

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1234690  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

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

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

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

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

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1234690

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Tapstone Energy, LLC
Well Name	Ralph 36-34-9 SWD
Doc ID	1234690

All Electric Logs Run

Density Neutron
Induction
Spectral Gamma Ray
Cement Bond Log
Microresistivity

Form	ACO1 - Well Completion
Operator	Tapstone Energy, LLC
Well Name	Ralph 36-34-9 SWD
Doc ID	1234690

Tops

Name	Top	Datum
Base Heebner	3520	
Lansing	3832	
Cottage Grove	4120	
Oswego Limestone	4428	
Cherokee Group	4535	
Verdigris Limestone	4575	
Mississippi Lime	4702	
Kinderhook	4988	
Woodford	5092	
Viola	5126	
Simpson	5208	
Simpson Shale	5282	
Oil Creek	5361	
Arbuckle	5402	
Granite		





7303 N. Highway 81  
Duncan, OK 73533

# Invoice

Date:	Invoice #:
11/30/2014	0000018366

Phone # (580) 255-3111

Bill To
Tapstone Harper Office PO Box 1608 Oklahoma City, OK 79101

Description of Work
HARPER,COUNTY KS AFE 14025 API 15-077-22115-00-00
Job Type: Surface (New Well Only)

Field Receipt	Terms	Service Date	Due Date	AFE No	Lease/Well Name
SOK4549	Net 30	11/29/2014	12/30/2014	AFE 14025	RALPH 36-34-9 SWD

Item	Description	U/M	Qty	Price Each	Amount	Disc %	Disc Amt	Net Amount
ML001	Pickup Mileage	UNTMIL	100	4.26	426.00	65.00%	-276.90	149.10
ML002	Pump Truck/Heavy Vehicle Mileage	UNTMIL	100	7.32	732.00	65.00%	-475.80	256.20
ML003	Bulk Cement Delivery/Return	MILE	1,178	2.95	3,475.10	65.00%	-2,258.82	1,216.28
MX001	Bulk Material Mixing Service Charge	SCF	517	3.27	1,690.59	65.00%	-1,098.88	591.71
CC001	Pump Charge 0-1000'	4-HRS	1	2,038.61	2,038.61	65.00%	-1,325.10	713.51
ML014	Fuel Surcharge *	JOB	1	653.40	653.40	100.00%	-653.40	0.00
AE014	Environmental Fee*	JOB	1	228.69	228.69	100.00%	-228.69	0.00
PC003	Employee/Supervisor Retention/perdiem	PR/MAN	3	1,306.80	3,920.40	90.00%	-3,528.36	392.04
JM001	Data Acquisition System	JOB	1	1,437.48	1,437.48	65.00%	-934.36	503.12
AE002	Cement Head with manifold	JOB	1	1,176.12	1,176.12	65.00%	-764.48	411.64
AE003	Circulation Equipment( 40' of equipment)	JOB	1	1,633.50	1,633.50	65.00%	-1,061.78	571.72
CL017	9 5/8" Top Rubber Plug	EACH	1	338.80	338.80	40.00%	-135.52	203.28
CP001	C (Premium Plus Cement) (94 lbs/ft3)	94SACK	490	30.80	15,092.02	56.00%	-8,451.53	6,640.49
CP010	Cello Flake	LBS	123	4.20	516.60	56.00%	-289.30	227.30
CP018	Calcium Chloride	LBS	972	1.22	1,185.84	56.00%	-664.07	521.77
CP031	Sugar	LBS	100	3.39	339.00	0.00%	0.00	339.00
CC015	Pump Charge Additional Hours	UNTHRS	6	588.06	3,528.36	35.00%	-1,234.93	2,293.43
AE012	Bulk Unit Additional Hours	UNTHRS	6	130.68	784.08	35.00%	-274.43	509.65

Subtotal Amount	*****
Sales Tax	*****
Discount Amount	*****
Payment/Credit Amount	*****
Total Net Amount	*****

Contact: Ellen Yoder



7303 N. Highway 81  
Duncan, OK 73533

# Invoice

Date:	Invoice #:
11/30/2014	0000018366

Phone # (580) 255-3111

Bill To
Tapstone Harper Office PO Box 1608 Oklahoma City, OK 79101

Description of Work
HARPER,COUNTY KS AFE 14025 API 15-077-22115-00-00
Job Type: Surface (New Well Only)

Field Receipt	Terms	Service Date	Due Date	AFE No	Lease/Well Name
SOK4549	Net 30	11/29/2014	12/30/2014	AFE 14025	RALPH 36-34-9 SWD

Item	Description	U/M	Qty	Price Each	Amount	Disc %	Disc Amt	Net Amount

<b>Subtotal Amount</b>	39,196.59
<b>Sales Tax</b>	487.81
<b>Discount Amount</b>	-23,656.35
<b>Payment/Credit Amount</b>	0.00
<b>Total Net Amount</b>	16,028.05

Contact: Ellen Yoder

12/11/14

**O-TEX Pumping LLC**

Service Location Fairview, Oklahoma  
 Service Address 601 Industrial Blvd #1187

Service Date: 11/29/2014  
 Customer Tapstone Energy  
 Address:  
 City  
 St  
 Customer Rep 0  
 Phone 713-758-0636

**FIELD RECEIPT**  
 580-227-2727

Project Number: SOK 4549

**JOB TYPE**  
**CASING SIZE**  
 Job Type Surface  
 Serv. Sup. Arthur Setzer  
 Page 1 of 1

Well Name: Ralph  
 Well Number: 36-34-9 SWD  
 County: Harper  
 State: Kansas  
 API #: 15-077-22115-00-00  
 AFE #: DC14025  
 PERMIT #

**TAPSTONE ENERGY**  
 AFE # DC14025  
 WELL # 36-34-9 SWD  
 RIG UNIT 303  
 ACT CODE 830-36  
 APPROVED AMT 15,540.25  
 CO. REP [Signature]  
 DATE 11/29/14  
 Phone number

REF #	DESCRIPTION	U OF MEAS.	UNIT PRICE	QUAN	GROSS	%DISC	disc	NET
ML001	Pickup Mileage	per mile/ per Unit	4.26	100.0	\$426.00	65%	\$276.90	\$149.10
ML002	Pump Truck/Heavy Vehicle Mileage	per mile/ per Unit	7.32	100.0	\$732.00	65%	\$475.80	\$256.20
ML003	Bulk Cement Delivery/Return	per Ton-Mile	2.95	1,178.0	\$3,475.10	65%	\$2,258.82	\$1,216.29
MX001	Bulk Material Mixing Service Charge	per cuft	3.27	517.0	\$1,690.59	65%	\$1,098.88	\$591.71
CC001	Pump Charge 0-1000'	(per 4 hrs)	2,038.61	1.0	\$2,038.61	65%	\$1,325.10	\$713.51
ML014	Fuel Surcharge *	per unit per job	653.40	1.0	\$653.40	100%	\$653.40	\$0.00
AE014	Environmental Fee*	per job	228.69	1.0	\$228.69	100%	\$228.69	\$0.00
PC003	Employee/Supervisor Retention/perdiem	per job	1,306.80	3.0	\$3,920.40	90%	\$3,528.36	\$392.04
JM001	Data Acquisition System	Per Job	1,437.48	1.0	\$1,437.48	65%	\$934.36	\$503.12
AE002	Cement Head with manifold	per job	1,176.12	1.0	\$1,176.12	65%	\$764.48	\$411.64
AE003	Circulation Equipment( 40' of equipment)	per job	1,633.50	1.0	\$1,633.50	65%	\$1,061.78	\$571.73
CL017	9 5/8" Top Rubber Plug	Each	338.80	1.0	\$338.80	40%	\$135.52	\$203.28
CP001	C (Premium Plus Cement) (94 lbs/ft3)	per sk	30.80	490.0	\$15,092.00	56%	\$8,451.52	\$6,640.48
CP010	Cello Flake	per lb	4.20	123.0	\$516.60	56%	\$289.30	\$227.30
CP018	Calcium Chloride	per lb	1.22	972.0	\$1,185.84	56%	\$664.07	\$521.77
CP031	Sugar	per lb	3.39	100.0	\$339.00	0%	\$0.00	\$339.00
CP001	C (Premium Plus Cement) (94 lbs/ft3)	per sk	30.80	-	\$0.00	56%	\$0.00	\$0.00
CP018	Calcium Chloride	per lb	1.22	-	\$0.00	56%	\$0.00	\$0.00
AE022	1" Pipe for Top-Out*	per ft	7.90	-	\$0.00	20%	\$0.00	\$0.00
ML003	Bulk Cement Delivery/Return	per Ton-Mile	2.95	-	\$0.00	65%	\$0.00	\$0.00
MX001	Bulk Material Mixing Service Charge	per cuft	3.27	-	\$0.00	65%	\$0.00	\$0.00
CC015	Pump Charge Additional Hours	per hour/per unit	588.06	6.0	\$3,528.36	35%	\$1,234.93	\$2,293.43
AE012	Bulk Unit Additional Hours	Per unit/per hour	130.68	6.0	\$784.08	35%	\$274.43	\$509.65
					\$39,196.57		\$23,656.32	\$15,540.25

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT.

Customer Authorized Agent: \_\_\_\_\_



# SERVICE ORDER CONTRACT

Customer Name Tapstone Energy Ticket Number SOK 4549

Lease & Well Number Ralph 36-34-9 SWD Date 11/29/2014

As consideration, The Above Named customer Agrees:

O-TEX Pumping L.L.C. shall not be responsible for and customer shall secure O-TEX pumping against any liability for damage to property of customer and of the well owner (if different from customer), unless caused by the willful misconduct or gross negligence of O-TEX pumping, this provision applying to but not limited to subsurface damage and surface damage arising from subsurface damage.

O-TEX makes no guarantee to the effectiveness of the products, supplies, or materials, nor of the results of any treatment or services.

Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others,

O-TEX personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others except where due to O-TEX gross negligence or willful misconduct in the preparation or furnishing it.

Invoices payable NET 30 days following the date on the invoice.

Upon customers default in payment of the customers account by the last day of the month following the month in which the invoice is dated.

Customer agrees to pay interest thereon after at the highest lawful contract rate applicable but never to exceed 18% per annum in the event it becomes necessary to employ an attorney to enforce collection of said account.

Customer agrees to pay all collection costs and attorney fees in the amount of 25% of the unpaid account.

Service order: I authorize work to begin per service instructions in accordance with terms and conditions printed on this form and represent that I have authority to accept and sign this order.

**I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT.**

Customer Authorized Agent:



<b>JOB SUMMARY</b>			PROJECT NUMBER <b>SOK 4549</b>	TICKET DATE <b>11/29/14</b>
COUNTY <b>Harper</b>	State <b>Kansas</b>	COMPANY <b>Tapstone Energy</b>	CUSTOMER REP <b>0</b>	
LEASE NAME <b>Ralph</b>	Well No. <b>6-34-9 SV</b>	JOB TYPE <b>Surface</b>	EMPLOYEE NAME <b>Arthur Setzer</b>	

EMP NAME					
Arthur Setzer		0			
Jared Green					
Frank Reeves					
0.00					

Form. Name \_\_\_\_\_ Type: \_\_\_\_\_  
 Packer Type \_\_\_\_\_ Set At **0**  
 Bottom Hole Temp. **80** Pressure \_\_\_\_\_  
 Retainer Depth \_\_\_\_\_ Total Depth **775**

Date	Called Out <b>11/29/2014</b>	On Location <b>11/29/2014</b>	Job Started <b>11/29/2014</b>	Job Completed <b>11/29/2014</b>
Time	<b>0500</b>	<b>1200</b>	<b>1930</b>	<b>2200</b>

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float V <sub>2</sub>	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data		New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing			36#	9 1/2"		Surface	775	1,500
Liner								
Liner								
Tubing				0				
Drill Pipe								
Open Hole				12 1/4"		Surface	770	Shots/Ft.
Perforations								
Perforations								
Perforations								

Materials			
Mud Type	WBM	Density	<b>9</b> Lb/Gal
Disp. Fluid	Fresh Water	Density	<b>8.33</b> Lb/Gal
Spacer type	resh Wate BBL		<b>10</b> 8.33
Spacer type	BBL		
Acid Type	Gal.	%	
Acid Type	Gal.	%	
Surfactant	Gal.	In	
NE Agent	Gal.	In	
Fluid Loss	Gal/Lb	In	
Gelling Agent	Gal/Lb	In	
Fric. Red.	Gal/Lb	In	
MISC.	Gal/Lb	In	

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
11/29	10.0	11/29	2.0	Surface
Total	10.0	Total	2.0	

Perfpac Balls \_\_\_\_\_ Qty. \_\_\_\_\_  
 Other \_\_\_\_\_  
 Other \_\_\_\_\_  
 Other \_\_\_\_\_  
 Other \_\_\_\_\_  
 Other \_\_\_\_\_

Pressures	
MAX <b>1,500 PSI</b>	AVG. <b>200</b>
Average Rates in BPM	
MAX <b>6 BPM</b>	AVG <b>6</b>
Cement Left in Pipe	
Feet <b>46</b>	Reason <b>SHOE JOINT</b>

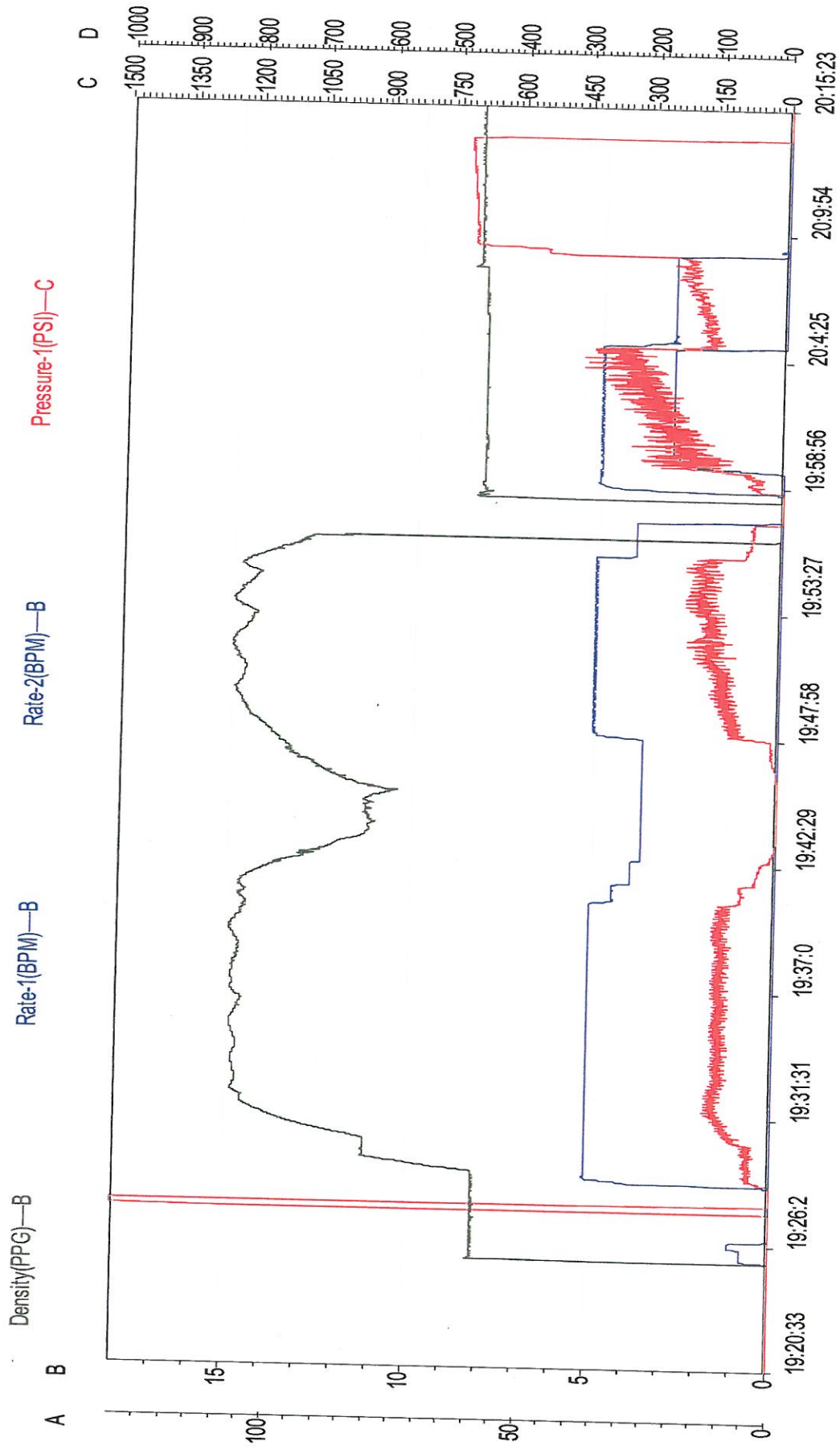
Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	490	Premium Plus (Class C)	2% Calcium Chloride - 1/2pps Cello-Flake	6.32	1.32	14.80
2	0	0	Displacement 56BBL	0.00	0.00	0.00
3	0	0		0	0.00	0.00

Summary					
Preflush Breakdown	Type: _____	MAXIMUM <b>1,500 PSI</b>	Preflush: BBI <b>10.00</b>	Type: <b>Fresh Water</b>	
	Lost Returns: _____	<b>NO/FULL</b>	Load & Bkdn: Gal - BBI <b>N/A</b>	Pad:Bbl -Gal <b>N/A</b>	
	Actual TOC <b>SURFACE</b>		Excess /Return BBI <b>51</b>	Calc.Disp Bbl <b>56</b>	
Average	Bump Plug PSI: <b>710</b>		Calc. TOC: <b>SURFACE</b>	Actual Disp. <b>56.00</b>	
ISIP <b>5 Min.</b>	<b>10 Min</b>	<b>15 Min</b>	Final Circ. PSI: <b>200</b>	Disp:Bbl <b>56.00</b>	
			Cement Slurry BBI <b>115.0</b>		
			Total Volume BBI <b>181.00</b>		

CUSTOMER REPRESENTATIVE \_\_\_\_\_  
 \_\_\_\_\_  
 SIGNATURE



Date: 11/29/2014 Well Name: Ralph 36-34-9 SWD Location: Unit #303 Country: Operator: Jared Green Supervisor: Arthur Seitzer Type of Job: 9 5/8 Surface Contact  
Address: Comment:



Chart



Job Site Safety Meeting Attendance Sheet

Date: 11/29/2014

Job Site Leader: Arthur Setzer

Max Pressure: 1,500 PSI

PSI

Company - Lease - Well #: Tapstone Energy / Ralph 36-34-9 SWD

Ticket #: SOK 4549

	Employee Name *** Please Print ***	Employee Number	Unit Number	Trailer Number	Unit Type	Location	Company Name
1	Arthur Setzer		05683	22742	p/u		
2	Jared Green			24548	serva		
3	Frank Reeves		53175	16643	bulk		
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Job Site Safety Leader: Arthur Setzer

Report all Minor Injuries, Accidents, Vehicle Accidents or Environmental Spills Immediately.

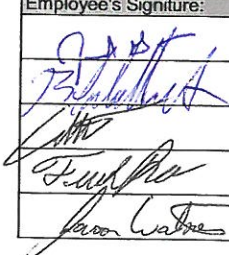
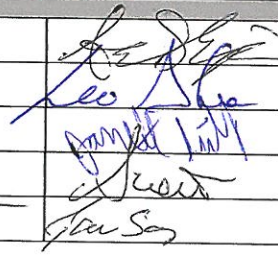
# O-Tex Pumping LLC

<b>Job Safety Analysis Worksheet</b>		DATE:	11/28/2014
LEASE NAME AND JOB TYPE:	Vickie 2811 3-33H Intermediate	JOB NUMBER:	SOK 4550
EMPLOYEE NAME AND JOB TITLE:	Arthur Setzer SUPERVISOR	Company:	Sandridge Exploration & Production
PERSONAL PROTECTIVE EQUIPMENT RECOMMENDED OR REQUIRED:		Rig:	Lariat #46

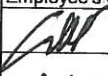
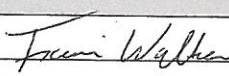
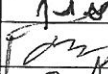
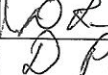
HARD HAT / STEEL TOED BOOTS / SAFETY GLASSES / EAR PLUGS / GLOVES / COVERALLS

SEQUENCE OF BASIC JOB STEPS	POTENTIAL ACCIDENTS OR HAZARDS	RECOMMENDED SAFE JOB PROCEDURES
ASSESS LOCATION FOR POTENTIAL HAZARDS	SLIPS - TRIPS - FALLS	PAY ATTENTION TO SURROUNDINGS
SAFETY HUDDLE TO DISCUSS HAZARDS AND POTENTIAL HAZARDS WHILE SPOTTING EQUIPMENT	NOT UNDERSTANDING OR HEARING JOB STEPS	SPEAK LOUD AND CLEAR - PAY ATTENTION - ASK QUESTIONS
SPOT EQUIPMENT	BACKING INTO OR OVER SOMETHING OR SOMEONE	USE SPOTTERS AND MIRRORS - BACK SLOW - WATCH SPOTTER
RIG UP IRON AND HOSES	SLIPS - TRIPS - FALLS - PINCH POINTS	PAY ATTENTION - DON'T RUSH OR TAKE SHORTCUTS - ASK FOR HELP IF NEEDED
PRIME PUMPS	LEAKS - PINCH POINTS	WATCH HAND AND FOOT PLACEMENT - CHECK FOR LEAKS - WATCH PRESSURE
RAISE STAND PIPE TO RIG FLOOR - RIG UP FLOOR	SLIPS - TRIPS - FALLS - OBJECTS FALLING - PINCH POINTS	DON'T TAKE SHORT CUTS - PAY ATTENTION TO TASK AT HAND - USE HAND RAILS WHEN GOING UP OR DOWN RIG STAIRS - DON'T GET UNDER OBJECTS BEING RAISED OR LOWERED - WATCH HAND AND FOOT PLACEMENT
STAB PLUG CONTAINER OR DRILL PIPE PIN	SLIPS - TRIPS - FALLS - PINCH POINTS - DROPPED OBJECTS	WATCH HAND AND FOOT PLACEMENT - MAKE SURE ALL TOOLS ARE PROPERLY TIED OFF WHILE WORKING OVER HEAD - MAKE SURE LOADS ARE SECURE BEFORE LIFTING IN AIR - DON'T GET BETWEEN OBJECTS BEING LIFTED
TEST LINES	LINES LEAKING OR EXPLODING	STAY CLEAR OF LINES WHILE UNDER PRESSURE - NEVER HAMMER ON IRON WITH PRESSURE ON IT!!!
PUMP FLUIDS	LEAKS - PUMPING WRONG FLUID - VALVES CLOSED - PINCH POINTS	START PUMPING SLOWLY - WATCH FOR LEAKS OR RAPID PRESSURE INCREASE - WATCH HAND AND FOOT PLACEMENT - PAY ATTENTION TO YOUR JOB DUTIES
RIG DOWN IRON	SLIPS - TRIPS - FALLS - DROPPED OBJECTS - PINCH POINTS	WATCH HAND AND FOOT PLACEMENT. DON'T WALK UNDER LOADS BEING LOWERED OR RAISED. DON'T THROW HAMMERS OR HAND TOOLS. DON'T RUSH OR TAKE SHORT CUTS. WORK TOGETHER. ASK FOR HELP OR HELP SOMEONE IF THEY NEED IT
LEAVE LOCATION	RUNNING INTO OR OVER SOMETHING OR SOMEONE. OBJECTS FALLING FROM TRUCKS. FALLING ASLEEP WHILE DRIVING.	USE SPOTTER IF NEEDED. MAKE SURE ALL EQUIPMENT IS SECURE BEFORE MOVING TRUCK. WALK AROUND BEFORE GETTING IN CAB. IF YOU ARE TOO TIRED TO DRIVE, TAKE A NAP BEFORE LEAVING LOCATION. STOP IF YOU BECOME TOO SLEEPY AND CAN'T CONTINUE.

Employee's Signature:

# O-Tex Pumping LLC

Job Safety Analysis Worksheet		DATE: 11/29/2014	
LEASE NAME AND JOB TYPE: Ralph 36-34-9 SWD Surface		JOB NUMBER: SOK 4549	
EMPLOYEE NAME AND JOB TITLE: Arthur Setzer SUPERVISOR		Company: Tapstone Energy Rig: Unit #303	
PERSONAL PROTECTIVE EQUIPMENT RECOMMENDED OR REQUIRED:			
HARD HAT / STEEL TOED BOOTS / SAFETY GLASSES / EAR PLUGS / GLOVES / COVERALLS			
SEQUENCE OF BASIC JOB STEPS	POTENTIAL ACCIDENTS OR HAZARDS	RECOMMENDED SAFE JOB PROCEDURES	
ASSESS LOCATION FOR POTENTIAL HAZARDS	SLIPS - TRIPS - FALLS	PAY ATTENTION TO SURROUNDINGS	
SAFETY HUDDLE TO DISCUSS HAZARDS AND POTENTIAL HAZARDS WHILE SPOTTING EQUIPMENT	NOT UNDERSTANDING OR HEARING JOB STEPS	SPEAK LOUD AND CLEAR - PAY ATTENTION - ASK QUESTIONS	
SPOT EQUIPMENT	BACKING INTO OR OVER SOMETHING OR SOMEONE	USE SPOTTERS AND MIRRORS - BACK SLOW - WATCH SPOTTER	
RIG UP IRON AND HOSES	SLIPS - TRIPS - FALLS - PINCH POINTS	PAY ATTENTION - DON'T RUSH OR TAKE SHORTCUTS - ASK FOR HELP IF NEEDED	
PRIME PUMPS	LEAKS - PINCH POINTS	WATCH HAND AND FOOT PLACEMENT - CHECK FOR LEAKS - WATCH PRESSURE	
RAISE STAND PIPE TO RIG FLOOR - RIG UP FLOOR	SLIPS - TRIPS - FALLS - OBJECTS FALLING - PINCH POINTS	DON'T TAKE SHORT CUTS - PAY ATTENTION TO TASK AT HAND - USE HAND RAILS WHEN GOING UP OR DOWN RIG STAIRS - DON'T GET UNDER OBJECTS BEING RAISED OR LOWERED - WATCH HAND AND FOOT PLACEMENT	
STAB PLUG CONTAINER OR DRILL PIPE PIN	SLIPS - TRIPS - FALLS - PINCH POINTS - DROPPED OBJECTS	WATCH HAND AND FOOT PLACEMENT - MAKE SURE ALL TOOLS ARE PROPERLY TIED OFF WHILE WORKING OVER HEAD - MAKE SURE LOADS ARE SECURE BEFORE LIFTING IN AIR - DON'T GET BETWEEN OBJECTS BEING LIFTED	
TEST LINES	LINES LEAKING OR EXPLODING	STAY CLEAR OF LINES WHILE UNDER PRESSURE - NEVER HAMMER ON IRON WITH PRESSURE ON IT!!!	
PUMP FLUIDS	LEAKS - PUMPING WRONG FLUID - VALVES CLOSED - PINCH POINTS	START PUMPING SLOWLY - WATCH FOR LEAKS OR RAPID PRESSURE INCREASE - WATCH HAND AND FOOT PLACEMENT - PAY ATTENTION TO YOUR JOB DUTIES	
RIG DOWN IRON	SLIPS - TRIPS - FALLS - DROPPED OBJECTS - PINCH POINTS	WATCH HAND AND FOOT PLACEMENT. DON'T WALK UNDER LOADS BEING LOWERED OR RAISED. DON'T THROW HAMMERS OR HAND TOOLS. DON'T RUSH OR TAKE SHORT CUTS. WORK TOGETHER. ASK FOR HELP OR HELP SOMEONE IF THEY NEED IT	
LEAVE LOCATION	RUNNING INTO OR OVER SOMETHING OR SOMEONE. OBJECTS FALLING FROM TRUCKS. FALLING ASLEEP WHILE DRIVING.	USE SPOTTER IF NEEDED. MAKE SURE ALL EQUIPMENT IS SECURE BEFORE MOVING TRUCK. WALK AROUND BEFORE GETTING IN CAB. IF YOU ARE TOO TIRED TO DRIVE, TAKE A NAP BEFORE LEAVING LOCATION. STOP IF YOU BECOME TOO SLEEPY AND CAN'T CONTINUE .	
Employee's Signature:			
	Roy Phillips		
	Cheryl Wagner		
	D Pease		

# Job Data Sheet



COMPANY <b>Tapstone Energy</b>		PROJECT NUMBER <b>SOK 4549</b>	AFE/WORK ORDER <b>DC14025</b>	DATE <b>11/29/2014</b>
CONTRACTOR <b>Unit #303</b>		Owner <b>Same</b>	LEGAL DESCRIPTION <b>36/34S/9W</b>	API <b>15-077-22115-00-00</b>
LEASE & WELL # <b>Ralph 36-34-9 SWD</b>		COUNTY <b>Harper</b>	STATE <b>Kansas</b>	MILEAGE <b>100</b>

**North of Byron at state line 1 mile North to White Gate East to Rig**

Pumping Services	<input checked="" type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Long String	<input type="checkbox"/> Plug Back						
	<input type="checkbox"/> Squeeze	<input type="checkbox"/> Acid	<input type="checkbox"/> PTA	<input type="checkbox"/> Other	( ) H2S					
	Casing Size <b>9 5/8"</b>	Casing Weight <b>36#</b>	Thread <b>LTC</b>	Tbng/DP Size	Thread	Plug. Cont. <b>YES</b>	Swage <b>YES</b>	Top Plug <b>YES</b>	Bottom Plug <b>NO</b>	% Excess <b>150%</b>
	Number and Type Units <b>Pump Truck &amp; Bulk Materials</b>							Casing Depth <b>775'</b>	Hole Depth <b>770'</b>	Hole Size <b>12 1/4"</b>
	Remarks							Est. BHST <b>80°</b>	Tubing Depth	Depth-TVD

Materials	<b>LEAD</b>	# of Sacks <b>490</b>	Type <b>Premium Plus (Class C)</b>	Additives						
	<b>115.20</b>			<b>2% Calcium Chloride - 1/4pps Cello-Flake</b>						
	<b>H2O TO MIX</b>	Weight PPG <b>14.80</b>	Yield Ft3/Sk <b>1.32</b>							
	<b>73.73</b>									
	<b>TAIL</b>	# of Sacks <b>0.00</b>	Type	Additives						
	<b>0.00</b>			<b>Displacement 56BBL</b>						
	<b>H2O TO MIX</b>	Weight PPG <b>0.00</b>	Yield Ft3/Sk							
	<b>0.00</b>									
	<b>TOP OUT</b>	# of Sacks	Type	Additives						
				<b>TAKE 50 # Sugar</b>						
<b>H2O TO MIX</b>	Weight PPG	Yield Ft3/Sk	Water Gal/Sk							
	ACID	Type	Additives							
	Inhibitor	Surfactant	clay cont.							
Spacer or Flush	Quantity <b>10 BBL</b>	Type <b>Fresh Water</b>	Additives							
Spacer or Flush	Quantity	Type	Additives							
Other	Quantity	Type	Additives							

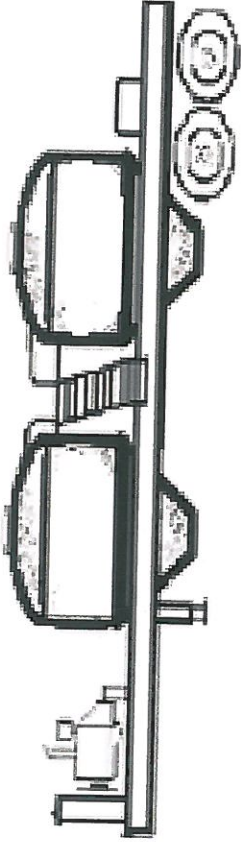
Crew Called	<b>Cementer</b>	<b>Pumper</b>	<b>Bulky</b>	<b>Bulky</b>	<b>Bulky</b>
	<b>Arthur Setzer</b>	<b>Jared Green</b>	<b>Frank Reeves</b>		

**9 5/8" 8RD SWAGE, SW, DW, BALE RACK**

Sales Items	Casing Size <b>9 5/8"</b>	Casing Weight <b>36#</b>	Thread <b>LTC</b>
	Guide Shoe	Float Shoe	Float Collar Insert Float Valve
	Centralizers - Number	Size	Type
	Wall Cleaners - Number	Type	MSC (DV Tool) MSC Plug Set
	Limit Clamps	Thread lock	Other
	Remarks		

Customer Rep. <b>0</b>	Cell Phone <b>713-758-0636</b>	Office Phone	Fax	Time of Call
Call Taken By <b>Robert Burris</b>				Date Ready
Crew Called <b>Arthur Setzer</b>				Location Time
				Yard Time





Trailer Number: 53175/16643

Driver Name \_\_\_\_\_

Front Pot  
LEAD

Cement CLASS C  
245 sks

Rear Pot  
LEAD

Cement CLASS C  
245 sks

CEMENT ADDITIVES

2% CALCIUM	2% CALCIUM
1/4 PPS FLAKE	1/4 PPS FLAKE

COMPANY: Tapstone      DATE: 11/28/2014

LEASE: Ralph 36-34-9SWD      TICKET: SOK 4549



7303 N. Highway 81  
Duncan, OK 73533

# Invoice

Date:	Invoice #:
12/19/2014	0000018806

Phone # (580) 255-3111

<b>Bill To</b>
Tapstone Harper Office PO Box 1608 Oklahoma City, OK 79101

<b>Description of Work</b>
HARPER, COUNTY KS AFE 14025 API 15-077-22115-00-00
Job Type: Intermediate

Field Receipt	Terms	Service Date	Due Date	AFE No	Lease/Well Name
SOK4582	Net 30	12/6/2014	1/18/2015	AFE 14025	RALPH 36-34-9 SWD

Item	Description	U/M	Qty	Price Each	Amount	Disc %	Disc Amt	Net Amount
ML001	Pickup Mileage	UNTMIL	100	4.26	426.00	60.00%	-255.60	170.40
ML002	Pump Truck/Heavy Vehicle Mileage	UNTMIL	100	7.32	732.00	60.00%	-439.20	292.80
ML003	Bulk Cement Delivery/Return	MILE	1,854	2.95	5,469.30	60.00%	-3,281.58	2,187.72
MX001	Bulk Material Mixing Service Charge	SCF	438	3.27	1,432.26	60.00%	-859.36	572.90
CC006	Pump Charge 5001-6000'	4-HRS	1	4,671.81	4,671.81	60.00%	-2,803.09	1,868.72
CC015	Pump Charge Additional Hours	UNTHRS	3	588.06	1,764.18	35.00%	-617.46	1,146.72
AE012	Bulk Unit Additional Hours	UNTHRS	3	130.68	392.04	35.00%	-137.21	254.83
ML014	Fuel Surcharge *	JOB	1	653.40	653.40	100.00%	-653.40	0.00
AE014	Environmental Fee*	JOB	1	228.69	228.69	100.00%	-228.69	0.00
PC003	Employee/Supervisor Retention/perdiem	PR/MAN	4	1,306.80	5,227.20	90.00%	-4,704.48	522.72
JM001	Data Acquisition System	JOB	1	1,437.48	1,437.48	60.00%	-862.49	574.99
AE003	Circulation Equipment( 40' of equipment)	JOB	1	1,633.50	1,633.50	60.00%	-980.10	653.40
AE002	Cement Head with manifold	JOB	1	1,176.12	1,176.12	60.00%	-705.67	470.45
LT005	Lab Testing - Thickening Time	EACH	2	326.70	653.40	0.00%	0.00	653.40
LT006	Lab Testing - Water Analysis	EACH	1	326.70	326.70	0.00%	0.00	326.70
CL011	7" Top Rubber Plug	EACH	1	203.28	203.28	40.00%	-81.31	121.97
CL012	7" Bottom Rubber Plug	EACH	1	440.44	440.44	40.00%	-176.18	264.26
CSB002	50/50 Poz With Premium	SACK	325	22.28	7,241.00	56.00%	-4,054.96	3,186.04
CP002	H (Premium Cement) (94 lbs/ft3)	94SACK	90	30.80	2,772.00	56.00%	-1,552.32	1,219.68
CP005	GEL	LBS	1,446	0.68	983.28	56.00%	-550.64	432.64
CPC29	FL-17 FLA	LBS	72	40.00	2,880.00	56.00%	-1,612.80	1,267.20
CP034	CF - 51 (Anti settling agent)	LBS	36	27.10	975.60	56.00%	-546.34	429.26
CP004	CF-37 (Dispersant)	LBS	28	13.55	379.40	56.00%	-212.46	166.94
CP013	CF - 20 (Lignosulfate Retarder) (below 2	LBS	36	13.55	487.80	56.00%	-273.17	214.63

<b>Subtotal Amount</b>	*****
<b>Sales Tax</b>	*****
<b>Discount Amount</b>	*****
<b>Payment/Credit Amount</b>	*****
<b>Total Net Amount</b>	*****

Contact: Ellen Yoder



7303 N. Highway 81  
Duncan, OK 73533

# Invoice

Date:	Invoice #:
12/19/2014	0000018806

Phone # (580) 255-3111

Bill To
Tapstone Harper Office PO Box 1608 Oklahoma City, OK 79101

Description of Work
HARPER, COUNTY KS AFE 14025 API 15-077-22115-00-00
Job Type: Intermediate

Field Receipt	Terms	Service Date	Due Date	AFE No	Lease/Well Name
SOK4582	Net 30	12/6/2014	1/18/2015	AFE 14025	RALPH 36-34-9 SWD

Item	Description	U/M	Qty	Price Each	Amount	Disc %	Disc Amt	Net Amount
CPC43	X-Air P (Antifoam)	LBS	72	8.80	633.60	56.00%	-354.82	278.78

Contact: Ellen Yoder	<b>Subtotal Amount</b>	43,220.48
	<b>Sales Tax</b>	466.26
	<b>Discount Amount</b>	-25,943.33
	<b>Payment/Credit Amount</b>	0.00
	<b>Total Net Amount</b>	17,743.41

# O-TEX PUMPING LLC

Service Location Fairview, Oklahoma  
 Service Address 601 Industrial Blvd 73737

Phone number 580-227-2727

Project Number: SOK 4582

RB  
12-7

Service Date: 12/6/2014  
 Customer: Tapstone Energy  
 Address: [Redacted]  
 City: [Redacted]  
 St: [Redacted]  
 Customer Rep 0  
 Phone 713-758-0636

Well Name: Ralph  
 Well Number: 36-34-9 SWD  
 County: Harper  
 State: Kansas  
 API #: 15-077-22115-00-00  
 AFE #: DC14025  
 PERMIT #

JOB TYPE CASING SIZE  
 Job Type Intermediate Serv. Sup.  
 Joseph Klemm  
 Page 1 of 1

Pump 1 # 144302C-Double  
 Pump 2 # 0

REF #	DESCRIPTION	U OF MEAS.	UNIT PRICE	QUAN	GROSS	%DISC	disc	NET
ML001	Pickup Mileage	per milier / per Unit	4.26	100.0	\$426.00	60%	\$255.60	\$170.40
ML002	Pump Truck/Heavy Vehicle Mileage	per milier / per Unit	7.32	100.0	\$732.00	60%	\$439.20	\$292.80
ML003	Bulk Cement Delivery/Return	per Ton-Mile	2.95	1,854.0	\$5,469.30	60%	\$3,281.58	\$2,187.72
MX001	Bulk Material Mixing Service-Charge	per cuft	3.27	438.0	\$1,432.26	60%	\$859.36	\$572.90
CC006	Pump Charge 5001-6000'	(per 4 hrs)	4,671.81	1.0	\$4,671.81	60%	\$2,803.09	\$1,868.72
CC015	Pump Charge Additional Hours	per hour/per unit	588.06	3.0	\$1,764.18	35%	\$617.46	\$1,146.72
AE012	Bulk Unit Additional Hours	Per unit/per hour	130.68	3.0	\$392.04	35%	\$137.21	\$254.83
ML014	Fuel Surcharge *	per unit perjob	653.40	1.0	\$653.40	100%	\$653.40	\$0.00
AE014	Environmental Fee*	per job	228.69	1.0	\$228.69	100%	\$228.69	\$0.00
PC003	Employee/Supervisor Retention/perdiem	per job	1,306.80	4.0	\$5,227.20	90%	\$4,704.48	\$522.72
JM001	Data Acquisition System	Per Job	1,437.48	1.0	\$1,437.48	60%	\$862.49	\$574.99
AE003	Circulation Equipment( 40' of equipment)	per job	1,633.50	1.0	\$1,633.50	60%	\$980.10	\$653.40
AE000	Circulating hose (replacement)	per hose	1,375.00	-	\$0.00	0%	\$0.00	\$0.00
AE002	Cement Head with manifold	per job	1,176.12	1.0	\$1,176.12	60%	\$705.67	\$470.45
LT005	Lab Testing - Thickening Time	per test	326.70	2.0	\$653.40	0%	\$0.00	\$653.40
LT006	Lab Testing - Water Analysis	per test	326.70	1.0	\$326.70	0%	\$0.00	\$326.70
CL011	7" Top Rubber Plug	Each	203.28	1.0	\$203.28	40%	\$81.31	\$121.97
CL012	7" Bottom Rubber Plug	Each	440.44	1.0	\$440.44	40%	\$176.18	\$264.26
CSB002	50/50 Poz with Premium (Includes 2% Gel)	per sk	22.28	325.0	\$7,241.00	56%	\$4,054.96	\$3,186.04
CP002	H (Premium Cement) (94 lbs/ft3)	per sk	30.80	90.0	\$2,772.00	56%	\$1,552.32	\$1,219.68
CP005	GEL	per lb	0.68	1,446.0	\$983.28	56%	\$550.64	\$432.64
CPC29	FL-17 Fluid Loss Additive 80-140F	per lb	40.00	72.0	\$2,880.00	56%	\$1,612.80	\$1,267.20
CP034	CF - 51 (Anti setting agent)	per lb	27.10	36.0	\$975.60	56%	\$546.34	\$429.26
CP004	CF-37 (Dispersant)	per lb	13.55	28.0	\$379.40	56%	\$212.46	\$166.94
CP013	CF - 20 (Lignosulfate Retarder) (below 220')	per lb	13.55	36.0	\$487.80	56%	\$273.17	\$214.63
CPC43	X-Air (Powder Defoamer)	per lb	8.80	72.0	\$633.60	56%	\$354.82	\$278.78
					\$43,220.48		\$25,943.32	\$17,277.16

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT.  
 Customer Authorized Agent: [Signature]

RECEIVED DEC 11 2014

# SERVICE ORDER CONTRACT

Customer Name Tapstone Energy Ticket Number SOK 4582

Lease & Well Number Ralph 36-34-9 SWD Date 12/6/2014

As consideration, The Above Named customer Agrees:

O-TEX Pumping L.L.C. shall not be responsible for and customer shall secure O-TEX pumping against any liability for damage to property of customer and of the well owner (if different from customer), unless caused by the willful misconduct or gross negligence of O-TEX pumping, this provision applying to but not limited to subsurface damage and surface damage arising from subsurface damage.

O-TEX makes no guarantee to the effectiveness of the products, supplies, or materials, nor of the results of any treatment or services.

Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others,

O-TEX personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but

Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others except where due to O-TEX gross negligence or willful misconduct in the preparation or furnishing it.

Invoices payable NET 30 days following the date on the invoice.

Upon customers default in payment of the customers account by the last day of the month following the month in which the invoice is dated.

Customer agrees to pay interest thereon after at the highest lawful contract rate applicable but never to exceed 18% per annum in the event it becomes necessary to employ an attorney to enforce collection of said account.

Customer agrees to pay all collection costs and attorney fees in the amount of 25% of the unpaid account.

Service order: I authorize work to begin per service instructions in accordance with terms and conditions printed on this form and represent that I have authority to accept and sign this order.

**I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT.**

Customer Authorized Agent: 

<b>JOB SUMMARY</b>			PROJECT NUMBER <b>SOK 4582</b>	TICKET DATE <b>12/06/14</b>
COUNTY <b>Harper</b>	State <b>Kansas</b>	COMPANY <b>Tapstone Energy</b>	CUSTOMER REP <b>0</b>	
LEASE NAME <b>Ralph</b>	Well No. <b>6-34-9 SW</b>	JOB TYPE <b>Intermediate</b>	EMPLOYEE NAME <b>Joseph Klemm</b>	

EMP NAME	<b>Joseph Klemm</b>	<b>0</b>					
	<b>Cody Bonitz</b>						
	<b>Joe Collins</b>						
	<b>Blake Hayworth</b>						

Form. Name \_\_\_\_\_ Type: \_\_\_\_\_

Packer Type \_\_\_\_\_ Set At **0**

Bottom Hole Temp. **155** Pressure \_\_\_\_\_

Retainer Depth \_\_\_\_\_ Total Depth **5630'**

	Called Out	On Location	Job Started	Job Completed
Date	<b>12/6/2014</b>	<b>12/6/2014</b>	<b>12/6/2014</b>	<b>12/6/2014</b>
Time	<b>0530</b>	<b>0800</b>	<b>0830</b>	<b>1530</b>

Tools and Accessories		
Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Va	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data							
	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing		26#	7"		Surface	5627'	5,000
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			8 1/2"		Surface	5,630	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials			
	WBM	Density	9
Mud Type	Fresh Water	Density	<b>8.33</b> Lb/Gal
Spacer type	Gel	BBL.	<b>30</b> <b>8.40</b>
Spacer type		BBL.	
Acid Type		Gal.	%
Acid Type		Gal.	%
Surfactant		Gal.	In
NE Agent		Gal.	In
Fluid Loss		Gal/Lb	In
Gelling Agent		Gal/Lb	In
Fric. Red.		Gal/Lb	In
MISC.		Gal/Lb	In

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
12/6	7.5	12/6	7.0	Intermediate
Total	7.5	Total	7.0	

Perfpac Balls \_\_\_\_\_ Qty. \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

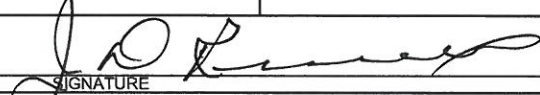
Other \_\_\_\_\_

Other \_\_\_\_\_

	Pressures	
MAX	<b>5,000 PSI</b>	AVG. <b>500</b>
	Average Rates in BPM	
MAX	<b>7 BPM</b>	AVG <b>5</b>
	Cement Left in Pipe	
Feet	<b>87</b>	Reason <b>SHOE JOINT</b>

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	325	50/50 POZ PREMIUM	4% Gel - 0.2% FL-17 - 0.1% C-51 - 0.1% C-20 - 0.1% C-37 - 0.2% X-Air	6.93	1.43	13.60
2	90	Premium	0.2% FL-17 - 0.1% C-51 - 0.1% C-20 - 0.2% X-Air	5.19	1.19	15.60
3	0	0		0	0.00	0.00

Summary					
Preflush Breakdown	Type: _____	MAXIMUM <b>5,000 PSI</b>	Preflush: BBI <b>30.00</b>	Type: <b>Gel Spacer</b>	
	Lost Returns- <b>1</b>	<b>NO/FULL</b>	Load & Bkdn: Gal - BBI <b>N/A</b>	Pad:Bbl -Gal <b>N/A</b>	
	Actual TOC	<b>1.960</b>	Excess /Return BBI <b>N/A</b>	Calc. Disp Bbl <b>212</b>	
Average	Bump Plug PSI: <b>1,400</b>		Calc. TOC: <b>1.960</b>	Actual Disp. <b>212.00</b>	
ISIP <b>5 Min.</b>	<b>10 Min</b>	<b>15 Min</b>	Final Circ. PSI: <b>800</b>	Disp:Bbl <b>212.00</b>	
			Cement Slurry BBI <b>101.7</b>		
			Total Volume BBI <b>343.70</b>		

CUSTOMER REPRESENTATIVE \_\_\_\_\_ SIGNATURE 



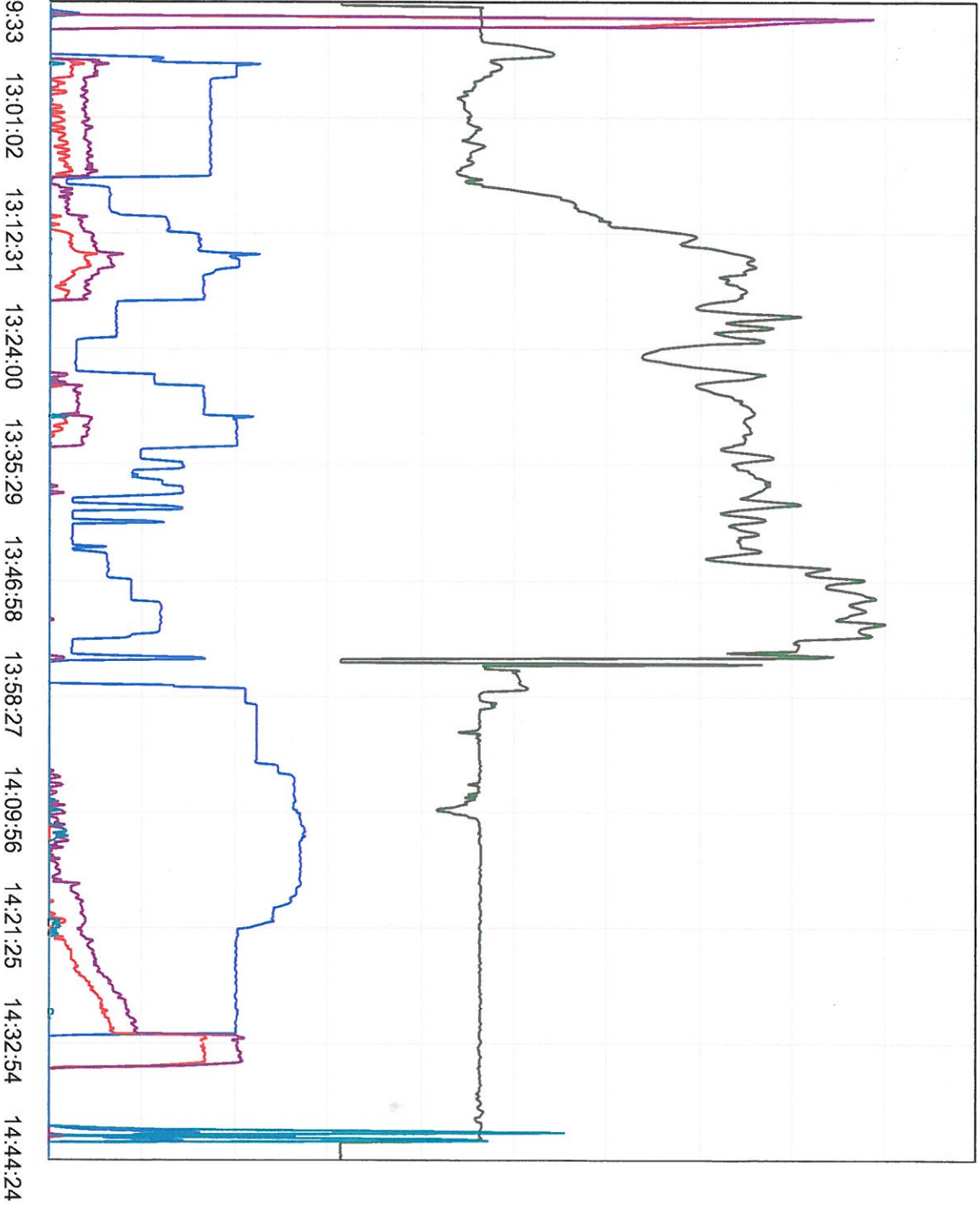
SERVICE COMPANY: O-Tex  
 TICKET NO: DC14025  
 CUSTOMER NAME: Tapstone Energy  
 WELL NAME: Ralph 36349 SWD  
 WELL LOCATION: Harper Co. KS

DATE RECORDED: 12/06/2014  
 JOB NO: SOK 4582  
 UNIT DESCRIPTION: Unit #303  
 UNIT NOTES: 7" Intermediate  
 FILE NAME: Tapstone Energy\_Ralph 36349 SWD\_14\_12\_06\_#1.csv



Pen 1: Density 1 (Density : lb/gal) Pen 2: SlurryRate (Flowrate : bpm)  
 Pen 4: Pressure 2 (Pressure : psi) Pen 5: Flowrate 1 (Flowrate : bpm)  
 Pen 3: Pressure 1 (Pressure : psi)

18.00	25.00	7000.00	6300.00	7.70
16.20	22.50	6300.00	5670.00	6.93
14.40	20.00	5600.00	5040.00	6.16
12.60	17.50	4900.00	4410.00	5.39
10.80	15.00	4200.00	3780.00	4.62
9.00	12.50	3500.00	3150.00	3.85
7.20	10.00	2800.00	2520.00	3.08
5.40	7.50	2100.00	1890.00	2.31
3.60	5.00	1400.00	1260.00	1.54
1.80	2.50	700.00	630.00	0.77
0.00	0.00	0.00	0.00	0.00



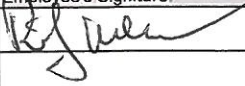
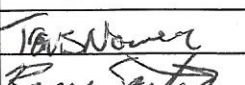
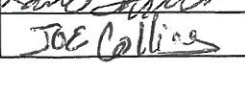
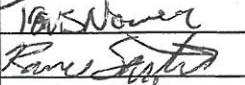
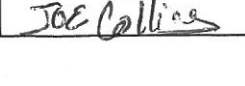



# Job Data Sheet



COMPANY <b>Tapstone Energy</b>		PROJECT NUMBER <b>SOK 4582</b>	AFE/WORK ORDER <b>DC14025</b>	DATE <b>12/6/2014</b>
CONTRACTOR <b>Unit #303</b>		Owner <b>Same</b>	LEGAL DESCRIPTION <b>36/34S/9W</b>	API <b>15-077-22115-00-00</b>
LEASE & WELL # <b>Ralph 36-34-9 SWD</b>		COUNTY <b>Harper</b>	STATE <b>Kansas</b>	MILEAGE <b>100</b>
DIRECTIONS <b>BYRON, OK- NORTH ON HWY 58 TO STATE LINE-1 MILE NORTH- 3 MILES EAST THROUGH WHITE GATE</b>				
Pumping Services	<input type="checkbox"/> Surface <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Long String <input type="checkbox"/> Plug Back <input type="checkbox"/> Squeeze <input type="checkbox"/> Acid <input type="checkbox"/> PTA <input type="checkbox"/> Other    ( ) H2S			
	Casing Size	Casing Weight	Thread	Tbng/DP Size
	<b>7"</b>	<b>26#</b>	<b>LTC</b>	
	Number and Type Units <b>Pump Truck &amp; Bulk Materials</b>			% Excess <b>40%</b>
	Remarks <b>TAKE 7" TOP &amp; BOTTOM PLUG</b>		Plug. Cont. <b>YES</b>	Swage <b>YES</b>
		Bottom Plug <b>NO</b>	Hole Depth <b>5,630</b>	
		Est. BHST <b>155</b>	Hole Size <b>8 3/4"</b>	
Materials	<b>LEAD</b>	# of Sacks <b>325</b>	Type <b>50/50 POZ PREMIUM</b>	Additives <b>4% Gel - 0.2% FL-17 - 0.1% C-51 - 0.1% C-20 - 0.1% C-37 - 0.2% X-Air</b>
	<b>H2O TO MIX</b>	Weight PPG <b>53.63</b>	Yield Ft3/Sk <b>1.43</b>	Water Gal/Sk <b>6.93</b>
	<b>TAIL</b>	# of Sacks <b>90</b>	Type <b>Premium</b>	Additives <b>0.2% FL-17 - 0.1% C-51 - 0.1% C-20 - 0.2% X-Air</b>
	<b>H2O TO MIX</b>	Weight PPG <b>11.12</b>	Yield Ft3/Sk <b>1.19</b>	Water Gal/Sk <b>5.19</b>
		# of Sacks	Type	Additives
		Weight PPG	Yield Ft3/Sk	Water Gal/Sk
		ACID	Type	Additives
		Inhibitor	Surfactant	clay cont.
	Spacer or Flush	Quantity <b>30 bbls</b>	Type <b>Gel Spacer</b>	Additives <b>900#s Bentonite Gel</b>
	Displace	Quantity	Type	Additives
Other	Quantity	Type	Additives	
Crew Called	<b>Cementer</b>	<b>Pumper</b>	<b>Bulky</b>	<b>Bulky</b>
	<b>Joseph Klemm</b>	<b>Cody Bonitz</b>	<b>Joe Collins</b>	<b>Blake Hayworth</b>
CEOL	<b>7" 8RD SWAGE, SW, DW, BALE RACK</b>			
Sales Items	Casing Size	<b>7"</b>	Casing Weight	<b>26#</b>
	Guide Shoe		Thread	<b>LTC</b>
	Centralizers - Number		Float Shoe	
	Wall Cleaners - Number		Float Collar	Insert Float Valve
	Limit Clamps		Size	Type
	Remarks	<b>TAKE 7" TOP &amp; BOTTOM PLUG</b>		
Customer Rep.	Cell Phone	Office Phone	Fax	Time of Call
<b>0</b>	<b>713-758-0636</b>			
Call Taken By	Date Ready			Location Time
<b>Robert Burris</b>	<b>12/6/14</b>			<b>800 AM</b>
Crew Called	Yard Time			
<b>Joseph Klemm</b>	<b>12/6/14 530 AM</b>			

# O-Tex Pumping LLC

Job Safety Analysis Worksheet		DATE:	12/6/2014
LEASE NAME AND JOB TYPE:		Ralph 36-34-9 SWD Intermediate	JOB NUMBER: SOK 4582
EMPLOYEE NAME AND JOB TITLE:		Joseph Klemm SUPERVISOR	Company: Tapstone Energy Rig: Unit #303
PERSONAL PROTECTIVE EQUIPMENT RECOMMENDED OR REQUIRED:			
HARD HAT / STEEL TOED BOOTS / SAFETY GLASSES / EAR PLUGS / GLOVES / COVERALLS			
SEQUENCE OF BASIC JOB STEPS	POTENTIAL ACCIDENTS OR HAZARDS	RECOMMENDED SAFE JOB PROCEDURES	
ASSESS LOCATION FOR POTENTIAL HAZARDS	SLIPS - TRIPS - FALLS	PAY ATTENTION TO SURROUNDINGS	
SAFETY HUDDLE TO DISCUSS HAZARDS AND POTENTIAL HAZARDS WHILE SPOTTING EQUIPMENT	NOT UNDERSTANDING OR HEARING JOB STEPS	SPEAK LOUD AND CLEAR - PAY ATTENTION - ASK QUESTIONS	
SPOT EQUIPMENT	BACKING INTO OR OVER SOMETHING OR SOMEONE	USE SPOTTERS AND MIRRORS - BACK SLOW - WATCH SPOTTER	
RIG UP IRON AND HOSES	SLIPS - TRIPS - FALLS - PINCH POINTS	PAY ATTENTION - DON'T RUSH OR TAKE SHORTCUTS - ASK FOR HELP IF NEEDED	
PRIME PUMPS	LEAKS - PINCH POINTS	WATCH HAND AND FOOT PLACEMENT - CHECK FOR LEAKS - WATCH PRESSURE	
RAISE STAND PIPE TO RIG FLOOR - RIG UP FLOOR	SLIPS - TRIPS - FALLS - OBJECTS FALLING - PINCH POINTS	DON'T TAKE SHORT CUTS - PAY ATTENTION TO TASK AT HAND - USE HAND RAILS WHEN GOING UP OR DOWN RIG STAIRS - DON'T GET UNDER OBJECTS BEING RAISED OR LOWERED - WATCH HAND AND FOOT PLACEMENT	
STAB PLUG CONTAINER OR DRILL PIPE PIN	SLIPS - TRIPS - FALLS - PINCH POINTS - DROPPED OBJECTS	WATCH HAND AND FOOT PLACEMENT - MAKE SURE ALL TOOLS ARE PROPERLY TIED OFF WHILE WORKING OVER HEAD - MAKE SURE LOADS ARE SECURE BEFORE LIFTING IN AIR - DON'T GET BETWEEN OBJECTS BEING LIFTED	
TEST LINES	LINES LEAKING OR EXPLODING	STAY CLEAR OF LINES WHILE UNDER PRESSURE - NEVER HAMMER ON IRON WITH PRESSURE ON IT!!!	
PUMP FLUIDS	LEAKS - PUMPING WRONG FLUID - VALVES CLOSED - PINCH POINTS	START PUMPING SLOWLY - WATCH FOR LEAKS OR RAPID PRESSURE INCREASE - WATCH HAND AND FOOT PLACEMENT - PAY ATTENTION TO YOUR JOB DUTIES	
RIG DOWN IRON	SLIPS - TRIPS - FALLS - DROPPED OBJECTS - PINCH POINTS	WATCH HAND AND FOOT PLACEMENT. DON'T WALK UNDER LOADS BEING LOWERED OR RAISED. DON'T THROW HAMMERS OR HAND TOOLS. DON'T RUSH OR TAKE SHORT CUTS. WORK TOGETHER. ASK FOR HELP OR HELP SOMEONE IF THEY NEED IT	
LEAVE LOCATION	RUNNING INTO OR OVER SOMETHING OR SOMEONE. OBJECTS FALLING FROM TRUCKS. FALLING ASLEEP WHILE DRIVING.	USE SPOTTER IF NEEDED. MAKE SURE ALL EQUIPMENT IS SECURE BEFORE MOVING TRUCK. WALK AROUND BEFORE GETTING IN CAB. IF YOU ARE TOO TIRED TO DRIVE, TAKE A NAP BEFORE LEAVING LOCATION. STOP IF YOU BECOME TOO SLEEPY AND CAN'T CONTINUE .	
Employee's Signature:			
	Chris Cross		
	J. Spindel		
	J. Edmore		
	Travis Womer		
	James Spitzer		
	Joe Collins		



Job Site Safety Meeting Attendance Sheet

Date: 12/6/2014

Job Site Leader: Joseph Klemm

Max Pressure: 5,000 psi PSI

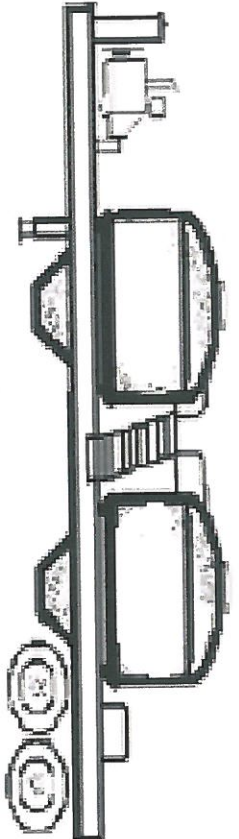
Company - Lease - Well #: Tapstone Energy / Ralph 36-34-9 SWD

Ticket #: SOK 4582

Employee Name <b>*** Please Print ***</b>	Employee Number	Unit Number	Trailer Number	Unit Type	Location	Company Name
Joseph Klemm		51663	31396	Pickup	Fairview, OK	O-Tex
Cody Bonitz		42626	44302	Pump	Fairview, OK	O-Tex
Blake Hayworth		42568	94302	Bulk	Fairview, OK	O-Tex
Joe Collins		50298	62485	Bulk	Fairview, OK	O-Tex

Job Site Safety Leader: Joseph Klemm

**Report all Minor Injuries, Accidents, Vehicle Accidents or Environmental Spills Immediately.**



*DE MERS STONES  
copy*

Trailer Number: 50298/62485

Front Pot  
TAIL  
Driver Name \_\_\_\_\_

CEMENT ADDITIVES

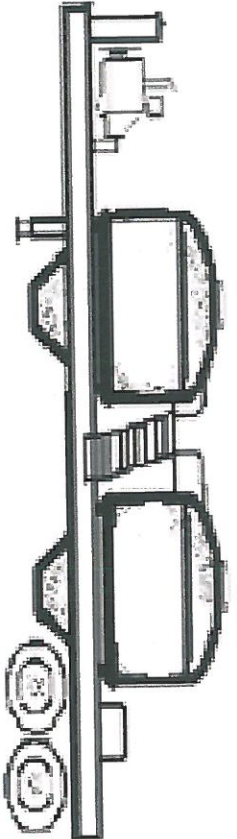
	BENTONITE
.2% FL-17	
.1% C-20	
.2% X-Air P	
.1% C-51	

Cement CLASS H  
90 sks

Rear Pot  
SPACER

Cement SPACER  
9 sks

COMPANY: Tapstone DATE: 12/6/2014  
LEASE: Ralph 36-34-9 SWD TICKET: SOK 4582



Trailer Number: 42568/94302

Front Pot  
LEAD

Driver Name \_\_\_\_\_

CEMENT ADDITIVES

4% GEL	4% GEL
.2% FL-17	.2% FL-17
.1% C-20	.1% C-20
.1% C-37	.1% C-37
.2% X-Air P	.2% X-Air P
.1% C-51	.1% C-51

Cement 50/50 Class H/POZ

162 sks

Rear Pot  
LEAD

Cement 50/50 Class H/POZ

162 sks

COMPANY: Tapstone

DATE: 12/6/2014

LEASE: Ralph 36-34-9 SWD

TICKET: SOK 4582



7136 South Yale Avenue, Suite 414

Tulsa, Oklahoma 74136-6378

phone 918.925.9739

fax 866.534.4559

WWW.HZMUD.COM

Customer Information

Operator: Tapstone Energy  
210 Park Ave Ste 1350,  
Oklahoma City, OK, 73102

Geologist: Tammy Alcorn  
Tapstone Energy

Well Information

Well Name: Ralph 36-34-9 SWD

Location: SEC 36-34S-9W  
200' FNL & 2000' FEL

County: Harper  
State: Kansas

Mud Logging Details

Logger: Brett Hopt  
Sierra Lambert

Log Interval: 3400' MD to 6595' MD  
Start Date: November 30, 2014  
Release Date: December 9, 2014

Drilling Rig: Unit 303  
Total Depth: 6595' MD  
TD Date: December 9, 2014  
Formation: Granite  
KB Elevation: 1290'  
GR Elevation: 1272'  
API Number: 15-077-22115-00-00

ROCK TYPES

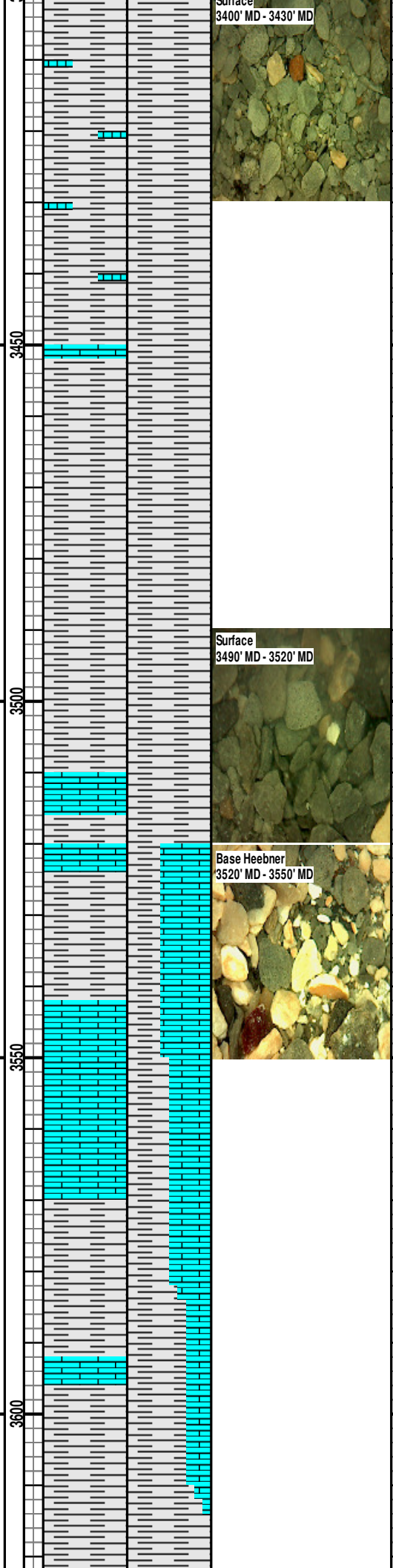
	Cmnt		Coal		Mrlst		Slst		slst
	Trp cht		Dol		Salt		Ss		sdysh
	Anhy		Gyp		Limysh		hvycrbsh		lgne
	Cht		Lmst		Shale		nosmpl		

Drill Depth v. Time		Survey Data		Depth	Porosity	Lithology	Percentages	Photographs	Geological Descriptions	Cut	Total Gas, C1-C4								
ROP (Min/Ft)	Gamma										TG (units)	C1 (units)	C2 (units)	C3 (units)	C4 (units)				
0	5			33					TAPSTONE ENERGY RALPH 36-34-9 SWD 200' FNL & 2000' FEL SEC 36-34S-9W HARPER CO., KS UNIT 303	1-3	20								180
ROP (Min/Ft) 5 SLIDE=RED <sup>na</sup> ROTATE=WHITE ROP SCALE: 0 TO 5 GAMMA SCALE: 0 TO 300 12:01 AM 12/1-2/2014 FT/48 HRS 1000' DAY 2-3									LOGGERS: BRETT HOPT SIERRA LAMBERT CALLED OUT BY COMPANY MAN ON 11/30/2014 AT 5:00 PM. COMMENCED LOGGING @ 2:30 PM ON 12/02/2014 @ 3400' MD W/ BIT #3, SIZE: 8.75", BRAND: BAKER HUGHES TYPE-		TG, C1-C4 CONNECTIONS MARKED WITH RED TRIANGLES BLOODHOUND 5940 ATTENUATION 100 GAS SCALE: -20 TO 180 (20 UNITS/DIVISION) DRILLING ON WATER BASED MUD								

ROP (Min/Ft) 5  
Gamma 300  
MD 3400 TVD 3398.93  
INC 0.22 AZ 358.59  
VS -30.41

WOB 7.4K  
PP 947  
RPM 90  
SPM 0/119

ROP (Min/Ft) 5  
Gamma 300  
MD 3600 TVD 3598.92  
INC 0.67 AZ 357.58  
VS -28.85



BASE HEEBNER, FRI, L.  
TX19870 S/N: 715507, JETS:  
6X11' IN @ 2277' MD.

3400' - 3430': 100% SH:  
MEDDRKGY - MEDGY, SUBBLKY,  
SLTY TXT, BRIT, TR LS, NO  
FLOR, NO CUT, NO RNG

3430' - 3460': 100% SH:  
MEDDRKGY - MEDGY, SUBBLKY,  
SLTY TXT, BRIT, TR LS, NO  
FLOR, NO CUT, NO RNG

3460' - 3490': 100% SH:  
MEDDRKGY - MEDGY, SUBBLKY,  
SLTY TXT, BRIT, TR LS, NO  
FLOR, NO CUT, NO RNG

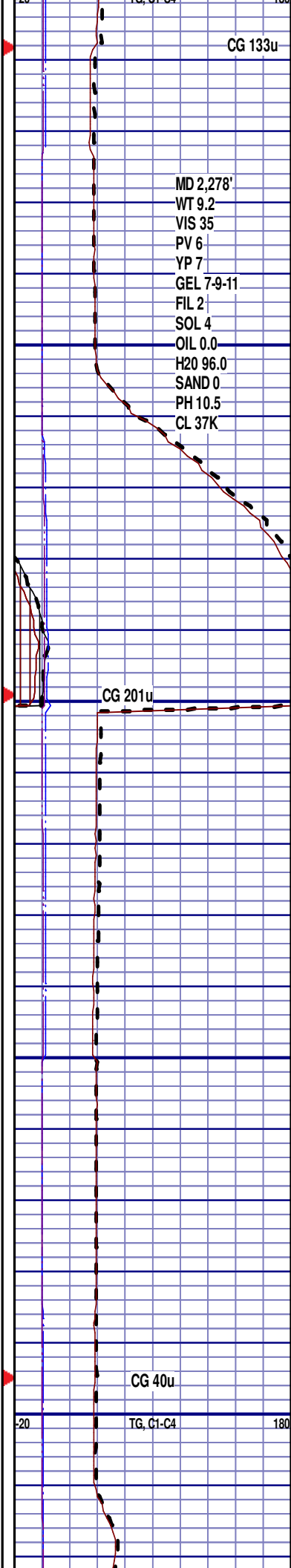
3490' - 3520': 100% SH:  
MEDDRKGY - MEDGY, SUBBLKY,  
SLTY TXT, BRIT, TR LS, NO  
FLOR, NO CUT, NO RNG

**BASE HEEBNER**  
3535' MD 3534' TVD (-2244' SS)

3520' - 3550': 50% LS: PAYLSHOR, PRED  
SUBBLKY TO OCC BLKY, MICXLN, FRI;  
50% SH: DRKGY - OCC LTGY - OCC BLK,  
SUBBLKY, F TO OCC MED TXT, SFT, IMBD  
MICA, NO FLOR, NO CUT, NO RNG

3550' - 3580': 50% LS:  
PAYLSHOR, PRED SUBBLKY TO  
OCC BLKY, MICXLN, FRI; 50%  
SH: DRKGY - OCC LTGY - OCC  
BLK, SUBBLKY, F TO OCC MED  
TXT, SFT, IMBD MICA, NO FLOR,  
NO CUT, NO RNG

3580' - 3610': 70% SH: DRKGY -  
OCC LTGY - OCC BLK, SUBBLKY,  
F TO OCC MED TXT, SFT, IMBD  
MICA; 30% LS: PAYLSHOR, PRED  
SUBBLKY TO OCC BLKY,  
MICXLN, FRI, NO FLOR, NO CUT,  
NO RNG



CG 133u

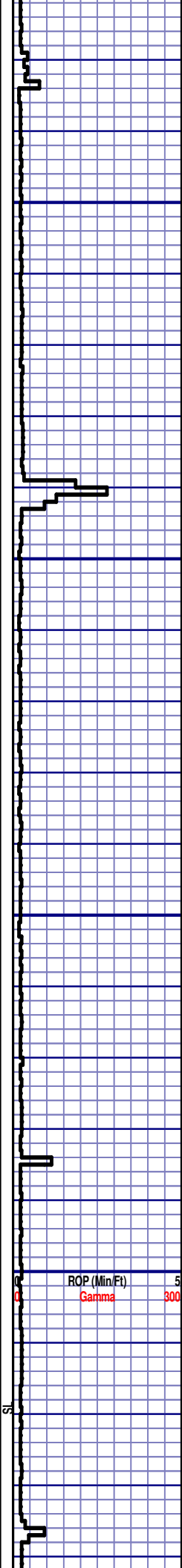
MD 2,278'  
WT 9.2  
VIS 35  
PV 6  
YP 7  
GEL 7-9-11  
FIL 2  
SOL 4  
OIL 0.0  
H2O 96.0  
SAND 0  
PH 10.5  
CL 37K

CG 201u

CG 40u

TG, C1-C4

180



3610' - 3640': 100% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, IMBD MICA, TR LS, NO FLOR, NO CUT, NO RNG

3640' - 3670': 70% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, IMBD MICA; 20% SS: V/LTGY, LSEY CONS, V/FN GRN, W/RND, MODY SRTD, SIL CMT, NO STN; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI; NO FLOR, NO CUT, NO RNG

3670' - 3700': 90% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, IMBD MICA; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI; NO FLOR, NO CUT, NO RNG

3700' - 3730': 100% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, IMBD MICA; TR LS; TR SS, NO FLOR, NO CUT, NO RNG

3730' - 3760': 100% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, IMBD MICA; TR LS; TR SS, NO FLOR, NO CUT, NO RNG

3760' - 3790': 100% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, IMBD MICA; TR LS; TR SS, NO FLOR, NO CUT, NO RNG

3790' - 3820': 100% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, IMBD MICA; TR LS; TR SS, NO FLOR, NO CUT, NO RNG

3820' - 3850': 90% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI; NO FLOR, NO CUT, NO RNG

MD 3,654'  
WT 9.1  
VIS 40  
PV 14  
YP 15  
GEL  
9-19-24  
FIL 7.6  
SOL 4.5  
OIL 0.0  
H2O 95.5  
SAND 0  
PH 10.5  
CL 18K

CG 79u

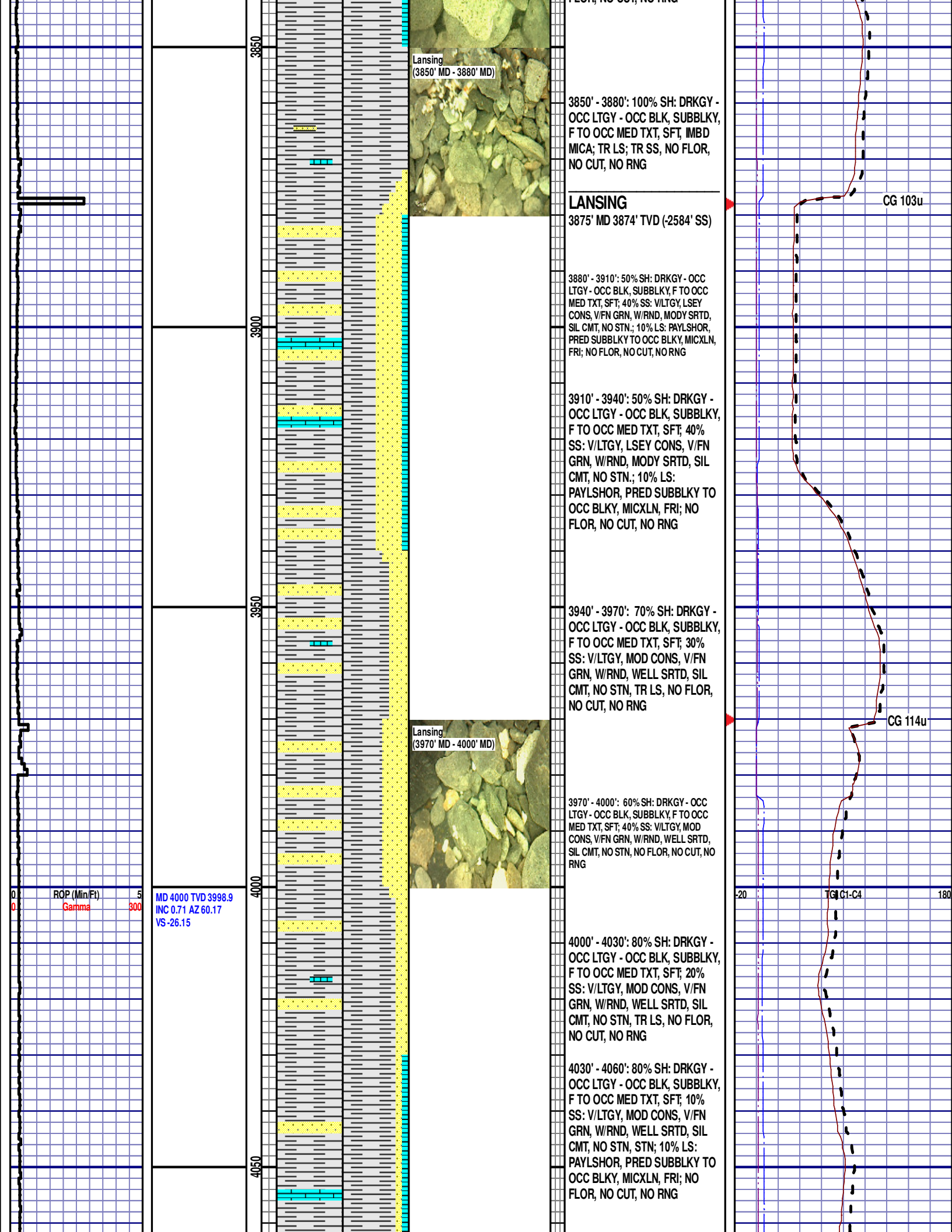
CG 72u

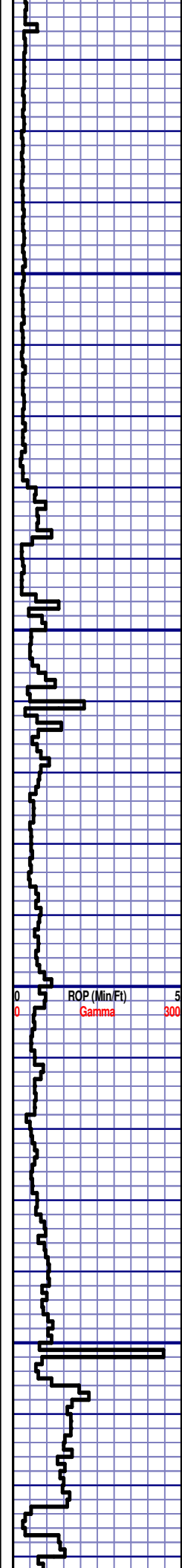
ROP (Min/Et) 5  
Gamma 300

MD 3800 TVD 3798.91  
INC 0.74 AZ 69.16  
VS -27.23

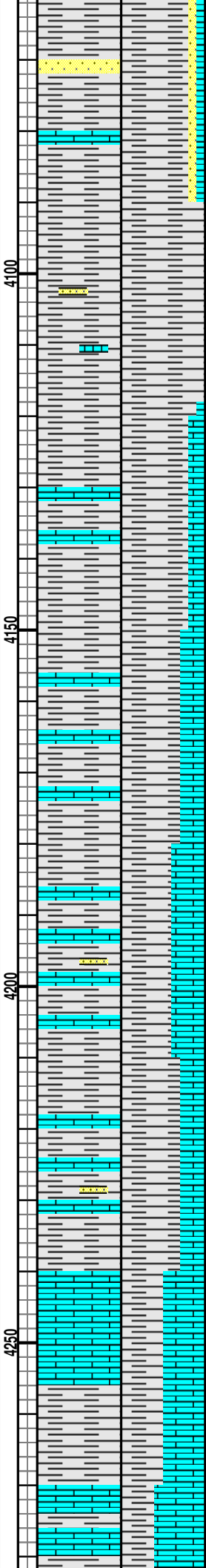
-20 TG 61-C4 180







MD 4200 TVD 4198.89  
 INC 0.41 AZ 58.66  
 VS-25.17



4060' - 4090': 80% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 10% SS: V/LTGY, MOD CONS, V/FN GRN, W/RND, WELL SRTD, SIL CMT, NO STN, STN; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI; NO FLOR, NO CUT, NO RNG

4090' - 4120': 100% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, MBD MICA; TR LS; TR SS, NO FLOR, NO CUT, NO RNG

4120' - 4150': 80% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 20% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI; NO FLOR, NO CUT, NO RNG

**COTTAGE GROVE**

4145' MD 4144' TVD (-2854' SS)

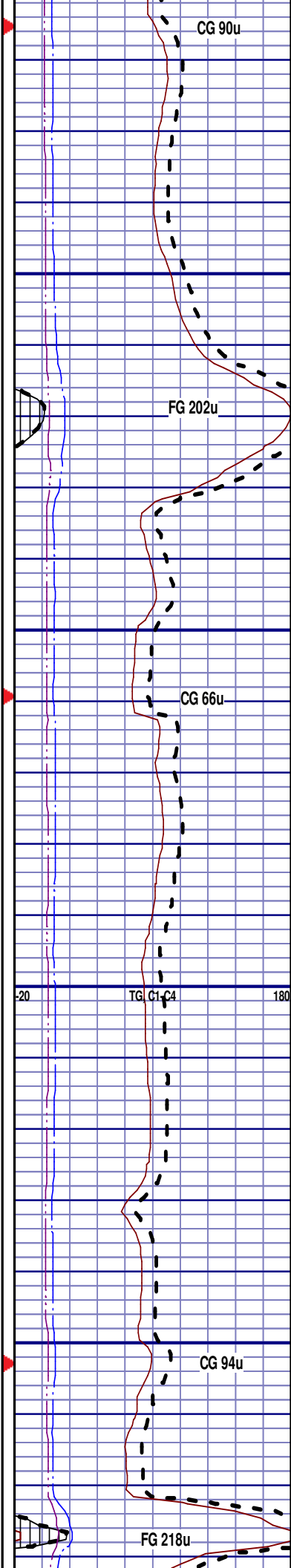
4150' - 4180': 70% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 30% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI; NO FLOR, NO CUT, NO RNG

4180' - 4210': 60% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 40% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, TR SS, NO FLOR, NO CUT, NO RNG

4210' - 4240': 70% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 30% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, TR SS, NO FLOR, NO CUT, NO RNG

4240' - 4270': 50% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 50% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, NO FLOR, NO CUT, NO RNG

4270' - 4300': 60% LS:



12:01 AM  
 12/3/2014  
 FT/24  
 HRS 965'  
 DAY 4

WOB 12.9K  
 PP 2424  
 RPM 91  
 SPM 100/98

0 5  
 P (Min/Et) Gamma 300

MD 4400 TVD 4398.88  
 INC 0.46 AZ 53.94  
 VS-24.33

4300  
 4350  
 4400  
 4450  
 4500



PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 40% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, TR SS, NO FLOR, NO CUT, NO RNG

4300' - 4330': 60% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 40% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, NO FLOR, NO CUT, NO RNG

4330' - 4360': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 40% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, NO FLOR, NO CUT, NO RNG

4360' - 4390': 60% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 40% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, TR SS, NO FLOR, NO CUT, NO RNG

4390' - 4420': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 40% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, TR TRP CHT, TR SS, NO FLOR, NO CUT, NO RNG

4420' - 4450': 70% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 30% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, TR SS, NO FLOR, NO CUT, NO RNG

**OSWEGO**  
 4455' MD 4454' TVD (-3164' SS)

4450' - 4480': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 40% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT, LYTL MIN FLOR, NO CUT, NO RNG

4480' - 4510': 70% LS: PRED V/LTGY - LTGY, SUBBLKY TO BLKY, V/FXLN, PRED FRI TO FRM, TR LTBN STN, NO MIN FLOR; 30%SH: PRED BLK - MERRICKY CRIT TO BLK F TO

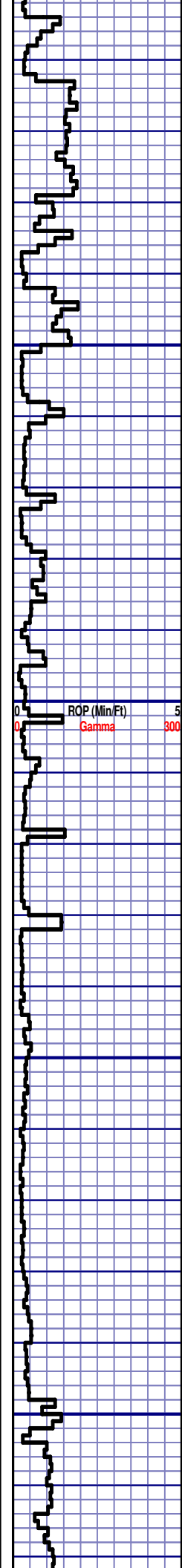
FG 228u

CG 123u

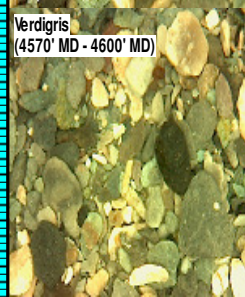
TG, C1-C4 180

CG 81u

FG 200u



MD 4600 TVD 4598.87  
 INC 0.56 AZ 68.64  
 VS -23.5



MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, SFT, NO O FLOR, NO CUT, NO RNG.

4510' - 4540': 80% LS: PRED V/LTGY - LTGY, SUBBLKY TO BLKY, V/FXLN, PRED FRI TO FRM, TR LTBN STN, NO MIN FLOR; 20%SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, SFT, NO O FLOR, NO CUT, NO RNG

4540' - 4570': 70% LS: PRED V/LTGY - LTGY, SUBBLKY TO BLKY, V/FXLN, PRED FRI TO FRM, TR LTBN STN, NO MIN FLOR; 30%SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, SFT, NO O FLOR, NO CUT, NO RNG

**CHEROKEE**  
 4565' MD 4564' TVD (-3274' SS)

4570' - 4600': 60% LS: PRED V/LTGY - LTGY, SUBBLKY TO BLKY, V/FXLN, PRED FRI TO FRM, TR LTBN STN, NO MIN FLOR; 40%SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, SFT, NO O FLOR, NO CUT, NO RNG

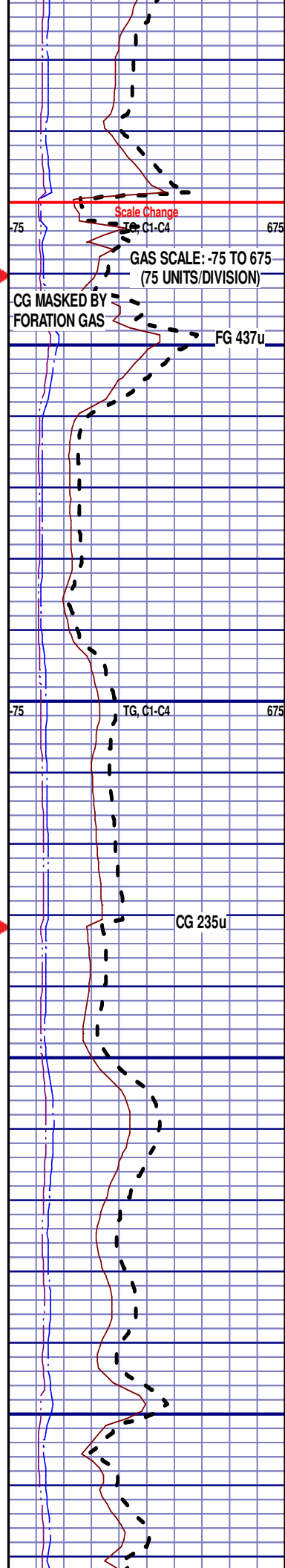
**VERDIGRIS**  
 4600' MD 4599' TVD (-3309' SS)

4600' - 4630': 60% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 40% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, TR SS, NO FLOR, NO CUT, NO RNG

4630' - 4660': 60% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 40% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, TR SS, NO FLOR, NO CUT, NO RNG

4660' - 4690': 50% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 50% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, TR SS, NO FLOR, NO CUT, NO RNG

4690' - 5720': 60% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 40% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, NO FLOR, NO CUT, NO RNG



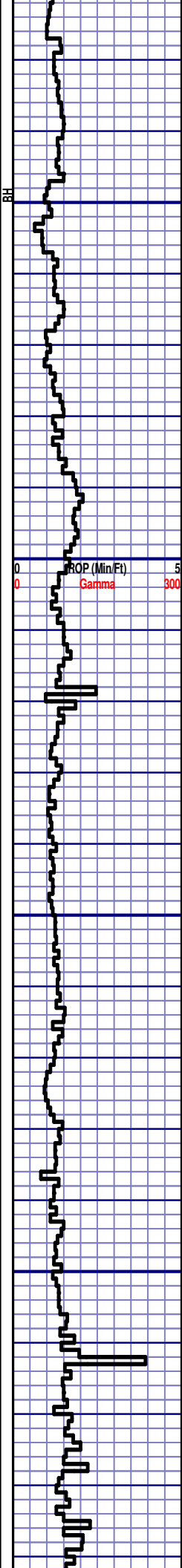
Scale Change  
 TO: C1-C4

GAS SCALE: -75 TO 675  
 (75 UNITS/DIVISION)

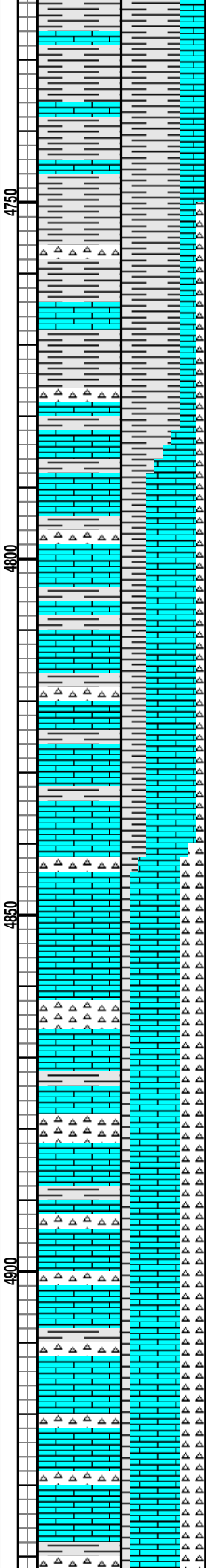
CG MASKED BY FORATION GAS  
 FG 437u

TG, C1-C4

CG 235u



MD 4800 TVD 4798.86  
 INC 0.56 AZ 41.84  
 VS-22.41



4720' - 4750': 70% SH: DRKGY - OCC LTGY - OCC BLK, SUBBLKY, F TO OCC MED TXT, SFT; 30% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, FRI, NO FLOR, NO CUT, NO RNG

**MISSISSIPPI**  
 4757' MD 4756' TVD (-3466' SS)

4750' - 4780': 70% SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, FRI; 20% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 10% CHT: PRED WH - MLKY, SUBBLKY, NO STN, NO FLOR, LTYL CUT, NO RNG

4780' - 4810': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 30% SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, FRI; 10% CHT: PRED WH - MLKY, SUBBLKY, MOD MODBN STN, LTYL MIN FLOR, NO CUT, NO RNG

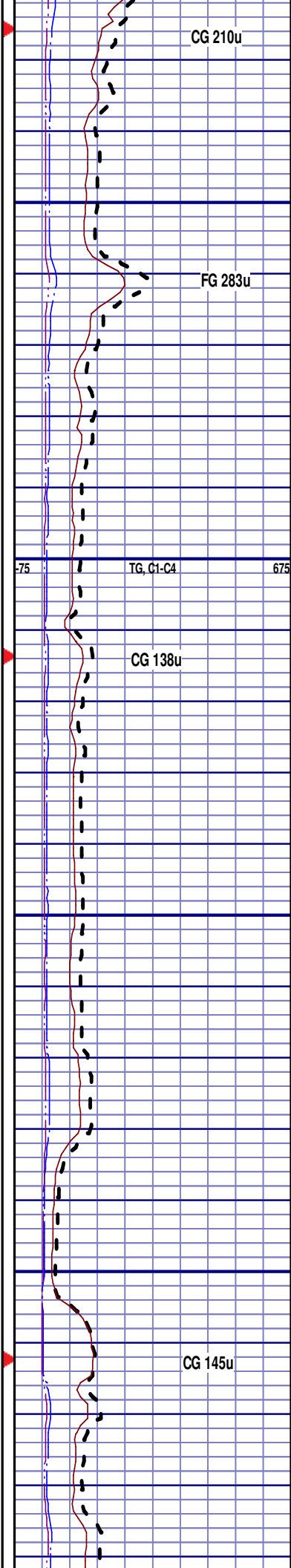
4810' - 4840': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 30% SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, FRI; 10% CHT: PRED WH - MLKY, SUBBLKY, MOD MODBN STN, LTYL MIN FLOR, NO CUT, NO RNG

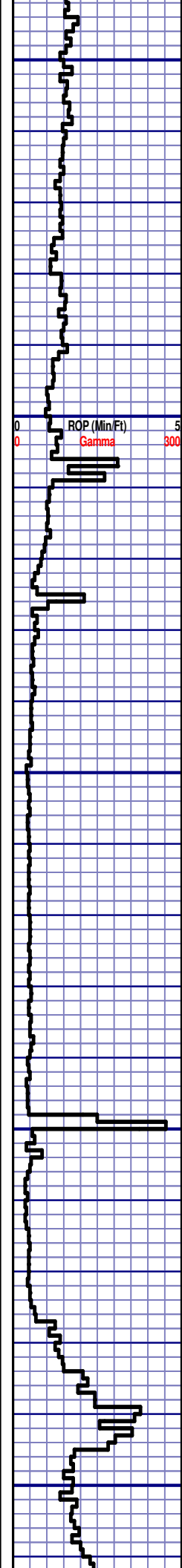
4840' - 4870': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 30% CHT: PRED WH - MLKY, SUBBLKY, MOD MODBN STN; 10% SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, FRI; LTYL MIN FLOR, NO CUT, NO RNG

4870' - 4900': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 30% CHT: PRED WH - MLKY, SUBBLKY, MOD MODBN STN; 10% SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, FRI; FNT LTYL MIN FLOR, NO CUT, NO RNG

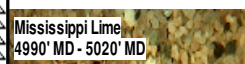
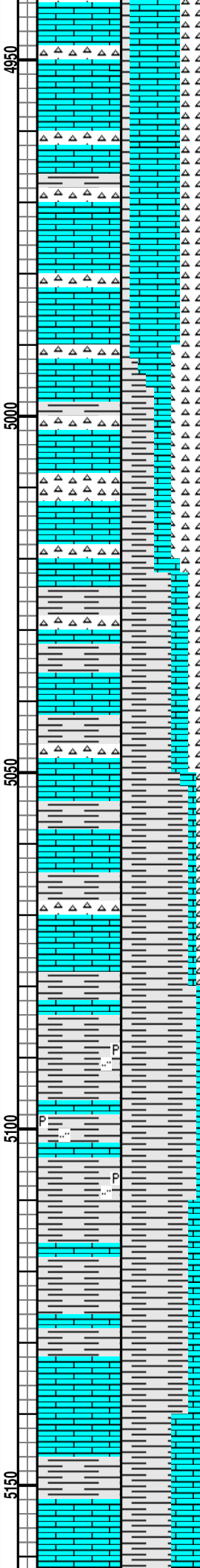
4900' - 4930': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 30% CHT: PRED WH - MLKY, SUBBLKY, MOD MODBN STN; 10% SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, FRI; FNT LTYL MIN FLOR, NO CUT, NO RNG

4930' - 4960': 60% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 30% CHT: PRED WH - MLKY, SUBBLKY, MOD MODBN STN; 10% SH: PRED BLK - MEDDRKGY, SPLT TO BLKY, F TO FISS TXT, FRI; FNT LTYL MIN FLOR, NO CUT, NO RNG





MD 5000 TVD 4998.86  
 INC 0.59 AZ 332.6  
 VS-20.76



PAYLSHOR, PR ED SUBBLKY TO  
 OCC BLKY, MICXLN; 30% CHT:  
 PRED WH - MLKY, SUBBLKY,  
 MOD MODBN STN; 10% SH:  
 PRED BLK - MEDDRKGY, SPLT  
 TO BLKY, F TO FISS TXT, FRI; NO  
 FLOR, NO CUT, NO RNG

4960' - 4990': 60% LS:  
 PAYLSHOR, PRED SUBBLKY TO  
 OCC BLKY, MICXLN; 30% CHT:  
 PRED WH - MLKY, SUBBLKY,  
 MOD MODBN STN; 10% SH:  
 PRED BLK - MEDDRKGY, SPLT  
 TO BLKY, F TO FISS TXT, FRI; NO  
 FLOR, NO CUT, NO RNG

4990' - 5020': 40% SH: MEDDRKGY, SPLT  
 TO BLKY, F TO FISS TXT, FRI; 40% CHT:  
 PRED WH - MLKY, SUBBLKY, MOD  
 MODBN STN; 20% LS: PAYLSHOR, PRED  
 SUBBLKY TO OCC BLKY, MICXLN; NO  
 FLOR, NO CUT, NO RNG

**KINDERHOOK**  
 5024' MD 5023' TVD (-3733' SS)

5020' - 5050': 60% SH: MEDDRKGY, SPLT  
 TO BLKY, F TO FISS TXT, FRI; 20% LS:  
 PAYLSHOR, PR ED SUBBLKY TO OCC  
 BLKY, MICXLN; 20% CHT: PRED WH -  
 MLKY, SUBBLKY, MOD MODBN STN; NO  
 FLOR, NO CUT, NO RNG

5050' - 5080': 80% SH: PRED BLK  
 - MEDDRKGY, SPLT TO BLKY, F  
 TO FISS TXT, FRI; 10% LS:  
 PAYLSHOR, PRED SUBBLKY TO  
 OCC BLKY, MICXLN; 10% CHT:  
 PRED WH - MLKY, SUBBLKY,  
 MOD MODBN STN; NO FLOR, NO  
 CUT, NO RNG

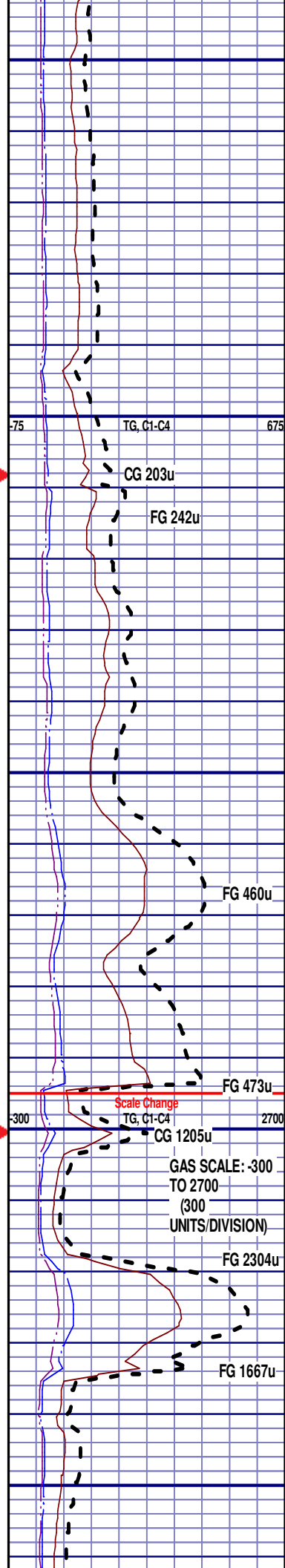
**WOODFORD**  
 5093' MD 5092' TVD (-3802' SS)

5080' - 5110': 90% SH: PRED MEDGY -  
 OCC BLK, SUBBLKY, SLTY TXT, FRI, IMBD  
 PYRC NOD & OCC PYRC SPEC; 10% LS:  
 PAYLSHOR, PR ED SUBBLKY TO OCC  
 BLKY, MICXLN, NO FLOR, NO CUT, NO  
 RNG

5110' - 5140': 80% SH: PRED MEDGY -  
 OCC BLK, SUBBLKY, F TXT, FRI; 20% LS:  
 PAYLSHOR, PR ED SUBBLKY TO OCC  
 BLKY, MICXLN, NO FLOR, NO CUT, NO  
 RNG

**VIOLA**  
 5134' MD 5133' TVD (-3843' SS)

5140' - 5170': 60% SH: PRED  
 MEDGY - OCC BLK, SUBBLKY, F  
 TXT, FRI; 40% LS: PAYLSHOR,  
 PRED SUBBLKY TO OCC BLKY



TG, C1-C4

CG 203u  
 FG 242u

FG 460u

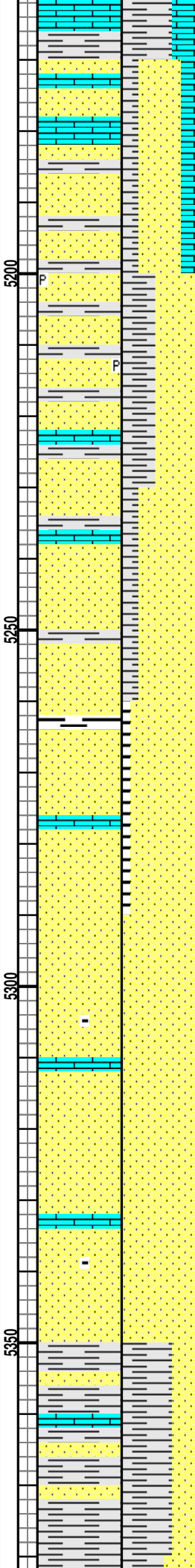
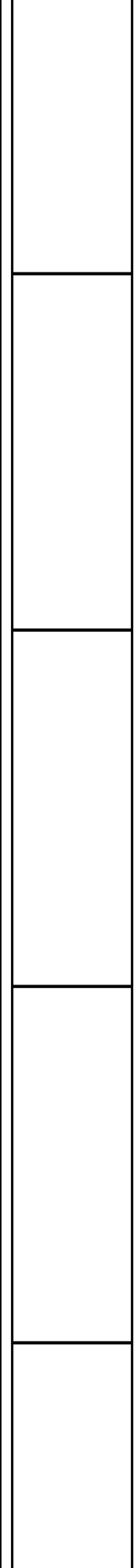
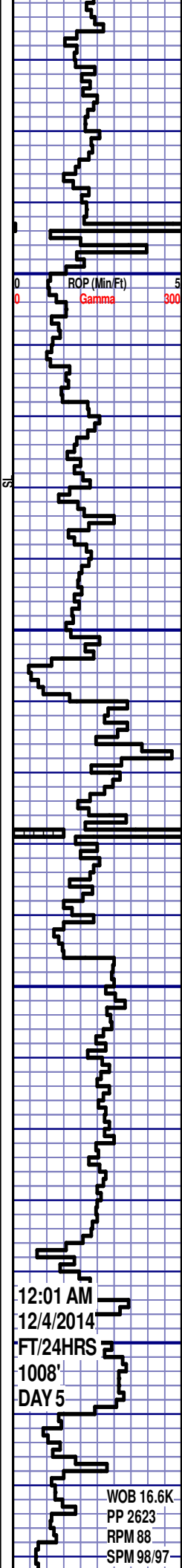
FG 473u

Scale Change  
 TG, C1-C4

CG 1205u  
 GAS SCALE: -300  
 TO 2700  
 (300  
 UNITS/DIVISION)

FG 2304u

FG 1667u



PRED BLKY, TO OCC BLKY, MICXLN, NO FLOR, NO CUT, NO RNG

5170' - 5200': 50% SS: PRED CLR - OCC MLKY, UN CONS, FN GRN, RND, MODY SRTD; 30% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; 20% SH: PRED MEDGY - OCC BLK, SUBBLKY, F TXT, FRI, NO FLOR, NO CUT, NO RNG

5200' - 5230': 50% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRTD, IMBD PYR; 40% SH: PRED MEDGY - OCC BLK, SUBBLKY, F TXT, FRI; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, NO FLOR, NO CUT, NO RNG

**SIMPSON**  
5214' MD 5213' TVD (-3923' SS)

5230' - 5260': 70% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRTD; 20% SH: PRED MEDGY - OCC BLK, SUBBLKY, F TXT, FRI; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, NO FLOR, NO CUT, NO RNG

5260' - 5290': 80% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRTD; 10% CARB SH: PRED BLK, SUBBLKY, F TXT, FRI; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, NO FLOR, NO CUT, NO RNG

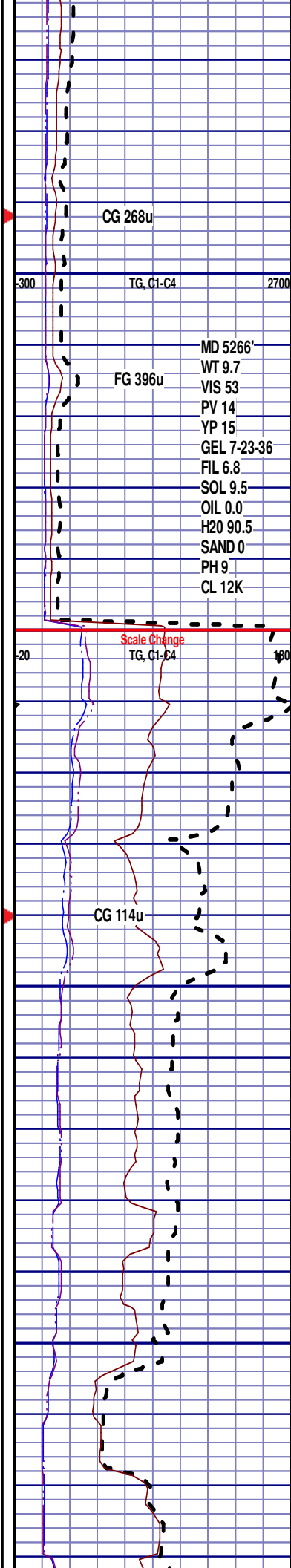
**SIMPSON SHALE**  
5296' MD 5295' TVD (-4005' SS)

5290' - 5320': 90% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRTD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, TR CARB SH, NO FLOR, NO CUT, NO RNG

5320' - 5350': 90% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRTD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, TR CARB SH, NO FLOR, NO CUT, NO RNG

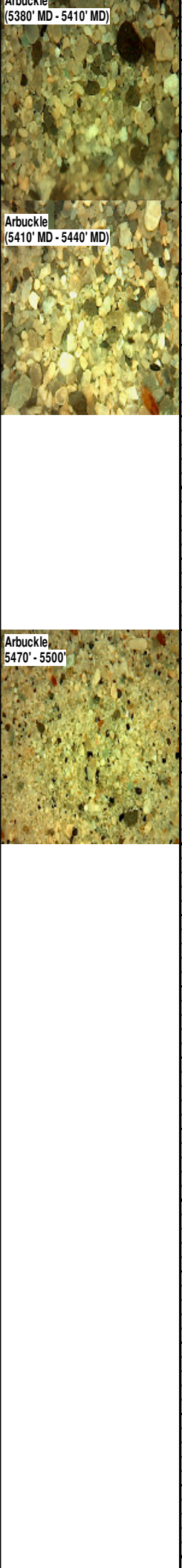
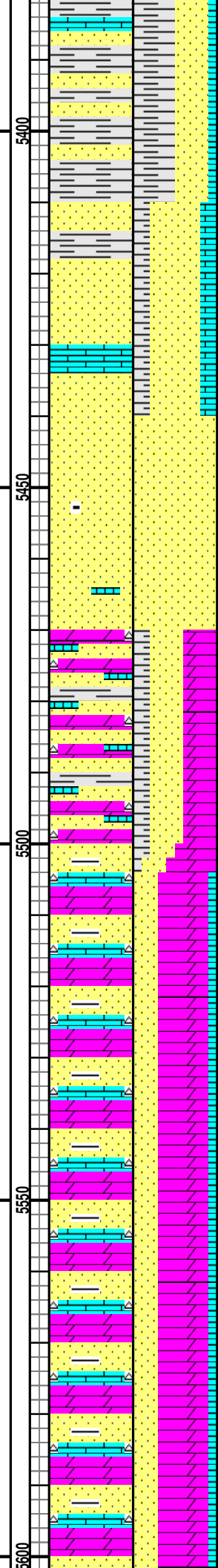
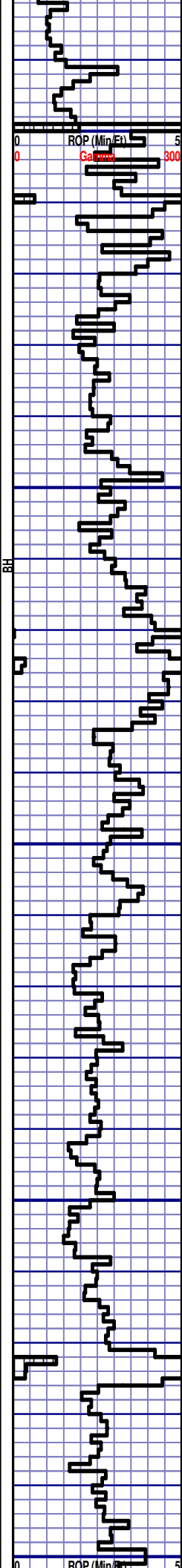
**OIL CREEK**  
5360' MD 5359' TVD (-4069' SS)

5350' - 5380': 60% SH: PRED MEDGY - OCC BLK - OCC BLU, SUBBLKY, F TXT, FRI; 30% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRTD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, NO FLOR, NO CUT, NO RNG



12:01 AM  
12/4/2014  
FT/24HRS  
1008'  
DAY 5

WOB 16.6K  
PP 2623  
RPM 88  
SPM 98/97



5380' - 5410': 50% SH: PRED MEDGY - OCC BLK - OCC BLU, SUBBLKY, F TXT, FRI; 40% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, NO FLOR, NO CUT, NO RNG

**ARBUCKLE**  
5402' MD 5401' TVD (-4111' SS)

5410' - 5440': 60% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRD; 20% SH: PRED MEDGY - OCC BLK, SUBBLKY, F TXT, FRI; 20% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, NO FLOR, NO CUT, NO RNG

5440' - 5470': 100%SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRD; TR LS, TR CARB SH, NO FLOR, NO CUT, NO RNG

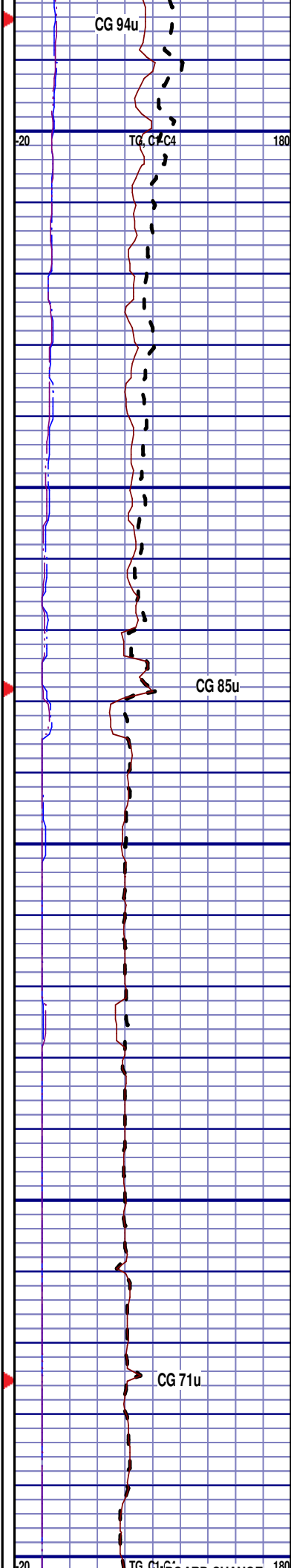
5470' - 5500': 40% DOL: LTBN, SUBRND, OOID FRMWRK, FREE QTZ, LTBN STN; 40% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRD; 20% SH: PRED MEDGY - OCC BLK - OCC BLU, SUBBLKY, F TXT, FRI; DRKYL FLOR, NO CUT, NO RNG; TR LS, TR CHT

5500' - 5530': 60% DOL: LTBN, SUBRND, OOID FRMWRK, FREE QTZ, LTBN STN; 30% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, DRKYL FLOR, NO CUT, NO RNG; TR SH, TR CHT

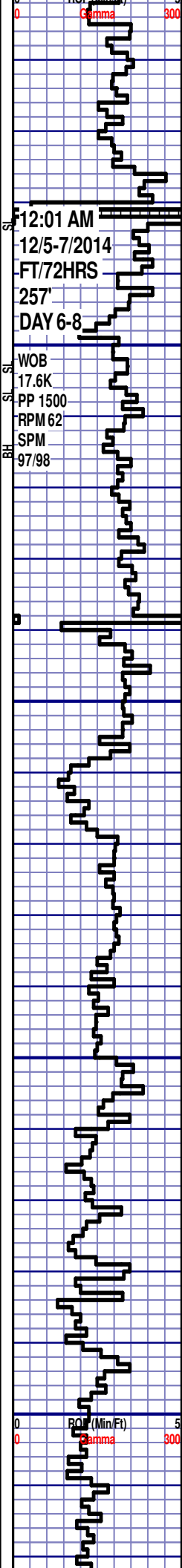
5530' - 5560': 60% DOL: LTBN, SUBRND, OOID FRMWRK, FREE QTZ, LTBN STN; 30% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, DRKYL FLOR, NO CUT, NO RNG; TR SH, TR CHT

5560' - 5590': 60% DOL: LTBN, SUBRND, OOID FRMWRK, FREE QTZ, LTBN STN; 30% SS: CLR - MLKY, UN CONS, FN GRN, RND, MODY SRD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, DRKYL FLOR, NO CUT, NO RNG; TR SH, TR CHT

5590' - 5620': 60% DOL: LTBN, SUBRND, OOID FRMWRK, FREE QTZ, LTBN STN; 30% SS: CLR -

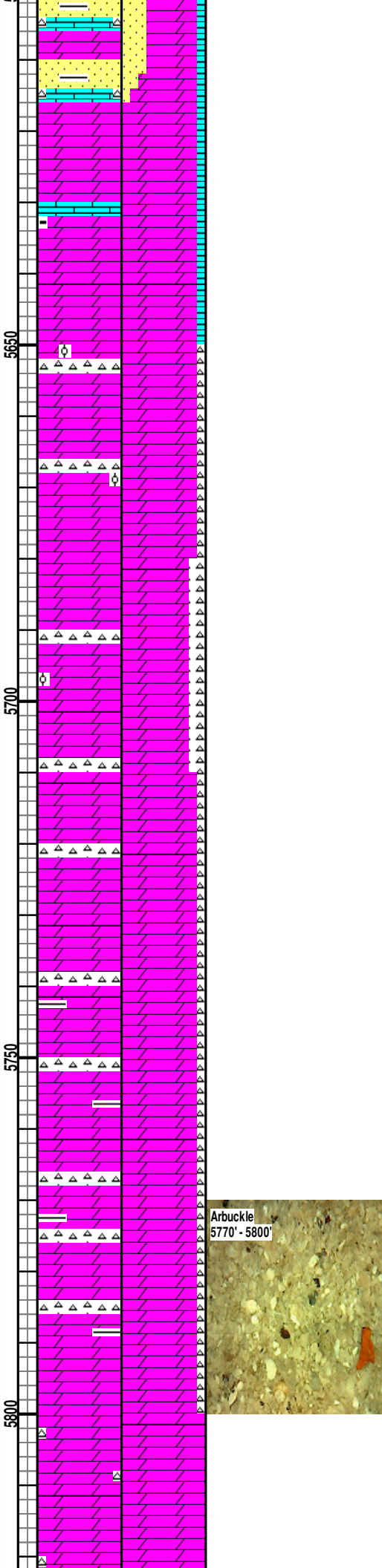






12:01 AM  
 12/5-7/2014  
 FT/72HRS  
 257'  
 DAY 6-8

WOB  
 17.6K  
 PP 1500  
 RPM 62  
 SPM  
 97/98



MLKY, UN CONS, FN GRN, RND, MODY SRD; 10% LS: PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN, DRKYL FLOR, NO CUT, NO RNG; TR SH, TR CHT

TOOH @ 4:30 PM ON 12/04/14 @ 5630' MD FOR WIPER TRIP.  
 TH @ 2:00 AM ON 12/07/14.  
 BOB AT 5:45 AM ON 12/07/14 @ 5630' MD W/ BIT # 4, SIZE: 6.125", BRAND: SMITH, TYPE: XR50Y SN: RD1925, JETS: 3X18'S, IN @ 5541' MD.

5620' - 5650': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% LS: WHT: OCC PAYLSHOR, PRED SUBBLKY TO OCC BLKY, MICXLN; TR CARB SH; DRKYL FLOR, NO CUT, NO RNG

5650' - 5680': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

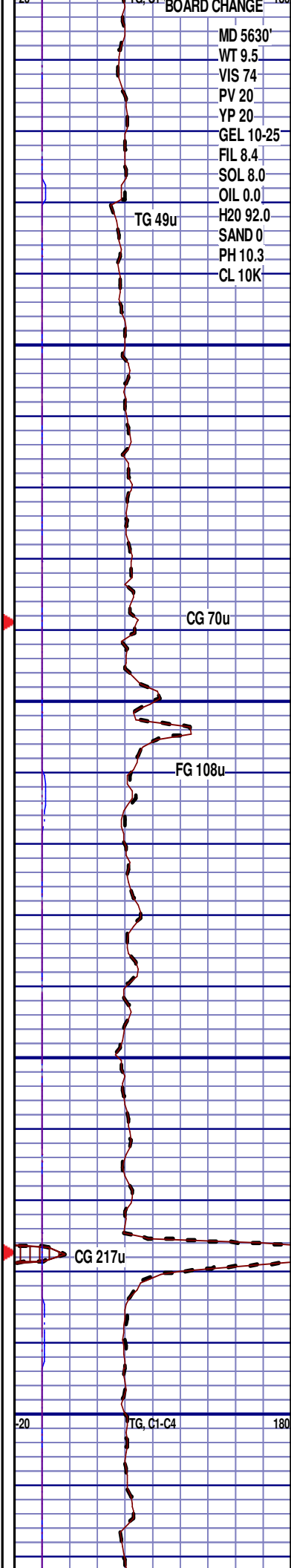
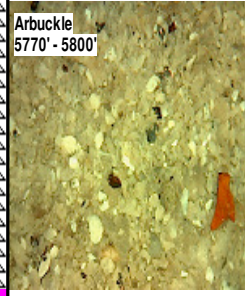
5680' - 5710': 80% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN TO OOID FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 20% CHT: PRED WH - OCC MLKY, BLKY

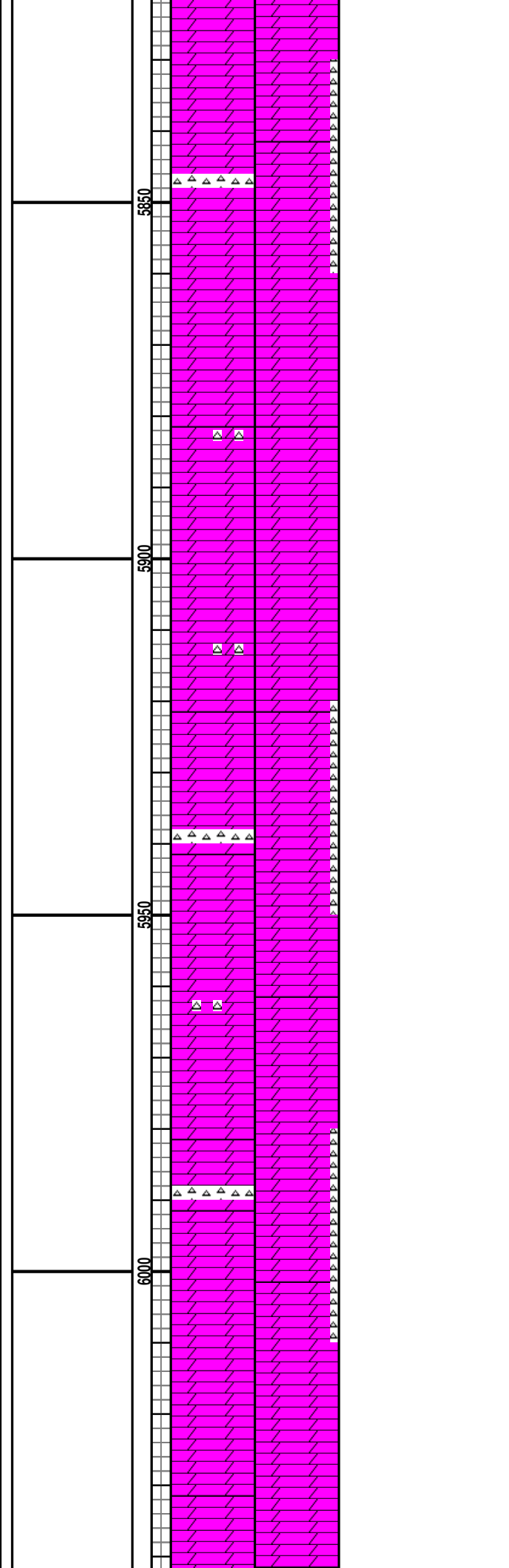
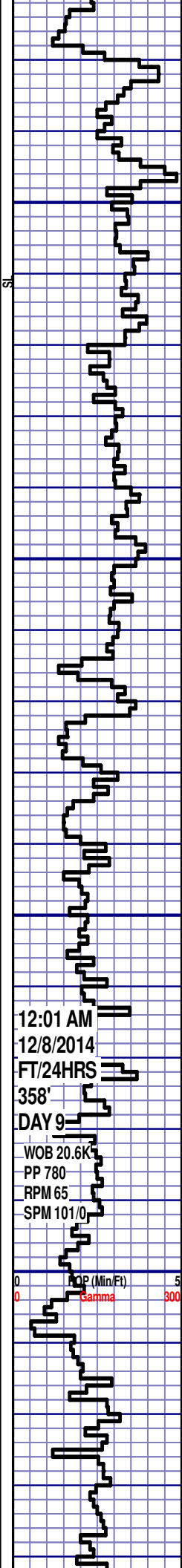
5710' - 5740': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

5740' - 5770': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY; TR SH

5770' - 5800': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY; TR SH

5800' - 5830': 100% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC





5830' - 5860': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

5860' - 5890': 100% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

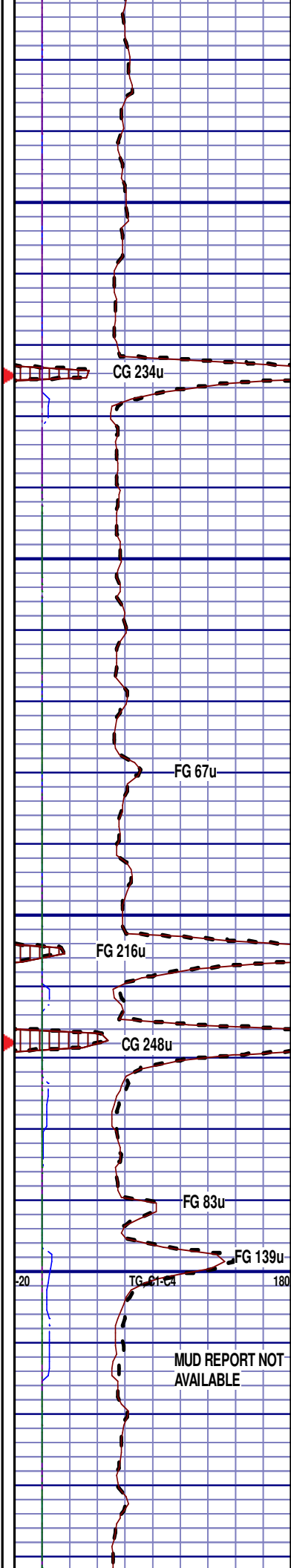
5890' - 5920': 100% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

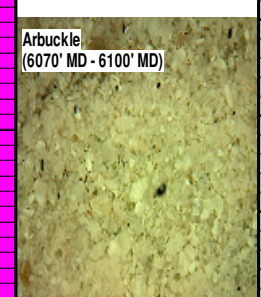
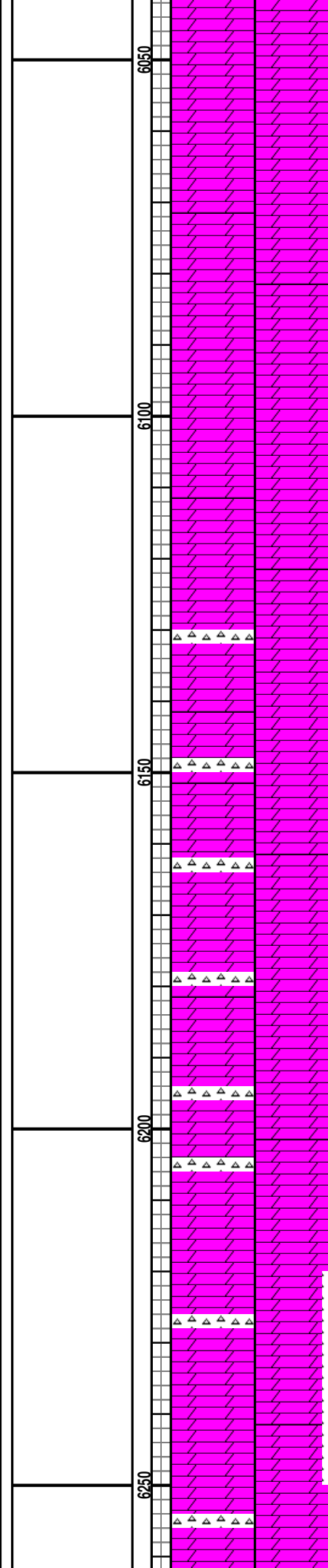
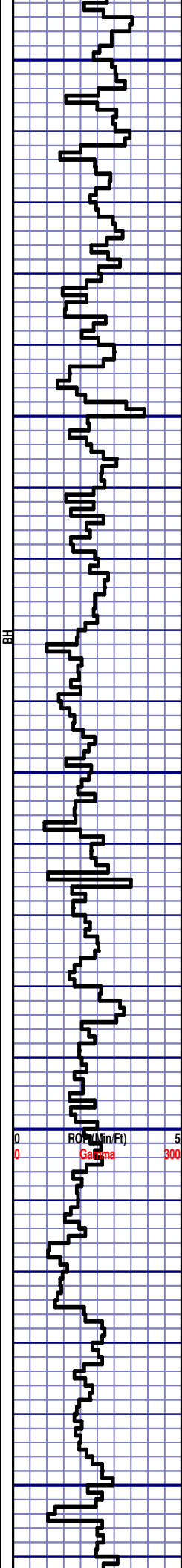
5920' - 5950': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

5950' - 5980': 100% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

5980' - 6010': 90% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG; 10% CHT: PRED WH - OCC MLKY, BLKY

6010' - 6040': 100% DOL: PRED MEDLTGY - SCAT V/LTGY, RND, SCAT MACROXLN FRMWRK, OCC IMBD CAL, NO STN, BRIYL MIN FLOR, NO O FLOR, NO CUT, NO RNG





6040' - 6070': 100% DOL: PRED  
MEDLTGY - SCAT V/LTGY, RND,  
SCAT MACROXLN FRMWRK, OCC  
IMBD CAL, NO STN, BRIYL MIN  
FLOR, NO O FLOR, NO CUT, NO  
RNG

6070' - 6100': 100% DOL: PRED  
MEDLTGY - SCAT V/LTGY, RND,  
SCAT MACROXLN FRMWRK, OCC  
IMBD CAL, NO STN, BRIYL MIN  
FLOR, NO O FLOR, NO CUT, NO  
RNG

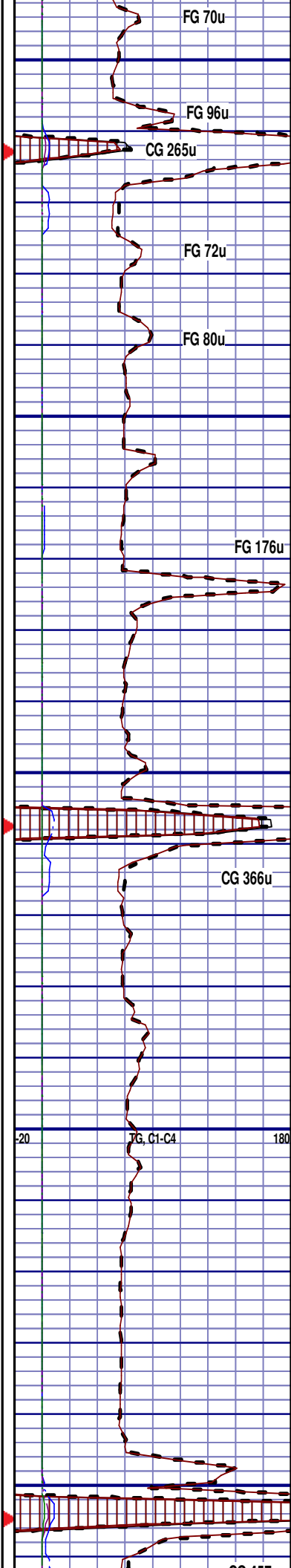
6100' - 6130': 100% DOL: PRED  
MEDLTGY - SCAT V/LTGY, RND,  
SCAT MACROXLN FRMWRK, OCC  
IMBD CAL, NO STN, BRIYL MIN  
FLOR, NO O FLOR, NO CUT, NO  
RNG

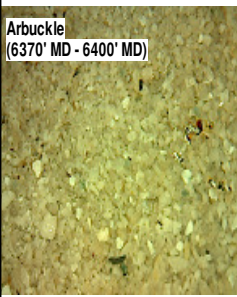
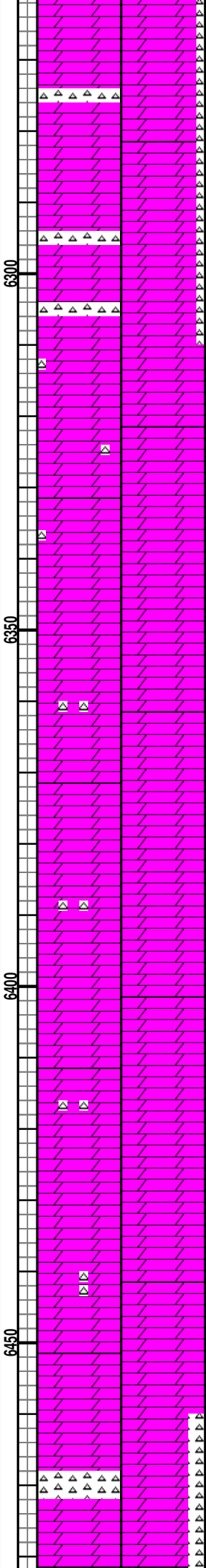
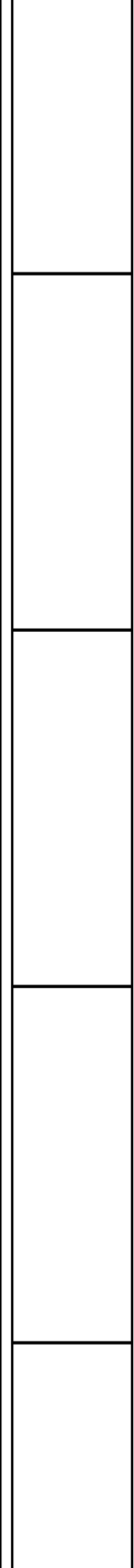
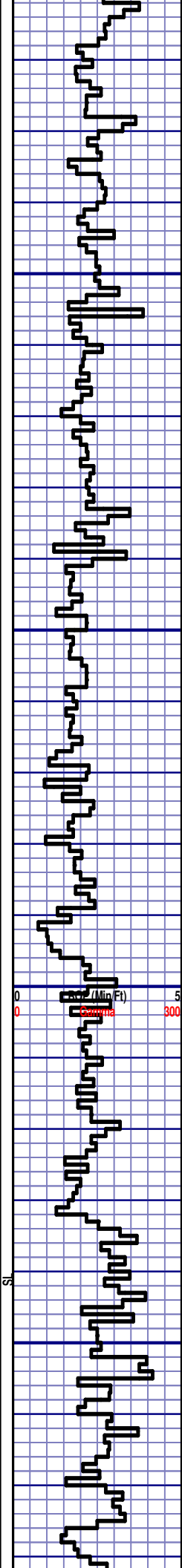
6130' - 6160': 90% DOL: PRED  
MEDLTGY - SCAT V/LTGY, RND,  
SCAT MACROXLN FRMWRK, OCC  
IMBD CAL, NO STN, BRIYL MIN  
FLOR, NO O FLOR, NO CUT, NO  
RNG; 10% CHT: PRED WH - OCC  
MLKY, BLKY

6160' - 6190': 90% DOL: PRED  
MEDLTGY - SCAT V/LTGY, RND,  
SCAT MACROXLN FRMWRK, OCC  
IMBD CAL, NO STN, BRIYL MIN  
FLOR, NO O FLOR, NO CUT, NO  
RNG; 10% CHT: PRED WH - OCC  
MLKY, BLKY

6190' - 6220': 90% DOL: PRED  
MEDLTGY - SCAT V/LTGY, RND,  
SCAT MACROXLN FRMWRK, OCC  
IMBD CAL, NO STN, BRIYL MIN  
FLOR, NO O FLOR, NO CUT, NO  
RNG; 10% CHT: PRED WH - OCC  
MLKY, BLKY

6220' - 6250': 80% DOL: PRED  
MEDLTGY - SCAT V/LTGY, RND,  
SCAT MACROXLN FRMWRK, OCC  
IMBD CAL, NO STN, BRIYL MIN  
FLOR, NO O FLOR, NO CUT, NO  
RNG; 20% CHT: PRED WH - OCC  
MLKY, BLKY





6250' - 6280': 90% DOL: PRED  
 MEDLTGY - SCAT V/LTGY, RND,  
 SCAT MACROXLN FRMWRK, OCC  
 IMBD CAL, NO STN, BRIYL MIN  
 FLOR, NO O FLOR, NO CUT, NO  
 RNG; 10% CHT: PRED WH - OCC  
 MLKY, BLKY

6280' - 6310': 90% DOL: PRED  
 MEDLTGY - SCAT V/LTGY, RND,  
 SCAT MACROXLN FRMWRK, OCC  
 IMBD CAL, NO STN, BRIYL MIN  
 FLOR, NO O FLOR, NO CUT, NO  
 RNG; 10% CHT: PRED WH - OCC  
 MLKY, BLKY

6310' - 6340': 100% DOL: PRED  
 MEDLTGY - SCAT LTGY, SUBRND,  
 MACROXLN FRMWRK, TR BLK  
 STN, NO MIN FLOR, BRIYL O  
 FLOR, SLOW LZY CUT, NO RNG;  
 TR CHT

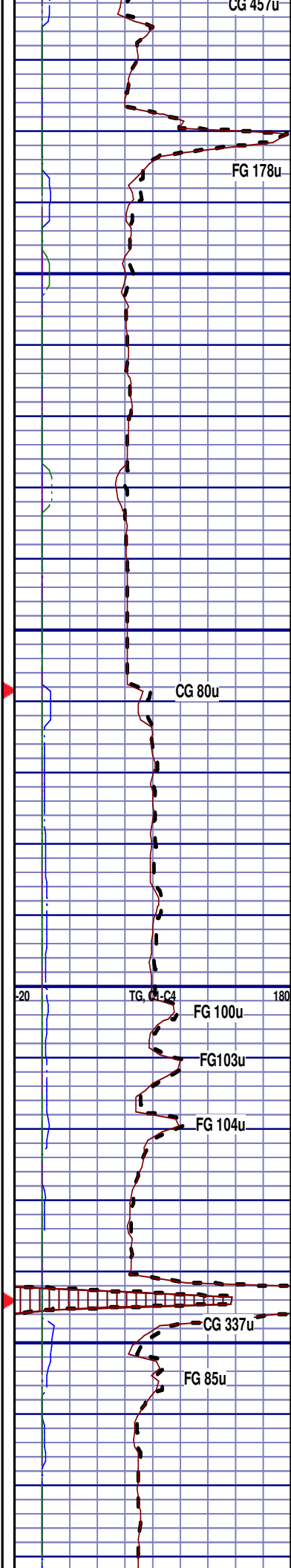
6340' - 6370': 100% DOL: PRED  
 MEDLTGY - SCAT LTGY, SUBRND,  
 MACROXLN FRMWRK, TR BLK  
 STN, NO MIN FLOR, BRIYL O  
 FLOR, NO CUT, NO RNG; TR CHT

6370' - 6400': 100% DOL: PRED  
 MEDLTGY - SCAT LTGY, SUBRND,  
 MACROXLN FRMWRK, TR BLK  
 STN, NO MIN FLOR, BRIYL O  
 FLOR, SLOW LZY CUT, NO RNG;  
 TR CHT

6400' - 6430': 100% DOL: PRED  
 MEDLTGY - SCAT LTGY, SUBRND,  
 MACROXLN FRMWRK, TR BLK  
 STN, NO MIN FLOR, BRIYL O  
 FLOR, SLOW LZY CUT, NO RNG;  
 TR CHT

6430' - 6460': 100% DOL: PRED  
 MEDLTGY - SCAT LTGY, SUBRND,  
 MACROXLN FRMWRK, TR BLK  
 STN, NO MIN FLOR, BRIYL O  
 FLOR, SLOW LZY CUT, NO RNG,  
 TR CHT

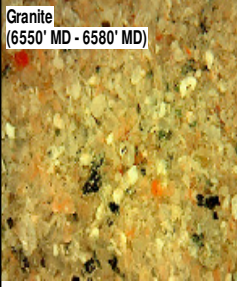
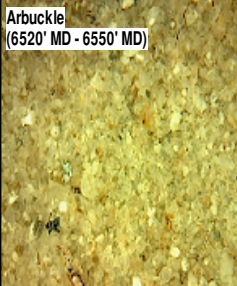
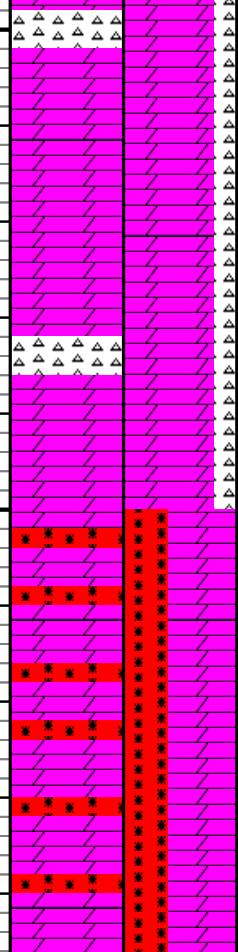
6460' - 6490': 80% DOL: PRED  
 MEDLTGY - SCAT LTGY, SUBRND,  
 MACROXLN FRMWRK, TR BLK  
 STN, NO MIN FLOR, BRIYL O



12:01 AM  
12/9/2014  
FT/24HRS  
562'  
DAY 10  
WOB 22K  
PP 888  
RPM 64  
SPM 104/0

DRILLERS TD @ 6595'  
MD AT 2:00 AM ON  
12/9/2014

6500  
6550  
6600



STN, NO MIN FLOR, BRIYL O  
FLOR, NO CUT, NO RNG; 20%  
CHT: PRED WH - OCC MLKY,  
BLKY

6490' - 6520': 80% DOL: PRED  
MEDLTGY - SCAT LTGY, SUBRND,  
MACROXLN FRMWRK, TR BLK  
STN, NO MIN FLOR, BRIYL O  
FLOR, NO CUT, NO RNG; 20%  
CHT: PRED WH - OCC MLKY,  
BLKY

6520' - 6550': 80% DOL: PRED  
MEDLTGY - SCAT LTGY, SUBRND,  
MACROXLN FRMWRK, TR BLK  
STN, NO MIN FLOR, BRIYL O  
FLOR, NO CUT, NO RNG; 20%  
CHT: PRED WH - OCC MLKY,  
BLKY

**GRANITE**  
6580' MD 6579' TVD (-5289' SS)

6550' - 6580': 60% DOL: PRED  
MEDLTGY - SCAT LTGY, SUBRND,  
MACROXLN FRMWRK, TR BLK  
STN, NO MIN FLOR, BRIYL O  
FLOR, NO CUT, NO RNG; 40%  
GRANITE ANGL TO SUB ANGL,  
MACROXLN FRMWRK

TD @ 6595' MD

RELEASED 12/9/2014

THANK YOU FROM  
BRETT HOPT,  
SIERRA LAMBERT AND  
HORIZON WELL  
LOGGING, LLC.

CG 390u

BOTTOMS UP GAS 138u  
-20 TG, C1-C4 180