KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1061429

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 5316
Name: Falcon Exploration, Inc.
Address 1: 125 N MARKET STE 1252
Address 2:
City: WICHITA State: KS Zip: 67202 + 1719
Contact Person: MICHEAL MITCHELL
Phone: (316) 262-1378
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: DAVE WILLIAMS
Purchaser: NA

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [ ] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [x] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

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

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

05/03/2011	05/17/2011	05/19/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-069-20345-00-00
Spot Description:
SW - SE - NW - NE Sec. 17 Twp. 28 S. R. 29 [ ] East [x] West
1000 Feet from [x] North / [ ] South Line of Section
1710 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[x] NE [ ] NW [ ] SE [ ] SW
County: Gray
Lease Name: ROBERTSON Well #: 1-17(NE)
Field Name: WC
Producing Formation: NA
Elevation: Ground: 2792 Kelly Bushing: 2805
Total Depth: 5460 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1871 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 4300 ppm Fluid volume: 1000 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: HAYDEN OPERATING
Lease Name: LIZ SMITH License #: 33562
Quarter NE Sec. 17 Twp. 28 S. R. 29 [ ] East [x] West
County: HASKELL Permit #: D26802

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

- [x] **Letter of Confidentiality Received**
  Date: 08/18/2011
- [x] **Confidential Release Date:** 08/17/2013
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] I [ ] II [ ] III **Approved by:** NAOMI JAMES **Date:** 08/18/2011

Side Two

[redacted]

1061429

Operator Name: Falcon Exploration, Inc. Lease Name: ROBERTSON Well #: 1-17(NE)

Sec. 17 Twp. 28 S. R. 29 ☐ East ☑ West County: Gray

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

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ 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
SURFACE	12.25	8.625	24	1871	65/35;CLASS A	825	2% GEL, 3% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

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

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	ROBERTSON 1-17(NE)
Doc ID	1061429

All Electric Logs Run

DIL
MEL
BHCS
CDL/CNL

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	ROBERTSON 1-17(NE)
Doc ID	1061429

Tops

Name	Top	Datum
STOTLER	3528	-723
TARKIO	3601	-796
HEEBNER	4164	-1359
DOUGLAS SH	4198	-1393
LANSING	4250	-1445
STARK	4570	-1765
BKC	4678	-1873
MARMATON	4748	-1943
PAWNEE	4838	-2033
CHEROKEE	4685	-1880
MORROW SH	5058	-2253
MISS ST GEN	5096	-2291
ST LOUIS	5160	-2355

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

Kansas
Corporation Commission

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

August 15, 2011

MICHEAL MITCHELL
Falcon Exploration, Inc.
125 N MARKET STE 1252
WICHITA, KS 67202-1719

Re: ACO1
API 15-069-20345-00-00
ROBERTSON 1-17(NE)
NE/4 Sec.17-28S-29W
Gray 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,
MICHEAL MITCHELL

Company	**Falcon Exploration, Inc.**	Lease Name	**Robertson (NE)**		
Address	**125 N. Market, Ste. 1252**	Lease #	**1-17**		
CSZ	**Wichita, KS 67202**	Legal Desc	**SW-SE-NW-NE**	Job Ticket	**2150**
Attn.	**Dave Williams**	Section	**17**	Range	**29W**
		Township	**28S**		
		County	**Gray**	State	**KS**
		Drilling Cont	**Sterling Drilling Co. Rig #5**		

Comments **Legal Description Feet: 1000' FNL & 1710' FEL**

GENERAL INFORMATION

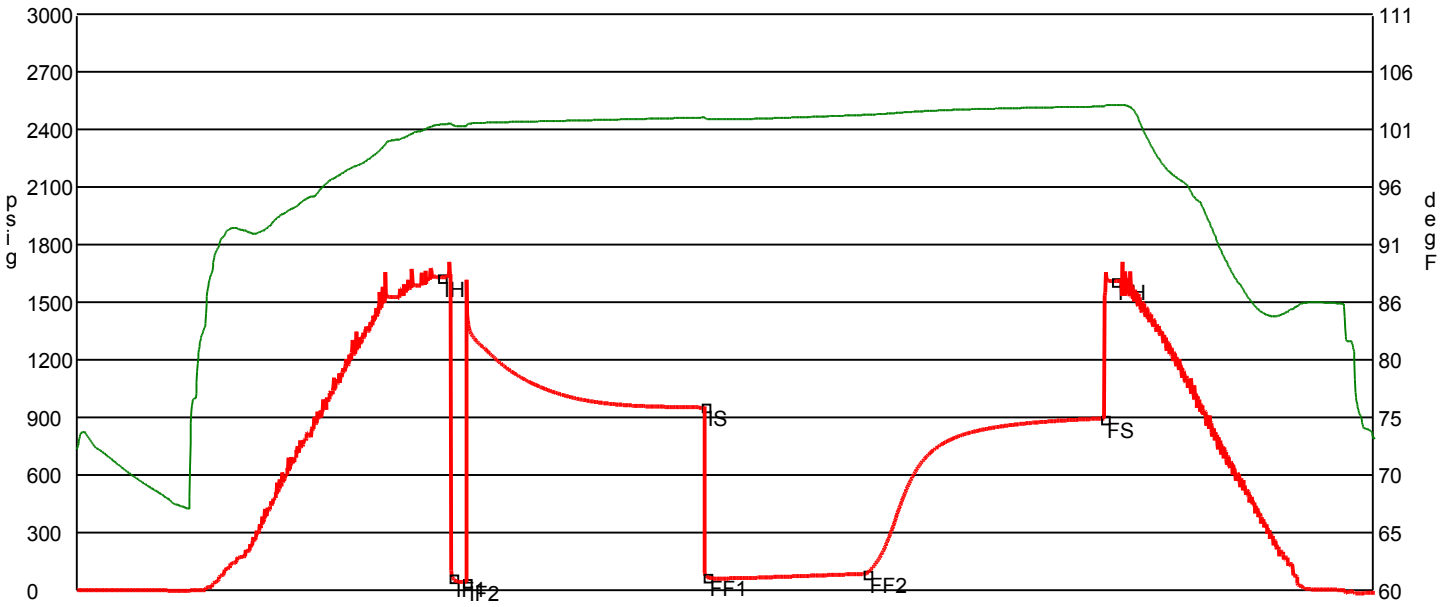
				Chokes	**3/4**	Hole Size	**7 7/8**
Test #	**1**	Test Date	**5/9/2011**	Top Recorder #	**W1119**		
Tester	**Tim Venters**			Mid Recorder #	**W1022**		
Test Type	**Conventional Bottom Hole Successful Test**			Bott Recorder #	**13310**		
# of Packers	**2.0**	Packer Size	**6 3/4**	Mileage	**216**	Approved By	
				Standby Time	**0**		
Mud Type	**Gel Chem**			Extra Equipmnt	**Jars & Safety joint**		
Mud Weight	**8.7**	Viscosity	**48.0**	Time on Site	**10:40 PM**		
Filtrate	**9.0**	Chlorides	**1500**	Tool Picked Up	**1:20 AM**		
				Tool Layed Dwn	**8:35 AM**		
Drill Collar Len	**335.0**						
Wght Pipe Len	**0**			Elevation	**2792.00**	Kelley Bushings	**2805.00**
Formation	**Stotler**			Start Date/Time	**5/9/2011 12:34 AM**		
Interval Top	**3502.0**	Bottom	**3570.0**	End Date/Time	**5/9/2011 8:39 AM**		
Anchor Len Below	**68.0**	Between	**0**				
Total Depth	**3570.0**						

Blow Type **We slid 2'-3' when we set the tool. Fairly weak 1 inch blow at the start of the initial flow period, building to 5 inches. It looks like we accidentally flushed the tool when we shut the tool in. No blow the first 3 minutes of the final flow period, where we got a very weak surface blow that built to 10 inches. Times: 5, 90, 60, 90.**

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
120	Mud	0% 0ft	0% 0ft	0% 0ft	100%120ft

DST Fluids **0**



	Date	Time	Pressure	Temp	
IH	5/9/2011 2:49:20 AM	2.255556	1631.398	101.263	Initial Hydro-static
IF1	5/9/2011 2:53:30 AM	2.325	67.619	101.227	Initial Flow (1)
IF2	5/9/2011 2:58:40 AM	2.411111	45.015	101.111	Initial Flow (2)
IS	5/9/2011 4:28:00 AM	3.9	958.52	101.883	Initial Shut-In
FF1	5/9/2011 4:28:40 AM	3.911111	72.738	101.771	Final Flow (1)
FF2	5/9/2011 5:28:40 AM	4.911111	88.667	102.115	Final Flow (2)
FS	5/9/2011 6:57:40 AM	6.394444	896.257	102.856	Final Shut-In
FH	5/9/2011 7:01:40 AM	6.461111	1612.09	102.971	Final Hydro-static

GAS FLOWS

Min Into IFP	Min Into FFP	Gas Flows	Pressure	Choke

Company	**Falcon Exploration, Inc.**	Lease Name	**Robertson (NE)**		
Address	**125 N. Market, Ste. 1252**	Lease #	**1-17**		
CSZ	**Wichita, KS 67202**	Legal Desc	**SW-SE-NW-NE**	Job Ticket	**2150**
Attn.	**Dave Williams**	Section	**17**	Range	**29W**
		Township	**28S**		
		County	**Gray**	State	**KS**
		Drilling Cont	**Sterling Drilling Co. Rig #5**		

Comments **Legal Description Feet: 1000' FNL & 1710' FEL**

GENERAL INFORMATION

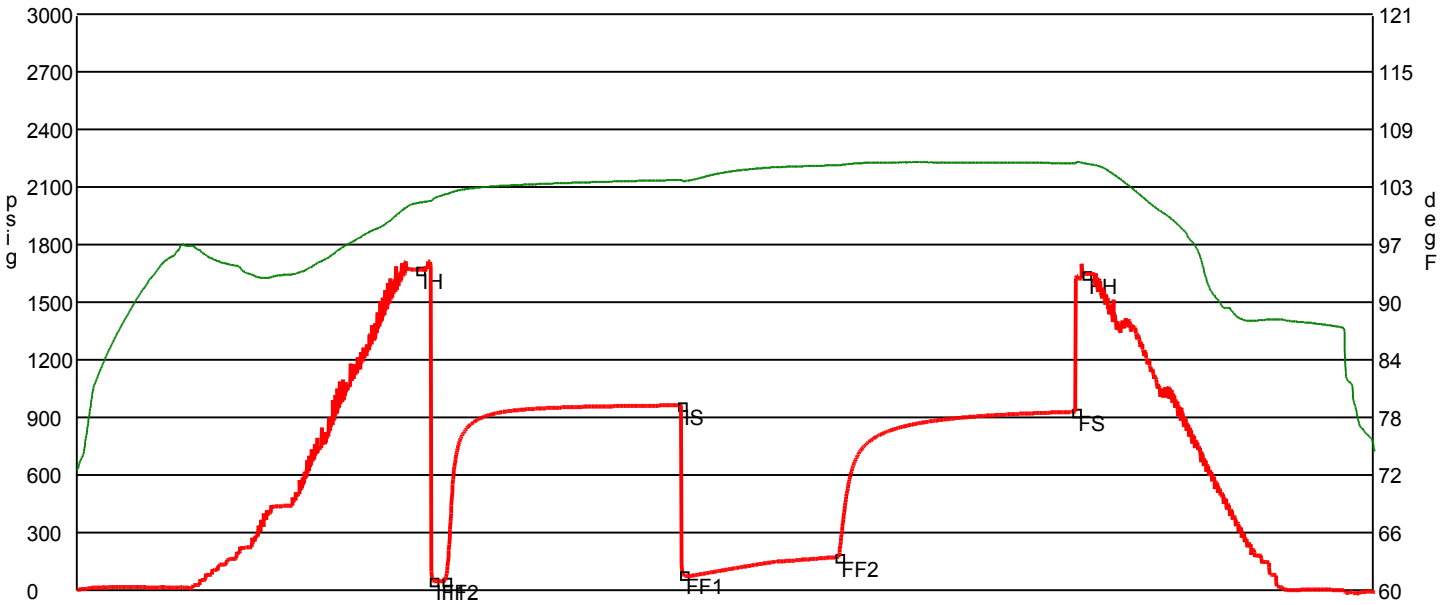
				Chokes	**3/4**	Hole Size	**7 7/8**
Test #	**2**	Test Date	**5/10/2011**	Top Recorder #	**W1119**		
Tester	**Tim Venters**			Mid Recorder #	**W1022**		
Test Type	**Conventional Bottom Hole Successful Test**			Bott Recorder #	**13310**		
# of Packers	**2.0**	Packer Size	**6 3/4**	Mileage	**64**	Approved By	
				Standby Time	**0**		
Mud Type	**Gel Chem**			Extra Equipmnt	**Jars & Safety joint**		
Mud Weight	**8.8**	Viscosity	**48.0**	Time on Site	**4:20 PM**		
Filtrate	**8.8**	Chlorides	**1800**	Tool Picked Up	**5:20 PM**		
				Tool Layed Dwn	**1:50 AM**		
Drill Collar Len	**335.0**						
Wght Pipe Len	**0**			Elevation	**2792.00**	Kelley Bushings	**2805.00**
Formation	**Tarkio**			Start Date/Time	**5/9/2011 4:38 PM**		
Interval Top	**3610.0**	Bottom	**3633.0**	End Date/Time	**5/10/2011 12:50 AM**		
Anchor Len Below	**23.0**	Between	**0**				
Total Depth	**3633.0**						

Blow Type **Strong blow throughout the initial flow period, reaching the bottom of the bucke t in 2 minutes. Weak surface blow at the start of the final flow period, buildi ng, reaching the bottom of the bucket in 4 1/2 minutes. At the 37 minute mark, we bled line off, and it took about 6 minutes to reach the bottom again. Weak s urface blow back at the start of the final shut-in period, lasting 10 to 20 minu tes. Times: 5, 90, 60, 90.**

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
50	Mud	0% 0ft	0% 0ft	0% 0ft	100% 50ft
120	Heavy water cut mud	0% 0ft	0% 0ft	43% 51.6ft	57% 68.4ft
185	Slight mud cut water	0% 0ft	0% 0ft	95% 175.8ft	5% 9.2ft

DST Fluids **155000**



	Date	Time	Pressure	Temp	
IH	5/9/2011 6:47:10 PM	2.152778	1670.326	101.081	Initial Hydro-static
IF1	5/9/2011 6:52:10 PM	2.236111	51.757	101.407	Initial Flow (1)
IF2	5/9/2011 6:57:00 PM	2.316667	50.794	101.954	Initial Flow (2)
IS	5/9/2011 8:26:40 PM	3.811111	963.529	103.479	Initial Shut-In
FF1	5/9/2011 8:27:20 PM	3.822222	83.68	103.373	Final Flow (1)
FF2	5/9/2011 9:26:30 PM	4.808333	174.639	105.047	Final Flow (2)
FS	5/9/2011 10:56:30 PM	6.308333	930.76	105.256	Final Shut-In
FH	5/9/2011 11:00:30 PM	6.375	1648.068	105.216	Final Hydro-static

GAS FLOWS

Min Into IFP	Min Into FFP	Gas Flows	Pressure	Choke

Company	**Falcon Exploration, Inc.**	Lease Name	**Robertson (NE)**		
Address	**125 N. Market, Ste. 1252**	Lease #	**1-17**		
CSZ	**Wichita, KS 67202**	Legal Desc	**SW-SE-NW-NE**	Job Ticket	**2150**
Attn.	**Dave Williams**	Section	**17**	Range	**29W**
		Township	**28S**		
		County	**Gray**	State	**KS**
		Drilling Cont	**Sterling Drilling Co. Rig #5**		

Comments **Legal Description Feet: 1000' FNL & 1710' FEL**

GENERAL INFORMATION

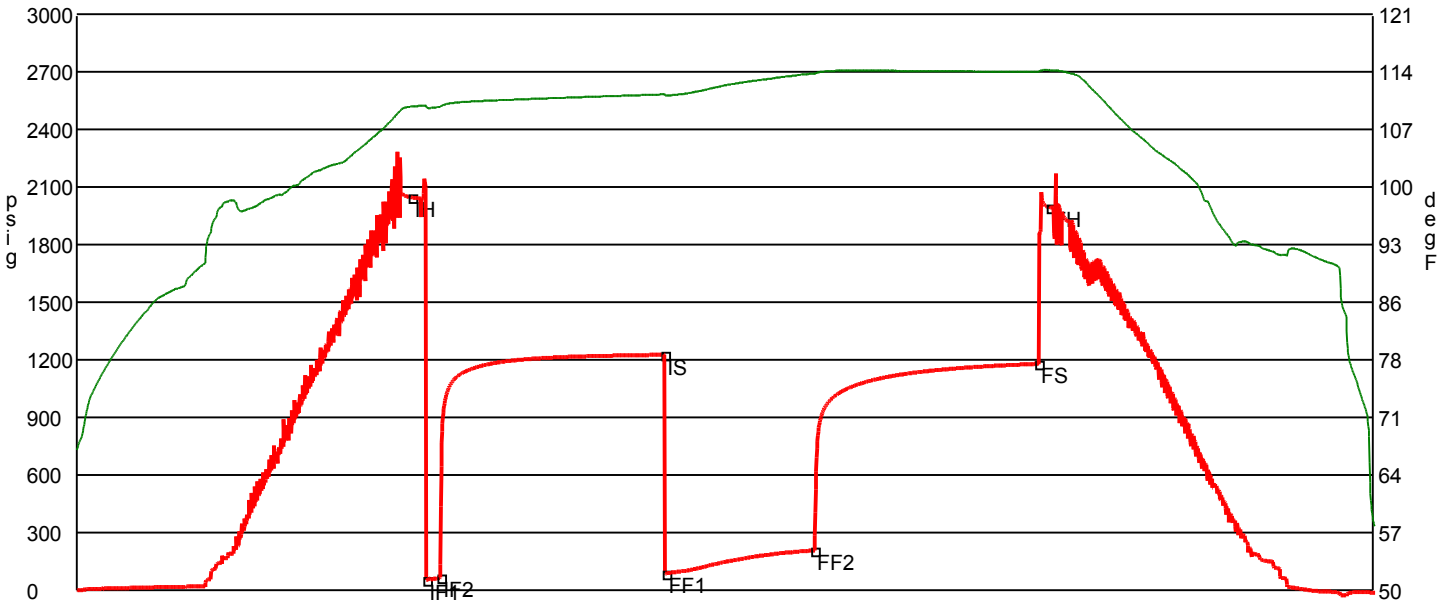
				Chokes	**3/4**	Hole Size	**7 7/8**
Test #	**3**	Test Date	**5/12/2011**	Top Recorder #	**W1119**		
Tester	**Tim Venters**			Mid Recorder #	**W1022**		
Test Type	**Conventional Bottom Hole**			Bott Recorder #	**13310**		
	Successful Test						
# of Packers	**2.0**	Packer Size	**6 3/4**	Mileage	**64**	Approved By	
				Standby Time	**0**		
Mud Type	**Gel Chem**			Extra Equipmnt	**Jars & Safety joint**		
Mud Weight	**9.1**	Viscosity	**65.0**	Time on Site	**4:00 PM**		
Filtrate	**8.8**	Chlorides	**2000**	Tool Picked Up	**6:15 PM**		
				Tool Layed Dwn	**2:10 AM**		
Drill Collar Len	**335.0**						
Wght Pipe Len	**0**			Elevation	**2792.00**	Kelley Bushings	**2805.00**
Formation	**Lansing "A"**			Start Date/Time	**5/11/2011 5:37 PM**		
Interval Top	**4238.0**	Bottom	**4280.0**	End Date/Time	**5/12/2011 2:16 AM**		
Anchor Len Below	**42.0**	Between	**0**				
Total Depth	**4280.0**						

Blow Type **Weak 1/4 inch blow at the start of the initial flow period, building to 2 inches . No blow for the first 4 minutes of the final flow period, where we got a weak surface blow, building, reaching the bottom of the bucket in 58 1/2 minutes. I t never did blow water out of the bucket. Times: 5, 90, 60, 90.**

RECOVERY

Feet	Description	Gas		Oil		Water		Mud	
20	Mud	0%	0ft	0%	0ft	0%	0ft	100%	20ft
65	Very slight water cut mud	0%	0ft	0%	0ft	6%	3.9ft	94%	61.1ft
245	Very slight mud cut water	0%	0ft	0%	0ft	95%	232.8ft	5%	12.2ft
60	Very slight water cut mud	0%	0ft	0%	0ft	8%	4.8ft	92%	55.2ft

DST Fluids **99000**



	Date	Time	Pressure	Temp	
IH	5/11/2011 7:50:00 PM	2.216667	2047.344	109.654	Initial Hydro-static
IF1	5/11/2011 7:56:00 PM	2.316667	54.083	109.592	Initial Flow (1)
IF2	5/11/2011 8:01:30 PM	2.408333	66.599	109.626	Initial Flow (2)
IS	5/11/2011 9:31:20 PM	3.905556	1227.522	111.156	Initial Shut-In
FF1	5/11/2011 9:31:50 PM	3.913889	88.76	111.008	Final Flow (1)
FF2	5/11/2011 10:31:30 PM	4.908333	207.622	113.715	Final Flow (2)
FS	5/12/2011 12:01:20 AM	6.405556	1180.845	113.949	Final Shut-In
FH	5/12/2011 12:06:00 AM	6.483333	1996.46	114.131	Final Hydro-static

GAS FLOWS

Min Into IFP	Min Into FFP	Gas Flows	Pressure	Choke

Company	**Falcon Exploration, Inc.**	Lease Name	**Robertson (NE)**		
Address	**125 N. Market, Ste. 1252**	Lease #	**1-17**		
CSZ	**Wichita, KS 67202**	Legal Desc	**SW-SE-NW-NE**	Job Ticket	**2150**
Attn.	**Dave Williams**	Section	**17**	Range	**29W**
		Township	**28S**		
		County	**Gray**	State	**KS**
		Drilling Cont	**Sterling Drilling Co. Rig #5**		

Comments **Legal Description Feet: 1000' FNL & 1710' FEL**

GENERAL INFORMATION

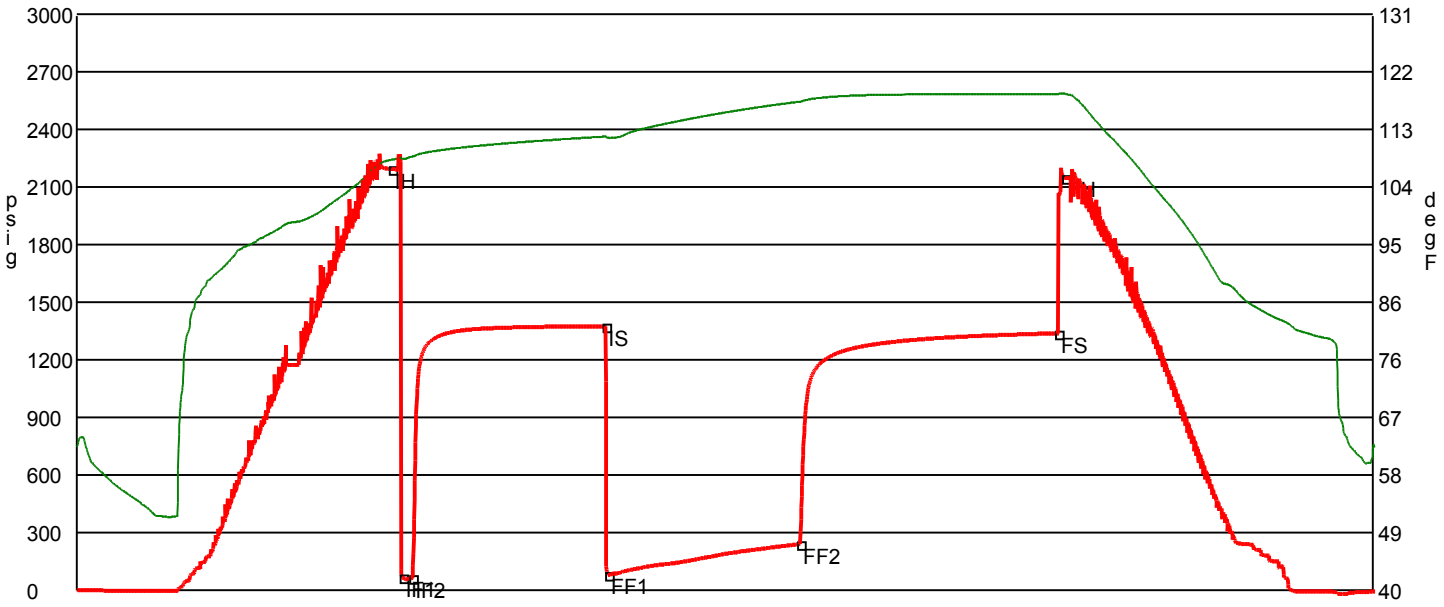
				Chokes	**3/4**	Hole Size	**7 7/8**
Test #	**4**	Test Date	**5/13/2011**	Top Recorder #	**W1119**		
Tester	**Tim Venters**			Mid Recorder #	**W1022**		
Test Type	**Conventional Bottom Hole Successful Test**			Bott Recorder #	**13310**		
# of Packers	**2.0**	Packer Size	**6 3/4**	Mileage	**64**	Approved By	
				Standby Time	**0**		
Mud Type	**Gel Chem**			Extra Equipmnt	**Jars & Safety joint**		
Mud Weight	**9.2**	Viscosity	**50.0**	Time on Site	**4:30 AM**		
Filtrate	**8.8**	Chlorides	**2300**	Tool Picked Up	**5:55 AM**		
				Tool Layed Dwn	**3:10 PM**		
Drill Collar Len	**335.0**						
Wght Pipe Len	**0**			Elevation	**2792.00**	Kelley Bushings	**2805.00**
Formation	**Swope?**			Start Date/Time	**5/13/2011 5:14 AM**		
Interval Top	**4570.0**	Bottom	**4606.0**	End Date/Time	**5/13/2011 3:16 PM**		
Anchor Len Below	**36.0**	Between	**0**				
Total Depth	**4606.0**						

Blow Type **Strong blow throughout the intial flow period, reaching the bottom of the bucket in 1 minute. Very strong blow throughout the final flow period, hitting the bo ttom of the bucket instantaneously. Gas to surface in 25 minutes, but was too little to gauge. At 67 minutes, we bled line off again and it took 45 seconds t o get back to bottom. Very weak surface blow back after we bled line off (19 mi n.) that built to 1/4 inch. Times: 5, 90, 90, 120.**

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
4005	Gas in Pipe	100% 4005ft	0% 0ft	0% 0ft	0% 0ft
40	Mud	0% 0ft	0% 0ft	0% 0ft	100% 40ft
65	Very slight water cut mud	0% 0ft	0% 0ft	12% 7.8ft	88% 57.2ft
190	Very slight mud cut water	0% 0ft	0% 0ft	94% 178.6ft	6% 11.4ft
245	Water	0% 0ft	0% 0ft	100% 245ft	0% 0ft

DST Fluids **102000**



	Date	Time	Pressure	Temp	
IH	5/13/2011 7:39:10 AM	2.419444	2194.406	108.058	Initial Hydro-static
IF1	5/13/2011 7:44:10 AM	2.502778	69.516	108.193	Initial Flow (1)
IF2	5/13/2011 7:48:50 AM	2.580556	64.885	108.555	Initial Flow (2)
IS	5/13/2011 9:18:40 AM	4.077778	1376.368	111.721	Initial Shut-In
FF1	5/13/2011 9:19:40 AM	4.094444	82.339	111.52	Final Flow (1)
FF2	5/13/2011 10:49:00 AM	5.583333	241.424	117.233	Final Flow (2)
FS	5/13/2011 12:49:00 PM	7.583333	1339.268	118.383	Final Shut-In
FH	5/13/2011 12:52:10 PM	7.636111	2149.025	118.468	Final Hydro-static

GAS FLOWS

Min Into IFP	Min Into FFP	Gas Flows	Pressure	Choke

Company	**Falcon Exploration, Inc.**	Lease Name	**Robertson (NE)**		
Address	**125 N. Market, Ste. 1252**	Lease #	**1-17**		
CSZ	**Wichita, KS 67202**	Legal Desc	**SW-SE-NW-NE**	Job Ticket	**2150**
Attn.	**Dave Williams**	Section	**17**	Range	**29W**
		Township	**28S**		
		County	**Gray**	State	**KS**
		Drilling Cont	**Sterling Drilling Co. Rig #5**		

Comments **Legal Description Feet: 1000' FNL & 1710' FEL**

GENERAL INFORMATION

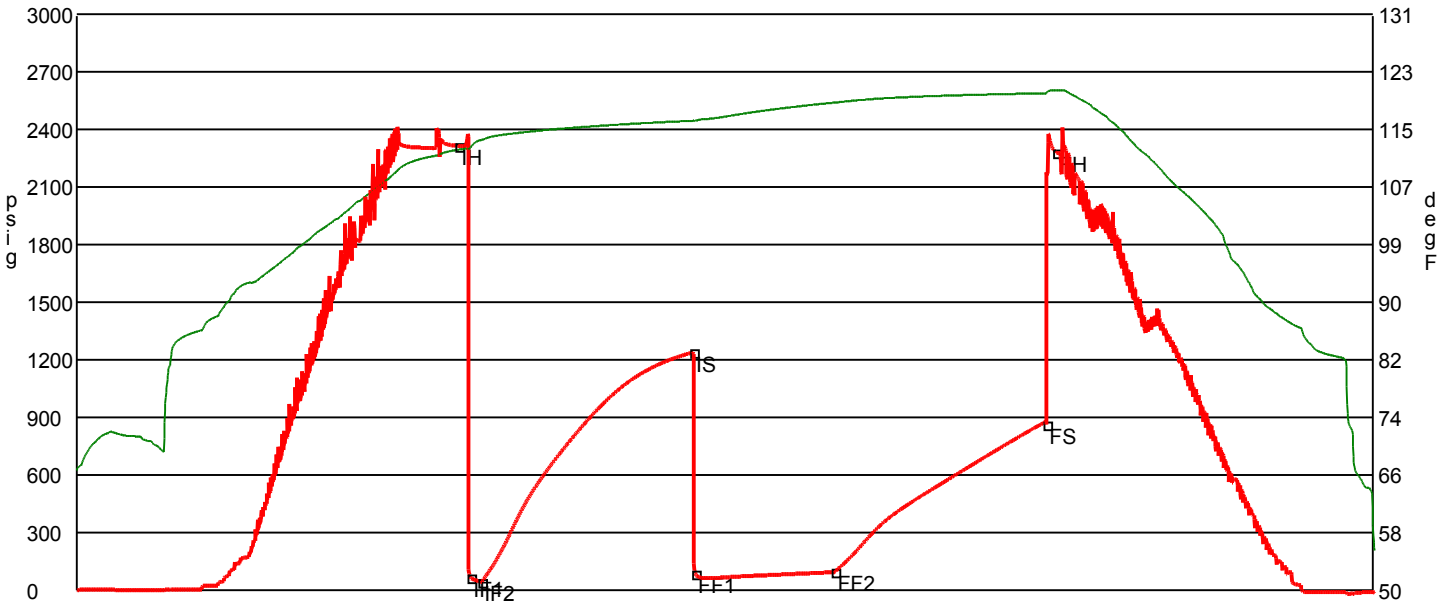
				Chokes	**3/4**	Hole Size	**7 7/8**
Test #	**5**	Test Date	**5/15/2011**	Top Recorder #	**W1119**		
Tester	**Tim Venters**			Mid Recorder #	**W1022**		
Test Type	**Conventional Bottom Hole Successful Test**			Bott Recorder #	**13310**		
# of Packers	**2.0**	Packer Size	**6 3/4**	Mileage	**64**	Approved By	
				Standby Time	**0**		
Mud Type	**Gel Chem**			Extra Equipmnt	**Jars & Safety joint**		
Mud Weight	**9.2**	Viscosity	**48.0**	Time on Site	**6:25 PM**		
Filtrate	**8.0**	Chlorides	**1700**	Tool Picked Up	**7:10 PM**		
				Tool Layed Dwn	**3:40 AM**		
Drill Collar Len	**335.0**						
Wght Pipe Len	**0**			Elevation	**2792.00**	Kelley Bushings	**2805.00**
Formation	**Pawnee**			Start Date/Time	**5/14/2011 6:31 PM**		
Interval Top	**4830.0**	Bottom	**4856.0**	End Date/Time	**5/15/2011 3:41 AM**		
Anchor Len Below	**26.0**	Between	**0**				
Total Depth	**4856.0**						

Blow Type **Fairly strong 2 inch blow at the start of the initial flow period, building, rea ching the bottom of the bucket in 2 1/2 minutes. Fairly strong 3 inch blow at t he start of the final flow period, building, reaching the bottom of the bucket i n 3 1/2 minutes, 10 minutes into the period, we bled the line off and it took 6 minutes to get back to bottom. Weak surface blow back at the start of the fina l shut-in period, building to 2 inches. Times: 5, 90, 60, 90. Oil Gravity: 40.**

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
1015	Gas in Pipe	100% 1015ft	0% 0ft	0% 0ft	0% 0ft
1	Very slight mud cut oil	0% 0ft	95% 1ft	0% 0ft	5% 0ft
65	Oil cut mud	0% 0ft	37% 24ft	0% 0ft	63% 41ft
60	Gassy, slight water, oily mud	17% 10.2ft	33% 19.8ft	3% 1.8ft	47% 28.2ft
60	Gassy, slight oil cut watery mud	2% 1.2ft	5% 3ft	46% 27.6ft	47% 28.2ft

DST Fluids **73000**



	Date	Time	Pressure	Temp	
IH	5/14/2011 9:11:50 PM	2.680556	2316.206	111.99	Initial Hydro-static
IF1	5/14/2011 9:17:00 PM	2.766667	68.845	112.335	Initial Flow (1)
IF2	5/14/2011 9:21:40 PM	2.844444	45.934	113.372	Initial Flow (2)
IS	5/14/2011 10:51:30 PM	4.341667	1240.601	116.061	Initial Shut-In
FF1	5/14/2011 10:52:30 PM	4.358333	87.994	116.069	Final Flow (1)
FF2	5/14/2011 11:51:40 PM	5.344444	96.608	118.612	Final Flow (2)
FS	5/15/2011 1:21:30 AM	6.841667	866.354	119.922	Final Shut-In
FH	5/15/2011 1:25:40 AM	6.911111	2282.921	120.344	Final Hydro-static

GAS FLOWS

Min Into IFP	Min Into FFP	Gas Flows	Pressure	Choke

Company	**Falcon Exploration, Inc.**	Lease Name	**Robertson (NE)**		
Address	**125 N. Market, Ste. 1252**	Lease #	**1-17**		
CSZ	**Wichita, KS 67202**	Legal Desc	**SW-SE-NW-NE**	Job Ticket	**2150**
Attn.	**Dave Williams**	Section	**17**	Range	**29W**
		Township	**28S**		
		County	**Gray**	State	**KS**
		Drilling Cont	**Sterling Drilling Co. Rig #5**		

Comments **Legal Description Feet: 1000' FNL & 1710' FEL**

GENERAL INFORMATION

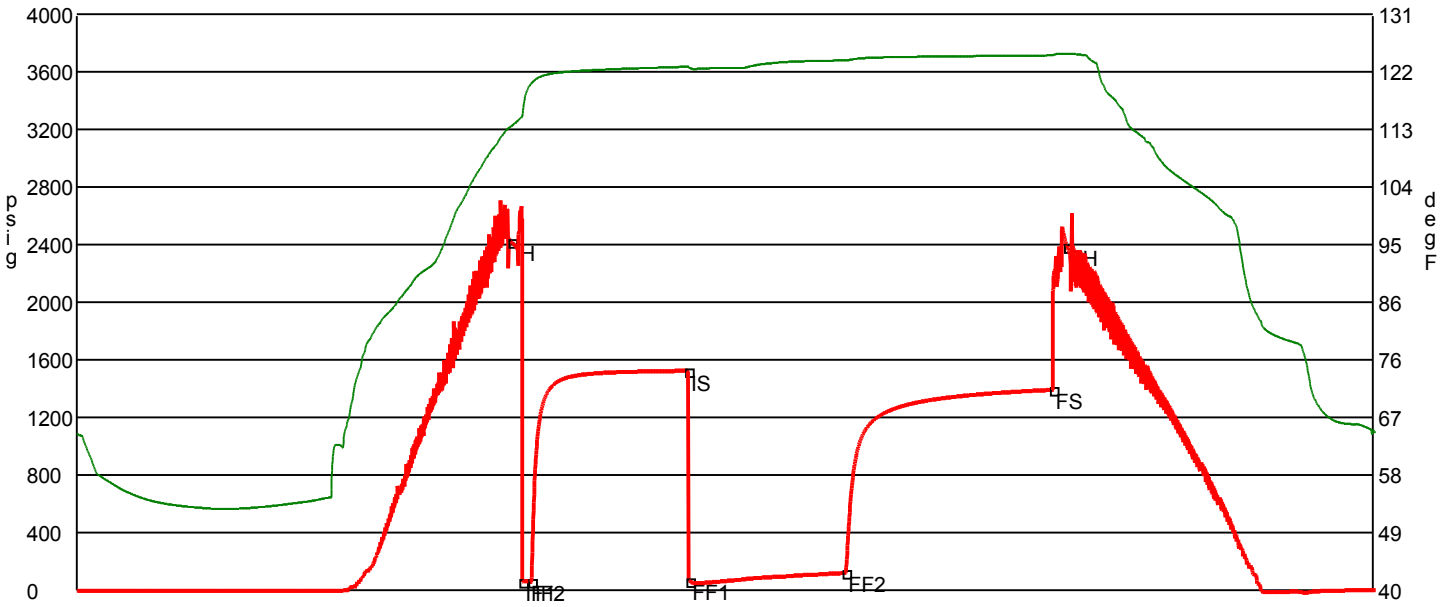
				Chokes	**3/4**	Hole Size	**7 7/8**
Test #	**6**	Test Date	**5/18/2011**	Top Recorder #	**W1119**		
Tester	**Tim Venters**			Mid Recorder #	**13310**		
Test Type	**Straddle**			Bott Recorder #	**W1022**		
	Successful Test						
# of Packers	**3.0**	Packer Size	**6 3/4**	Mileage	**64**	Approved By	
				Standby Time	**26.67**		
Mud Type	**Gel Chem**			Extra Equipmnt	**Jars, Safety joint, Extra packer**		
Mud Weight	**9.0**	Viscosity	**52.0**	Time on Site	**6:15 AM**		
Filtrate	**9.2**	Chlorides	**1800**	Tool Picked Up	**9:45 AM**		
				Tool Layed Dwn	**7:30 PM**		
Drill Collar Len	**335.0**						
Wght Pipe Len	**0**			Elevation	**2792.00**	Kelley Bushings	**2805.00**
Formation	**St. Louis**			Start Date/Time	**6/18/2011 7:13 AM**		
Interval Top	**5180.0**	Bottom	**5306.0**	End Date/Time	**6/18/2011 7:38 PM**		
Anchor Len Below	**155.0**	Between	**126.0**				
Total Depth	**5461.0**						

Blow Type **Weak surface blow at the start of the intial flow period, building to 1/2 inch. Very weak surface blow at the start of the final flow period, building to 3 inc hes in 75 minutes where it held the rest to the period. Times: 5, 90, 90, 120.**

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
195	Mud	0% 0ft	0% 0ft	0% 0ft	100%195ft

DST Fluids **0**



	Date	Time	Pressure	Temp	
IH	6/18/2011 11:21:50 AM	4.147222	2421.747	113.399	Initial Hydro-static
IF1	6/18/2011 11:28:10 AM	4.252778	61.572	114.924	Initial Flow (1)
IF2	6/18/2011 11:33:20 AM	4.338889	60.271	120.153	Initial Flow (2)
IS	6/18/2011 1:03:30 PM	5.841667	1522.918	122.749	Initial Shut-In
FF1	6/18/2011 1:04:10 PM	5.852778	65.964	122.543	Final Flow (1)
FF2	6/18/2011 2:34:00 PM	7.35	122.691	123.743	Final Flow (2)
FS	6/18/2011 4:33:00 PM	9.333333	1393.347	124.535	Final Shut-In
FH	6/18/2011 4:41:20 PM	9.472222	2386.059	124.803	Final Hydro-static

GAS FLOWS

Min Into IFP	Min Into FFP	Gas Flows	Pressure	Choke

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

Well Name:	ROBERTSON #1-17 (Ne)		
Location:	Sw-Se-Nw-Ne		
License Number:	API #15-069-20,345-00-00	**Region:**	Gray Co., Kansas
Spud Date:	5/3/11	**Drilling Completed:**	5/17/11
Surface Coordinates:	1000' FNL & 1710' FEL Sec. 17- T. 28 S.- R. 29 W.		
Bottom Hole Coordinates:			
Ground Elevation (ft):	2792'	**K.B. Elevation (ft):**	2805'
Logged Interval (ft):	1871 **To:** 5461	**Total Depth (ft):**	5460'
Formation:			
Type of Drilling Fluid:	Chemical Mud		

OPERATOR

Company: Falcon Exploration, Inc.
Address: 125 N. Market Street, Suite # 1252
Wichita, Kansas 67202

GEOLOGIST

Name: David P. Williams
Company: DW ENERGY, LLC
Address: 225 N. Market Street, Ste. # 230
Wichita, Kansas 67202

DST's

DST # 1 3502'-3570' ; Times: 5"-90"- 60"-90" Blow: IF Weak Inc. to 5"; FF Weak Inc to 10"; Recovery: 190' M. Pressures: IH 1631#; FH 1612#; IF 68-45#; FF 73-89#; ISIP 959#; FSIP 896#; Temp = 103 Degrees F.

DST # 2 3502'-3633" Times: 5"-90"-60"-90" Blow: IF Strong Blow BOB/3"; FF Strong Blow BOB./4.5". Recovery: TF= 350'; (50' M. & 120' HMCM & 185' HMCW). Pressures: IH 1670#; FH 1646#; IF 52--51#; FF 84-175#; ISIP 964#; FSIP 931#; Temp= 105 Degrees F.; Chl =155,000 Ppm.

DST # 3 4238'-4280" Times: 5"-90"-60"-90" Blow: IF Weak Blow Inc. to 2"; FF No Blow Inc. to B.O.B./ 58.5". Recovery: TF= 390': (20' M. & 60' VSWCM & 245' VSMCW & 60'CSWCM). Pressures: IH 2047#; FH 1996#; IF 54--67#; FF 89- 208#; ISIP1228#; FSIP 1181#; Temp= 117 Degrees F.; Chl = 99,,000 Ppm.

DST # 4 4570'-4606" Times: 5"-90"-60"-120" Blow: IF Strong Blow to B.O.B/1"; FF Strong Blow to B.O.B./ 1". G.T.S./ 25" of FF. TSTM; Recovery: 4005' GIP; TF= 540': (40' M & 65' VSWCM & 190' VSMCW & 245'SW). Pressures: IH 2194#; FH 2149#; IF 70-65#; FF82-241#; ISIP 1376#; FSIP 1339#; Temp= 119 Degrees F.; Chl = 102,000 Ppm.

DST # 5 4830'-4856" Times: 5"-90"-60"-90" Blow: IF Strong Blow to B.O.B/2.5"; FF Strong Blow to B.O.B./ 3.5"; Recovery: 1015' GIP; TF= 186': (1'- VSMCO & 65'- OCM & 60'- GSli WCOM & 60'-G Sli OCWM). Pressures: IH 2316#; FH 2283#; IF 69-46#; FF 88-96#; ISIP 1241#; FSIP 866#; Temp= 120 Degrees F.; Chl = 73,000; Oil Grv. 40 degree.

DST # 6 5180'-5306" (Straddle) Times: 5"-90"-90"-120" Blow: IF Weak Blow to 1/2 "; FF Weak Blow to 3.0"; Recovery: TF= 195 ' Mud. Pressures: IH 2422#; FH 2386#; IF 62-60#; FF 66-123#; ISIP 1523#; FSIP 1393#; Temp= 125 Degrees F.

Electric Logs Run & Comments

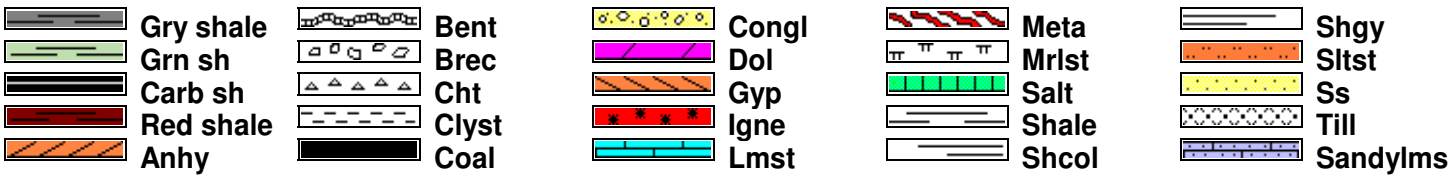
Electric Logs Run - LogTech: CNL/CDL; DIL/MEL/SONIC/ Gamma-Neutron Cased Hole Log.

Comments: After review of all data from sample examination, drill-stem tests taken, electric logs taken and review of structural position of relavent off-set prior drilled wells, it was determined by the Operator plug and abandon this test as a dry hole.

Respectfully submitted,

David P. Williams, P.G.

ROCK TYPES



ACCESSORIES

MINERAL
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Slty
- Sand
- Dol

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

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Sandylms
- Sandylms

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

OTHER SYMBOLS

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

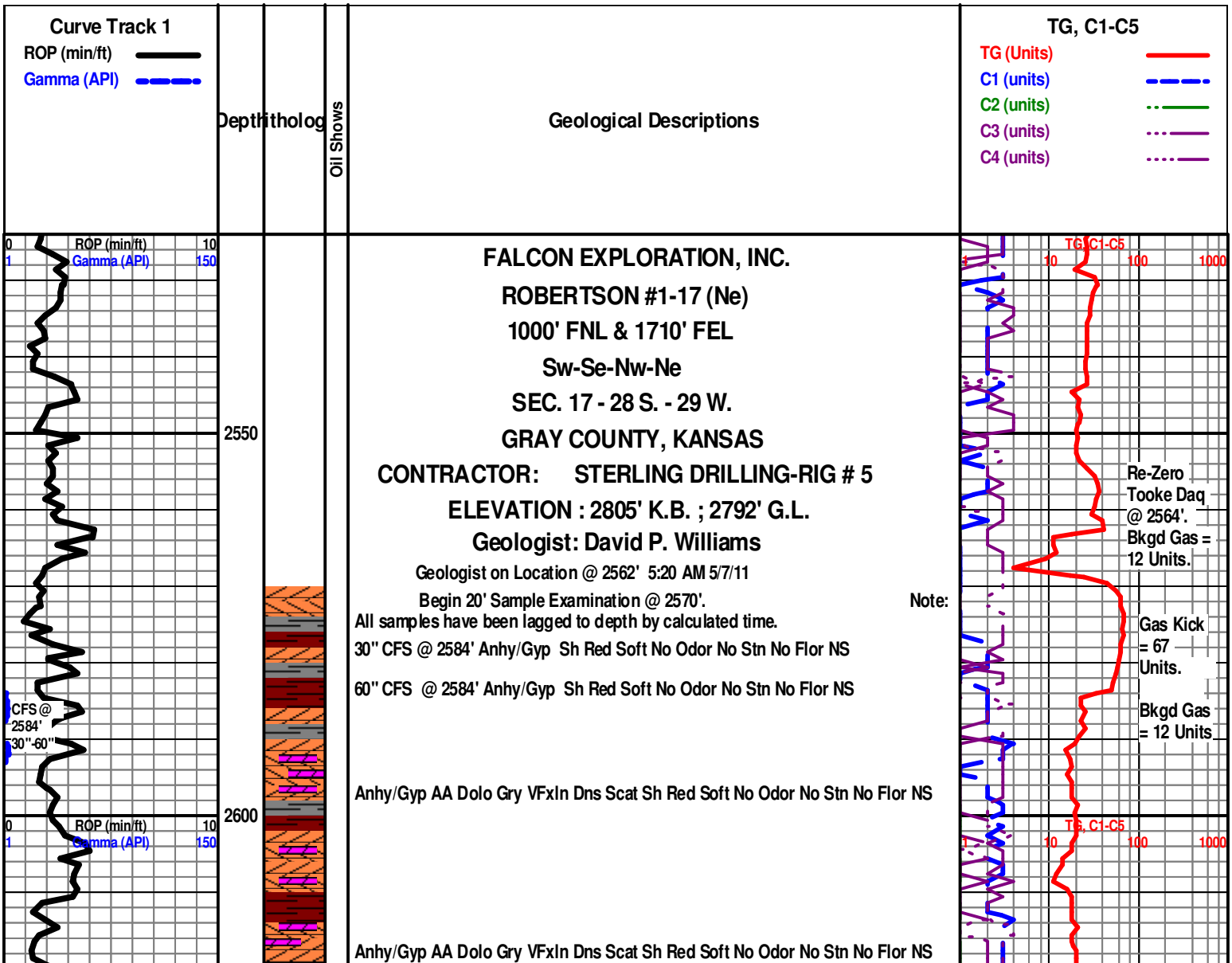
SORTING
- Well
- Moderate
- Poor

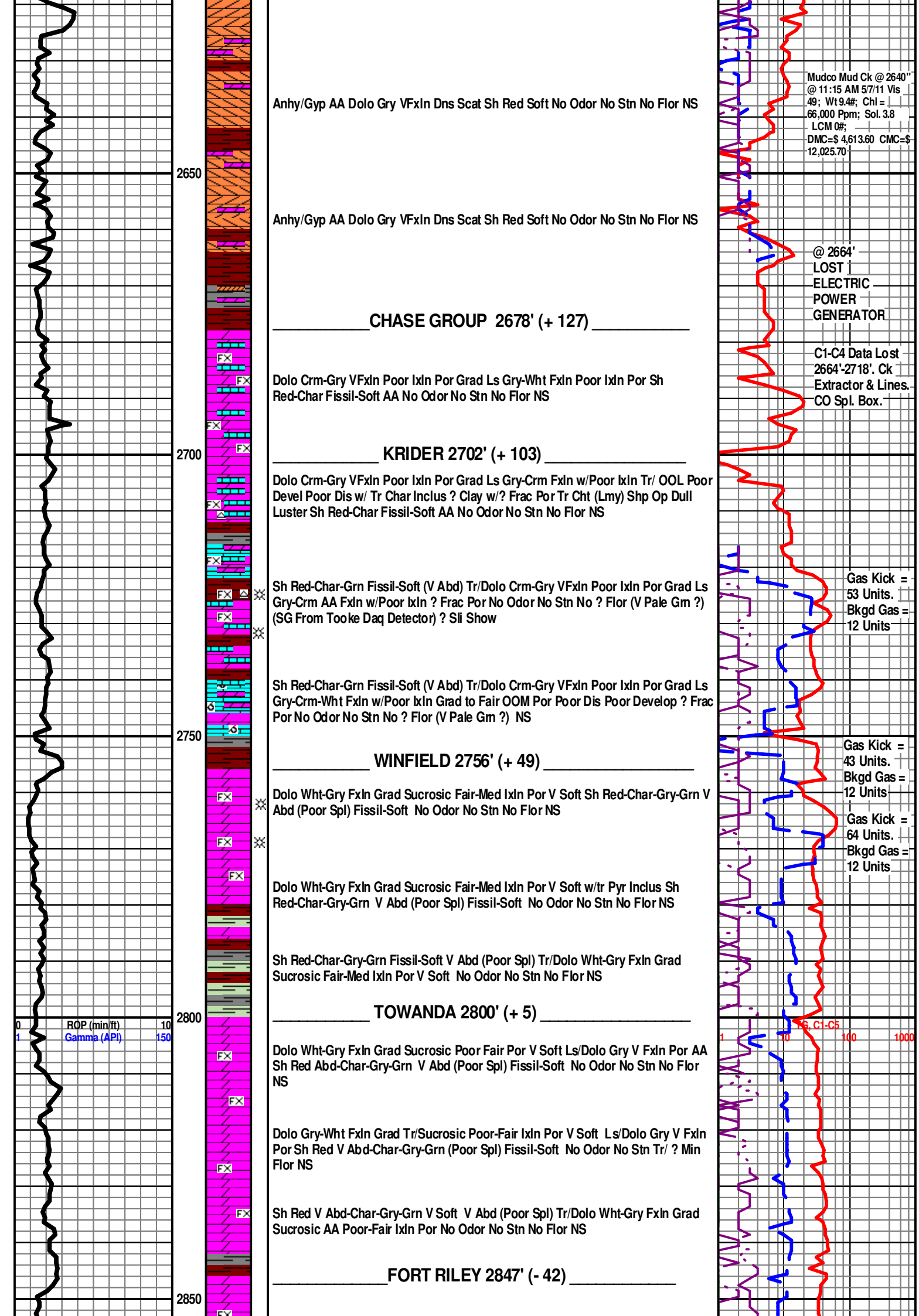
ROUNDING
- Rounded
- Subrnd
- Subang
- Angular
- Spotted
- Ques
- Dead
- Gas show
- Spotted oil stn
- Dst
- Dst

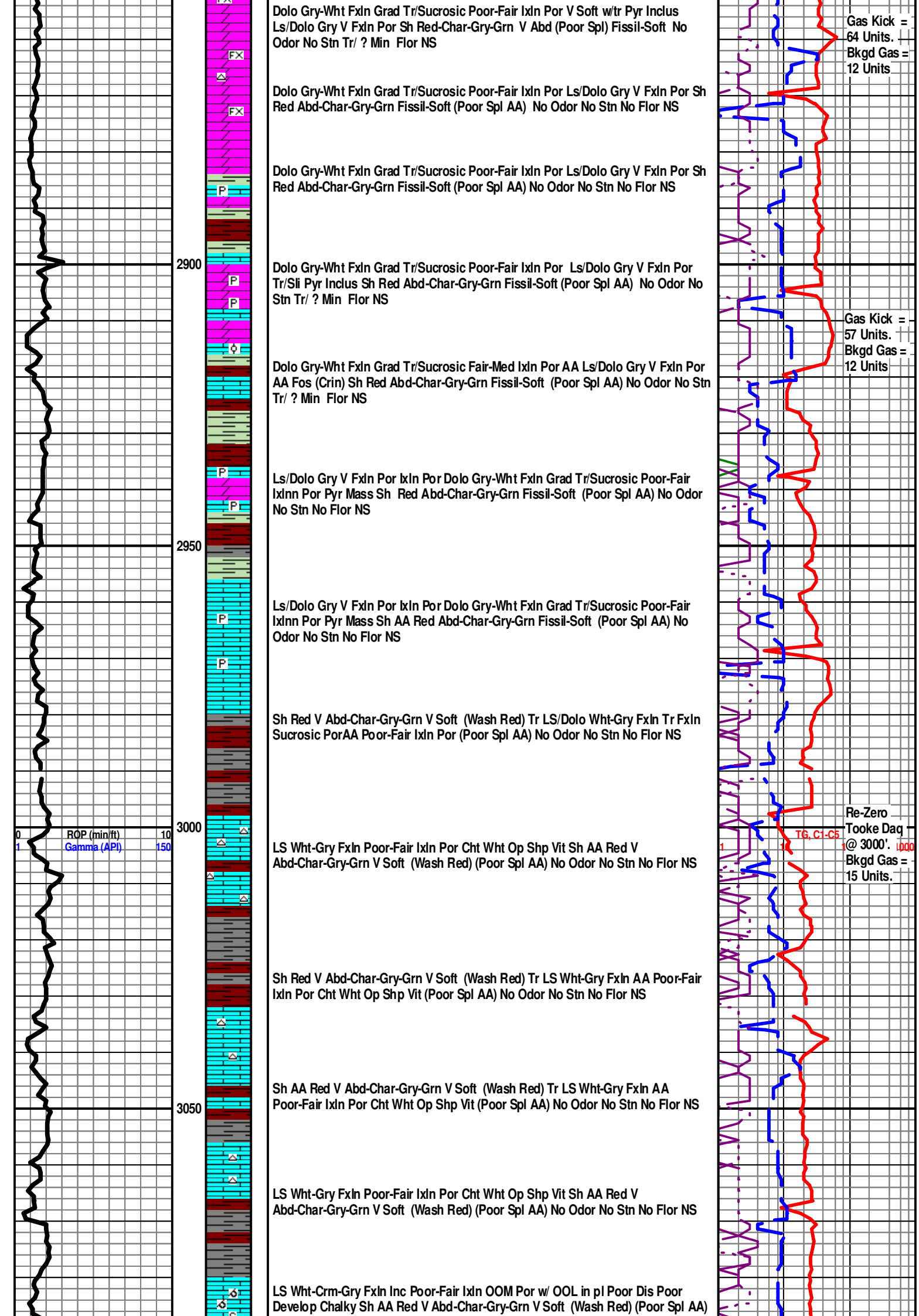
OIL SHOW
- Even

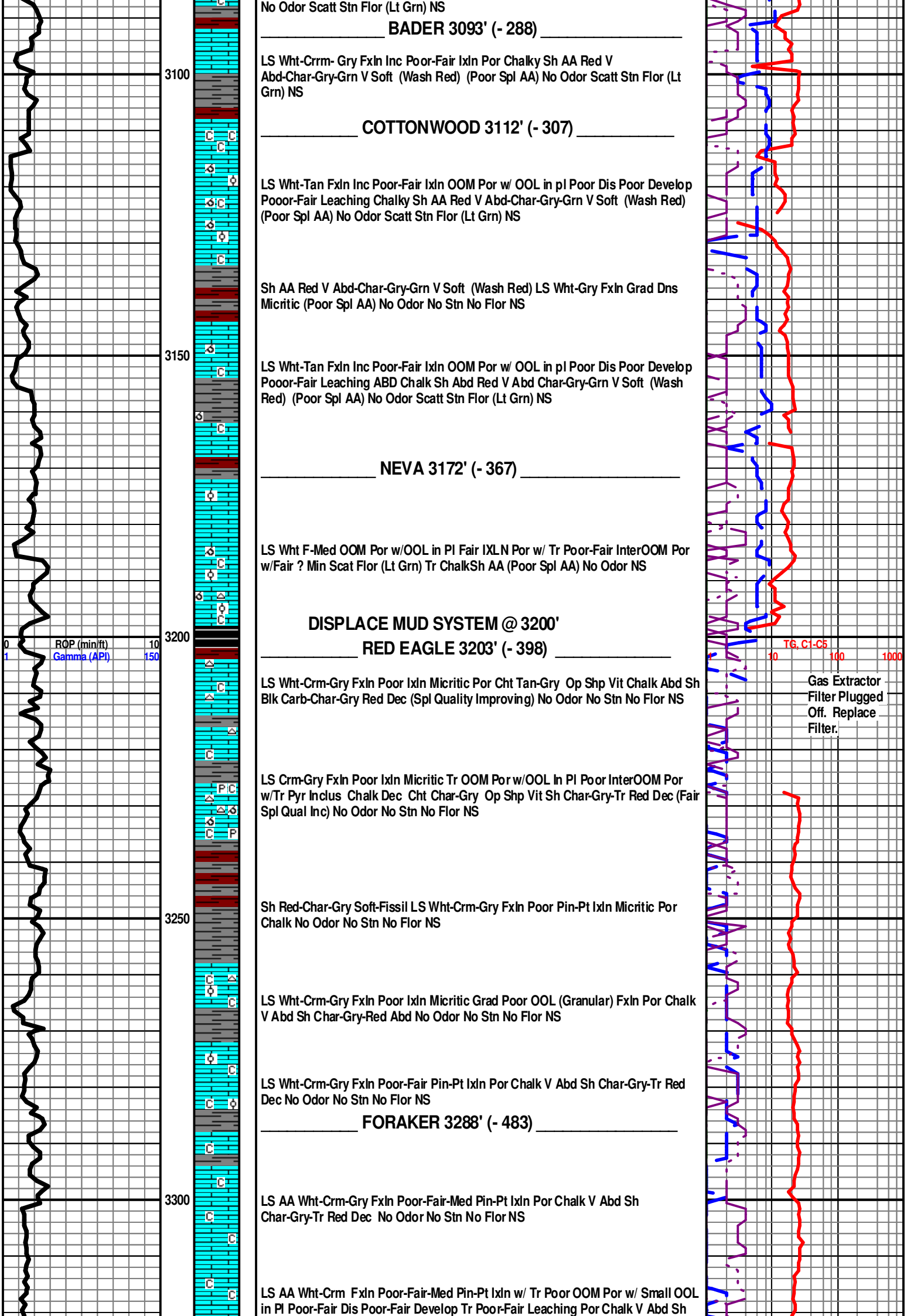
INTERVAL
- Core

EVENT
- Rft
- Sidewall




2650
2700
2750
2800
2850
0
1
ROP (min/ft)
Gamma (API)
10
150
Anhy/Gyp AA Dolo Gry VFxln Dns Scat Sh Red Soft No Odor No Stn No Flor NS
Anhy/Gyp AA Dolo Gry VFxln Dns Scat Sh Red Soft No Odor No Stn No Flor NS
CHASE GROUP 2678' (+ 127)
Dolo Crm-Gry VFxln Poor Ixln Por Grad Ls Gry-Wht Fxln Poor Ixln Por Sh Red-Char Fissil-Soft AA No Odor No Stn No Flor NS
KRIDER 2702' (+ 103)
Dolo Crm-Gry VFxln Poor Ixln Por Grad Ls Gry-Crm Fxln w/Poor Ixln Tr/ OOL Poor Devel Poor Dis w/ Tr Char Inclus ? Clay w/? Frac Por Tr Cht (Lmy) Shp Op Dull Luster Sh Red-Char Fissil-Soft AA No Odor No Stn No Flor NS
Sh Red-Char-Grn Fissil-Soft (V Abd) Tr/Dolo Crm-Gry VFxln Poor Ixln Por Grad Ls Gry-Crm AA Fxln w/Poor Ixln ? Frac Por No Odor No Stn No ? Flor (V Pale Grn ?) (SG From Tooke Daq Detector) ? Sli Show
Sh Red-Char-Grn Fissil-Soft (V Abd) Tr/Dolo Crm-Gry VFxln Poor Ixln Por Grad Ls Gry-Crm-Wht Fxln w/Poor Ixln Grad to Fair OOM Por Poor Dis Poor Develop ? Frac Por No Odor No Stn No ? Flor (V Pale Grn ?) NS
WINFIELD 2756' (+ 49)
Dolo Wht-Gry Fxln Grad Sucrosic Fair-Med Ixln Por V Soft Sh Red-Char-Gry-Grn V Abd (Poor Spl) Fissil-Soft No Odor No Stn No Flor NS
Dolo Wht-Gry Fxln Grad Sucrosic Fair-Med Ixln Por V Soft w/tr Pyr Inclus Sh Red-Char-Gry-Grn V Abd (Poor Spl) Fissil-Soft No Odor No Stn No Flor NS
Sh Red-Char-Gry-Grn Fissil-Soft V Abd (Poor Spl) Tr/Dolo Wht-Gry Fxln Grad Sucrosic Fair-Med Ixln Por V Soft No Odor No Stn No Flor NS
TOWANDA 2800' (+ 5)
Dolo Wht-Gry Fxln Grad Sucrosic Poor Fair Por V Soft Ls/Dolo Gry V Fxln Por AA Sh Red Abd-Char-Gry-Grn V Abd (Poor Spl) Fissil-Soft No Odor No Stn No Flor NS
Dolo Gry-Wht Fxln Grad Tr/Sucrosic Poor-Fair Ixln Por V Soft Ls/Dolo Gry V Fxln Por Sh Red V Abd-Char-Gry-Grn (Poor Spl) Fissil-Soft No Odor No Stn Tr/ ? Min Flor NS
Sh Red V Abd-Char-Gry-Grn V Soft V Abd (Poor Spl) Tr/Dolo Wht-Gry Fxln Grad Sucrosic AA Poor-Fair Ixln Por No Odor No Stn No Flor NS
FORT RILEY 2847' (- 42)
Mudco Mud Ck @ 2640' @ 11:15 AM 5/7/11 Vis 49; Wt 9.4#; Chl = 66,000 Ppm; Sol. 3.8 LCM 0#; DMC=$ 4,613.60 CMC=$ 12,025.70
@ 2664' LOST ELECTRIC POWER GENERATOR
C1-C4 Data Lost 2664'-2718'. Ck Extractor & Lines. CO Spl. Box.
Gas Kick = 53 Units. Bkgd Gas = 12 Units
Gas Kick = 43 Units. Bkgd Gas = 12 Units
Gas Kick = 64 Units. Bkgd Gas = 12 Units
TG, C1-C5
1
10
100
1000


Dolo Gry-Wht Fxln Grad Tr/Sucrosic Poor-Fair Ixln Por V Soft w/tr Pyr Inclus Ls/Dolo Gry V Fxln Por Sh Red-Char-Gry-Grn V Abd (Poor Spl) Fissil-Soft No Odor No Stn Tr/ ? Min Flor NS
Gas Kick = 64 Units. Bkgd Gas = 12 Units
Dolo Gry-Wht Fxln Grad Tr/Sucrosic Poor-Fair Ixln Por Ls/Dolo Gry V Fxln Por Sh Red Abd-Char-Gry-Grn Fissil-Soft (Poor Spl AA) No Odor No Stn No Flor NS
Dolo Gry-Wht Fxln Grad Tr/Sucrosic Poor-Fair Ixln Por Ls/Dolo Gry V Fxln Por Sh Red Abd-Char-Gry-Grn Fissil-Soft (Poor Spl AA) No Odor No Stn No Flor NS
2900
Dolo Gry-Wht Fxln Grad Tr/Sucrosic Poor-Fair Ixln Por Ls/Dolo Gry V Fxln Por Tr/Sli Pyr Inclus Sh Red Abd-Char-Gry-Grn Fissil-Soft (Poor Spl AA) No Odor No Stn Tr/ ? Min Flor NS
Gas Kick = 57 Units. Bkgd Gas = 12 Units
Dolo Gry-Wht Fxln Grad Tr/Sucrosic Fair-Med Ixln Por AA Ls/Dolo Gry V Fxln Por AA Fos (Crin) Sh Red Abd-Char-Gry-Grn Fissil-Soft (Poor Spl AA) No Odor No Stn Tr/ ? Min Flor NS
Ls/Dolo Gry V Fxln Por Ixln Por Dolo Gry-Wht Fxln Grad Tr/Sucrosic Poor-Fair Ixlnn Por Pyr Mass Sh Red Abd-Char-Gry-Grn Fissil-Soft (Poor Spl AA) No Odor No Stn No Flor NS
2950
Ls/Dolo Gry V Fxln Por Ixln Por Dolo Gry-Wht Fxln Grad Tr/Sucrosic Poor-Fair Ixlnn Por Pyr Mass Sh AA Red Abd-Char-Gry-Grn Fissil-Soft (Poor Spl AA) No Odor No Stn No Flor NS
Sh Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr LS/Dolo Wht-Gry Fxln Tr Fxln Sucrosic PorAA Poor-Fair Ixln Por (Poor Spl AA) No Odor No Stn No Flor NS
Re-Zero Tooke Daq @ 3000'.
3000
0 ROP (min/ft) 10
1 Gamma (API) 150
TG, C1-C5
1 10 1000
Bkgd Gas = 15 Units.
LS Wht-Gry Fxln Poor-Fair Ixln Por Cht Wht Op Shp Vit Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) (Poor Spl AA) No Odor No Stn No Flor NS
Sh Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr LS Wht-Gry Fxln AA Poor-Fair Ixln Por Cht Wht Op Shp Vit (Poor Spl AA) No Odor No Stn No Flor NS
Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr LS Wht-Gry Fxln AA Poor-Fair Ixln Por Cht Wht Op Shp Vit (Poor Spl AA) No Odor No Stn No Flor NS
3050
LS Wht-Gry Fxln Poor-Fair Ixln Por Cht Wht Op Shp Vit Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) (Poor Spl AA) No Odor No Stn No Flor NS
LS Wht-Crm-Gry Fxln Inc Poor-Fair Ixln OOM Por w/ OOL in pl Poor Dis Poor Develop Chalky Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) (Poor Spl AA)



No Odor Scatt Stn Flor (Lt Grn) NS

BADER 3093' (- 288)

LS Wht-Crrm- Gry Fxln Inc Poor-Fair Ixln Por Chalky Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) (Poor Spl AA) No Odor Scatt Stn Flor (Lt Grn) NS

COTTONWOOD 3112' (- 307)

LS Wht-Tan Fxln Inc Poor-Fair Ixln OOM Por w/ OOL in pl Poor Dis Poor Develop Pooor-Fair Leaching Chalky Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) (Poor Spl AA) No Odor Scatt Stn Flor (Lt Grn) NS

Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) LS Wht-Gry Fxln Grad Dns Micritic (Poor Spl AA) No Odor No Stn No Flor NS

LS Wht-Tan Fxln Inc Poor-Fair Ixln OOM Por w/ OOL in pl Poor Dis Poor Develop Pooor-Fair Leaching ABD Chalk Sh Abd Red V Abd Char-Gry-Grn V Soft (Wash Red) (Poor Spl AA) No Odor Scatt Stn Flor (Lt Grn) NS

NEVA 3172' (- 367)

LS Wht F-Med OOM Por w/OOL in Pl Fair IXLN Por w/ Tr Poor-Fair InterOOM Por w/Fair ? Min Scat Flor (Lt Grn) Tr ChalkSh AA (Poor Spl AA) No Odor NS

DISPLACE MUD SYSTEM @ 3200'

RED EAGLE 3203' (- 398)

LS Wht-Crm-Gry Fxln Poor Ixln Micritic Por Cht Tan-Gry Op Shp Vit Chalk Abd Sh Blk Carb-Char-Gry Red Dec (Spl Quality Improving) No Odor No Stn No Flor NS

LS Crm-Gry Fxln Poor Ixln Micritic Tr OOM Por w/OOL In Pl Poor InterOOM Por w/Tr Pyr Inclus Chalk Dec Cht Char-Gry Op Shp Vit Sh Char-Gry-Tr Red Dec (Fair Spl Qual Inc) No Odor No Stn No Flor NS

Sh Red-Char-Gry Soft-Fissil LS Wht-Crm-Gry Fxln Poor Pin-Pt Ixln Micritic Por Chalk No Odor No Stn No Flor NS

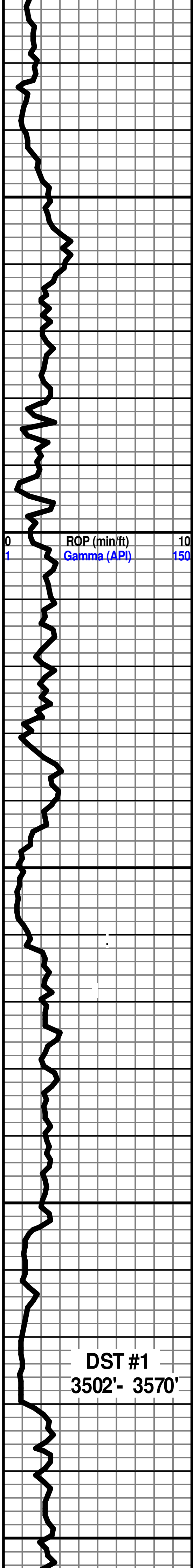
LS Wht-Crm-Gry Fxln Poor Ixln Micritic Grad Poor OOL (Granular) Fxln Por Chalk V Abd Sh Char-Gry-Red Abd No Odor No Stn No Flor NS

LS Wht-Crm-Gry Fxln Poor-Fair Pin-Pt Ixln Por Chalk V Abd Sh Char-Gry-Tr Red Dec No Odor No Stn No Flor NS

FORAKER 3288' (- 483)

LS AA Wht-Crm-Gry Fxln Poor-Fair-Med Pin-Pt Ixln Por Chalk V Abd Sh Char-Gry-Tr Red Dec No Odor No Stn No Flor NS

LS AA Wht-Crm Fxln Poor-Fair-Med Pin-Pt Ixln w/ Tr Poor OOM Por w/ Small OOL in Pl Poor-Fair Dis Poor-Fair Develop Tr Poor-Fair Leaching Por Chalk V Abd Sh



3350

3400

3450

3500

3550

Char-Gry-Tr Red Dec No Odor No Stn No Flor NS

LS Crm-Gry Fxln Poor-Fair-Med Pin-Pt lxln Por Grad Micritic Chalk Abd Cht Wht-Tan Op Vit Shp Sh Char-Gry No Odor No Stn No Flor NS

LS Gry Fxln Tr Poor Pin-Pt lxln Por Grad Chalk V. Abd Sh Char-Gry No Odor No Stn No Flor NS

LS Gry-Crm-Wht Fxln Poor-Fair-Med Pin-Pt lxln Por Grad Micritic Chalk Abd Cht Wht-Tan Op Vit Shp Sh Char-Gry No Odor No Stn No Flor NS

LS Crm- Gry Fxln Tr Poor Pin-Pt lxln Grad Chalk V. Abd Cht Gry Op Vit Shp Fos (Brach) Sh Char-Gry No Odor No Stn No Flor NS

LS Crm- Gry Fxln Tr Poor Pin-Pt lxln Grad Chalk V. Abd Cht Gry Op Vit Shp Sh Char-Gry No Odor No Stn No Flor NS

LS Wht-Crm Fxln Tr Poor Small Pin-Pt OOL Por Poor-Fair OOM Leaching Poor Devel Fos (Brach) Chalk V. Abd Sh Char-Gry-Red Tr Only No Odor No Stn Sli Min ? (Dull Lt Grn) Flor NS

LS Wht-Crm AA Fxln w/tr Poor Small Pin-Pt OOL Por w/ Poor-Fair OOM Por Poor Dis Poor Leaching Poor Devel Fos (Brach) Chalk Wht V. Abd Sh Char-Gry No Odor No Stn Sli Min ? (Dull Lt Grn) Flor NS

LS Wht-Crm AA Fxln w/tr Poor Small Pin-Pt OOL Por w/ Poor-Fair OOM Por Poor Dis Poor Leaching Poor Devel Fos (Fuss) Chalk Wht V. Abd Sh Char-Gry No Odor No Stn Sli Min ? (Dull Lt Grn) Flor NS

LS Wht-Crm AA Fxln w/tr Poor Small Pin-Pt OOL Por w/ Poor-Fair OOM Por Poor Dis Poor Leaching Poor Devel Grad Micritic Chalk Wht V. Abd Sh Char-Gry No Odor No Stn Sli Min ? Flor NS

Note: Start 10' Sample Examination @ 3480'.

LS Wht-Crm-Gry Fxln w/tr Poor Small Pin-Pt OOL Por w/ Poor-Fair OOM Por Poor Dis Poor Leaching Poor Devel Grad Micritic AA Chalk Wht V. Abd Sh Char-Gry No Odor No Stn Sli Min ? Flor NS

LS Wht-Crm-Gry Fxln w/tr Poor Small Pin-Pt OOL Por w/ Poor-Fair OOM Por Poor Dis Poor Leaching Poor Devel Grad Micritic AA Chalk Wht V. Abd Sh Char-Gry No Odor No Stn Sli Min ? Flor NS

LS Wht-Crm-Gry Fxln w/tr Poor Small Pin-Pt OOL Por w/ Poor-Fair OOM Por Poor Dis Poor Leaching Poor Devel Grad Micritic AA Chalk Wht V. Abd Sh Char-Gry No Odor No Stn Sli Min ? Flor NS

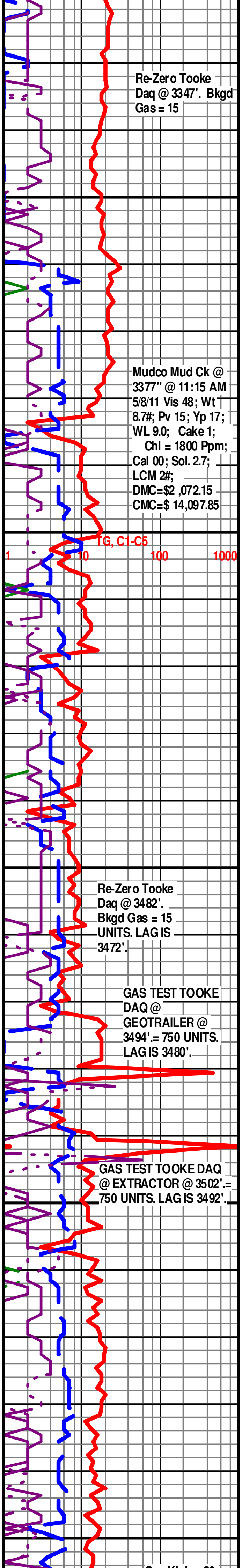
Sh Char-Gry-Olive-Red V Soft- Fissil LS AA Wht-Crm-Gry Fxln Poor Pin-Pt lxln Micritic Dec Chalk AA No Odor No Stn No Flor NS

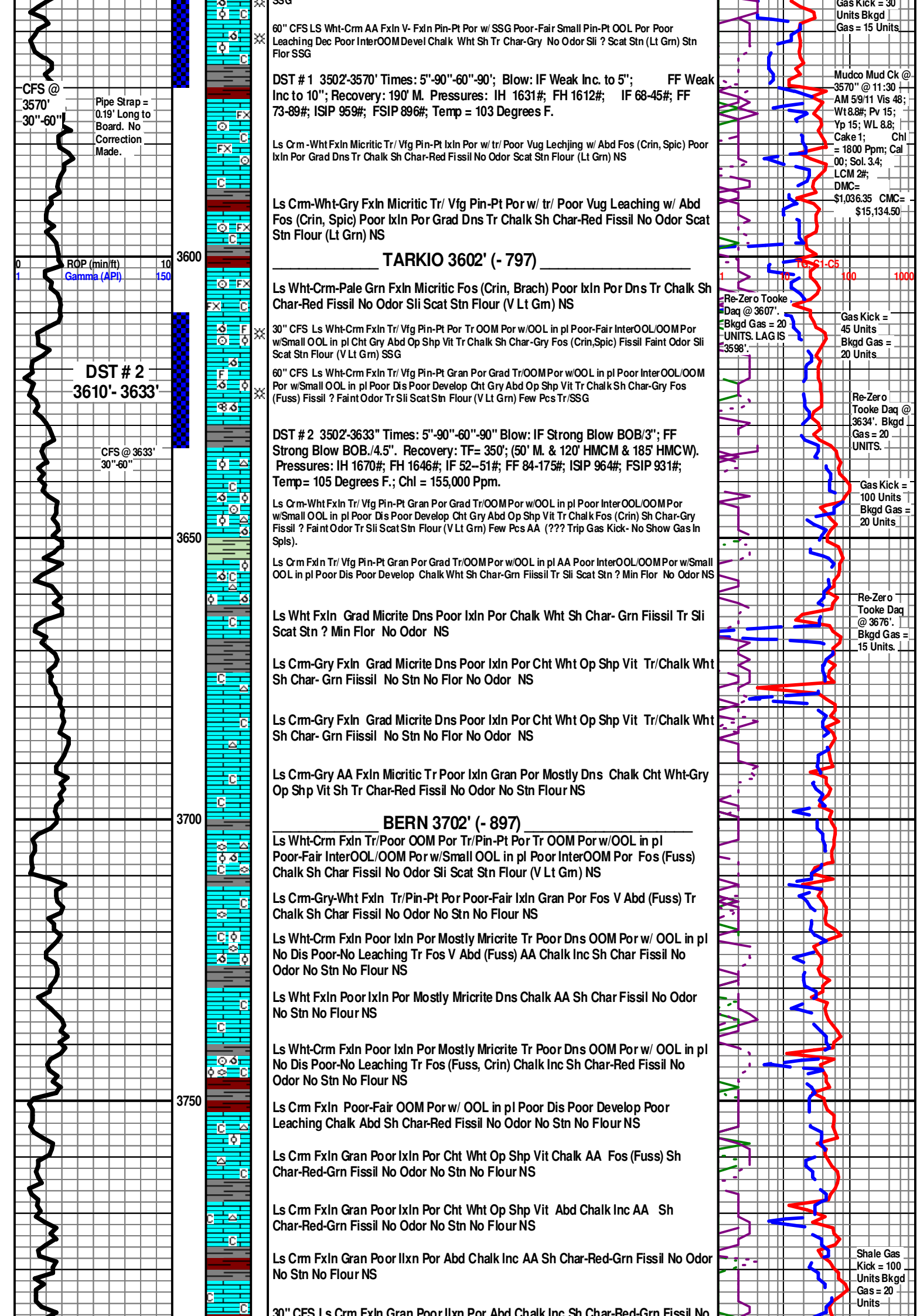
Sh Char-Gry-Olive-Red V Soft- Fissil LS AA Wht-Crm-Gry Fxln Poor Pin-Pt lxln Micritic Dec Chalk AA No Odor No Stn No Flor NS

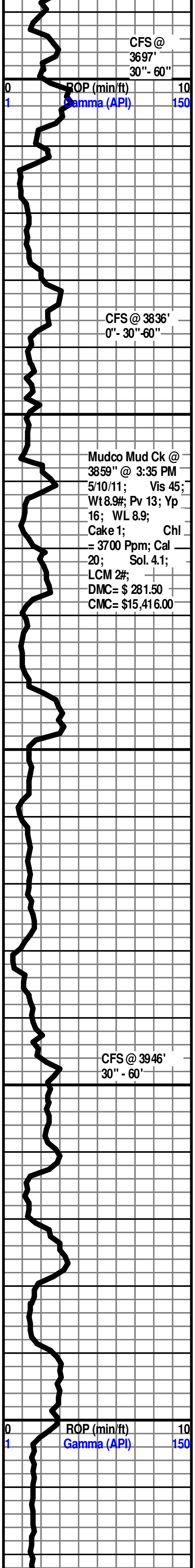
STOTLER 3530' (- 725)

LS Wht-Crm Fxln V- Fxln Pin-Pt Por w/SSG W/Brokrn Poor-Fair Small-Med Pin-Pt OOL Por Poor-Fair Leaching Dec Poor InterOOM Devel Chalk Wht Dec Sh Tr Char-Gry No Odor Sli Tr ? Min Flor NS

30" CFS LS Wht-Crm Fxln V- Fxln Pin-Pt Por w/ SSG Poor-Fair Small-Med Pin-Pt OOL Por Poor-Fair Leaching Dec Poor InterOOM Devel Chalk Sh Tr Char-Gry No Odor Sli ? Scat Stn (Lt Grn) Stn Flor SSG




CFS @ 3570' 30"-60"
Pipe Strap = 0.19' Long to Board. No Correction Made.
0 ROP (min/ft) 10
1 Gamma (API) 150
3600
DST # 2 3610'- 3633'
CFS @ 3633' 30"-60"
3650
3700
3750
SSG
60" CFS LS Wht-Crm AA Fxln V- Fxln Pin-Pt Por w/ SSG Poor-Fair Small Pin-Pt OOL Por Poor Leaching Dec Poor InterOOM Devel Chalk Wht Sh Tr Char-Gry No Odor Sli ? Scat Stn (Lt Grn) Stn Flor SSG
DST # 1 3502'-3570' Times: 5"-90"-60"-90"; Blow: IF Weak Inc. to 5"; FF Weak Inc to 10"; Recovery: 190' M. Pressures: IH 1631#; FH 1612#; IF 68-45#; FF 73-89#; ISIP 959#; FSIP 896#; Temp = 103 Degrees F.
Ls Crm -Wht Fxln Micritic Tr/ Vfg Pin-Pt Ixln Por w/ tr/ Poor Vug Lechjing w/ Abd Fos (Crin, Spic) Poor Ixln Por Grad Dns Tr Chalk Sh Char-Red Fissil No Odor Scat Stn Flour (Lt Grn) NS
Ls Crm-Wht-Gry Fxln Micritic Tr/ Vfg Pin-Pt Por w/ tr/ Poor Vug Leaching w/ Abd Fos (Crin, Spic) Poor Ixln Por Grad Dns Tr Chalk Sh Char-Red Fissil No Odor Scat Stn Flour (Lt Grn) NS
TARKIO 3602' (- 797)
Ls Wht-Crm-Pale Grn Fxln Micritic Fos (Crin, Brach) Poor Ixln Por Dns Tr Chalk Sh Char-Red Fissil No Odor Sli Scat Stn Flour (V Lt Gm) NS
30" CFS Ls Wht-Crm Fxln Tr/ Vfg Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOM Por w/Small OOL in pl Cht Gry Abd Op Shp Vit Tr Chalk Sh Char-Gry Fos (Crin,Spic) Fissil Faint Odor Sli Scat Stn Flour (V Lt Grn) SSG
60" CFS Ls Wht-Crm Fxln Tr/ Vfg Pin-Pt Gran Por Grad Tr/OOM Por w/OOL in pl Poor InterOOL/OOM Por w/Small OOL in pl Poor Dis Poor Develop Cht Gry Abd Op Shp Vit Tr Chalk Sh Char-Gry Fos (Fuss) Fissil ? Faint Odor Tr Sli Scat Stn Flour (V Lt Grn) Few Pcs Tr/SSG
DST # 2 3502'-3633" Times: 5"-90"-60"-90" Blow: IF Strong Blow BOB/3"; FF Strong Blow BOB./4.5". Recovery: TF= 350'; (50' M. & 120' HMCM & 185' HMCW). Pressures: IH 1670#; FH 1646#; IF 52--51#; FF 84-175#; ISIP 964#; FSIP 931#; Temp= 105 Degrees F.; Chl = 155,000 Ppm.
Ls Crm-Wht Fxln Tr/ Vfg Pin-Pt Gran Por Grad Tr/OOM Por w/OOL in pl Poor InterOOL/OOM Por w/Small OOL in pl Poor Dis Poor Develop Cht Gry Abd Op Shp Vit Tr Chalk Fos (Crin) Sh Char-Gry Fissil ? Faint Odor Tr Sli Scat Stn Flour (V Lt Grn) Few Pcs AA (??? Trip Gas Kick- No Show Gas In Spls).
Ls Crm Fxln Tr/ Vfg Pin-Pt Gran Por Grad Tr/OOM Por w/OOL in pl AA Poor InterOOL/OOM Por w/Small OOL in pl Poor Dis Poor Develop Chalk Wht Sh Char-Grn Fiissil Tr Sli Scat Stn ? Min Flor No Odor NS
Ls Wht Fxln Grad Micrite Dns Poor Ixln Por Chalk Wht Sh Char- Grn Fiissil Tr Sli Scat Stn ? Min Flor No Odor NS
Ls Crm-Gry Fxln Grad Micrite Dns Poor Ixln Por Cht Wht Op Shp Vit Tr/Chalk Wht Sh Char- Grn Fiissil No Stn No Flor No Odor NS
Ls Crm-Gry Fxln Grad Micrite Dns Poor Ixln Por Cht Wht Op Shp Vit Tr/Chalk Wht Sh Char- Grn Fiissil No Stn No Flor No Odor NS
Ls Crm-Gry AA Fxln Micritic Tr Poor Ixln Gran Por Mostly Dns Chalk Cht Wht-Gry Op Shp Vit Sh Tr Char-Red Fissil No Odor No Stn Flour NS
BERN 3702' (- 897)
Ls Wht-Crm Fxln Tr/Poor OOM Por Tr/Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOM Por w/Small OOL in pl Poor InterOOM Por Fos (Fuss) Chalk Sh Char Fissil No Odor Sli Scat Stn Flour (V Lt Gm) NS
Ls Crm-Gry-Wht Fxln Tr/Pin-Pt Por Poor-Fair Ixln Gran Por Fos V Abd (Fuss) Tr Chalk Sh Char Fissil No Odor No Stn No Flour NS
Ls Wht-Crm Fxln Poor Ixln Por Mostly Mricrite Tr Poor Dns OOM Por w/ OOL in pl No Dis Poor-No Leaching Tr Fos V Abd (Fuss) AA Chalk Inc Sh Char Fissil No Odor No Stn No Flour NS
Ls Wht Fxln Poor Ixln Por Mostly Mricrite Dns Chalk AA Sh Char Fissil No Odor No Stn No Flour NS
Ls Wht-Crm Fxln Poor Ixln Por Mostly Mricrite Tr Poor Dns OOM Por w/ OOL in pl No Dis Poor-No Leaching Tr Fos (Fuss, Crin) Chalk Inc Sh Char-Red Fissil No Odor No Stn No Flour NS
Ls Crm Fxln Poor-Fair OOM Por w/ OOL in pl Poor Dis Poor Develop Poor Leaching Chalk Abd Sh Char-Red Fissil No Odor No Stn No Flour NS
Ls Crm Fxln Gran Poor Ixln Por Cht Wht Op Shp Vit Chalk AA Fos (Fuss) Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS
Ls Crm Fxln Gran Poor Ixln Por Cht Wht Op Shp Vit Abd Chalk Inc AA Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS
Ls Crm Fxln Gran Poor Ilxn Por Abd Chalk Inc AA Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS
30" CFS Ls Crm Fxln Gran Poor Ilxn Por Abd Chalk Inc Sh Char-Red-Grn Fissil No
Gas Kick = 30 Units Bkgd Gas = 15 Units.
Mudco Mud Ck @ 3570" @ 11:30 AM 5/9/11 Vis 48; Wt 8.8#; Pv 15; Yp 15; WL 8.8; Cake 1; Chl = 1800 Ppm; Cal 00; Sol. 3.4; LCM 2#; DMC= $1,036.35 CMC= $15,134.50
TG: C1-C5
1 10 100 1000
Re-Zero Tooke Daq @ 3607'. Bkgd Gas = 20 UNITS. LAG IS 3598'.
Gas Kick = 45 Units Bkgd Gas = 20 Units.
Re-Zero Tooke Daq @ 3634'. Bkgd Gas = 20 UNITS.
Gas Kick = 100 Units Bkgd Gas = 20 Units
Re-Zero Tooke Daq @ 3676'. Bkgd Gas = 15 Units.
Shale Gas Kick = 100 Units Bkgd Gas = 20 Units



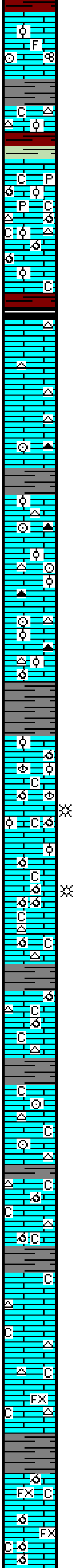
3800

3850

3900

3950

4000



Odor No Stn No Flour Sli ? Min Flor

60" CFS CFS Ls Crm Fxln Gran Poor Ilxn Por Abd Chalk Abd Cht Wht Fos (Crin, Fuss, Spic) Sh Char- Grn Fissil No Odor No Stn Sli ? Min Flour NS

TOPEKA 3804' (- 999)

O' CFS Ls Wht Fxln Gran Poor Ixln Por Micrite Cht "Bone"Wht-Gry V Abd Op Shp Vit Chalk V Abd Sh Char-Red-Grn Fissil No Odor No Stn Fair Tr Scat ? Min Flour NS

3O' CFS Ls Wht Fxln Gran Poor Ixln Por Micrite Grad OOM Por Poor InterOOM/OOL Por Dns W/ Pyr Inclu Poor Leaching Poor Develop Cht Wht-Gry Abd Op Shp Vit Chalk V Abd Sh Char-Red-Grn Fissil No Odor No Stn Fair Tr Scat ? Min Flour NS

6O' CFS Ls Wht Fxln Gran Poor Ixln Por Micrite Grad OOM Por Poor InterOOM/OOL Por Dns W/ Pyr Inclu Poor Leaching Poor Develop Cht Wht-Gry AA Op Shp Vit Chalk Tr/Dec Sh Char-Red-Aqua-Blk Carb ? Fissil No Odor No Stn Fair Tr Scat ? Min Flour NS

Ls Wht-Crm Fxln Gran Fair-Med OOL Por Fair-Med InterOOL Por Soft Fair Leaching Por Fair Develop Cht Wht-Drk Gry AA Op ? Trip/Shp Vit Chalk Abd Sh Char-Red-Aqua-Blk Carb ? AA Fissil No Odor No Stn No Flour NS

Ls Crm Wht Fxln Gran Fair-Med OOL Por AA Fair-Med InterOOL Por Soft Fair Ixln Leaching Por Fair Develop Cht Wht-Drk Gry AA Op ? Trip/Shp Vit Chalk Abd Fos (Crin) Sh Char-Red-Aqua-Blk Carb ? AA Fissil No Odor No Stn No Flour NS

Ls Crm Wht Fxln Gran Fair-Med OOL Por AA Fair-Med InterOOL Por Soft Fair Ixln Leaching Por Fair Develop Cht Wht-Drk Gry AA Op ? Trip/Shp Vit Chalk Abd Fos (Crin) Sh Char-Red-Aqua-Blk Carb ? AA Fissil No Odor No Stn No Flour NS

Ls Crm Wht Fxln Gran Fair-Med OOL Por AA Fair-Med InterOOL Por Soft Fair Ixln Leaching Por Fair Develop Cht Wht-Drk Gry AA Op ? Trip/Shp Vit Chalk Abd Fos (Crin) Sh Char-Red-Aqua-Blk Carb ? AA Fissil No Odor No Stn No Flour NS

Sh Char-Gry Fissil Ls Wht-Crm Fxln OOM Por w/ OOL in pl Poor Dis Poor Leaching Grad Dns Micrite Chalk AA No Odor No Stn No Flour NS

LOWER TOPEKA 3898' (- 1093)

0" CFS Ls Wht-Crm Fxln Poor OOM Por w/ OOL (small in pl) Poor InterOOL/OOM Por Poor Dis Poor Leaching Chalk V Abd (30% of Tray) Cht Wht Op Shp Vit Fos (Crin) Sh Char-Gry-Grn-Re Fissil No Odor ? V Sli Min Flour (Dull Lt Grn) VSSG (From Tooke Daq Gas Dector). Tr ? VSSG ?

30" CFS Ls Wht-Crm Fxln Fair-Med-Lg OOM Por w/Med-Good Dis Med-Good Leaching Lg Vugs Med-Good InterOOM Med-Good Dis Cht Wht Op Shp Vit Chalk Abd AA Sh Gry-Grn-Red-Char AA Fissil No Odor ? V Sli Flour AA (Dull Lt Grn) VS ? SG (From Tooke Daq Gas Dector).

60" CFS Ls Wht-Crm AA Fxln Fair-Med-Lg OOM Por w/Med-Good Dis Med-Good Leaching Lg Vugs Med-Good InterOOM Med-Good Dis Cht Wht Op Shp Vit Chalk Abd AA Sh Gry-Grn-Red-Char AA Fissil No Odor ? V Sli Flour AA (Dull Lt Grn) VS ? SG (From Tooke Daq Gas Dector) AA.

Ls Wht-Gry Fxln Poor Ixln Por Micritic Fos (Crin) Cht Wht-Gry AA Op Shp Vit Chalk Abd Sh Tr Char Fissil No Odor ? Min Flour Abd NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Grad OOM Por w/OOL in pl Poor ibterOOM Por Por Dis Poor Develop Poor Leaching Cht Wht-Gry AA Op Shp Vit Fos (Fuss) Chalk AA Sh Tr Char Fissil No Odor ? Scat Min Flour NS

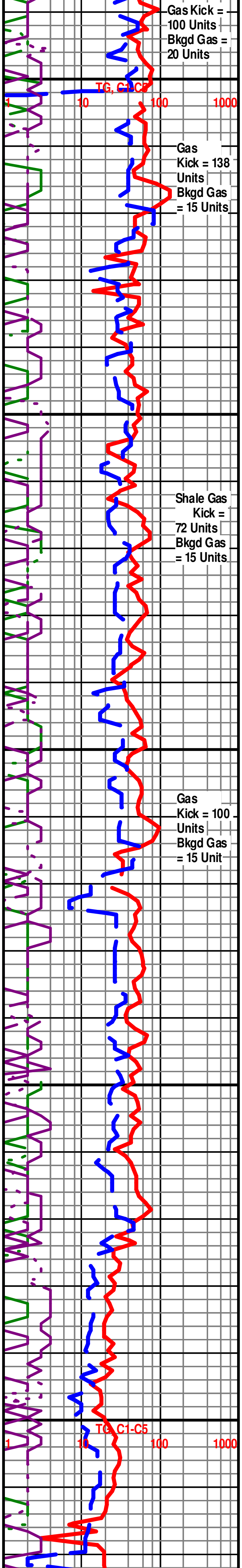
LECOMPTON 3979' (- 1174)

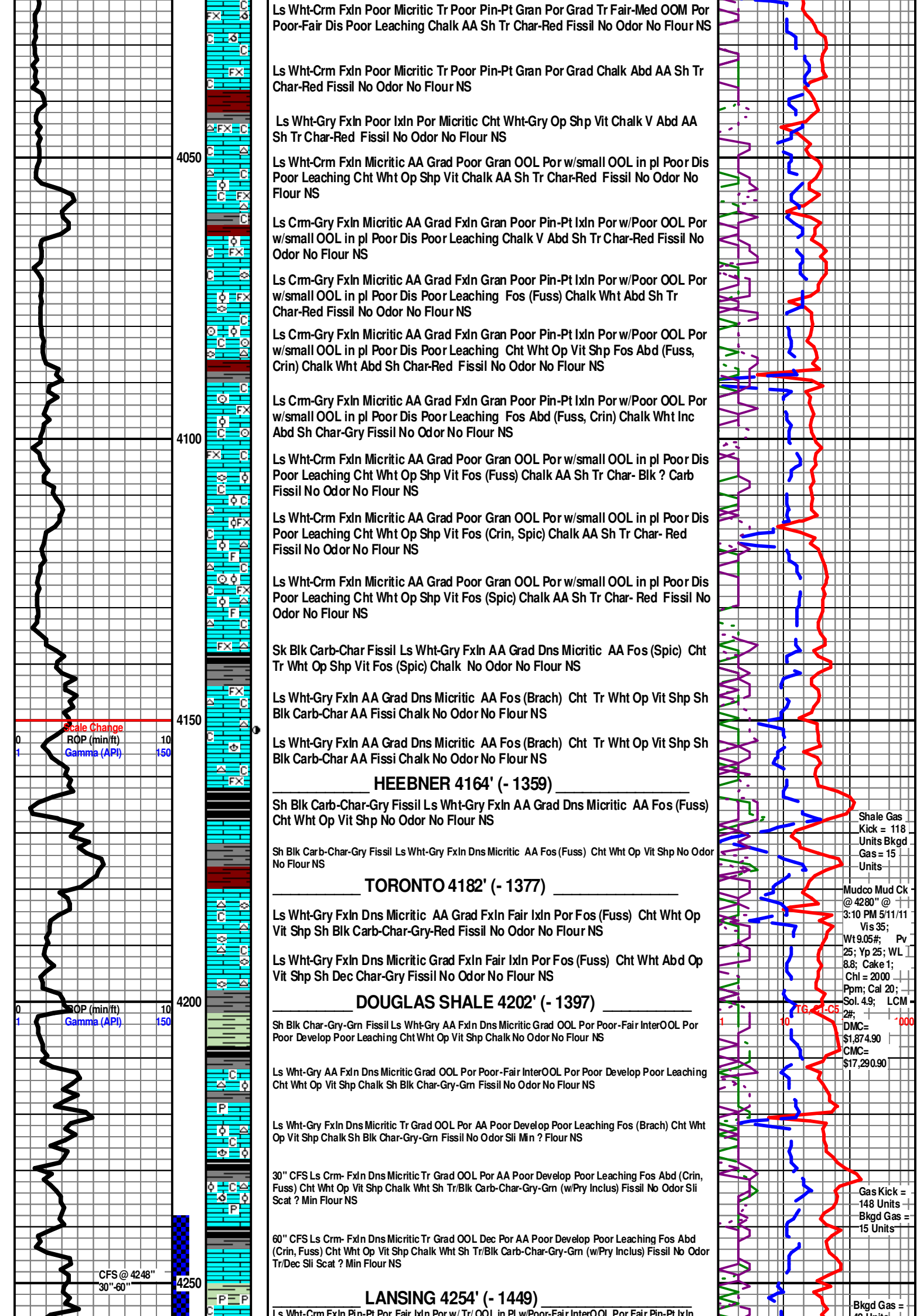
Ls Crm-Wht Fxln Poor Ixln Por Micritic Grad Fxln Poor Pin-Pt Por Cht Wht-Gry AA Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor ? Scat Min Flour NS

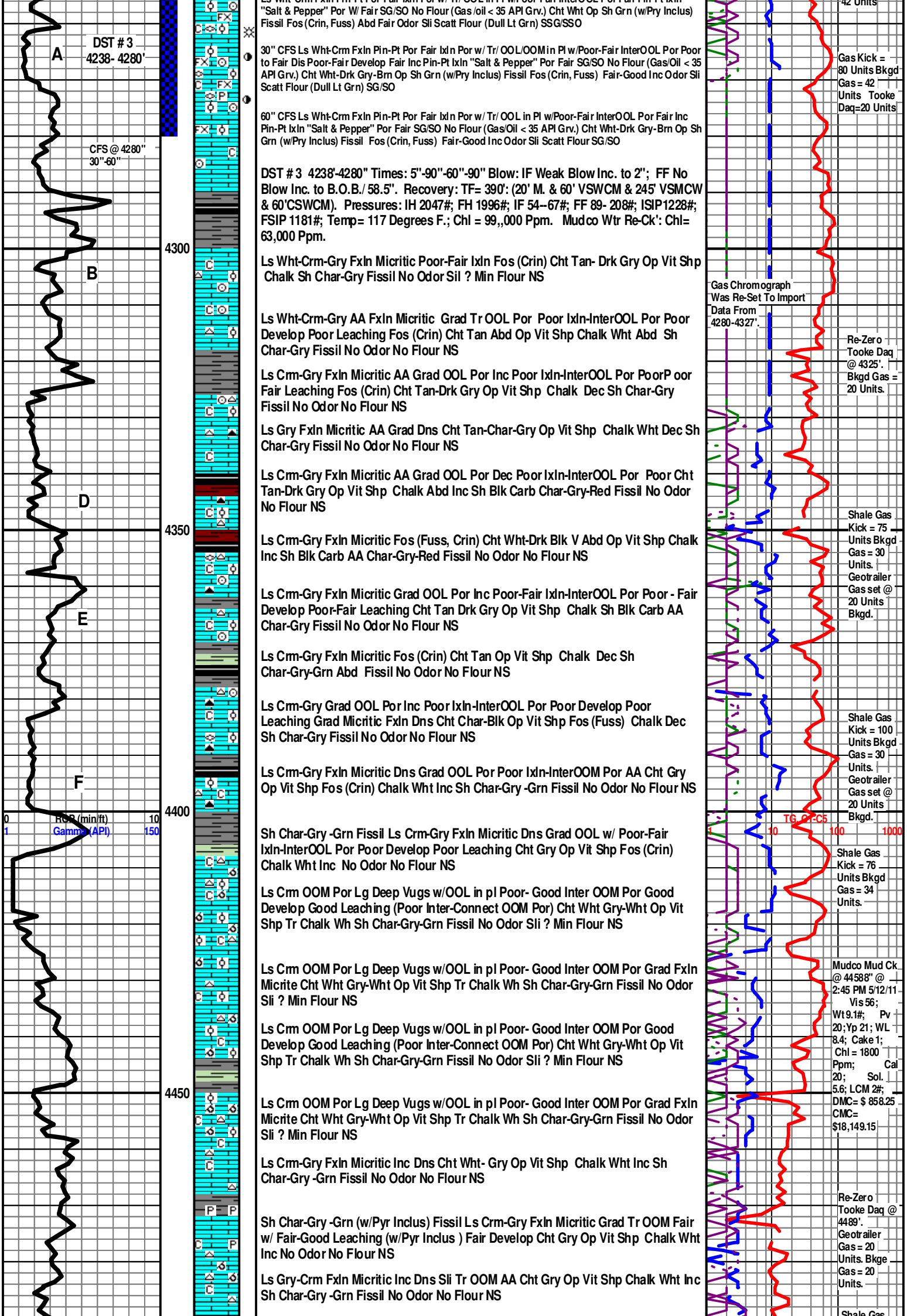
Ls Gry-Crm-Wht Fxln Poor Ixln Por Micritic Grad Tr Fxln Poor Pin-Pt Por AA Cht Wht-Gry AA Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor ? Scat Min Flour NS

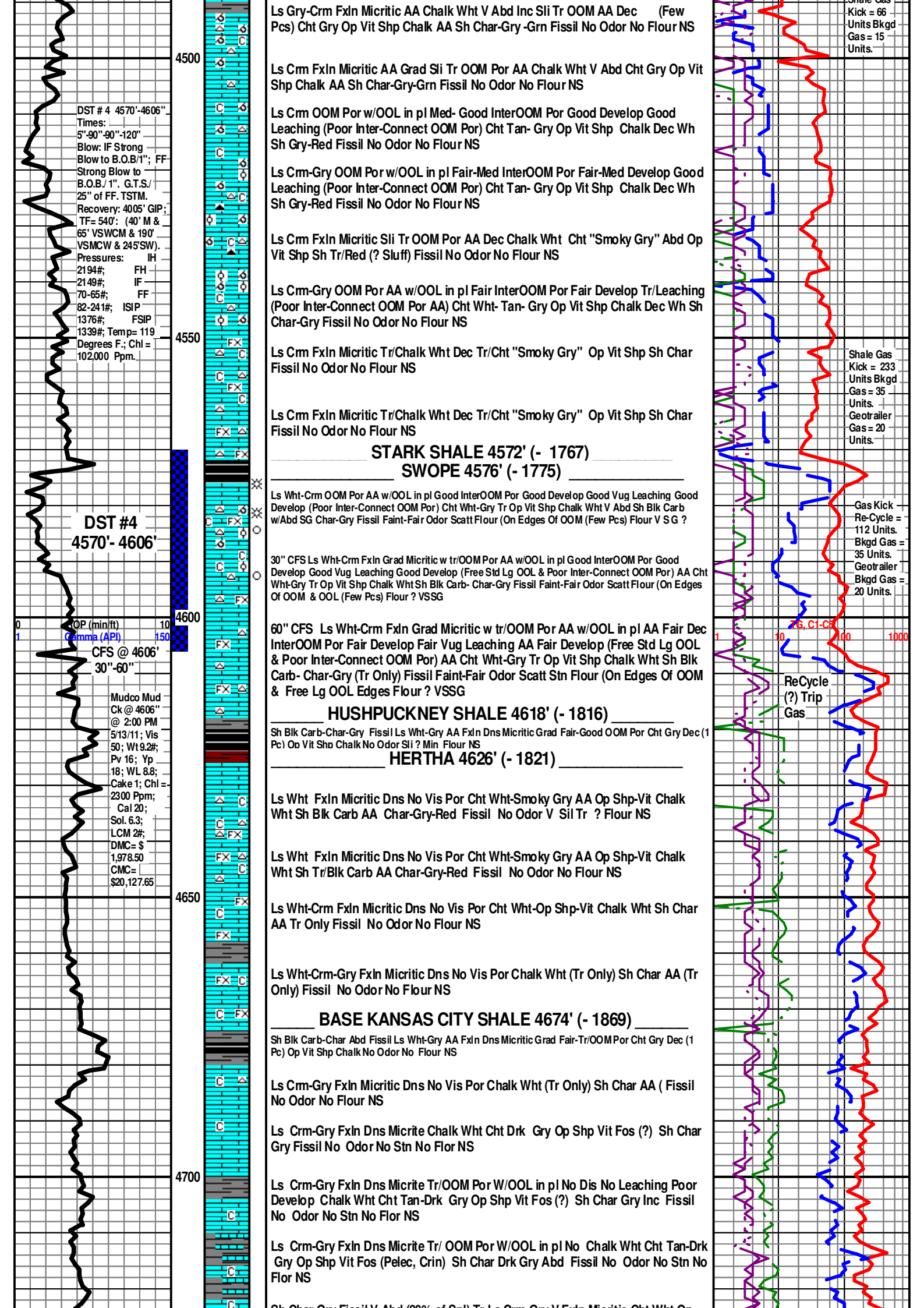
Ls Gry-Crm Fxln Micritic AA Grad Poor-Fair OOM Por w/ OOL in pl Poor-Fair Dis Poor-Fair Leaching Chalk Abd AA Sh Tr Char-Red Fissil No Odor ? V Sli Flour NS

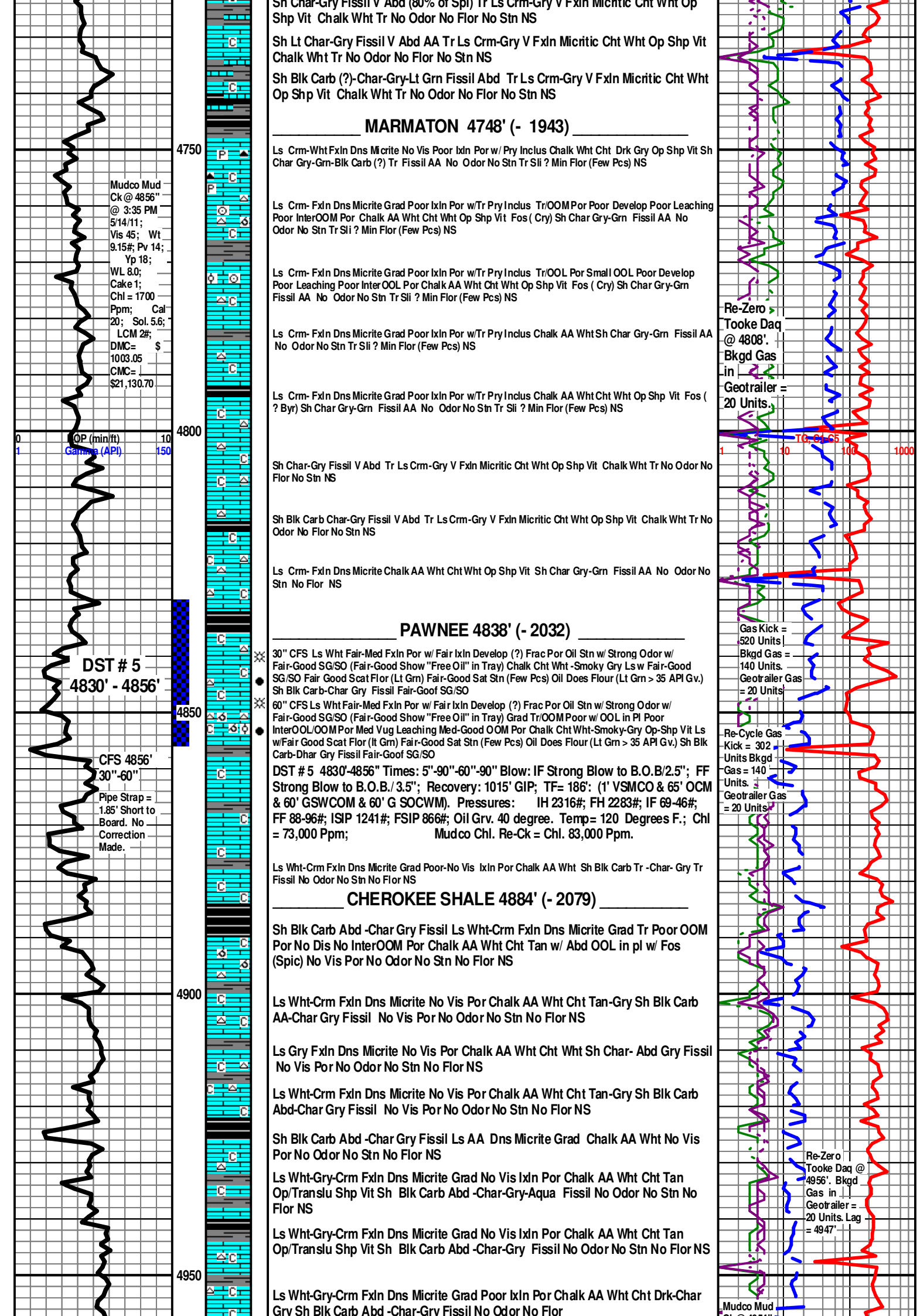
Ls Wht-Crm Fxln Poor Micritic Tr Poor Pin-Pt Gran Por Grad Tr OOM Por Poor Dis Poor Leaching Chalk AA Sh Tr Char-Red Fissil No Odor ? V Sli Flour NS

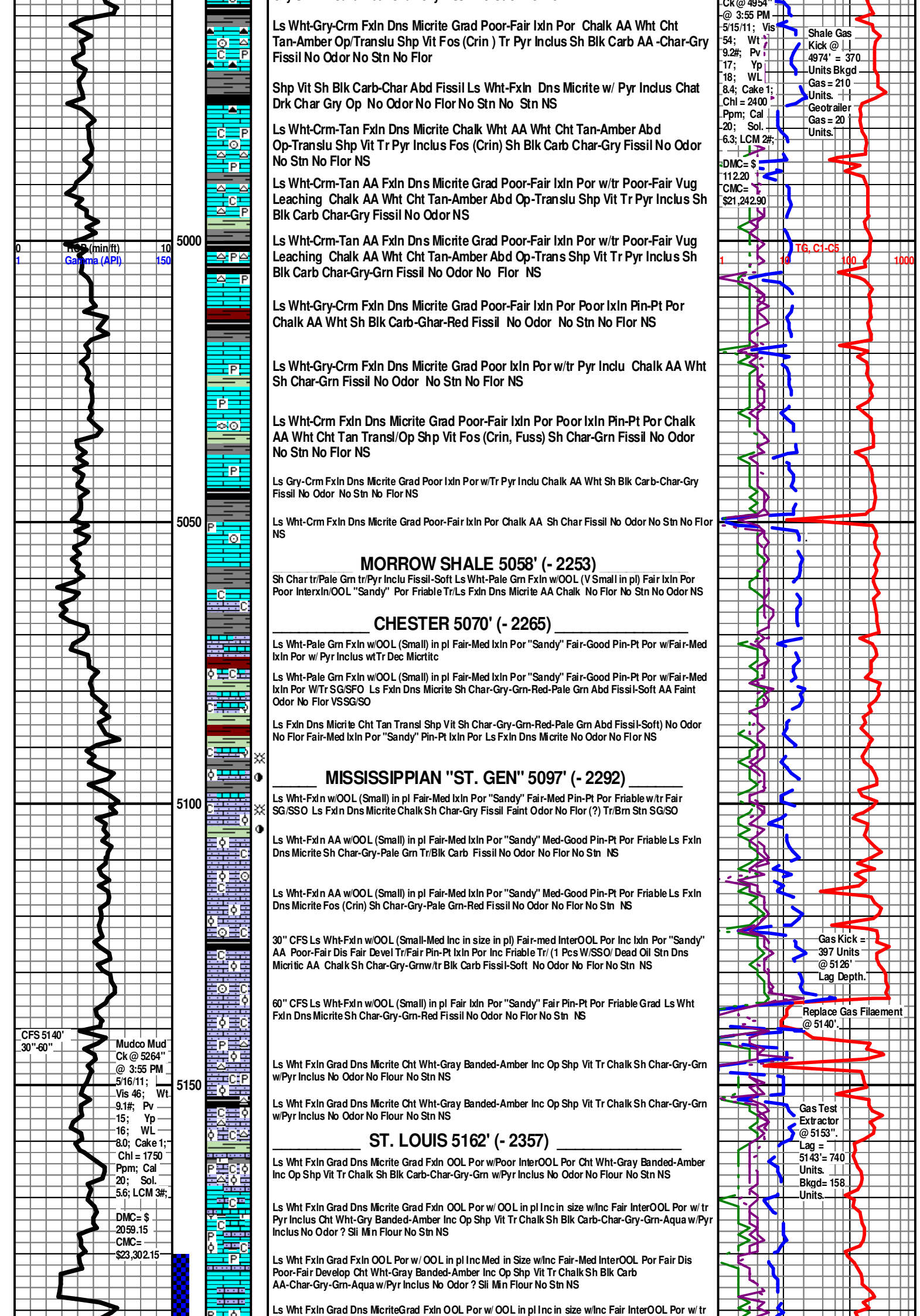


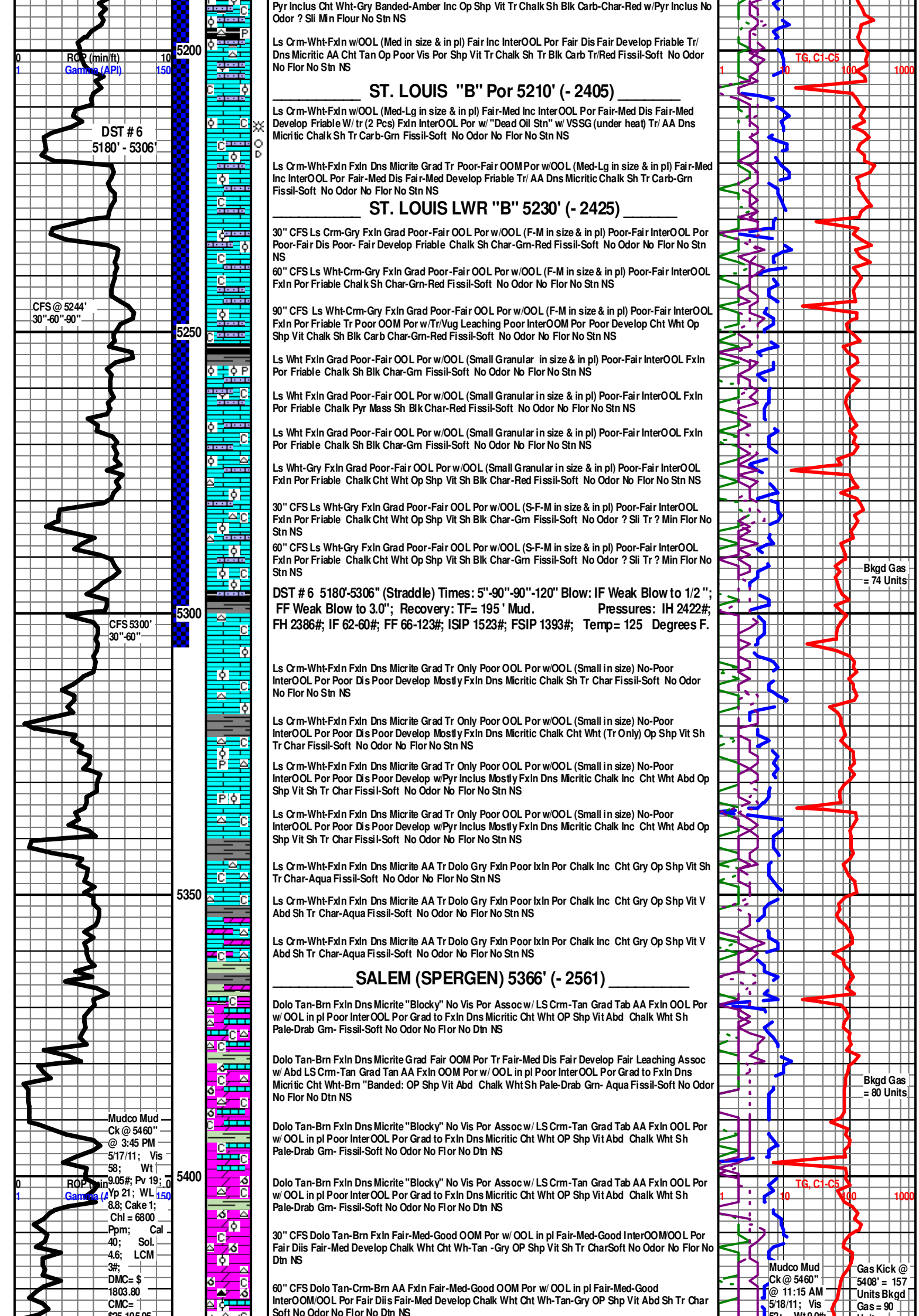

4050
4100
4150
4200
4250
Scale Change
0 ROP (min/ft) 10
1 Gamma (API) 150
0 ROP (min/ft) 10
1 Gamma (API) 150
CFS @ 4248"
30"-60"
Ls Wht-Crm Fxln Poor Micritic Tr Poor Pin-Pt Gran Por Grad Tr Fair-Med OOM Por Poor-Fair Dis Poor Leaching Chalk AA Sh Tr Char-Red Fissil No Odor No Flour NS
Ls Wht-Crm Fxln Poor Micritic Tr Poor Pin-Pt Gran Por Grad Chalk Abd AA Sh Tr Char-Red Fissil No Odor No Flour NS
Ls Wht-Gry Fxln Poor Ixln Por Micritic Cht Wht-Gry Op Shp Vit Chalk V Abd AA Sh Tr Char-Red Fissil No Odor No Flour NS
Ls Wht-Crm Fxln Micritic AA Grad Poor Gran OOL Por w/small OOL in pl Poor Dis Poor Leaching Cht Wht Op Shp Vit Chalk AA Sh Tr Char-Red Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic AA Grad Fxln Gran Poor Pin-Pt Ixln Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Chalk V Abd Sh Tr Char-Red Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic AA Grad Fxln Gran Poor Pin-Pt Ixln Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Fos (Fuss) Chalk Wht Abd Sh Tr Char-Red Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic AA Grad Fxln Gran Poor Pin-Pt Ixln Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Cht Wht Op Vit Shp Fos Abd (Fuss, Crin) Chalk Wht Abd Sh Char-Red Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic AA Grad Fxln Gran Poor Pin-Pt Ixln Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Fos Abd (Fuss, Crin) Chalk Wht Inc Abd Sh Char-Gry Fissil No Odor No Flour NS
Ls Wht-Crm Fxln Micritic AA Grad Poor Gran OOL Por w/small OOL in pl Poor Dis Poor Leaching Cht Wht Op Shp Vit Fos (Fuss) Chalk AA Sh Tr Char- Blk ? Carb Fissil No Odor No Flour NS
Ls Wht-Crm Fxln Micritic AA Grad Poor Gran OOL Por w/small OOL in pl Poor Dis Poor Leaching Cht Wht Op Shp Vit Fos (Crin, Spic) Chalk AA Sh Tr Char- Red Fissil No Odor No Flour NS
Ls Wht-Crm Fxln Micritic AA Grad Poor Gran OOL Por w/small OOL in pl Poor Dis Poor Leaching Cht Wht Op Shp Vit Fos (Spic) Chalk AA Sh Tr Char- Red Fissil No Odor No Flour NS
Sk Blk Carb-Char Fissil Ls Wht-Gry Fxln AA Grad Dns Micritic AA Fos (Spic) Cht Tr Wht Op Shp Vit Fos (Spic) Chalk No Odor No Flour NS
Ls Wht-Gry Fxln AA Grad Dns Micritic AA Fos (Brach) Cht Tr Wht Op Vit Shp Sh Blk Carb-Char AA Fissi Chalk No Odor No Flour NS
Ls Wht-Gry Fxln AA Grad Dns Micritic AA Fos (Brach) Cht Tr Wht Op Vit Shp Sh Blk Carb-Char AA Fissi Chalk No Odor No Flour NS
HEEBNER 4164' (- 1359)
Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry Fxln AA Grad Dns Micritic AA Fos (Fuss) Cht Wht Op Vit Shp No Odor No Flour NS
Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry Fxln Dns Micritic AA Fos (Fuss) Cht Wht Op Vit Shp No Odor No Flour NS
TORONTO 4182' (- 1377)
Ls Wht-Gry Fxln Dns Micritic AA Grad Fxln Fair Ixln Por Fos (Fuss) Cht Wht Op Vit Shp Sh Blk Carb-Char-Gry-Red Fissil No Odor No Flour NS
Ls Wht-Gry Fxln Dns Micritic Grad Fxln Fair Ixln Por Fos (Fuss) Cht Wht Abd Op Vit Shp Sh Dec Char-Gry Fissil No Odor No Flour NS
DOUGLAS SHALE 4202' (- 1397)
Sh Blk Char-Gry-Grn Fissil Ls Wht-Gry AA Fxln Dns Micritic Grad OOL Por Poor-Fair InterOOL Por Poor Develop Poor Leaching Cht Wht Op Vit Shp Chalk No Odor No Flour NS
Ls Wht-Gry AA Fxln Dns Micritic Grad OOL Por Poor-Fair InterOOL Por Poor Develop Poor Leaching Cht Wht Op Vit Shp Chalk Sh Blk Char-Gry-Grn Fissil No Odor No Flour NS
Ls Wht-Gry Fxln Dns Micritic Tr Grad OOL Por AA Poor Develop Poor Leaching Fos (Brach) Cht Wht Op Vit Shp Chalk Sh Blk Char-Gry-Grn Fissil No Odor Sli Min ? Flour NS
30" CFS Ls Crm- Fxln Dns Micritic Tr Grad OOL Por AA Poor Develop Poor Leaching Fos Abd (Crin, Fuss) Cht Wht Op Vit Shp Chalk Wht Sh Tr/Blk Carb-Char-Gry-Grn (w/Pry Inclus) Fissil No Odor Sli Scat ? Min Flour NS
60" CFS Ls Crm- Fxln Dns Micritic Tr Grad OOL Dec Por AA Poor Develop Poor Leaching Fos Abd (Crin, Fuss) Cht Wht Op Vit Shp Chalk Wht Sh Tr/Blk Carb-Char-Gry-Grn (w/Pry Inclus) Fissil No Odor Tr/Dec Sli Scat ? Min Flour NS
LANSING 4254' (- 1449)
Ls Wht-Crm Fxln Pin-Pt Por Fair Ixln Por w/ Tr/ OOL in Pl w/Poor-Fair InterOOL Por Fair Pin-Pt Ixln
Shale Gas Kick = 118 Units Bkgd Gas = 15 Units
Mudco Mud Ck @ 4280" @ 3:10 PM 5/11/11 Vis 35; Wt 9.05#; Pv 25; Yp 25; WL 8.8; Cake 1; Chl = 2000 Ppm; Cal 20; Sol. 4.9; LCM 2#; DMC= $1,874.90 CMC= $17,290.90
TG, C1-C5
1 10 1000
Gas Kick = 148 Units Bkgd Gas = 15 Units
Bkgd Gas =


A
DST # 3
4238- 4280'
CFS @ 4280"
30"-60"
B
D
E
F
4300
4350
4400
4450
RGR (min/ft)
Gamma (API)
0
1
10
150
"Salt & Pepper" Por W/ Fair SG/SO No Flour (Gas /oil < 35 API Grv.) Cht Wht Op Sh Grn (w/Pry Inclus) Fissil Fos (Crin, Fuss) Abd Fair Odor Sli Scatt Flour (Dull Lt Grn) SSG/SSO
30" CFS Ls Wht-Crm Fxln Pin-Pt Por Fair Ixln Por w/ Tr/ OOL/OOMin Pl w/Poor-Fair InterOOL Por Poor to Fair Dis Poor-Fair Develop Fair Inc Pin-Pt Ixln "Salt & Pepper" Por Fair SG/SO No Flour (Gas/Oil < 35 API Grv.) Cht Wht-Drk Gry-Brn Op Sh Grn (w/Pry Inclus) Fissil Fos (Crin, Fuss) Fair-Good Inc Odor Sli Scatt Flour (Dull Lt Grn) SG/SO
60" CFS Ls Wht-Crm Fxln Pin-Pt Por Fair Ixln Por w/ Tr/ OOL in Pl w/Poor-Fair InterOOL Por Fair Inc Pin-Pt Ixln "Salt & Pepper" Por Fair SG/SO No Flour (Gas/Oil < 35 API Grv.) Cht Wht-Drk Gry-Brn Op Sh Grn (w/Pry Inclus) Fissil Fos (Crin, Fuss) Fair-Good Inc Odor Sli Scatt Flour SG/SO
DST # 3 4238'-4280" Times: 5"-90"-60"-90" Blow: IF Weak Blow Inc. to 2"; FF No Blow Inc. to B.O.B./ 58.5". Recovery: TF= 390': (20' M. & 60' VSWCM & 245' VSMCW & 60'CSWCM). Pressures: IH 2047#; FH 1996#; IF 54--67#; FF 89- 208#; ISIP1228#; FSIP 1181#; Temp= 117 Degrees F.; Chl = 99,,000 Ppm. Mudco Wtr Re-Ck': Chl= 63,000 Ppm.
Ls Wht-Crm-Gry Fxln Micritic Poor-Fair Ixln Fos (Crin) Cht Tan- Drk Gry Op Vit Shp Chalk Sh Char-Gry Fissil No Odor Sil ? Min Flour NS
Ls Wht-Crm-Gry AA Fxln Micritic Grad Tr OOL Por Poor Ixln-InterOOL Por Poor Develop Poor Leaching Fos (Crin) Cht Tan Abd Op Vit Shp Chalk Wht Abd Sh Char-Gry Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic AA Grad OOL Por Inc Poor Ixln-InterOOL Por PoorP oor Fair Leaching Fos (Crin) Cht Tan-Drk Gry Op Vit Shp Chalk Dec Sh Char-Gry Fissil No Odor No Flour NS
Ls Gry Fxln Micritic AA Grad Dns Cht Tan-Char-Gry Op Vit Shp Chalk Wht Dec Sh Char-Gry Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic AA Grad OOL Por Dec Poor Ixln-InterOOL Por Poor Cht Tan-Drk Gry Op Vit Shp Chalk Abd Inc Sh Blk Carb Char-Gry-Red Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic Fos (Fuss, Crin) Cht Wht-Drk Blk V Abd Op Vit Shp Chalk Inc Sh Blk Carb AA Char-Gry-Red Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic Grad OOL Por Inc Poor-Fair Ixln-InterOOL Por Poor - Fair Develop Poor-Fair Leaching Cht Tan Drk Gry Op Vit Shp Chalk Sh Blk Carb AA Char-Gry Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic Fos (Crin) Cht Tan Op Vit Shp Chalk Dec Sh Char-Gry-Grn Abd Fissil No Odor No Flour NS
Ls Crm-Gry Grad OOL Por Inc Poor Ixln-InterOOL Por Poor Develop Poor Leaching Grad Micritic Fxln Dns Cht Char-Blk Op Vit Shp Fos (Fuss) Chalk Dec Sh Char-Gry Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Micritic Dns Grad OOL Por Poor Ixln-InterOOM Por AA Cht Gry Op Vit Shp Fos (Crin) Chalk Wht Inc Sh Char-Gry -Grn Fissil No Odor No Flour NS
Sh Char-Gry -Grn Fissil Ls Crm-Gry Fxln Micritic Dns Grad OOL w/ Poor-Fair Ixln-InterOOL Por Poor Develop Poor Leaching Cht Gry Op Vit Shp Fos (Crin) Chalk Wht Inc No Odor No Flour NS
Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Good Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS
Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Grad Fxln Micrite Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS
Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Good Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS
Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Grad Fxln Micrite Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS
Ls Crm-Gry Fxln Micritic Inc Dns Cht Wht- Gry Op Vit Shp Chalk Wht Inc Sh Char-Gry -Grn Fissil No Odor No Flour NS
Sh Char-Gry -Grn (w/Pyr Inclus) Fissil Ls Crm-Gry Fxln Micritic Grad Tr OOM Fair w/ Fair-Good Leaching (w/Pyr Inclus) Fair Develop Cht Gry Op Vit Shp Chalk Wht Inc No Odor No Flour NS
Ls Gry-Crm Fxln Micritic Inc Dns Sli Tr OOM AA Cht Gry Op Vit Shp Chalk Wht Inc Sh Char-Gry -Grn Fissil No Odor No Flour NS
42 Units
Gas Kick = 80 Units Bkgd Gas = 42 Units Tooke Daq=20 Units
Gas Chromograph Was Re-Set To Import Data From 4280-4327'.
Re-Zero Tooke Daq @ 4325'. Bkgd Gas = 20 Units.
Shale Gas Kick = 75 Units Bkgd Gas = 30 Units. Geotrailer Gas set @ 20 Units Bkgd.
Shale Gas Kick = 100 Units Bkgd Gas = 30 Units. Geotrailer Gas set @ 20 Units Bkgd.
TG, C1-C5
10
100
1000
Shale Gas Kick = 76 Units Bkgd Gas = 34 Units.
Mudco Mud Ck. @ 4458' @ 2:45 PM 5/12/11 Vis 56; Wt 9.1#; Pv 20; Yp 21; WL 8.4; Cake 1; Chl = 1800 Ppm; Cal 20; Sol. 5.6; LCM 2#; DMC= $ 858.25 CMC= $18,149.15
Re-Zero Tooke Daq @ 4489'. Geotrailer Gas = 20 Units. Bkge Gas = 20 Units.


4500
4550
4600
4650
4700
DST # 4 4570'-4606"
Times: 5"-90"-90"-120"
Blow: IF Strong Blow to B.O.B/1"; FF Strong Blow to B.O.B./ 1". G.T.S./ 25" of FF. TSTM.
Recovery: 4005' GIP; TF= 540': (40' M & 65' VSWCM & 190' VSMCW & 245'SW).
Pressures: IH 2194#; FH 2149#; IF 70-65#; FF 82-241#; ISIP 1376#; FSIP 1339#; Temp= 119 Degrees F.; Chl = 102,000 Ppm.
DST #4
4570'- 4606'
0
ROP (min/ft)
10
1
Gamma (API)
150
CFS @ 4606'
30"-60"
Mudco Mud Ck @ 4606" @ 2:00 PM 5/13/11; Vis 50; Wt 9.2#; Pv 16; Yp 18; WL 8.8; Cake 1; Chl = 2300 Ppm; Cal 20; Sol. 6.3; LCM 2#; DMC= $ 1,978.50 CMC= $20,127.65
Ls Gry-Crm Fxln Micritic AA Chalk Wht V Abd Inc Sli Tr OOM AA Dec (Few Pcs) Cht Gry Op Vit Shp Chalk AA Sh Char-Gry -Grn Fissil No Odor No Flour NS
Ls Crm Fxln Micritic AA Grad Sli Tr OOM Por AA Chalk Wht V Abd Cht Gry Op Vit Shp Chalk AA Sh Char-Gry-Grn Fissil No Odor No Flour NS
Ls Crm OOM Por w/OOL in pl Med- Good InterOOM Por Good Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Tan- Gry Op Vit Shp Chalk Dec Wh Sh Gry-Red Fissil No Odor No Flour NS
Ls Crm-Gry OOM Por w/OOL in pl Fair-Med InterOOM Por Fair-Med Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Tan- Gry Op Vit Shp Chalk Dec Wh Sh Gry-Red Fissil No Odor No Flour NS
Ls Crm Fxln Micritic Sli Tr OOM Por AA Dec Chalk Wht Cht "Smoky Gry" Abd Op Vit Shp Sh Tr/Red (? Sluff) Fissil No Odor No Flour NS
Ls Crm-Gry OOM Por AA w/OOL in pl Fair InterOOM Por Fair Develop Tr/Leaching (Poor Inter-Connect OOM Por AA) Cht Wht- Tan- Gry Op Vit Shp Chalk Dec Wh Sh Char-Gry Fissil No Odor No Flour NS
Ls Crm Fxln Micritic Tr/Chalk Wht Dec Tr/Cht "Smoky Gry" Op Vit Shp Sh Char Fissil No Odor No Flour NS
Ls Crm Fxln Micritic Tr/Chalk Wht Dec Tr/Cht "Smoky Gry" Op Vit Shp Sh Char Fissil No Odor No Flour NS
STARK SHALE 4572' (- 1767)
SWOPE 4576' (- 1775)
Ls Wht-Crm OOM Por AA w/OOL in pl Good InterOOM Por Good Develop Good Vug Leaching Good Develop (Poor Inter-Connect OOM Por) Cht Wht-Gry Tr Op Vit Shp Chalk Wht V Abd Sh Blk Carb w/Abd SG Char-Gry Fissil Faint-Fair Odor Scatt Flour (On Edges Of OOM (Few Pcs) Flour V S G ?
30" CFS Ls Wht-Crm Fxln Grad Micritic w tr/OOM Por AA w/OOL in pl Good InterOOM Por Good Develop Good Vug Leaching Good Develop (Free Std Lg OOL & Poor Inter-Connect OOM Por) AA Cht Wht-Gry Tr Op Vit Shp Chalk Wht Sh Blk Carb- Char-Gry Fissil Faint-Fair Odor Scatt Flour (On Edges Of OOM & OOL (Few Pcs) Flour ? VSSG
60" CFS Ls Wht-Crm Fxln Grad Micritic w tr/OOM Por AA w/OOL in pl AA Fair Dec InterOOM Por Fair Develop Fair Vug Leaching AA Fair Develop (Free Std Lg OOL & Poor Inter-Connect OOM Por) AA Cht Wht-Gry Tr Op Vit Shp Chalk Wht Sh Blk Carb- Char-Gry (Tr Only) Fissil Faint-Fair Odor Scatt Stn Flour (On Edges Of OOM & Free Lg OOL Edges Flour ? VSSG
HUSHPUCKNEY SHALE 4618' (- 1816)
Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry AA Fxln Dns Micritic Grad Fair-Good OOM Por Cht Gry Dec (1 Pc) Op Vit Shp Chalk No Odor Sli ? Min Flour NS
HERTHA 4626' (- 1821)
Ls Wht Fxln Micritic Dns No Vis Por Cht Wht-Smoky Gry AA Op Shp-Vit Chalk Wht Sh Blk Carb AA Char-Gry-Red Fissil No Odor V Sil Tr ? Flour NS
Ls Wht Fxln Micritic Dns No Vis Por Cht Wht-Smoky Gry AA Op Shp-Vit Chalk Wht Sh Tr/Blk Carb AA Char-Gry-Red Fissil No Odor No Flour NS
Ls Wht-Crm Fxln Micritic Dns No Vis Por Cht Wht-Op Shp-Vit Chalk Wht Sh Char AA Tr Only Fissil No Odor No Flour NS
Ls Wht-Crm-Gry Fxln Micritic Dns No Vis Por Chalk Wht (Tr Only) Sh Char AA (Tr Only) Fissil No Odor No Flour NS
BASE KANSAS CITY SHALE 4674' (- 1869)
Sh Blk Carb-Char Abd Fissil Ls Wht-Gry AA Fxln Dns Micritic Grad Fair-Tr/OOM Por Cht Gry Dec (1 Pc) Op Vit Shp Chalk No Odor No Flour NS
Ls Crm-Gry Fxln Micritic Dns No Vis Por Chalk Wht (Tr Only) Sh Char AA (Fissil No Odor No Flour NS
Ls Crm-Gry Fxln Dns Micrite Chalk Wht Cht Drk Gry Op Shp Vit Fos (?) Sh Char Gry Fissil No Odor No Stn No Flor NS
Ls Crm-Gry Fxln Dns Micrite Tr/OOM Por W/OOL in pl No Dis No Leaching Poor Develop Chalk Wht Cht Tan-Drk Gry Op Shp Vit Fos (?) Sh Char Gry Inc Fissil No Odor No Stn No Flor NS
Ls Crm-Gry Fxln Dns Micrite Tr/ OOM Por W/OOL in pl No Chalk Wht Cht Tan-Drk Gry Op Shp Vit Fos (Pelec, Crin) Sh Char Drk Gry Abd Fissil No Odor No Stn No Flor NS
Shale Gas Kick = 66 Units Bkgd Gas = 15 Units.
Shale Gas Kick = 233 Units Bkgd Gas = 35 Units. Geotrailer Gas = 20 Units.
Gas Kick Re-Cycle = 112 Units. Bkgd Gas = 35 Units. Geotrailer Bkgd Gas = 20 Units.
TG, C1-C5
1
10
100
1000
ReCycle (?) Trip Gas


Sh Char-Gry Fissil V Abd (80% of Spl) Tr Ls Crm-Gry V Fxln Micritic Cht Wht Op Shp Vit Chalk Wht Tr No Odor No Flor No Stn NS
Sh Lt Char-Gry Fissil V Abd AA Tr Ls Crm-Gry V Fxln Micritic Cht Wht Op Shp Vit Chalk Wht Tr No Odor No Flor No Stn NS
Sh Blk Carb (?)-Char-Gry-Lt Grn Fissil Abd Tr Ls Crm-Gry V Fxln Micritic Cht Wht Op Shp Vit Chalk Wht Tr No Odor No Flor No Stn NS
MARMATON 4748' (- 1943)
Ls Crm-Wht Fxln Dns Micrite No Vis Poor Ixln Por w/ Pry Inclus Chalk Wht Cht Drk Gry Op Shp Vit Sh Char Gry-Grn-Blk Carb (?) Tr Fissil AA No Odor No Stn Tr Sli ? Min Flor (Few Pcs) NS
Ls Crm- Fxln Dns Micrite Grad Poor Ixln Por w/Tr Pry Inclus Tr/OOM Por Poor Develop Poor Leaching Poor InterOOM Por Chalk AA Wht Cht Wht Op Shp Vit Fos (Cry) Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli ? Min Flor (Few Pcs) NS
Ls Crm- Fxln Dns Micrite Grad Poor Ixln Por w/Tr Pry Inclus Tr/OOL Por Small OOL Poor Develop Poor Leaching Poor InterOOL Por Chalk AA Wht Cht Wht Op Shp Vit Fos (Cry) Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli ? Min Flor (Few Pcs) NS
Ls Crm- Fxln Dns Micrite Grad Poor Ixln Por w/Tr Pry Inclus Chalk AA Wht Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli ? Min Flor (Few Pcs) NS
Ls Crm- Fxln Dns Micrite Grad Poor Ixln Por w/Tr Pry Inclus Chalk AA Wht Cht Wht Op Shp Vit Fos (? Byr) Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli ? Min Flor (Few Pcs) NS
Sh Char-Gry Fissil V Abd Tr Ls Crm-Gry V Fxln Micritic Cht Wht Op Shp Vit Chalk Wht Tr No Odor No Flor No Stn NS
Sh Blk Carb Char-Gry Fissil V Abd Tr Ls Crm-Gry V Fxln Micritic Cht Wht Op Shp Vit Chalk Wht Tr No Odor No Flor No Stn NS
Ls Crm- Fxln Dns Micrite Chalk AA Wht Cht Wht Op Shp Vit Sh Char Gry-Grn Fissil AA No Odor No Stn No Flor NS
PAWNEE 4838' (- 2032)
30" CFS Ls Wht Fair-Med Fxln Por w/ Fair Ixln Develop (?) Frac Por Oil Stn w/ Strong Odor w/ Fair-Good SG/SO (Fair-Good Show "Free Oil" in Tray) Chalk Cht Wht -Smoky Gry Ls w Fair-Good SG/SO Fair Good Scat Flor (Lt Grn) Fair-Good Sat Stn (Few Pcs) Oil Does Flour (Lt Grn > 35 API Gv.) Sh Blk Carb-Char Gry Fissil Fair-Goof SG/SO
60" CFS Ls Wht Fair-Med Fxln Por w/ Fair Ixln Develop (?) Frac Por Oil Stn w/ Strong Odor w/ Fair-Good SG/SO (Fair-Good Show "Free Oil" in Tray) Grad Tr/OOM Poor w/ OOL in Pl Poor InterOOL/OOM Por Med Vug Leaching Med-Good OOM Por Chalk Cht Wht-Smoky-Gry Op-Shp Vit Ls w/Fair Good Scat Flor (lt Grn) Fair-Good Sat Stn (Few Pcs) Oil Does Flour (Lt Grn > 35 API Gv.) Sh Blk Carb-Dhar Gry Fissil Fair-Goof SG/SO
DST # 5 4830'-4856" Times: 5"-90"-60"-90" Blow: IF Strong Blow to B.O.B/2.5"; FF Strong Blow to B.O.B./ 3.5"; Recovery: 1015' GIP; TF= 186': (1' VSMCO & 65' OCM & 60' GSWCOM & 60' G SOCWM). Pressures: IH 2316#; FH 2283#; IF 69-46#; FF 88-96#; ISIP 1241#; FSIP 866#; Oil Grv. 40 degree. Temp= 120 Degrees F.; Chl = 73,000 Ppm; Mudco Chl. Re-Ck = Chl. 83,000 Ppm.
Ls Wht-Crm Fxln Dns Micrite Grad Poor-No Vis Ixln Por Chalk AA Wht Sh Blk Carb Tr -Char- Gry Tr Fissil No Odor No Stn No Flor NS
CHEROKEE SHALE 4884' (- 2079)
Sh Blk Carb Abd -Char Gry Fissil Ls Wht-Crm Fxln Dns Micrite Grad Tr Poor OOM Por No Dis No InterOOM Por Chalk AA Wht Cht Tan w/ Abd OOL in pl w/ Fos (Spic) No Vis Por No Odor No Stn No Flor NS
Ls Wht-Crm Fxln Dns Micrite No Vis Por Chalk AA Wht Cht Tan-Gry Sh Blk Carb AA-Char Gry Fissil No Vis Por No Odor No Stn No Flor NS
Ls Gry Fxln Dns Micrite No Vis Por Chalk AA Wht Cht Wht Sh Char- Abd Gry Fissil No Vis Por No Odor No Stn No Flor NS
Ls Wht-Crm Fxln Dns Micrite No Vis Por Chalk AA Wht Cht Tan-Gry Sh Blk Carb Abd-Char Gry Fissil No Vis Por No Odor No Stn No Flor NS
Sh Blk Carb Abd -Char Gry Fissil Ls AA Dns Micrite Grad Chalk AA Wht No Vis Por No Odor No Stn No Flor NS
Ls Wht-Gry-Crm Fxln Dns Micrite Grad No Vis Ixln Por Chalk AA Wht Cht Tan Op/Translu Shp Vit Sh Blk Carb Abd -Char-Gry-Aqua Fissil No Odor No Stn No Flor NS
Ls Wht-Gry-Crm Fxln Dns Micrite Grad No Vis Ixln Por Chalk AA Wht Cht Tan Op/Translu Shp Vit Sh Blk Carb Abd -Char-Gry Fissil No Odor No Stn No Flor NS
Ls Wht-Gry-Crm Fxln Dns Micrite Grad Poor Ixln Por Chalk AA Wht Cht Drk-Char Gry Sh Blk Carb Abd -Char-Gry Fissil No Odor No Flor
4750
4800
4850
4900
4950
Mudco Mud Ck @ 4856" @ 3:35 PM 5/14/11; Vis 45; Wt 9.15#; Pv 14; Yp 18; WL 8.0; Cake 1; Chl = 1700 Ppm; Cal 20; Sol. 5.6; LCM 2#; DMC= $ 1003.05 CMC= $21,130.70
0 ROP (min/ft) 10
1 Gamma (API) 150
DST # 5 4830' - 4856'
CFS 4856' 30"-60"
Pipe Strap = 1.85' Short to Board. No Correction Made.
Re-Zero Tooke Daq @ 4808'. Bkgd Gas in Geotrailer = 20 Units.
TG: 01.65
1 10 100 1000
Gas Kick = 520 Units Bkgd Gas = 140 Units. Geotrailer Gas = 20 Units
Re-Cycle Gas Kick = 302 Units Bkgd Gas = 140 Units. Geotrailer Gas = 20 Units
Re-Zero Tooke Daq @ 4956'. Bkgd Gas in Geotrailer = 20 Units. Lag = 4947'
Mudco Mud


ROP (min/ft)
0
10
Gamma (API)
1
150
5000
5050
5100
5150
TG, C1-C5
1
10
100
1000
Ls Wht-Gry-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Chalk AA Wht Cht Tan-Amber Op/Translu Shp Vit Fos (Crin) Tr Pyr Inclus Sh Blk Carb AA -Char-Gry Fissil No Odor No Stn No Flor
Shp Vit Sh Blk Carb-Char Abd Fissil Ls Wht-Fxln Dns Micrite w/ Pyr Inclus Chat Drk Char Gry Op No Odor No Flor No Stn No Stn NS
Ls Wht-Crm-Tan Fxln Dns Micrite Chalk Wht AA Wht Cht Tan-Amber Abd Op-Translu Shp Vit Tr Pyr Inclus Fos (Crin) Sh Blk Carb Char-Gry Fissil No Odor No Stn No Flor NS
Ls Wht-Crm-Tan AA Fxln Dns Micrite Grad Poor-Fair Ixln Por w/tr Poor-Fair Vug Leaching Chalk AA Wht Cht Tan-Amber Abd Op-Translu Shp Vit Tr Pyr Inclus Sh Blk Carb Char-Gry Fissil No Odor NS
Ls Wht-Crm-Tan AA Fxln Dns Micrite Grad Poor-Fair Ixln Por w/tr Poor-Fair Vug Leaching Chalk AA Wht Cht Tan-Amber Abd Op-Trans Shp Vit Tr Pyr Inclus Sh Blk Carb Char-Gry-Grn Fissil No Odor No Flor NS
Ls Wht-Gry-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Poor Ixln Pin-Pt Por Chalk AA Wht Sh Blk Carb-Ghar-Red Fissil No Odor No Stn No Flor NS
Ls Wht-Gry-Crm Fxln Dns Micrite Grad Poor Ixln Por w/tr Pyr Inclu Chalk AA Wht Sh Char-Grn Fissil No Odor No Stn No Flor NS
Ls Wht-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Poor Ixln Pin-Pt Por Chalk AA Wht Cht Tan Transl/Op Shp Vit Fos (Crin, Fuss) Sh Char-Grn Fissil No Odor No Stn No Flor NS
Ls Gry-Crm Fxln Dns Micrite Grad Poor Ixln Por w/Tr Pyr Inclu Chalk AA Wht Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS
Ls Wht-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Chalk AA Sh Char Fissil No Odor No Stn No Flor NS
MORROW SHALE 5058' (- 2253)
Sh Char tr/Pale Grn tr/Pyr Inclu Fissil-Soft Ls Wht-Pale Grn Fxln w/OOL (V Small in pl) Fair Ixln Por Poor Interxln/OOL "Sandy" Por Friable Tr/Ls Fxln Dns Micrite AA Chalk No Flor No Stn No Odor NS
CHESTER 5070' (- 2265)
Ls Wht-Pale Grn Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Fair-Good Pin-Pt Por w/Fair-Med Ixln Por w/ Pyr Inclus wtTr Dec Micrtitc
Ls Wht-Pale Grn Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Fair-Good Pin-Pt Por w/Fair-Med Ixln Por W/Tr SG/SFO Ls Fxln Dns Micrite Sh Char-Gry-Grn-Red-Pale Grn Abd Fissil-Soft AA Faint Odor No Flor VSSG/SO
Ls Fxln Dns Micrite Cht Tan Transl Shp Vit Sh Char-Gry-Grn-Red-Pale Grn Abd Fissil-Soft) No Odor No Flor Fair-Med Ixln Por "Sandy" Pin-Pt Ixln Por Ls Fxln Dns Micrite No Odor No Flor NS
MISSISSIPPIAN "ST. GEN" 5097' (- 2292)
Ls Wht-Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Fair-Med Pin-Pt Por Friable w/tr Fair SG/SSO Ls Fxln Dns Micrite Chalk Sh Char-Gry Fissil Faint Odor No Flor (?) Tr/Brn Stn SG/SO
Ls Wht-Fxln AA w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Med-Good Pin-Pt Por Friable Ls Fxln Dns Micrite Sh Char-Gry-Pale Grn Tr/Blk Carb Fissil No Odor No Flor No Stn NS
Ls Wht-Fxln AA w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Med-Good Pin-Pt Por Friable Ls Fxln Dns Micrite Fos (Crin) Sh Char-Gry-Pale Grn-Red Fissil No Odor No Flor No Stn NS
30" CFS Ls Wht-Fxln w/OOL (Small-Med Inc in size in pl) Fair-med InterOOL Por Inc Ixln Por "Sandy" AA Poor-Fair Dis Fair Devel Tr/Fair Pin-Pt Ixln Por Inc Friable Tr/ (1 Pcs W/SSO/ Dead Oil Stn Dns Micritic AA Chalk Sh Char-Gry-Grnw/tr Blk Carb Fissil-Soft No Odor No Flor No Stn NS
60" CFS Ls Wht-Fxln w/OOL (Small) in pl Fair Ixln Por "Sandy" Fair Pin-Pt Por Friable Grad Ls Wht Fxln Dns Micrite Sh Char-Gry-Grn-Red Fissil No Odor No Flor No Stn NS
Ls Wht Fxln Grad Dns Micrite Cht Wht-Gray Banded-Amber Inc Op Shp Vit Tr Chalk Sh Char-Gry-Grn w/Pyr Inclus No Odor No Flour No Stn NS
Ls Wht Fxln Grad Dns Micrite Cht Wht-Gray Banded-Amber Inc Op Shp Vit Tr Chalk Sh Char-Gry-Grn w/Pyr Inclus No Odor No Flour No Stn NS
ST. LOUIS 5162' (- 2357)
Ls Wht Fxln Grad Dns Micrite Grad Fxln OOL Por w/Poor InterOOL Por Cht Wht-Gray Banded-Amber Inc Op Shp Vit Tr Chalk Sh Blk Carb-Char-Gry-Grn w/Pyr Inclus No Odor No Flour No Stn NS
Ls Wht Fxln Grad Dns Micrite Grad Fxln OOL Por w/ OOL in pl Inc in size w/Inc Fair InterOOL Por w/ tr Pyr Inclus Cht Wht-Gry Banded-Amber Inc Op Shp Vit Tr Chalk Sh Blk Carb-Char-Gry-Grn-Aqua w/Pyr Inclus No Odor ? Sli Min Flour No Stn NS
Ls Wht Fxln Grad Fxln OOL Por w/ OOL in pl Inc Med in Size w/Inc Fair-Med InterOOL Por Fair Dis Poor-Fair Develop Cht Wht-Gray Banded-Amber Inc Op Shp Vit Tr Chalk Sh Blk Carb AA-Char-Gry-Grn-Aqua w/Pyr Inclus No Odor ? Sli Min Flour No Stn NS
Ls Wht Fxln Grad Dns MicriteGrad Fxln OOL Por w/ OOL in pl Inc in size w/Inc Fair InterOOL Por w/ tr
Mudco Mud Ck @ 5264' @ 3:55 PM 5/16/11; Vis 46; Wt 9.1#; Pv 15; Yp 16; WL 8.0; Cake 1; Chl = 1750 Ppm; Cal 20; Sol. 5.6; LCM 3#;
DMC= $ 2059.15
CMC= $23,302.15
CFS 5140' 30"-60"
Mudco Mud Ck @ 4954' @ 3:55 PM 5/15/11; Vis 54; Wt 9.2#; Pv 17; Yp 18; WL 8.4; Cake 1; Chl = 2400 Ppm; Cal 20; Sol. 6.3; LCM 2#;
DMC= $ 112.20
CMC= $21,242.90
Shale Gas Kick @ 4974' = 370 Units Bkgd Gas = 210 Units.
Geotrailer Gas = 20 Units.
Gas Kick = 397 Units @ 5126' Lag Depth.
Replace Gas Filaement @ 5140'.
Gas Test Extractor @ 5153'. Lag = 5143'= 740 Units. Bkgd= 158 Units.



Pyr Inclus Cht Wht-Gry Banded-Amber Inc Op Shp Vit Tr Chalk Sh Blk Carb-Char-Red w/Pyr Inclus No Odor ? Sli Min Flour No Stn NS

Ls Crm-Wht-Fxln w/OOL (Med in size & in pl) Fair Inc InterOOL Por Fair Dis Fair Develop Friable Tr/ Dns Micritic AA Cht Tan Op Poor Vis Por Shp Vit Tr Chalk Sh Tr Blk Carb Tr/Red Fissil-Soft No Odor No Flor No Stn NS

_____ ST. LOUIS "B" Por 5210' (- 2405) _____

Ls Crm-Wht-Fxln w/OOL (Med-Lg in size & in pl) Fair-Med Inc InterOOL Por Fair-Med Dis Fair-Med Develop Friable W/ tr (2 Pcs) Fxln InterOOL Por w/ "Dead Oil Stn" w/ VSSG (under heat) Tr/ AA Dns Micritic Chalk Sh Tr Carb-Grn Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxln Fxln Dns Micrite Grad Tr Poor-Fair OOM Por w/OOL (Med-Lg in size & in pl) Fair-Med Inc InterOOL Por Fair-Med Dis Fair-Med Develop Friable Tr/ AA Dns Micritic Chalk Sh Tr Carb-Grn Fissil-Soft No Odor No Flor No Stn NS

_____ ST. LOUIS LWR "B" 5230' (- 2425) _____

30" CFS Ls Crm-Gry Fxln Grad Poor-Fair OOL Por w/OOL (F-M in size & in pl) Poor-Fair InterOOL Por Poor-Fair Dis Poor- Fair Develop Friable Chalk Sh Char-Grn-Red Fissil-Soft No Odor No Flor No Stn NS

60" CFS Ls Wht-Crm-Gry Fxln Grad Poor-Fair OOL Por w/OOL (F-M in size & in pl) Poor-Fair InterOOL Fxln Por Friable Chalk Sh Char-Grn-Red Fissil-Soft No Odor No Flor No Stn NS

90" CFS Ls Wht-Crm-Gry Fxln Grad Poor-Fair OOL Por w/OOL (F-M in size & in pl) Poor-Fair InterOOL Fxln Por Friable Tr Poor OOM Por w/Tr/Vug Leaching Poor InterOOM Por Poor Develop Cht Wht Op Shp Vit Chalk Sh Blk Carb Char-Grn-Red Fissil-Soft No Odor No Flor No Stn NS

Ls Wht Fxln Grad Poor-Fair OOL Por w/OOL (Small Granular in size & in pl) Poor-Fair InterOOL Fxln Por Friable Chalk Sh Blk Char-Grn Fissil-Soft No Odor No Flor No Stn NS

Ls Wht Fxln Grad Poor-Fair OOL Por w/OOL (Small Granular in size & in pl) Poor-Fair InterOOL Fxln Por Friable Chalk Pyr Mass Sh Blk Char-Red Fissil-Soft No Odor No Flor No Stn NS

Ls Wht Fxln Grad Poor-Fair OOL Por w/OOL (Small Granular in size & in pl) Poor-Fair InterOOL Fxln Por Friable Chalk Sh Blk Char-Grn Fissil-Soft No Odor No Flor No Stn NS

Ls Wht-Gry Fxln Grad Poor-Fair OOL Por w/OOL (Small Granular in size & in pl) Poor-Fair InterOOL Fxln Por Friable Chalk Cht Wht Op Shp Vit Sh Blk Char-Red Fissil-Soft No Odor No Flor No Stn NS

30" CFS Ls Wht-Gry Fxln Grad Poor-Fair OOL Por w/OOL (S-F-M in size & in pl) Poor-Fair InterOOL Fxln Por Friable Chalk Cht Wht Op Shp Vit Sh Blk Char-Grn Fissil-Soft No Odor ? Sli Tr ? Min Flor No Stn NS

60" CFS Ls Wht-Gry Fxln Grad Poor-Fair OOL Por w/OOL (S-F-M in size & in pl) Poor-Fair InterOOL Fxln Por Friable Chalk Cht Wht Op Shp Vit Sh Blk Char-Grn Fissil-Soft No Odor ? Sli Tr ? Min Flor No Stn NS

DST # 6 5180'-5306" (Straddle) Times: 5"-90"-90"-120" Blow: IF Weak Blow to 1/2 "; FF Weak Blow to 3.0"; Recovery: TF= 195 ' Mud. Pressures: IH 2422#; FH 2386#; IF 62-60#; FF 66-123#; ISIP 1523#; FSIP 1393#; Temp= 125 Degrees F.

Ls Crm-Wht-Fxln Fxln Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop Mostly Fxln Dns Micritic Chalk Sh Tr Char Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxln Fxln Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop Mostly Fxln Dns Micritic Chalk Cht Wht (Tr Only) Op Shp Vit Sh Tr Char Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxln Fxln Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop w/Pyr Inclus Mostly Fxln Dns Micritic Chalk Inc Cht Wht Abd Op Shp Vit Sh Tr Char Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxln Fxln Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop w/Pyr Inclus Mostly Fxln Dns Micritic Chalk Inc Cht Wht Abd Op Shp Vit Sh Tr Char Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxln Fxln Dns Micrite AA Tr Dolo Gry Fxln Poor Ixln Por Chalk Inc Cht Gry Op Shp Vit Sh Tr Char-Aqua Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxln Fxln Dns Micrite AA Tr Dolo Gry Fxln Poor Ixln Por Chalk Inc Cht Gry Op Shp Vit V Abd Sh Tr Char-Aqua Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxln Fxln Dns Micrite AA Tr Dolo Gry Fxln Poor Ixln Por Chalk Inc Cht Gry Op Shp Vit V Abd Sh Tr Char-Aqua Fissil-Soft No Odor No Flor No Stn NS

_____ SALEM (SPERGEN) 5366' (- 2561) _____

Dolo Tan-Brn Fxln Dns Micrite "Blocky" No Vis Por Assoc w/ LS Crm-Tan Grad Tab AA Fxln OOL Por w/ OOL in pl Poor InterOOL Por Grad to Fxln Dns Micritic Cht Wht OP Shp Vit Abd Chalk Wht Sh Pale-Drab Grn- Fissil-Soft No Odor No Flor No Dtn NS

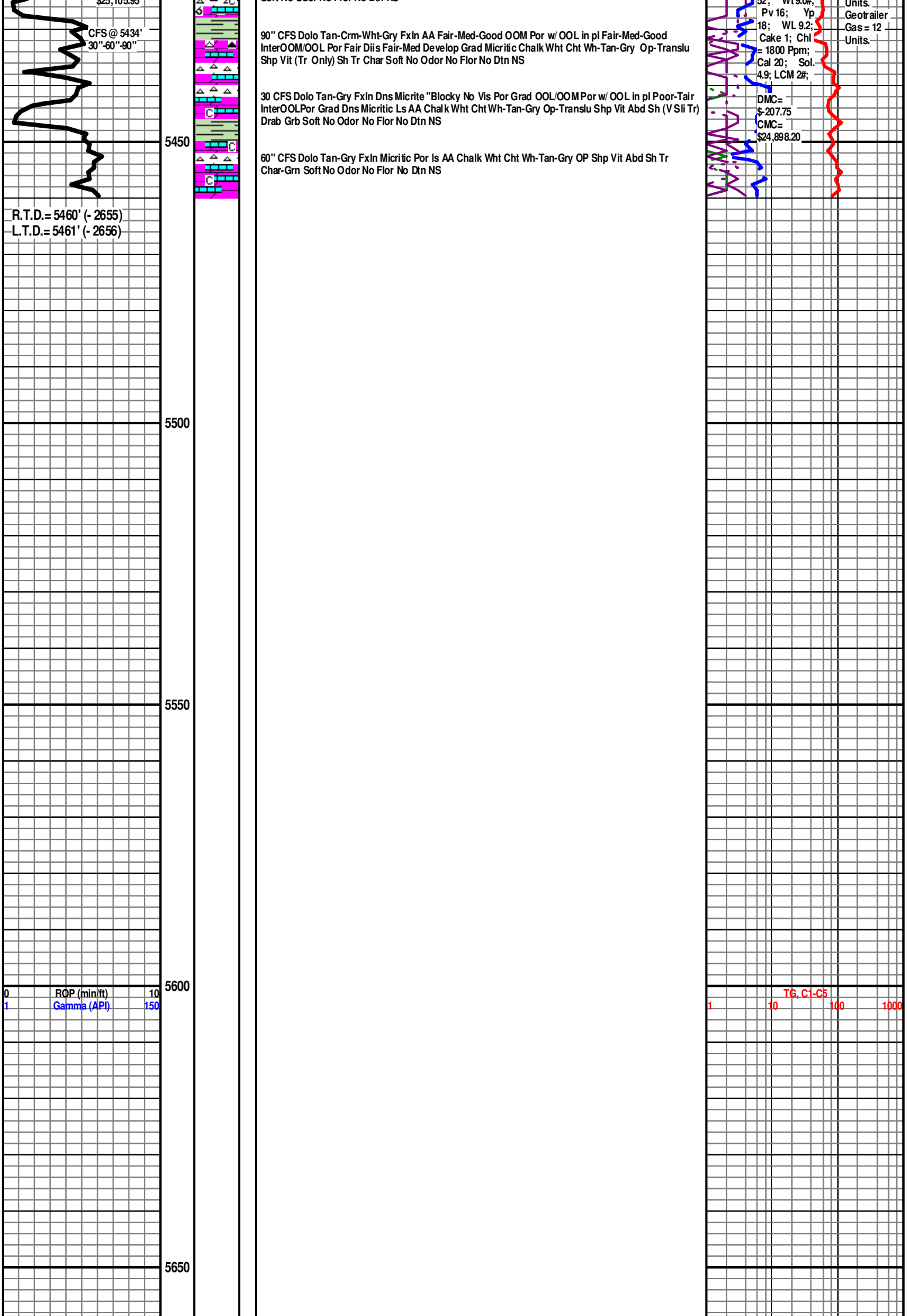
Dolo Tan-Brn Fxln Dns Micrite Grad Fair OOM Por Tr Fair-Med Dis Fair Develop Fair Leaching Assoc w/ Abd LS Crm-Tan Grad Tan AA Fxln OOM Por w/ OOL in pl Poor InterOOL Por Grad to Fxln Dns Micritic Cht Wht-Brn "Banded: OP Shp Vit Abd Chalk Wht Sh Pale-Drab Grn- Aqua Fissil-Soft No Odor No Flor No Dtn NS

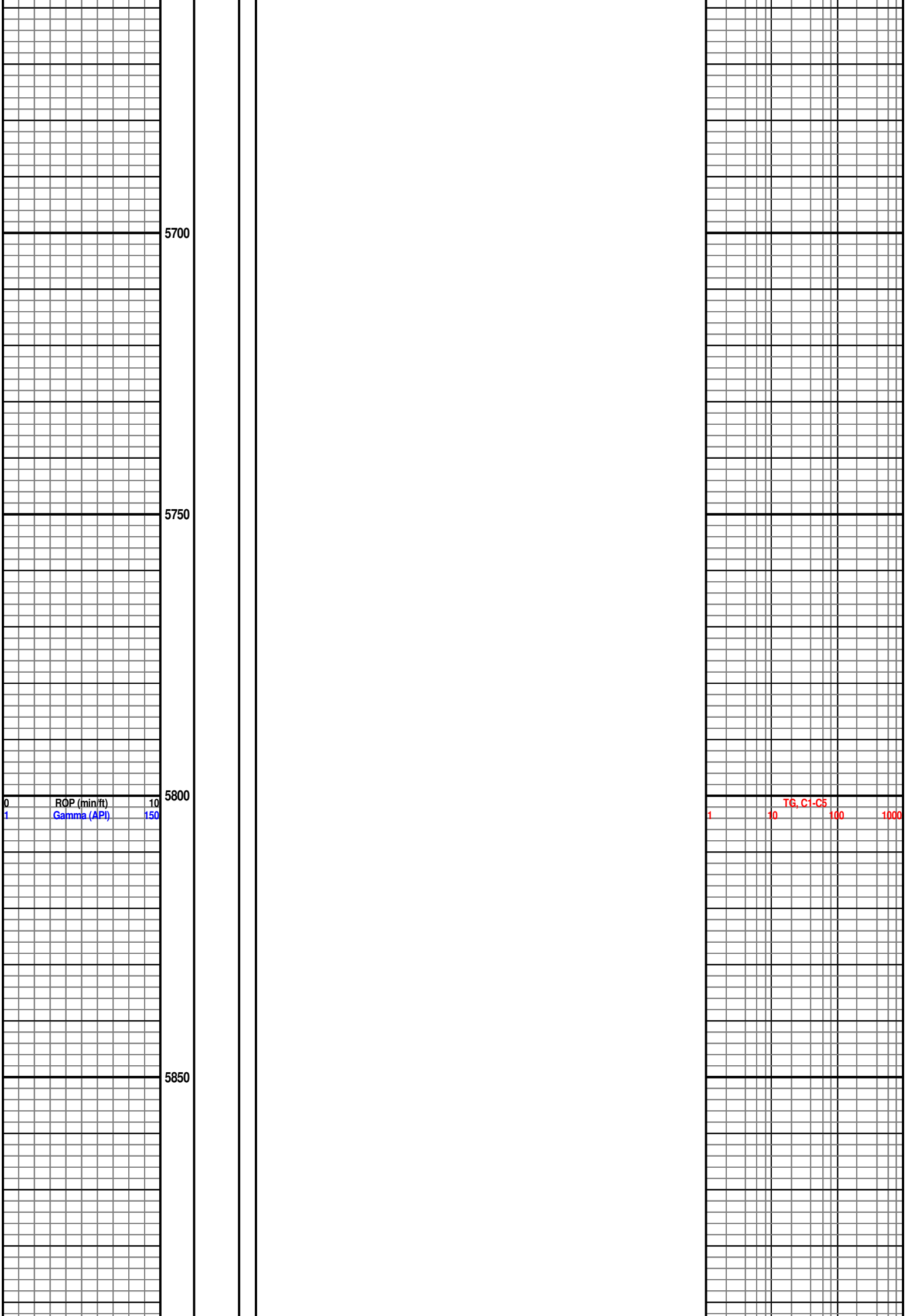
Dolo Tan-Brn Fxln Dns Micrite "Blocky" No Vis Por Assoc w/ LS Crm-Tan Grad Tab AA Fxln OOL Por w/ OOL in pl Poor InterOOL Por Grad to Fxln Dns Micritic Cht Wht OP Shp Vit Abd Chalk Wht Sh Pale-Drab Grn- Fissil-Soft No Odor No Flor No Dtn NS

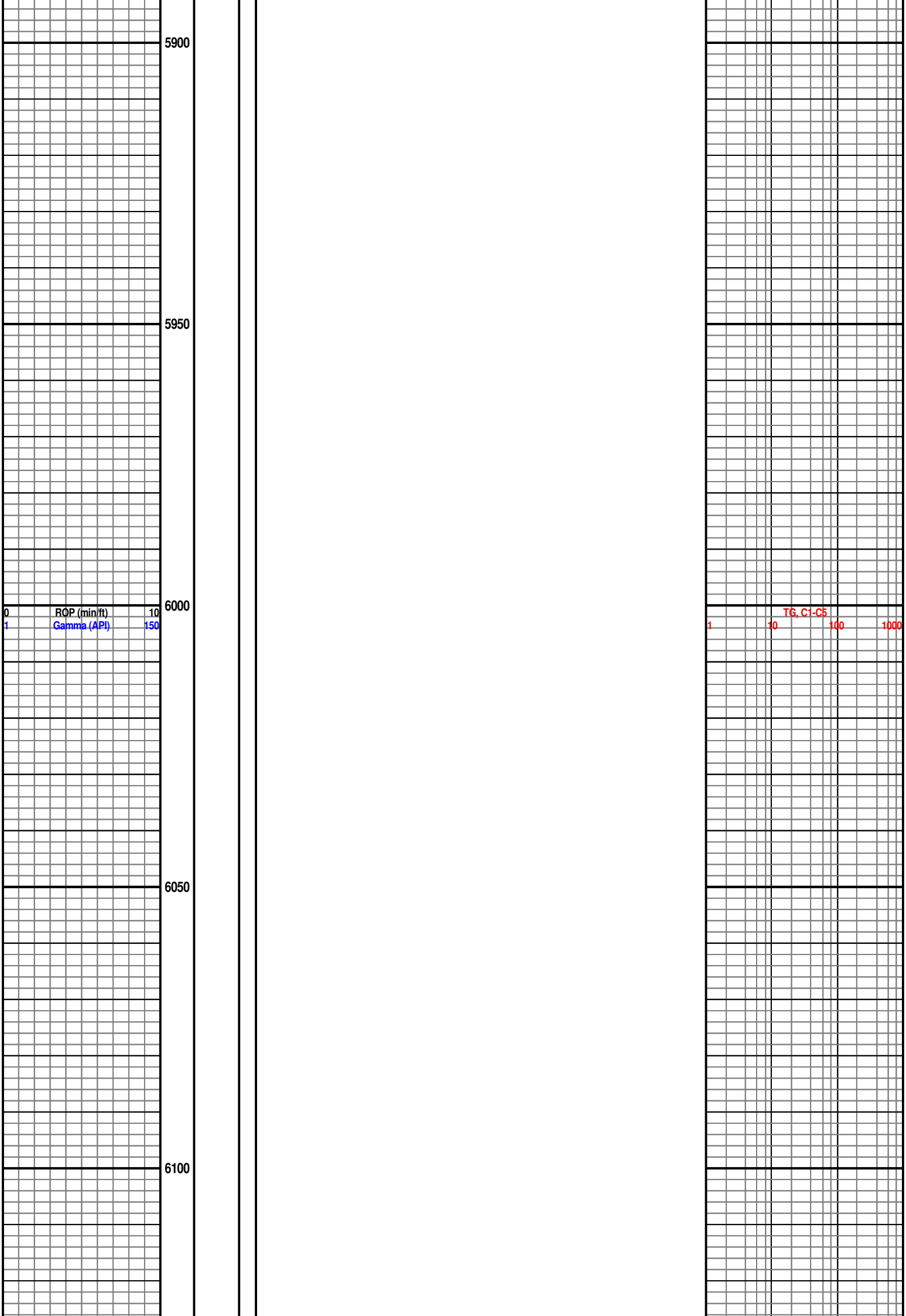
Dolo Tan-Brn Fxln Dns Micrite "Blocky" No Vis Por Assoc w/ LS Crm-Tan Grad Tab AA Fxln OOL Por w/ OOL in pl Poor InterOOL Por Grad to Fxln Dns Micritic Cht Wht OP Shp Vit Abd Chalk Wht Sh Pale-Drab Grn- Fissil-Soft No Odor No Flor No Dtn NS

30" CFS Dolo Tan-Brn Fxln Fair-Med-Good OOM Por w/ OOL in pl Fair-Med-Good InterOOM/OOL Por Fair Diis Fair-Med Develop Chalk Wht Cht Wh-Tan -Gry OP Shp Vit Sh Tr CharSoft No Odor No Flor No Dtn NS

60" CFS Dolo Tan-Crm-Brn AA Fxln Fair-Med-Good OOM Por w/ OOL in pl Fair-Med-Good InterOOM/OOL Por Fair Diis Fair-Med Develop Chalk Wht Cht Wh-Tan-Gry OP Shp Vit Abd Sh Tr Char Soft No Odor No Flor No Dtn NS


$25,105.95
CFS @ 5434'
30"-60"-90"
5450
R.T.D.= 5460' (- 2655)
L.T.D.= 5461' (- 2656)
5500
5550
5600
5650
0
ROP (min/ft)
10
1
Gamma (API)
150
90" CFS Dolo Tan-Crm-Wht-Gry Fxln AA Fair-Med-Good OOM Por w/ OOL in pl Fair-Med-Good InterOOM/OOL Por Fair Diis Fair-Med Develop Grad Micritic Chalk Wht Cht Wh-Tan-Gry Op-Translu Shp Vit (Tr Only) Sh Tr Char Soft No Odor No Flor No Dtn NS
30 CFS Dolo Tan-Gry Fxln Dns Micrite "Blocky No Vis Por Grad OOL/OOM Por w/ OOL in pl Poor-Tair InterOOLPor Grad Dns Micritic Ls AA Chalk Wht Cht Wh-Tan-Gry Op-Translu Shp Vit Abd Sh (V Sli Tr) Drab Grb Soft No Odor No Flor No Dtn NS
60" CFS Dolo Tan-Gry Fxln Micritic Por ls AA Chalk Wht Cht Wh-Tan-Gry OP Shp Vit Abd Sh Tr Char-Grn Soft No Odor No Flor No Dtn NS
32; Wt 9.0#; Pv 16; Yp 18; WL 9.2; Cake 1; Chl = 1800 Ppm; Cal 20; Sol. 4.9; LCM 2#;
DMC= $-207.75
CMC= $24,898.20
Units.
Geotrailer Gas = 12 Units.
TG, C1-C5
1
10
100
1000


5700
5750
5800
5850
0
ROP (min/ft)
10
1
Gamma (API)
150
TG, C1-C5
1
10
100
1000


5900
5950
6000
6050
6100
0
ROP (min/ft)
10
1
Gamma (API)
150
TG, C1-C5
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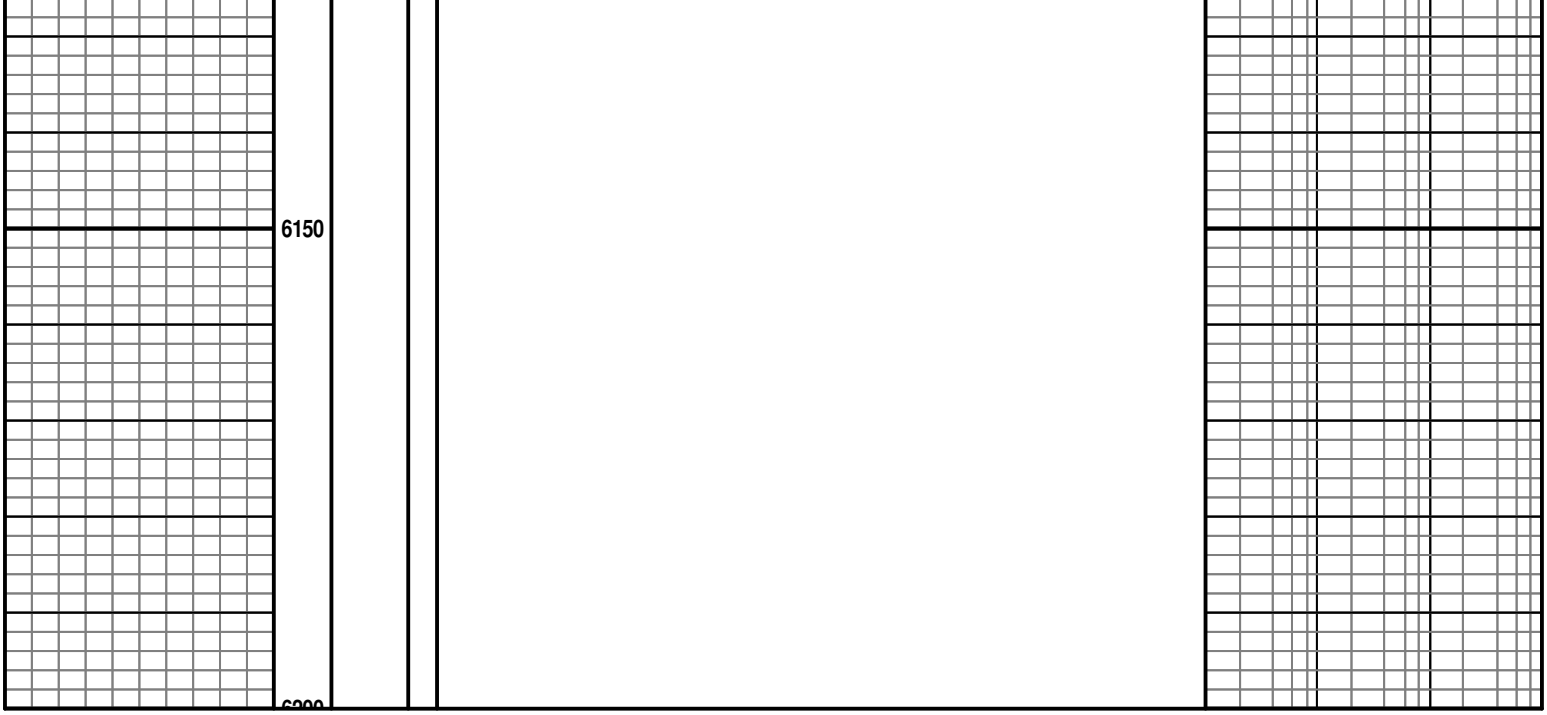
6150

ALLIED CEMENTING CO., LLC. 036642

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Liberal Ks

DATE 5-5-11	SEC 17	TWP. 28S	RANGE 29W	CALLED OUT	ON LOCATION	JOB START 6:00 pm	JOB FINISH 7:00 pm
LEASE Robertson	WELL # 1-17	LOCATION Copeland Ks				COUNTY Gray	STATE Ks
OLD OR NEW (Circle one)							

CONTRACTOR Sterling Drlg #5
TYPE OF JOB 8 5/8 S. Surface
HOLE SIZE 12 1/4" T.D.
CASING SIZE 8 5/8 DEPTH 1876'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 1600 psi MINIMUM 6
MEAS. LINE SHOE JOINT 42'
CEMENT LEFT IN CSG. 92'
PERFS.
DISPLACEMENT 116.5

OWNER Same

EQUIPMENT

PUMP TRUCK CEMENTER Bob
372 HELPER Ceasar
BULK TRUCK
470/467 DRIVER Beto
BULK TRUCK
457/625 DRIVER Emily

REMARKS:

Thank You

CEMENT

AMOUNT ORDERED 675 SK 65/35 6% Gel 3% CC 1/4# Flo Seal
150 A 3% CC 2% Gel

COMMON	150 "A"	@ 16.25	2437.50
POZMIX		@	
GEL	3SK	@ 21.25	63.75
CHLORIDE	CC 2.75K	@ 58.20	1571.40
ASC		@	
	675 LITE	@ 15.00	10,125.00
		@	
	Flo Seal 169LB	@ 2.70	456.30
		@	
		@	
		@	
		@	
		@	
HANDLING	861	@ 2.25	1937.25
MILEAGE	5K/mi .11		4735.50
		TOTAL	21326.70

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			1925.00
EXTRA FOOTAGE		@	
MILEAGE	100mi	@ 7.00	700.00
MANIFOLD	+Head	@	200.00
CT Veh mi	100mi	@ 4.00	400.00
		@	
		TOTAL	3225.00

PLUG & FLOAT EQUIPMENT

8 5/8

1- 5W Top Plug	@ 117.00	117.00
5- Centralizers	@ 47.00	1917.00
4- Basket	@ 64	320.00
1- Guide Shoe	@ 394	394.00
1- AFU	@ 352	352.00
	TOTAL	3120.00

CHARGE TO: Falcon Exp
STREET
CITY STATE ZIP

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME
SIGNATURE

ALLIED CEMENTING CO., LLC. 037201

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Great Bend KS

DATE 5-19-2011	SEC. 17	TWP. 28S	RANGE 29W	CALLED OUT	ON LOCATION	JOB START 7:00AM	JOB FINISH 8:30AM
LEASE Robertson	WELL # 1-17NE	LOCATION Montezuma KS, 4W 3N 1/2E 5/in To				COUNTY Gray	STATE KS,
OLD OR (NEW) (Circle one)							

CONTRACTOR Sterling #5
TYPE OF JOB Plug
HOLE SIZE 7 7/8 T.D. 1890 FT
CASING SIZE DEPTH
TUBING SIZE DEPTH
DRILL PIPE 4 1/2 DEPTH 1890 FT
TOOL DEPTH
PRES. MAX 250 PSI MINIMUM —
MEAS. LINE SHOE JOINT —
CEMENT LEFT IN CSG. —
PERFS.
DISPLACEMENT Fresh Water & Mud

OWNER Falcon Exploration

CEMENT

AMOUNT ORDERED 220 SX 60/40/4% Gel + 1/4# Flo-seal

EQUIPMENT

PUMP TRUCK CEMENTER David W.
224 HELPER Bob R.
BULK TRUCK
341 DRIVER Kevin W.
BULK TRUCK
DRIVER

COMMON	132	@ 16.25	2145.00
POZMIX	88	@ 8.50	748.00
GEL	8	@ 21.25	170.00
CHLORIDE		@	
ASC		@	
Flo Seal	55	@ 2.70	148.50
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	230	@ 2.25	517.50
MILEAGE	230 x 60 x .11		1,518.00
		TOTAL	5,247.00

REMARKS:

1ST Plug at 1890 FT Mix 50sx Cement
2ND Plug at 780 FT Mix 50sx Cement
3RD Plug at 390 FT Mix 50sx Cement
4TH Plug set 60 FT Mix 20sx Cement
20sx in Mouse Hole
30sx in Rat Hole
Washup Rig Down.

SERVICE

DEPTH OF JOB 1890 FT

PUMP TRUCK CHARGE			1250.00
EXTRA FOOTAGE		@	
MILEAGE	120	@ 7.00	840.00
MANIFOLD		@	
light Truck	120	@ 4.00	480.00
		@	
		TOTAL	2570.00

CHARGE TO: Falcon Exploration
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

		@	
		@	
		@	
		@	
		@	
		TOTAL	

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME X Alan Loftis

SIGNATURE X ALAN LOFTIS

Thank You!