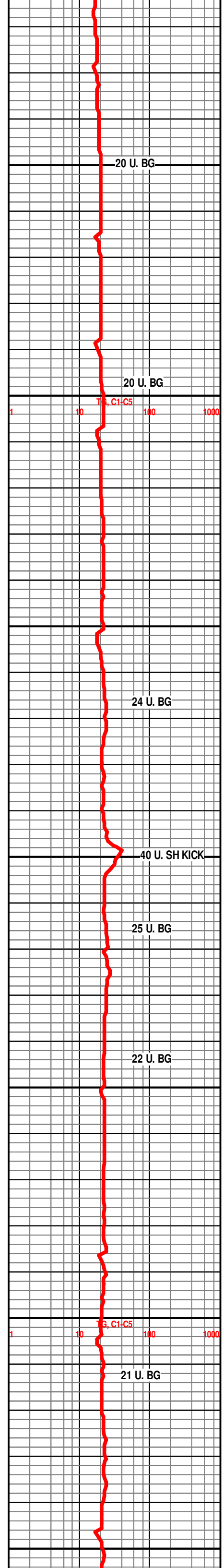
- Rft
- Sidewall

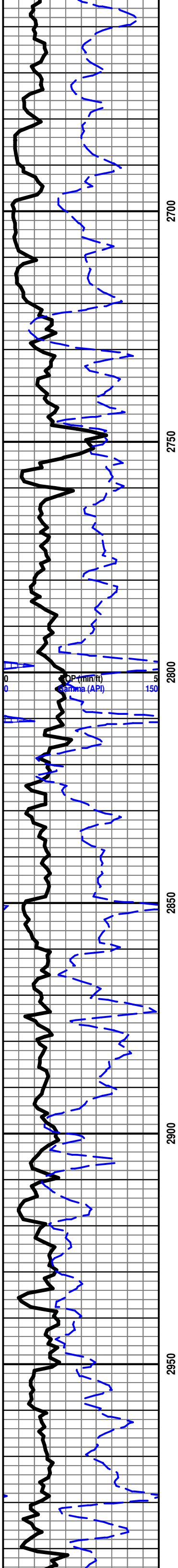




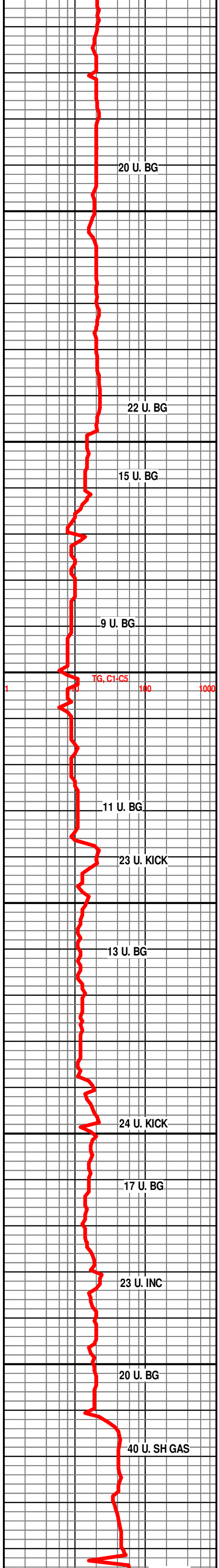


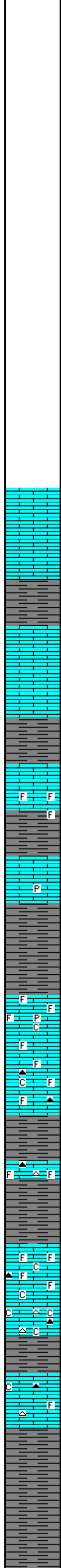
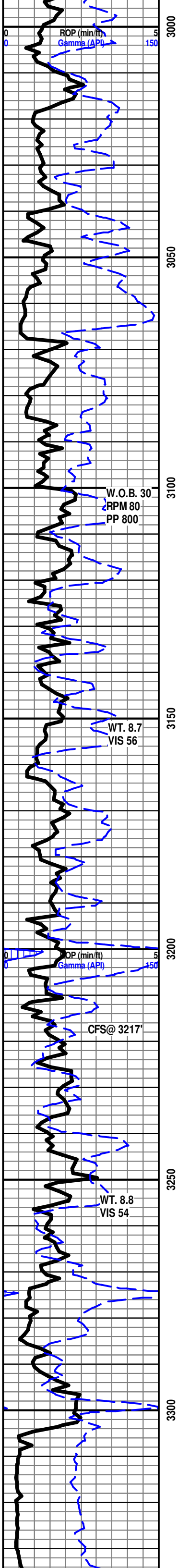
MATTFIELD 2483'-147'





NEVA 2797'-461'





TARKIO 3068'-732'

START 24 HR. MANNED UNIT 4/16/13

SH- GY TO DK GY LT GRN IP, FRM TO V SFT THRU, BLCKY SMTH TXT

SH- LT GY TO GY, FRM TO SFT, SPLNTY

LS- WHT TO OFF WHT CRM IP, HD DNS TO BRTT, MD/F-XLN, S-CHLKY, S-SUCRO IP, SCAT IMB CALC-XLS, SFT WHT CHLK THRU TRAY, YEL FLO IN 80%, NO VIS POR, NO VIS CUT OR SHOW

SH- GY TO GRN MOTT, FRM TO SFT, BLCKY SMTH TXT

LS- CRM TO LT TN, HD DNS TO BRTT, MD/XLN, RE-XLN IP, SLI TR S-CHLKY, SCAT IMB FOSS FRGS, IMB CACL-XLS IP, SLI TR FREE FOSS IN TRAY, DUL YEL FLO IN 40%, YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT TO CRM, HD DNS TO BRTT, MD/F-XLN MTRX, TR RE-XLN IP, S-CHLKY IP, SCAT IMB CACL-XLS, SLI TR PYR IN TRAY, DUL YEL FLO IN 30%, YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

TOPEKA 3210'-874'

LS- OFF WHT TO CRM, DNS TO V BRTT, V RE-XLN MTRX, S-CHLKY, IMB CALC-XLS THRU, SCAT IMB FOSS FRGS, SLI TR PYR IN TRAY, DUL YEL GLD FLO IN 30%, PR SCAT MICRO-VUG POR IN 2%, PR INTER-XLN POR IN 1%, NO VIS CUT OR SHOW

LS- OFF WHT CRM TO BFF- HD TO BRITT, MD-FXLN, RE-XLN MTRX, IMBD FOSS FRGS IP, TR S-CHLKY IP, HVY TR SCAT SMLL IMBD CALC XLS OR SMLL QURTZ GRNS IP, TN ORNG CHRT, DLL YEL MIN FLO THRU, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM BFF- HD DNS TO BRITT, MD-FXLN RE-XLN MTRX, IMBD SMLL CALC XLS IP, IMBD FOSS FRGS SCAT IP, ABDT WHT ORNG MOTT CHRT, DLL YEL MIN FLO, NO VIS POR, NO VIS SHOW

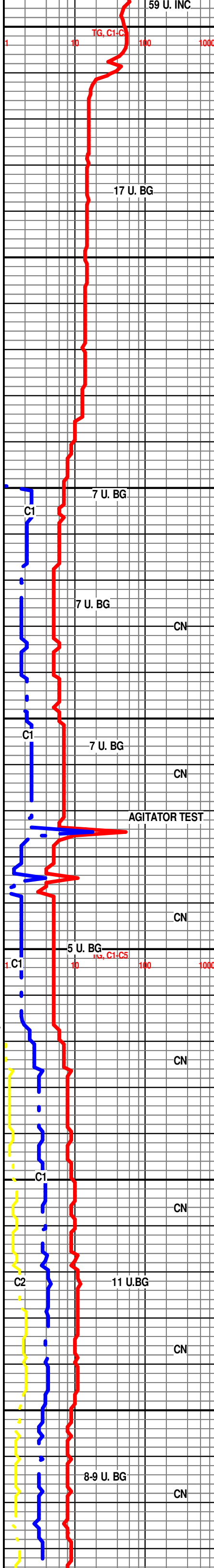
SH- LT GY GY- FRM BLKY SMTH TXT TO SLI GRNY IP

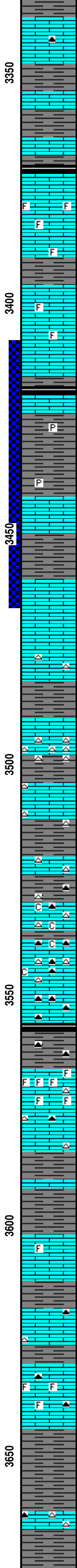
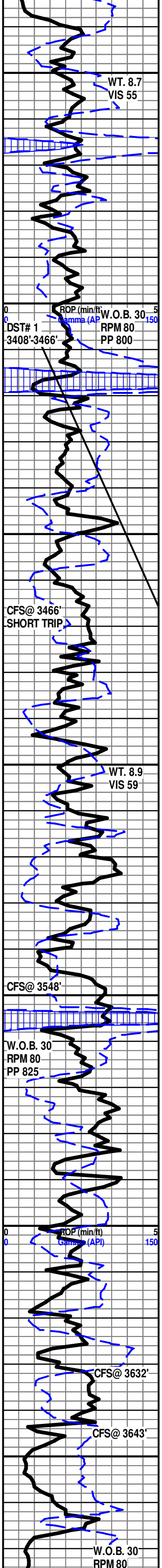
LS- CRM BFF- HD TO BRITT IP, MD-XLN V/ RE-XLN MTRX, V/ FOSS, TR FREE FOSS, V/ SMLL CALC XLS IMBD THRU, V/ S-CHLKY IP GRDING TO ABDT SFT WHT CHLK, ABDT ORNG WHT WTHRD CHRT. LT BRIT YEL MIN FLO THRU, NO VIS POR, TO TR PR INTER-FOSS POR IP, NO VIS SHOW OR CUT

SH- MD GY- FRM BLKY SMTH TXT

LS- OFF WHT CRM- HD DNS F-V/F-XLN, SUCRO S-CHLKY IP, SLI TR FOSS IP, TR WHT ORNG MOTT CHRT, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW OR CUT

SH- RD TO DK RD GRN, SFT TO V GMMY, BLCKY SMTH TXT





LS- OFF WHT TO CRM, HD DNS TO BRTT IP, F-XLN, S-SUCRO, TR S-CHLKY IP, SCAT IMB CALC-XLS THRU, TR ORNG CHRT, YEL MIN FLO IN 70%, NO VIS POR, NO VIS CUT OR SHOW

SH- GY TO DK GY, FRM TO SFT IP, SPLNTY

SH- BLCK SFT CARB

LS- CRM TO LT TN IP, HD DNS TO BRTT, RE-XLN MTRX, S-SUCRO THRU, SLI TR S-CHLKY IP, ABTD IMB CALC-XLS THRU, SCAT IMB FOSS FRAGS IP, SLI TR CHLK IN TRAY, DUL YEL FLO IN 50%, SCAT INTER-FOSS POR IN 1%, SLI TR INTER-XLN POR IP, NO VIS CUT OR SHOW

HEEBNER 3416'-1080'

SH- BLCK SFT CARB

SH- LT GY TO GY, V FRM TO TR SFT IP, BLCK SMTH TXT, TR IMB PYR

3442'-3444' LS- CRM TO LT TN (W/ TN OIL STN IN 60%, & LIVE OIL STN SCAT THRU), HD DNS TO BRTT, RE-XLN, CRS SUCRO MTRX THRU, ABTD IMB S-ANG SM TO MD LM GRNS, SCAT IMB CALC-XLS, DUL YEL GLD FLO THRU, YEL GLD FLO IN 20%, PR TO FR TO TR GD INTER-XLN POR IN 6-7%, FR FLSH CUT THRU, GD SLW STRM CUT THRU, DK TN LCH ON DSH, GD OIL ODOR

LANSING 3461'-1125'

3462'-3364' LS- CRM TO LT (DUE TO LT TN TO TN OIL STN IN 30%, LIVE OIL STN IP, HD DNS TO BRTT IP, F/VF-XLN, SUCRO MTRX, TR S-CHLKY IP, TR SCAT IMB CALC-XLS IP, DUL YEL GLD FLO IN 30%, PR TO TR FR VUG POR 2%, V PR TO PR INTER-XLN POR IP, V GD FLSH CUT THRU, GD SLW STRM CUT THRU, TN TO DK TN LCH ON DSH, FR OIL ODOR

LANSING "B" ZONE 3490'-1154'

3492'-3495' LS- OFF WHT (W/ LT TN TO TN OIL STN IN 70%), HD DNS TO BRTT, MD/XLN, RE-XLN, SUCRO MTRX, SCAT IMB FOSS FRAGS, ABTD WHT TO LT GY TO GY CHRT THRU, SLI TR SCAT PYR IN TRAY, DUL YEL GLD FLO THRU, YEL GLD FLO IN 20%, SPTTD BRT YEL GLD FLO IP, V PR TO PR TO TR FR SCAT MICRO VUG POR IN 1-2%, GD FLSH CUT THRU, GD SLW STRM CUT THRU, DK TN LCH ON DSH, GD OIL ODOR

LS- OFF WHT TO LT GY MOTT, HD DNS TO BRTT IP, MD/F/VF-XLN MTRX, S-CHLKY, SCAT IMB CALC-XLS, TR WHT CHRT, SCAT SFT WHT CHLK, DUL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GY TO LT GRN MOTT, V FRM, BLCK SMTH TXT, SCAT WHT & ORNG MOTT CHRT THRU

LS- OFF WHT TO CRM, HD DNS, F/VF-XLN, CHLKY MTRX, SCAT IMB CALC-XLS, ABTD WHT & ORNG CHRT THRU, ABTD SFT WHT CHLK THRU, LT YEL MIN FLO THRU, NO VIS POR, NO VIS CUT OR SHOW

LANSING "F" SHALE 3559'-1223'

SH- BLCK SFT CARB W/ LT GRN TO LT GY IP, FRM TO V SFT, BLCKY SMTH TXT, SCAT ORNG CHRT

3568'-3570' LS- WHT TO OFF WHT (W/ TN OIL STN SCAT IN 10-20%), MD-XLN, RE-XLN, S-CHLKY THRU, TR S-SUCRO, ABTD IMB FOSS FRAGS THRU, TR SCAT SFT WHT CHLK IN TRAY, TR WHT & ORNG CHRT IN TRAY, SPTTD YEL GLD FLO IN 20%, PR SCAT INTER-FOSS POR IN 1-2%, V PR WK FLSH CUT IN 20%, V PR SLW STRM CUT IP, NO VIS LCH ON DSH, NO OIL ODOR

SH- RD TO DK RD, V FRM TO SFT, BLCKY SLTY TXT

SH- RD LT GRN TO GRN MOTT, FRM TO SFT, BLCKY SLTY TO SMTH TXT

LANSING "G" ZONE 3603'-1267'

3604'-3606' LS- LT TN TN BRN- BRN STN IN 10%, HD DNS, V/ TT SUCRO MTRX, TR RE-XLN, TR FOSS IMBD IP, DLL YEL GLD FLO IP TO TR LT BRIT YEL FLO IP, NO VIS POR, V/ GD FLSH CUT TO EXCEL SLO STRM CUT IP, NO ODOR

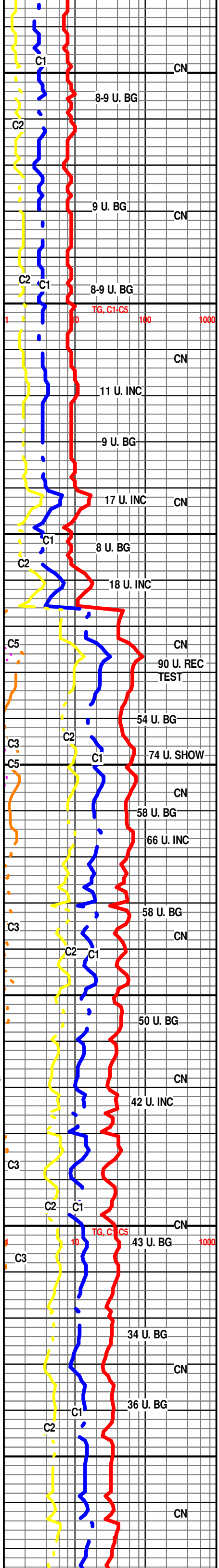
LS - CRM BFF- HD DNS, F-XLN IP TO SUCRO SLI S-CHLKY MTRX, SCAT IMBD GY RED CHRT, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

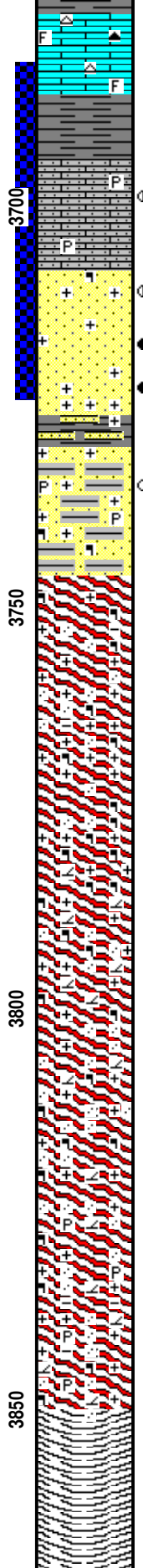
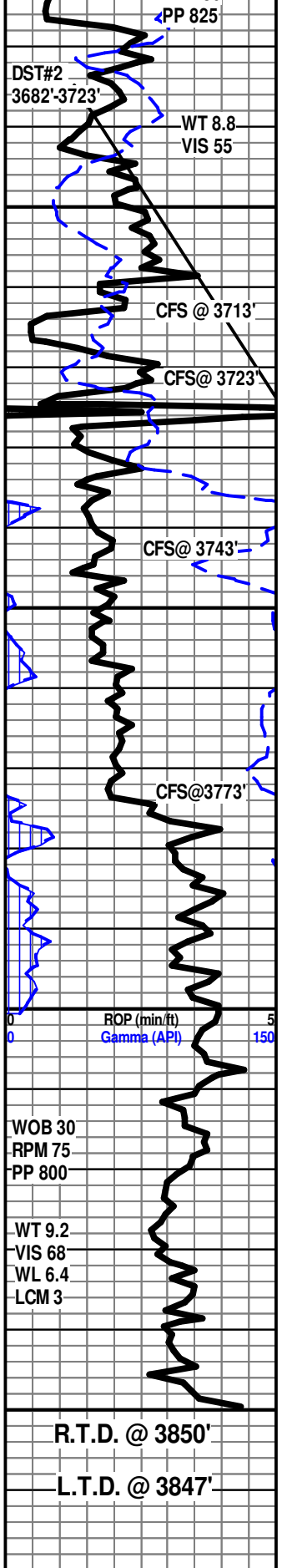
LS- OFF WHT TO CRM, F/VF-XLN MTRX, S-CHLKY, SCAT IMB FOSS FRAGS, IMB ORNG CHRT, TR SFT WHT CHLK IN TRAY, V DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

BKC 3644'-1308'

SH- RD TO DK RD, SFT TO V GMMY THRU

SH- RD TO DK RD GRN IP, SFT TO V GMMY THRU





LS- OFF WHT TO LT GY IP, HD DNS, F/VF-XLN, SUCRO MTRX, IMB FOSS FRAGS, SCAT IMB CALC-XLS IP, ABDT SFT WHT CHLK THRU TRAY, SCAT WHT & ORNG CHRT, DUL YEL FLO SCAT IN 20%, NO VIS POR, NO VIS CUT OR SHOW

3695'-3700' LS- OFF WHT CRM - HD DNS V/ SUCRO MTRX, ABDT IMBD FN TO V/ FN QRTZ GRNS THRU, FRSTY TO CLR GRNS, S-ANG TO S-RND GRNS, HVY TR PYR CLSR, V/ DLL YEL GLD FLO IP, W/ SCAT SPTTD BRIT YEL FLO, TR V/PR INTER-GRN POR IP, EXCEL FLSH CUT IN 10% TO EXCEL SLO STRM CUT IN 10%, LIVE OIL IN TRAY

REAGAN 3709'-1373'

3709-3713' SS- PRED UNCONSOLIDATED GRAINS, MD TO CRS TO PBBL SIZE GRNS, ANG S-ANG TO S-RND TR RND, FR SRT, CLR TO FRSTY GRNS, HVY TR FELDSPR, HVY TR MINERAL, TR IMBD LT GRN SH IP, BRIT YEL GLD FLO IN 20%, FR FLSH CUT IN 30%, GD SLO STRM CUT IN 30%, TR LIVE OIL IN TRAY, NO ODOR, NO LCH ON DISH

3713-3723' SS-PRED UNCLD GRNS, MD TO CRS TO PBBLE SIZED GRNS, S-ANG TO S-RND TO RND CLR TO FRSTY QRTZ GRNS, TR ANG GRNS, FR SRT, FELDSPR, MICA IP, 80% QUARTZ, 20% FELDSPR, DLL YEL GLD FLO IN 30%, BRIT YEL GLD FLO IN 30%, EXCEL INST FLSH CUT THRU TO EXCEL SLO STRM MLKY BLU CUT THRU, GD OIL ODOR, ABDT LIVE OIL IN TRAY, TN LCH ON DISH

3728'-3731' SH- RD GRN PRP MOTT, FRM TO SFT, W/ TR IMB SM TO MD S-RND CLR QRTZ GRNS, HVY TR FELDSPR, IMB PYR

3734'-3743' SS & SH INTERBEDS- CLR TO FRST, HD, F/VF/CRS ANG/S-ANG/S-RND CLR QRTZ GRNS, W/ IMB MICA FELDSPR, LMNTD MOTT SH'S, NO VIS FLO, NO VIS POR, TR SLW STRM CUT IN 1 ROCK

GRANITE WASH 3745' - 1409'

3746-3773- GRANTE WASH- ORNG PINK RED- HD DNS - ANG S-ANG, MOSAIC OF FELDSPR, ABDT QUARTZ, BIOTITE, TR CLAY, HEMATITE, NO FLO, NO VIS POR, NO VIS SHOW

3773-3785 GRANTE WASH- ORNG PINK RED- HD TT TO FRI IP - ANG S-ANG, MOSAIC OF FELDSPR, ABDT QUARTZ, BIOTITE, TR CLAY, HEMATITE, NO FLO, NO VIS POR, NO VIS SHOW

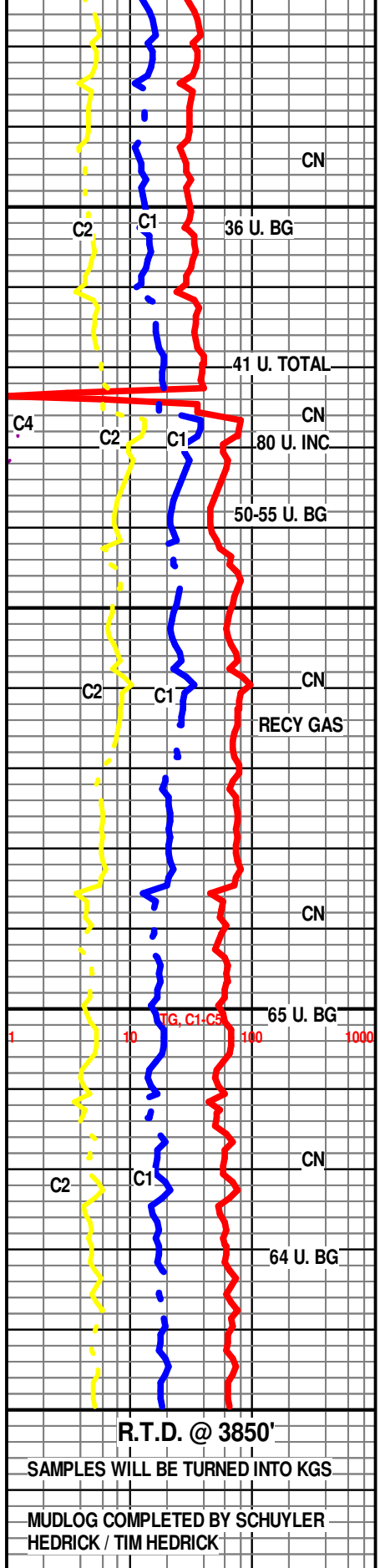
3785-3800- GRNITE WASH -CLR ORNG PINK RED- HD TT TO FRI IP - ANG S-ANG, MOSAIC OF FELDSPR, ABDT ANG QUARTZ, SCAT IMBD WHT DOLO, BIOTITE, HEMATITE, NO FLO, NO VIS POR, NO VIS SHOW

3800-3820- GRANITE WASH- ORNG PINK RED CLR- HD DNS, ABDT SMLL TO MD ANG QRTZ, ABDT BIOTITE, WHT DOLO IMBD IP, ABDT FELDSPAR, NO FLO, NO VIS POR, NO VIS SHOW

3820-3840' GRANITE WASH- ORNG PINK RED CLR- HD TT TO FRI IP, ABDT SMLL TO MD ANG QRTZ, ABDT BIOTITE, WHT DOLO IP, ABDT FELDSPAR, TR PYR CLSTRS, NO FLO, NO VIS POR, NO VIS SHOW

GRANITE WASH- ORNG PINK RED CLR- HD TT TO FRI IP, ABDT SMLL TO MD ANG QRTZ, ABDT BIOTITE, WHT DOLO W/ DISS PYR IMBD IP, ABDT FELDSPAR, TR PYR CLSTRS, NO FLO, NO VIS POR, NO VIS SHOW

R.T.D. @ 1:34 PM April 19,2013
CTCH 1.5 HRS
TOFL/ WEATHERFORD/ LIBERAL



R.T.D. @ 3850'

SAMPLES WILL BE TURNED INTO KGS

MUDLOG COMPLETED BY SCHUYLER HEDRICK / TIM HEDRICK

ADDITIONAL CEMENTING/SQUEEZE RECORD

PLUG OFF ZONE 3522'-3527' COMMON CLASS A 50 SKS 2% GEL, 3% CC