



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1107470
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: _____



1107470

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	IRISH FLATS 1-4(NE)
Doc ID	1107470

All Electric Logs Run

DIL
MEL
BHCS
CNL/CDL

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	IRISH FLATS 1-4(NE)
Doc ID	1107470

Tops

Name	Top	Datum
ROOT SHALE	3498	-692
STOTLER	3523	-717
TARKIO	3585	-779
LANSING	4236	-1430
CHEROKEE	4856	-2050
MRW SH	5048	-2242
MRW LS	5052	-2246
ST GEN	5130	-2324
ST LOUIS	5200	-2394

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



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

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

Sam Brownback, Governor

January 10, 2013

CYNDE WOLF
Falcon Exploration, Inc.
125 N MARKET STE 1252
WICHITA, KS 67202-1719

Re: ACO1
API 15-069-20396-00-00
IRISH FLATS 1-4(NE)
NE/4 Sec.04-28S-30W
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,
CYNDE WOLF

DIAMOND TESTING

General Information Report

General Information

Company Name FALCON EXPLORATION, INC.
Contact MIKE MITCHELL
Well Name IRISH FLATS #1-4 (NE)
Unique Well ID DST #1, ST. LOUIS L. "B", 5268-5296
Surface Location SEC 4-28S-30W, GRAY CO. KS.
Field WILDCAT
Well Type Vertical
Test Type CONVENTIONAL
Formation DST #1, ST. LOUIS L. "B" 5268-5296
Well Fluid Type 01 Oil

Representative TIM VENTERS
Well Operator FALCON EXPLORATION, INC.
Report Date 2012/09/30
Prepared By TIM VENTERS
Qualified By DAVE WILLIAMS

Start Test Date 2012/09/30
Final Test Date 2012/09/30

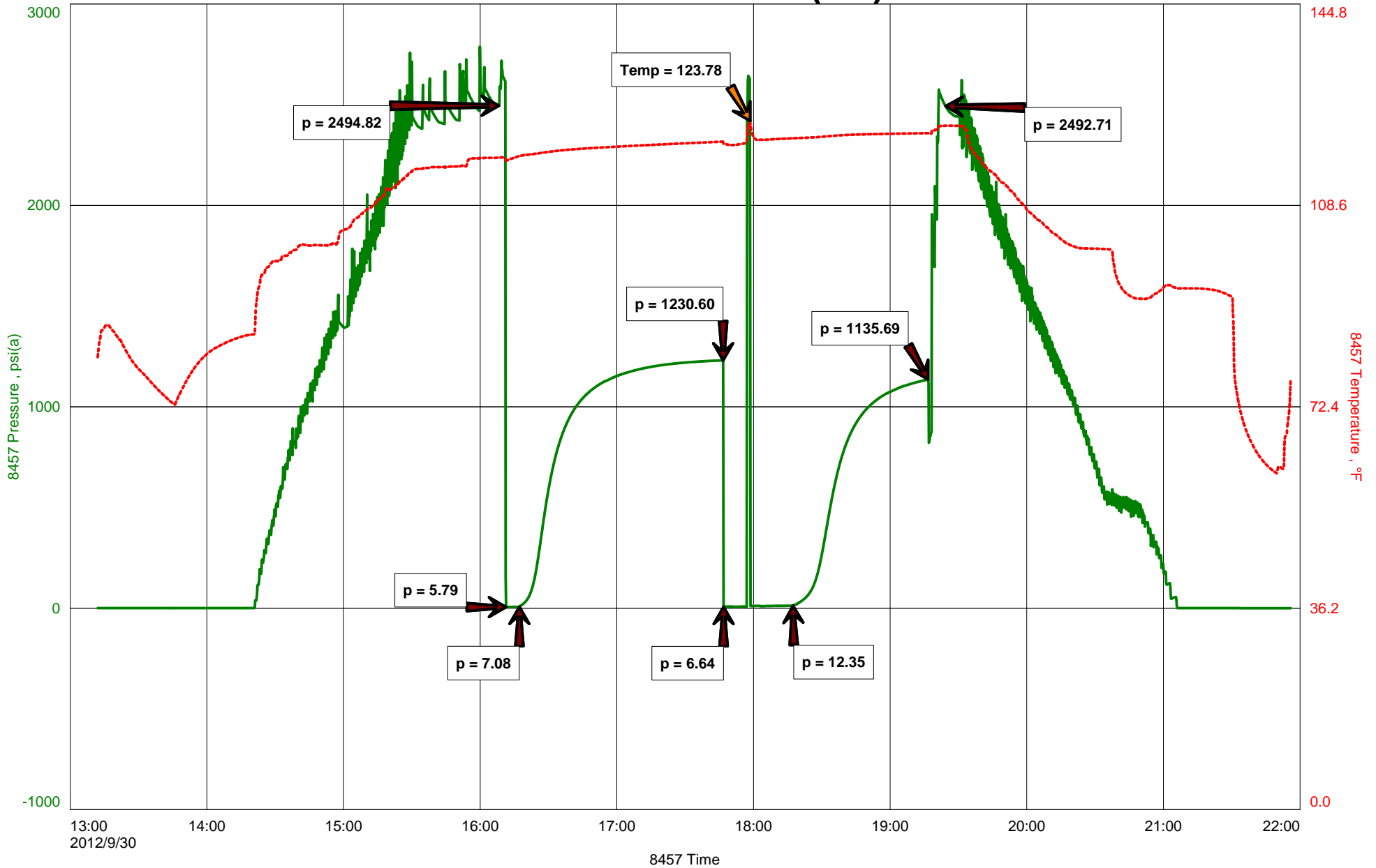
Start Test Time 13:12:00
Final Test Time 21:56:00

Test Recovery:

RECOVERED: 10' VSOCM, 1% OIL, 99% MUD

TOOL SAMPLE: 6% OIL, 94% MUD

IRISH FLATS #1-4 (NE)





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: _____

TIME ON: _____
TIME OFF: _____

Company _____ Lease & Well No. _____
Contractor _____ Charge to _____
Elevation _____ Formation _____ Effective Pay _____ Ft. Ticket No. _____
Date _____ Sec. _____ Twp. _____ S Range _____ W County _____ State **KANSAS**
Test Approved By _____ Diamond Representative _____

Formation Test No. _____ Interval Tested from _____ ft. to _____ ft. Total Depth _____ ft.
Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Bottom Recorder Depth (Outside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type _____ Viscosity _____ Drill Collar Length _____ ft. I.D. 2 1/4 in.
Weight _____ Water Loss _____ cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.
Chlorides _____ P.P.M. Drill Pipe Length _____ ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number _____ Test Tool Length _____ ft. Tool Size 3 1/2-IF in.
Did Well Flow? _____ Reversed Out _____ Anchor Length _____ ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: _____
2nd Open: _____

Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
	Total

Time Set Packer(s) _____ A.M. P.M. Time Started Off Bottom _____ A.M. P.M. Maximum Temperature _____
Initial Hydrostatic Pressure..... (A) _____ P.S.I.
Initial Flow Period..... Minutes _____ (B) _____ P.S.I. to (C) _____ P.S.I.
Initial Closed In Period..... Minutes _____ (D) _____ P.S.I.
Final Flow Period..... Minutes _____ (E) _____ P.S.I. to (F) _____ P.S.I.
Final Closed In Period..... Minutes _____ (G) _____ P.S.I.
Final Hydrostatic Pressure..... (H) _____ P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



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

Well Name: IRISH FLATS #1-4 (NE)
Location: N2-SW-NW-NE 1/4 SEC. 4 - 28 S. - 30 W.
License Number: A.P.I. #15-069-20396-00-00
Spud Date: 09/21/12
Surface Coordinates: 860' FNL & 2310' FEL

Region: GRAY CO., KS.
Drilling Completed: 10/01/12

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2793' **K.B. Elevation (ft):** 2806'
Logged Interval (ft): sURFACE To: 5401' **Total Depth (ft):** 5422' LTD
Formation: MISSISSIPPIAN
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

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

GEOLOGIST

Name: David P. Williams
Company: DW Energy, LLC
Address: 312 North Broadview Street
Wichita, Kansas 67208

CASING & DEVIATION

Drilled 12-1/4" to 1864'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 1839'. Set at 1859' KB. Welded straps on GS & bottom 3 joints, then tack welded all collars. Float insert in 1st collar. Centralizers (4) 1,3,22 & 40. Basket (3) 1,39 & 41'. Cemented with 450 sks Class A 2% Gel, 2% Gyp, 2% METSA & 1/4# FS. Tailed with 150 sks Class A; 2% CC. Cement did circulate to surface. Plug down at 12:30 pm on 09/23/12. Allied Cementing. Ticket #52470.

Deviation Survey's Taken: @ 1864' = 3/4 degree; @ 5000' = 3/4 degree; @ 5000' = 3/4 degree;

DSTs

DST # 1 5268'-5296'. Times: 5"-90"-30"-60".

Blow: IF= Weak 1/4" Surface Blow; FF Weak 1/4" Blow/ Died@ 10". Flushed Tool @ 20". Had Surge & Blow Died.

Recovery: 10' VSOCM (1% O & 99% M).

Pressures: IH = 2495#; FH = 2493#; IF = 6-7#; FF= 7-12#; ISIP = 1231#; FSIP = 1136#; Temp = 124 Degrees F.


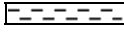

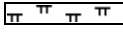
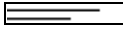
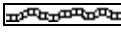




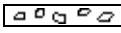







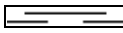




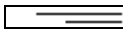
Comments

After review of all geologic samples as examined, combined with the fluid and pressures results from all drill stem tests taken and analysis from the electric logs run, it was determined by all parties that this well appears to be non-commercial and should be plugged and abandoned.











































































Respectfully submitted,

David P. Williams, P.G

























ROCK TYPES

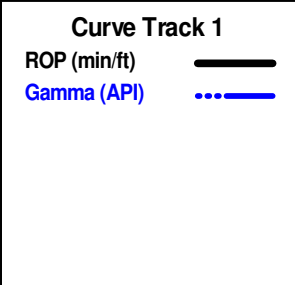
 Anhy	 Clyst	 Gry shale	 Mrlst	 Shgy
 Bent	 Coal	 Gyp	 Red shale	 Sltst
 Brec	 Congl	 Igne	 Salt	 Ss
 Carb sh	 Dol	 Lmst	 Shale	 Till
 Cht	 Grn sh	 Meta	 Shcol	

ACCESSORIES

MINERAL			
 Anhy	 Gyp	 Amph	 Pelec
 Arggrn	 Hvymin	 Belm	 Pellet
 Arg	 Kaol	 Bioclst	 Pisolite
 Bent	 Marl	 Brach	 Plant
 Bit	 Minxl	 Bryozoa	 Strom
 Brecfrag	 Nodule	 Cephal	
 Calc	 Phos	 Coral	STRINGER
 Carb	 Pyr	 Crin	 Anhy
 Chtdk	 Salt	 Echin	 Arg
 Chtlt	 Sandy	 Fish	 Bent
 Dol	 Silt	 Foram	 Coal
 Dol	 Sil	 Fossil	 Dol
 Feldspar	 Sulphur	 Fuss	 Gyp
 Ferrpel	 Tuff	 Gastro	 Ls
 Ferr		 Oolite	 Mrst
 Glau	FOSSIL	 Oomold	 Sltstrg
	 Algae	 Ostra	 Sandylms
			TEXTURE
			 Boundst
			 Chalky
			 Cryxln
			 Earthy
			 Finexln
			 Grainst
			 Lithogr
			 Microxln
			 Mudst
			 Packst
			 Wackest

OTHER SYMBOLS

POROSITY	 Vuggy	ROUNDING	 Even
 Earthy		 Rounded	 Spotted
 Fenest	SORTING	 Subrnd	 Ques
 Fracture	 Well	 Subang	 Dead
 Inter	 Moderate	 Angular	
 Moldic	 Poor		EVENT
 Organic		OIL SHOW	 Rft
 Pinpoint		 Gas show	 Sidewall
			INTERVAL
			 pipesymbol
			 Core



Depth (ft)

25

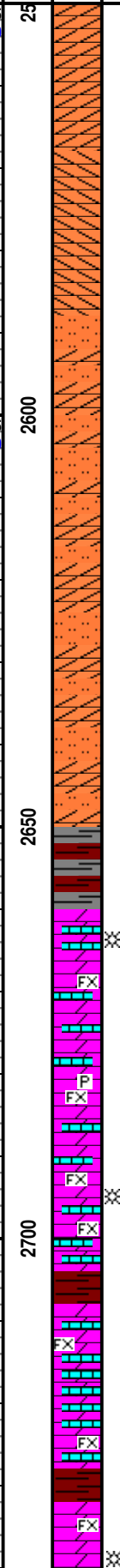
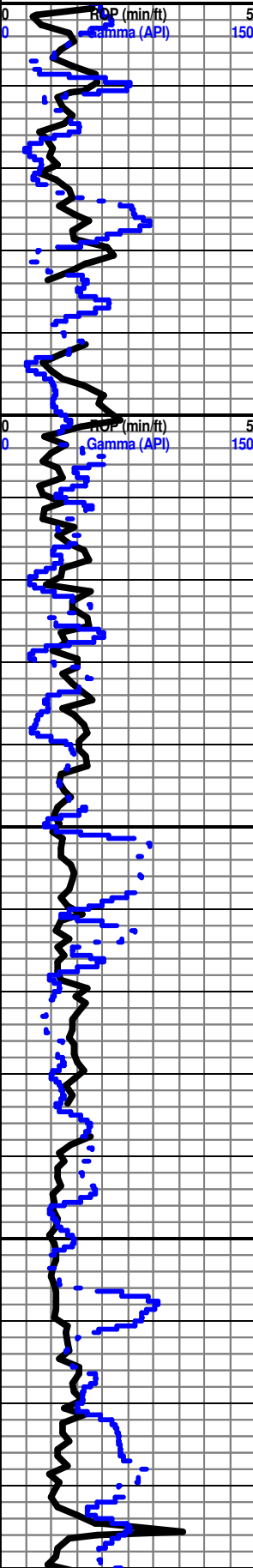
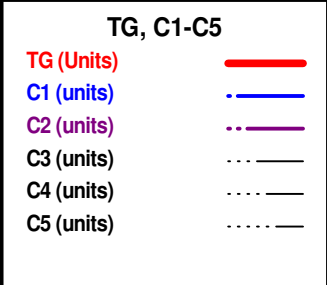
2600

2650

2700

Oil Shows

Geological Descriptions



FALCON EXPLORATION, INC.

IRISH FLATS #1-4 (NE)

860' FNL & 2310' FEL (N2-SW-NW-NE 1/4)

SEC. 4 - 28 S. - 30 W.

GRAY COUNTY, KANSAS

A.P.I. #15-069-20396-00-00

ELEVATION : 2806' K.B. ; 2793' G.L.

CONTRACTOR: STERLING DRILLING RIG # 5

GEOLOGIST: DAVID P. WILLIAMS, P.G.

Stone Coral Anhydrite Sample Top = 1811' (+995) Base = 1825' (+981).

Deviation Survey's Taken: @ 1864' = 3/4 degree; @ 5000' = 3/4 degree; @ 5296' = 3/4 degree.

Note: All samples have been lagged to depth by calculated time.

Begin 20' Sample Examination @ 2640'.

Anhy/Gyp Wht-Translu-Op Ls Wht FxIn Micrite Sh Red-Maroon V Abd-Gry
Soft-Fissil No Odor No Stn No Flor NS

CHASE GROUP 2660' (+ 146)

Dolo Wht-Gry FxIn Micrite Sh Red-Maroon-Gry Soft-Fissil No Odor No Stn No Flor NS

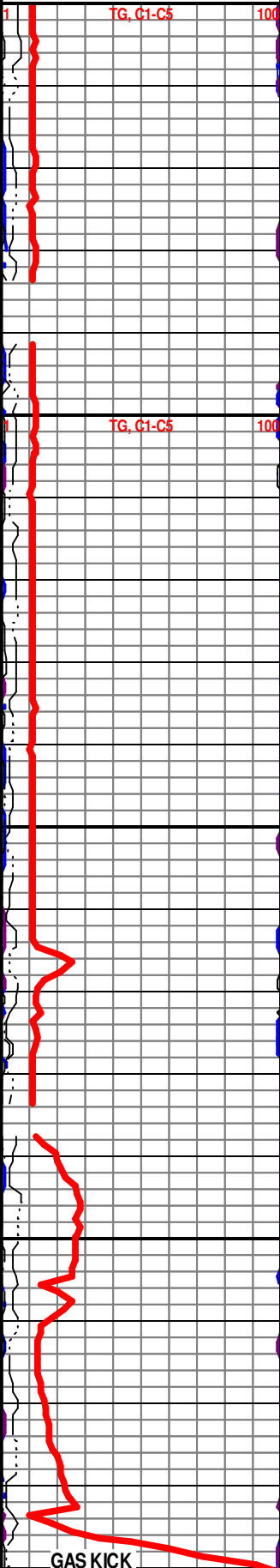
Dolo Wht-Gry FxIn Micrite Pyr Mass Sh Red-Maroon-Gry Soft-Fissil No Odor No Stn No Flor NS
Geologist: David P. Williams on location @ 10:45 PM 9-24-12 @ 2685'

Dolo Wht-Gry FxIn Micrite Sh Red-Maroon-Gry Soft-Fissil No Odor No Stn No Flor NS

Dolo Wht-Gry FxIn Micrite Sh Red-Maroon-Gry Soft-Fissil No Odor No Stn No Flor NS

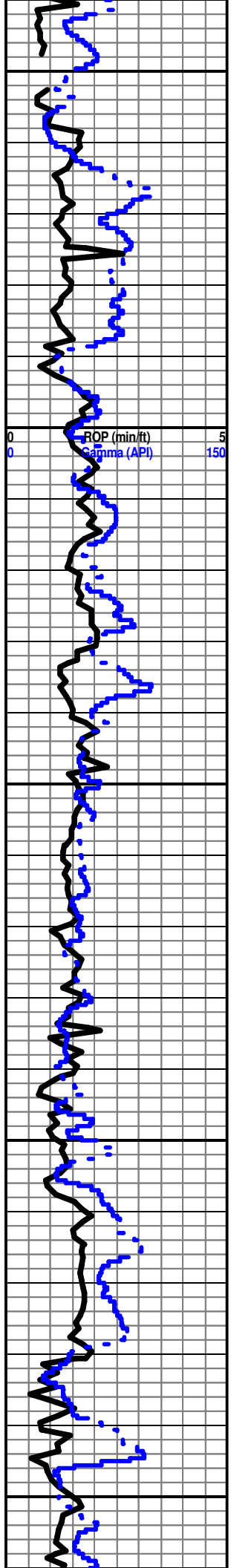
WINFIELD 2734' (+ 72)

Dolo Wht-Gry FxIn Micrite Sh Red-Maroon-Gry Soft-Fissil No Odor No Stn No Flor NS



GAS KICK

2750
2800
2850
2900
2950



NS

Dolo Wht-Gry FxIn Micrite Sh Red-Maroon-Gry Soft-Fissil No Odor No Stn No Flor NS

Dolo Gry-Wht FxIn AA Fine IxIn Por Cht Gry Op Vit Shp Sh Dec Gry-Red-Char AA No Odor No Flor No Stn NS

TOWANDA 2789' (+ 17)

Dolo Gry-Crm FxIn AA Fine IxIn Por Micritic Sh Dec Gry-Red AA No Odor No Flor No Stn NS

Dolo Gry-Crm FxIn AA Fine IxIn Por Micritic Sh Dec Gry-Red AA No Odor No Flor No Stn NS

FORT RILEY 2838' (- 32)

Dolo Gry-Wht FxIn AA Fine IxIn Por Cht Gry Op Vit Shp Sh Gry-Red AA No Odor No Flor No Stn NS

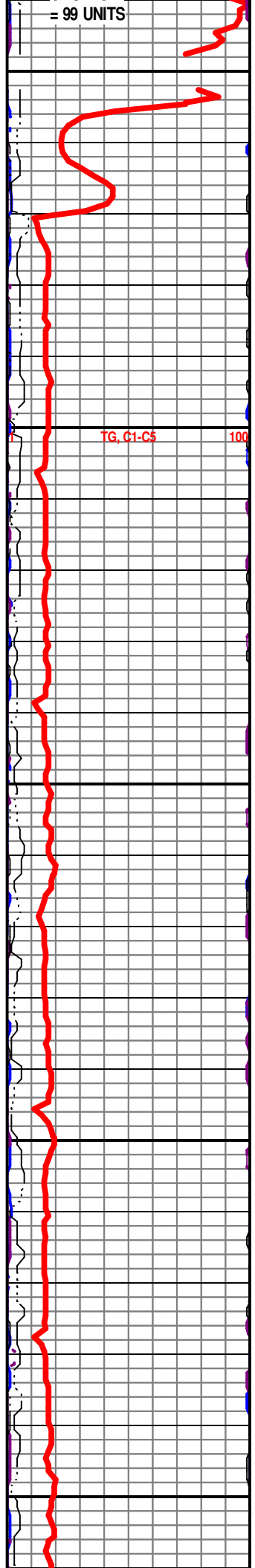
Dolo Gry-Wht FxIn AA Fine IxIn Por Cht Gry Op Vit Shp Sh Gry-Red AA No Odor No Flor No Stn NS

Dolo Gry-Wht FxIn AA Fine IxIn Por Cht Gry Op Vit Shp Sh Abd Gry-Red AA No Odor No Flor No Stn NS

Sh Gry-Red Abd Tr Dolo Gry-Wht FxIn AA Fine IxIn Por No Odor No Flor No Stn NS

Sh Gry-Red Abd Tr Dolo Gry-Wht FxIn AA Fine IxIn Por No Odor No Flor No Stn NS

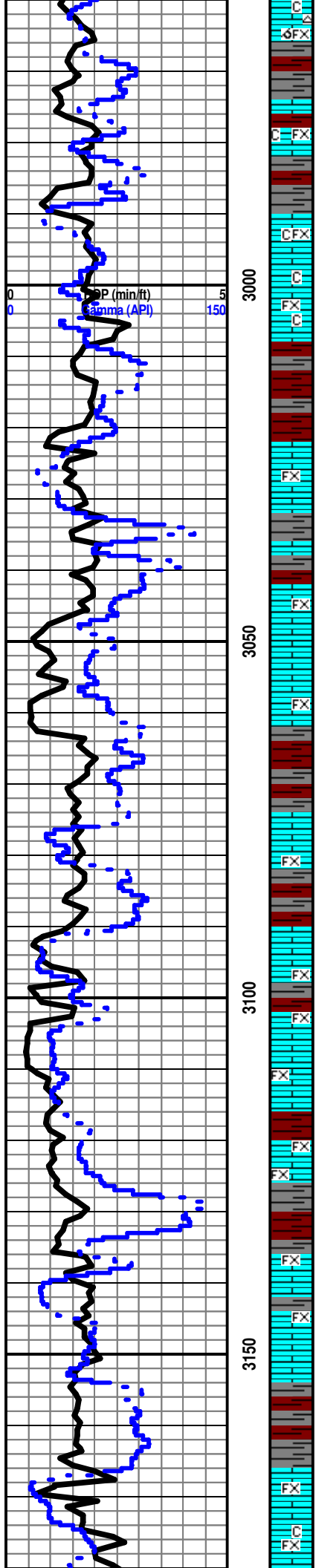
Ls Wht FxIn F IxIn Por Micritic Tr Poor OOM Por w/ Poor Small Vug Dis No InterOOM Por Cht Wht Transl- Op Vit Shp Chalk Sh Dec Gry-Red No Odor No Flor No Stn NS



= 99 UNITS

TG, C1-C5

100



Ls Wht Fxln F Ixln Por Tr Poor OOM Por w/ Poor Small Vug Dis Poor Develop No InterOOM Por Grad Ls Gry Igran Poor Cht Wht-Gry Transl-Op Vit Shp Chalk Sh Dec Gry-Red No Odor No Flor No Stn NS

Sh Gry-Red Abd Fissil Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Fxln F Ixln Por Grad Ls Gry Gran w/ Poor Igran Ixln Por Tr Chalk Sh Dec Red-Gry Fissil No Odor No Flor No Stn NS

WREFORD 3023' (- 217)

Sh Red Abd Dec Gry Fissil AA Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

BASE CHASE GROUP 3044' (-238)

Sh Red Abd Dec Gry Fissil AA Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

Sh Red Abd Dec Gry Fissil Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

DISPLACE MUD SYSTEM @ 3101'.

COTTONWOOD 3101' (- 295)

Sh Red Abd Inc Gry Fissil Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

Sh Red Abd Inc Gry Fissil Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

Sh Red Abd Inc Gry Fissil Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

Sh Red Abd Inc Gry Fissil Tr Ls AA Gry-Wht Fxln AA F Ixln Por No Odor No Flor No Stn NS

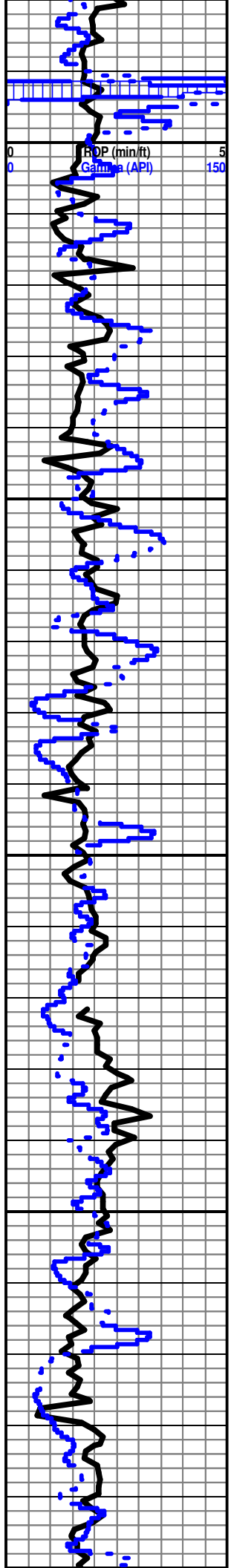
NEVA 3166' (- 360)

Ls Wht-Crm-Gry Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por

TG, C1-C5 100

Mudco Ck @ 3185'
@ 12:00 PM 9/25/12

Vis 55;
WT = 8.65;
PV= 17;
YP= 18;
WL= 10.4;
Cake= 1;
Chl= 2500;
Cal = 20;
Sol= 2.0%.
LCM= 2#;
DMC=\$ 3735.40;
CMC=\$ 10152.75



Ls Wht-Crm-Gry Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren V Abd Chalk Inc Sh Red-Gry-Char-Blk Carb Soft-Fissil No Odor V Sli Dec Tr Scatt Min ? Flor (Lt Grn) (Few Pcs) NS

RED EAGLE 3196' (- 390)

Ls Wht-Crm-Gry Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren V Abd Chalk Inc Sh DecRed-Gry-Char-Blk Carb AA Soft-Fissil No Odor V Sli Dec Tr Scatt Min ? Flor (Lt Grn) (Few Pcs) NS

Ls Wht-Crm-Gry Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren V Abd Chalk Inc Sh Gry-Char-Blk Carb Soft-Fissil No Odor V Sli Dec Tr Scatt Min ? Flor (Lt Grn) (Few Pcs) NS

Ls Wht-Crm-Gry Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren V Abd Chalk Sh Gry-Char-Red Soft No Odor V Sli Tr Scatt Min ? Flor (Lt Grn) (Few Pcs) NS

Ls Wht-Crm Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren Cht Wht Gry Op Shp Vit Abd Chalk Fos (Brach) Sh Gry-Char-Red Soft No Odor Tr Scatt Min ? Flor (Lt Grn) (Few Pcs) NS

FORAKER 3276' (- 470)

Ls Wht-Crm Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren Cht Wht Gry Op Shp Vit Abd Chalk Sh Gry-Char Soft No Odor Scatt Min ? Flor (Lt Grn) NS

Ls Wht-Crm Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren Cht Wht Gry Op Shp Vit Abd Chalk Sh Gry-Char Soft No Odor Scatt Min ? Flor (Lt Grn) NS

Ls Wht-Crm Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren Abd Chalk Sh Gry-Char Soft No Odor Scatt Min ? Flor (Lt Grn) NS

ADMIRE GROUP 3340' (- 534)

Ls Wht-Gry-Crm Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren Fos (Crin) Cht Drk Gry Op Shp Vit Chalk Sh Gry-Char Soft No Odor Scatt Min ? Flor (Lt Grn) No NS

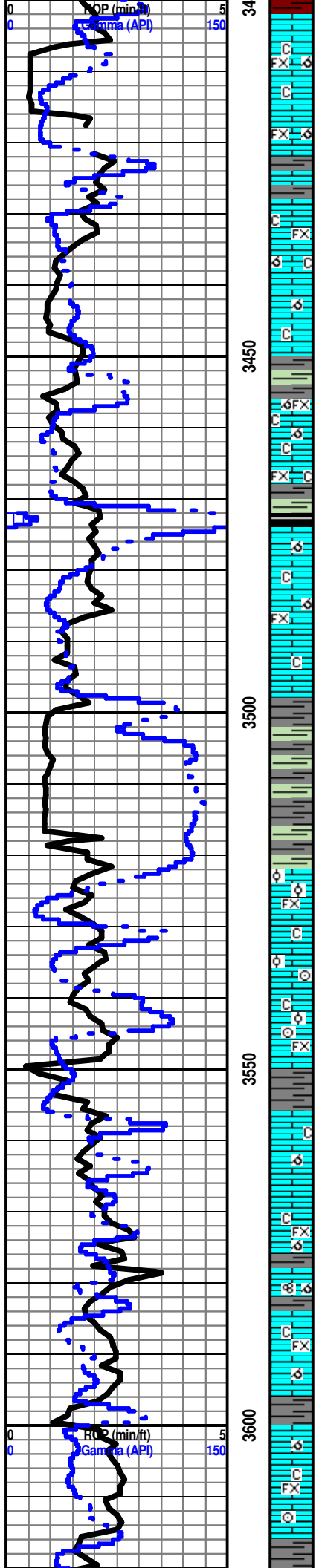
Ls Wht-Gry-Crm Fxln Poor-Fair Ixln Micritic Por Grad Gran Poor Intergran Por Barren Cht Wht Gry Op Shp Vit Chalk Sh Gry-Char Soft No Odor Scatt Min ? Flor (Lt Grn) NS

Ls Crm-Wht-Gry Fxln Poor Ixln Micritic Por Grad Gran Poor Intergran Por Barren Chalk Sh Gry-Char Soft No Odor Scatt Min ? Flor (Lt Grn) NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Grad Fair OOM Por w/Poor InterOOM Por Fair

TG, C1-C5 100

REZERO TOOKE
DAQ @ 3215' = 12
UNITS BKGD GAS.



Dis Fair Develop Barren Chalk Sh Gry-Char Soft No Odor Scat Min ? Flor (Lt Grn) NS
 ? ONAGA 3410' (- 604)

Ls Crm-Wht-Gry Fxln Poor Ixln Por Grad Fair OOM Por w/Poor InterOOM Por Fair Dis Fair Develop Barren Chalk Sh Gry-Char Soft No Odor Scat Min ? Flor (Lt Grn) NS

Ls Crm-Wht- Fxln Poor Ixln Por Grad Poor OOM Por w/Poor InterOOM Por Poor Dis Poor Develop Barren Chalk Sh Gry-Char Soft No Odor No Stn NS

Ls Crm-Wht- Fxln Poor Ixln Por Grad Poor OOM Por w/Poor InterOOM Por Poor Dis Poor Develop Barren Chalk Sh Gry-Char Soft No Odor No Stn NS

Ls Crm-Wht- Fxln Poor Ixln Por Tr Poor-Fair OOM Por Poor-Fair Dis Poor-Fair Develop Barren Chalk Sh Gry-Char Inc Soft No Odor No Stn NS

ROOT SHALE 3498' (- 692)
 Sh Gry-Char Inc Soft Tr Ls Crm-Wht AA- Fxln Poor Ixln Por Tr Poor-Fair OOM Por Poor-Fair Dis Poor-Fair Develop Barren Chalk No Odor No Flor No Stn NS

STOTLER 3524' (- 718)
 Ls Crm Fxln Poor Ixln Por w/ Tr/OOL in pl Poor Dis Poor Develop Sh Gry-Char AA No Odor Scat Min ? Flor (Lt Grn) NS

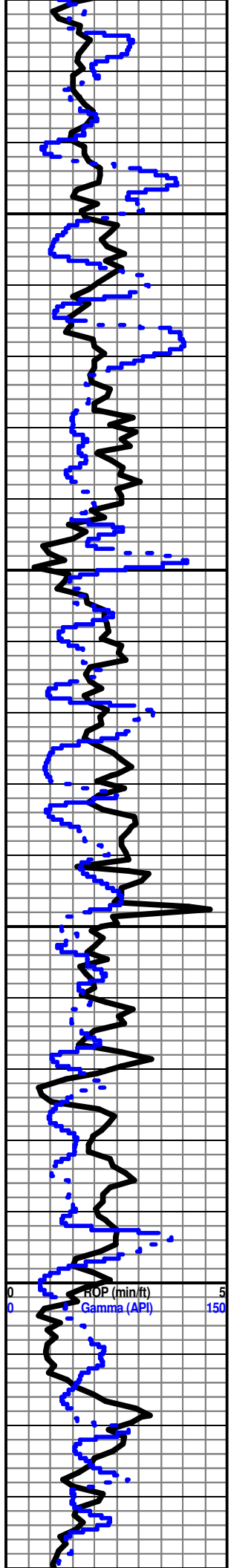
Ls Crm-Wht- Fxln Poor Ixln Por Grad V Soft Barren Chalk Fos Abd Crin Cht Char-Gry-Blk Op Vit Shp No Stn ? Min Flor Cht Wht Op Shp Vit Sh Gry-Char Soft No Odor No Stn NS

Ls Gry-Crm Fxln Dns Micritic Barren Tr Poor OOM Por No Dis Chalk Sh Gry-Char-Red Soft V Sli Tr ? Min Flor No Odor NS

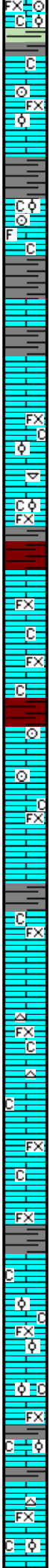
TARKIO 3584' (- 778)
 Ls Wht-Crm-Gry Fxln Dns Micritic Barren Tr Poor OOM Por No Dis Fos (Foram) Chalk Sh Grn-Gry Soft V Sli Tr ? Min Flor No Odor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Barren Tr Poor OOM Por Poor Dis Poor Develop (1 Pc) Chalk Sh Grn-Gry Soft V Sli Tr ? Min Flor No Odor NS





3650
3700
3750
3800



Ls Wht-Crm-Gry FxIn Dns Micritic Barren Tr Poor OOL Por AA Poor Dis Poor Develop Fos Abd Crin Chalk Sh Inc Grn-Gry Soft V Sli Tr ? Min Flor No Odor NS

Ls Wht-Crm-Gry FxIn Dns Micritic Barren w/Tr Poor OOL Por Poor Dis Poor Develop Fos Crin Chalk Sh Inc Gry-Red Soft No Flor No Odor NS

Ls Crm-Gry FxIn Dns Micritic Grad Gran FxIn Gran Por Barren Fos (Spic) Chalk Inc Sh Red-Gry Soft Scatt ? Min Flor No Odor NS

Ls Wht-Crm-Gry FxIn Dns Micritic Barren w/Tr Poor OOL Por Poor Dis Poor Develop Fos (Pelec) Chalk Abd Sh Gry-Red-Char-Blk Carb Soft Scatt ? Min Flor No Odor NS

Ls Wht-Crm FxIn Dns Micritic Barren Chalk Abd Sh Gry-Red-Char Soft Scatt ? Min Flor No Odor NS

Ls Wht-Crm FxIn Dns Micritic Barren Fos Crin Chalk Cht Drk Gry Op shp Vip Sh Gry-Red-Char Soft Tr Scatt ? Min Flor No Odor NS

Ls-Gry-Crm FxIn Dns Micrite Barren V Abd Chalk Sh Gry-Char-Red Soft Tr Scatt ? Min Flor No Odor NS

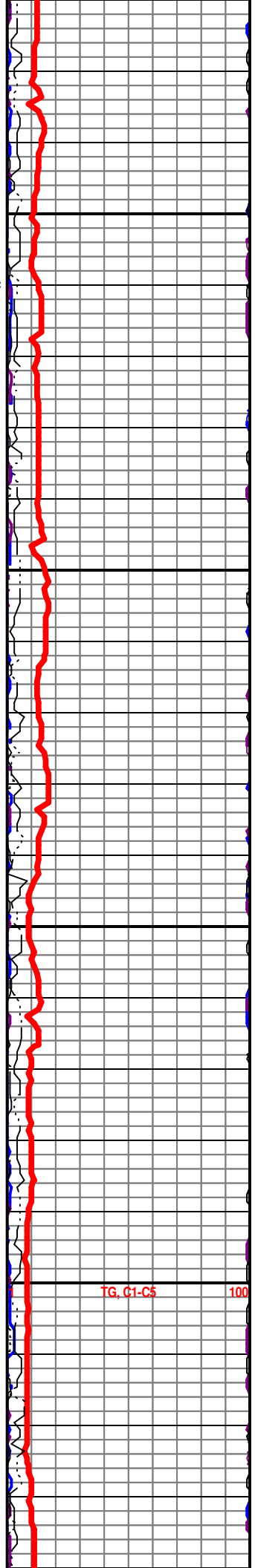
Ls Crm-Wht FxIn Dns Micritic Barren V Abd Chalk Cht Tan Op shp Vip Sh Gry-Char Soft Tr Scatt ? Min Flor No Odor NS

Ls Crm-Wht FxIn Dns Micrite Barren Dec Chalk Char Soft Tr Scatt ? Min Flor No Odor NS

TOPEKA 3792' (- 986)

Ls Wht-Crm-Gry FxIn Dns Micritic Barren Grad Poor OOL Por Poor InterOOM Por Poor Dis Poor Develop Dec Chalk Sh Char Soft Scatt ? Min Flor No Odor NS

Ls Wht-Crm-Gry FxIn Dns Micritic Barren Grad Poor OOL Por Poor InterOOM Por Poor Dis Poor Develop Dec Chalk Sh Char Soft Scatt ? Min Flor No Odor NS



TG, C1-C5 100

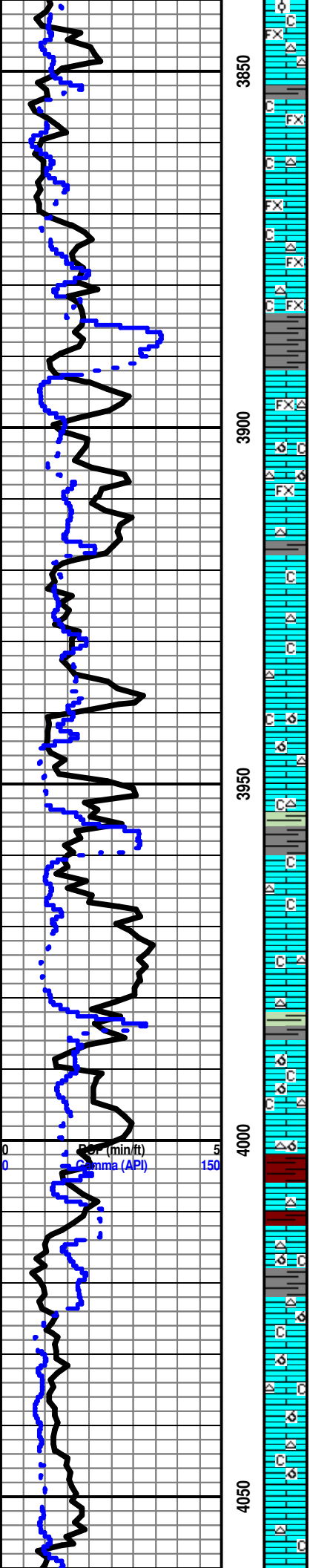
3850

3900

3950

4000

4050



Ls Wht-Crm-Gry Fxln Dns Micritic Barren Grad Poor OOL Por Poor InterOOM Por
 Poor Dis Poor Develop Cht Wht-Tan Op Shp Vit Chalk Sh Char Soft Scatt ? Min
 Flor No Odor NS

Ls Crm-Wht Fxln Dns Micritic Barren Cht Wht-Tan Op Shp Vitn Tr Chalk Shar Char
 Soft Sli Scatt ? Min Flor No Odor NS

Ls Crm-Wht Fxln Dns Micritic Barren Cht Wht-Tan Op Shp Vitn Tr Chalk Shar Char
 Soft Sli Scatt ? Min Flor No Odor NS

Ls Crm-Wht Fxln Dns Micrite Grad V Poor OOM Por w/Poor Leach Dis Poor
 Develop Poor InterOOM Por Cht Gry-Wht Op Shp Vit Chalk Sh Char-Red Soft-Fissil
 V Sli Tr-No Scatt Min Flor No Odor NS

Ls Crm-Wht Fxln Dns Micrite Cht Wht Op Shp Vit Chalk Sh Char-Grn Fissil V Sli
 Tr-No Scatt Min Flor No Odor NS

Ls Crm-Wht Fxln Dns Micrite Grad Poor OOM Por w/Poor leach Dis Poor Develop
 Poor InterOOM Por Cht Gry-Wht Op Shp Vit Chalk Sh Char-Grn Fissil V Sli Tr-No
 Scatt Min Flor No Odor NS

LeCOMPTON 3960' (- 1154)

Ls Crm-Wht Fxln Dns Micrite ? Trip w/ Pin-Pt Leached Por Cht Wht Op Shp Vit
 Chalk Sh Char-Grn Fissil V Sli Tr-No Scatt Min Flor No Odor NS

Ls Crm-Wht Fxln Dns Micrite Grad Poor OOM Por w/Poor Leach Dis Poor Develop
 Poor InterOOM Por Cht Gry-Wht Op Shp Vit Chalk Sh Char-Grn Fissil V Sli Tr-No
 Scatt Min Flor No Odor NS

Ls Wht-Crm Fxln Dns Micrite Grad Poor OOM Por w/Poor Leach Dis Poor Develop
 Poor InterOOM Por V Abd Chalk Cht Gry-Wht Op Shp Vit Tr Sh Red Fissil V Sli
 Tr-No Scatt Min Flor No Odor NS

Ls Wht-Crm-Gry Fxln Dns Micrite Grad Poor OOM Por w/Poor Leach Dis Poor
 Develop Poor InterOOM Por V Abd Chalk Cht Gry-Wht Op Shp Vit Tr Sh Red Fissil
 V Sli Tr-No Scatt Min Flor No Odor NS

Ls Wht-Crm-Gry Fxln Dns Micrite Grad Poor OOM Por w/Poor Leach Dis Poor
 Develop Poor InterOOM Por V Abd Chalk Cht Tan Op Shp Vit Tr Sh Red Fissil V Sli
 Tr-No Scatt Min Flor No Odor NS

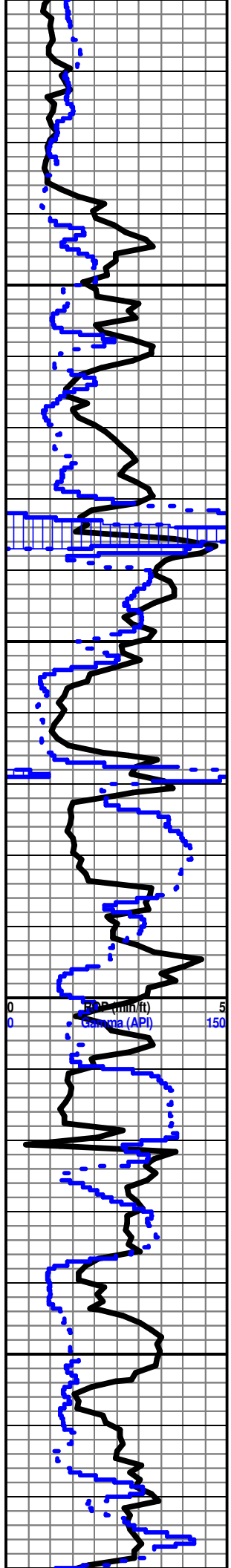
Mudco Ck @ 3900'
 @ 11:20 AM 9/26/12

Vis 51;
 WT= 9.1;
 PV= 16;
 YP= 18;
 WL= 10.0;
 Cake= 1;
 Chl= 3900;
 Cal = 20;
 Sol= 5.5%
 LCM= 2#;
 DMC=\$ 2318.80;
 CMC=\$ 12471.55

REZERO TOOKE
 DAQ @ 3890' = 12
 UNITS BKGD GAS.

GAS TEST
 EXTRACTOR @
 3911' = 132 UNITS.

TG, C1-C5 100



Ls Crm-Wht Fxln Dns Micrite Abd Chalk Cht Wht Op Spp Vit Sh Char Fissil V Sli Tr-V Sli Tr Scatt Min Flor No Odor NS

Sh Blk Carb Char-Gry Fissil Ls Crm-Wht-Gry Fxln Dns Micrite Cht Blk Op Shp Vit Dec Chalk V Sli Tr-V Sli Tr Scatt Min Flor No Odor NS

Ls Crm-Gry Fxln Dns Micrite Chalk Cht Gry-Wht Op Shp Vit Sh Blk Carb Fissil V Sli Tr-No Scatt Min Flor No Odor NS

Ls Crm-Gry Fxln Dns Micrite Chalk Cht Gry-Blk Op Shp Vit Sh Blk Carb Fissil V Sli Tr-No Scatt Min Flor No Odor NS

HEEBNER 4131' (-1325)

Sh Blk Carb Fissil Ls Crm-Gry Fxln Dns Micrite Chalk Cht Gry-Blk Op Shp Vit Sh Blk Carb AA Fissil No Flor No Odor NS

TORONTO 4148' (- 1342)

Ls Wht Fxln Dns Micrite V Hvy Abd Chalk Sh Blk-Char Fissil V Sli Tr-V Sli Tr Scatt Min Flor No Odor NS

DOUGLAS 4166' (- 1360)

Ls Wht Fxln Dns Micrite Abd Chalk Cht Wht Op Shp Vit Sh Char-Gry Grn Fissil V Sli Tr-V Sli Tr Scatt Min Flor No Odor NS

BEGIN 10' SAMPLES @ 4230'

Ls Bm Fxln Dns Micrite Tr Chalk Sh Grn Fissil No Flor No Odor NS

Ls Bm-Crm-Wht Fxln Dns Micrite Tr Chalk Sh Grn-Gry Fissil No Flor No Odor NS

IATAN (BROWN LIME) 4224' (- 1418)

Sh Grn-Gry Fissil "Gummy" Soft Ls Crm-Gry Fxln Dns Micrite Abd Chalk No Flor No Odor NS

LANSING 4236' (- 1430)

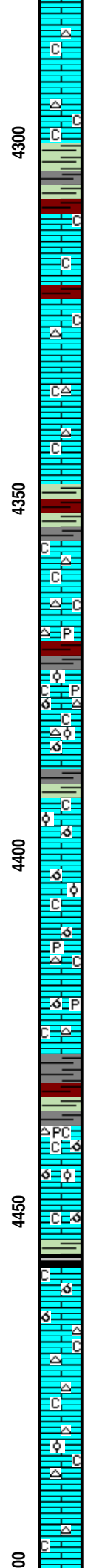
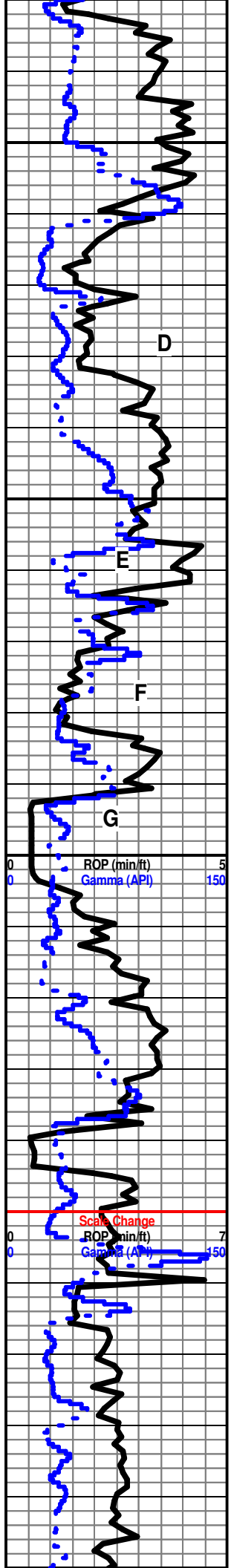
Ls Wht-Crm Wht Fxln Dns Micritic Poor Ixln Por Barren Fos (Pelecyc) Cht Wht Op shp Vit Chalk Sh Char Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm Wht Fxln Dns Micritic Poor Ixln Por Barren Grad Poor Gran Por w/Poor Igran Por Tr Sm OOL in pl Poor Dis Poor Develop Cht Wht Op shp Vit Chalk Sh Char Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm Wht Fxln Dns Micritic Poor Ixln Por Barren Grad Poor Gran Por w/Poor Igran Por (Sm OOL in pl) Poor Dis Poor Develop Cht Wht Op shp Vit Chalk Sh Char Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm Wht Fxln Dns Micritic Poor Ixln Por Cht Wht-Tan Op shp Vit Pyr Mass Dec Chalk Inc Sh Char-Grn Carb Fissil No Odor Scatt ? Min Flor NS

TG, C1-C5 100



Ls Wht-Crm-Wht Fxln Dns Micritic Poor Ixln Por Cht Wht-Tan Inc Op shp Vit Dec
Chalk Sh Char-Grn Carb Fissil No Odor Sli Dec Scatt ? Min Flor NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por Cht Wht-Tan Dec Op shp Vit
Chalk Inc Sh Char-Grn Carb Fissil No Odor Sli Dec Scatt ? Min Flor NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por Chalk Inc Sh Char-Grn Carb Fissil
No Odor Sli Dec Scatt ? Min Flor NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por Chalk Inc Sh Char-Grn Carb Fissil
No Odor Sli Dec Scatt ? Min Flor NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por Cht Wht-Tan Dec Op shp Vit
Chalk Inc Fos Crin Sh Char-Grn Fissil No Odor Sli Inc Scatt ? Min Flor NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por Barren Cht Wht-Tan Dec Op shp
Vit Chalk Inc Fos Crin Sh Char-Blk Carb Fissil No Odor Sli Inc Scatt ? Min Flor
NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por Grad Por (w/ Poor Intergran Por)
Cht Wht-Tan Dec Op Shp Vit Chalk Dec Sh Char-Blk Carb Inc Fissil No Odor Sli
Inc Scatt ? Min Flor NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por Grad Por (w/ Poor Intergran Por)
Cht Wht-Tan Dec Op Shp Vit Inc Chalk Sh Char-Grn-Tr Red Fissil No Odor Sli-No
Scatt ? Min Flor NS

Ls Wht-Crm-Tan Fxln Dns Micritic Poor Ixln Por (w/ Poor Intergran Por Barren Cht
Wht-Tan Op Shp Vit Chalk Sh Char-Grn-Red Fissil No Odor Sli-No Scatt ? Min Flor
NS

Ls Crm-Tan-Gry Fxln w/ Pry Includ Dns Micritic Poor Ixln Por (w/ Poor Intergran
Por) Pyr Mass Cht Wht Op Shp Vit Chalk Sh Char-Grn Fissil No Odor Sli Scatt ?
Min Flor NS

Ls Crm-Wht Fxln Dns Micritic Poor Ixln Por Barren Grad Good Med-Lg OOM Por
Fair-Good Dis w/ OOL in pl Fair-Good Develop Fair-Good InterOOM Por Fair
Leaching Por Barren Abd Chalk Sh Gry-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Crm-Wht Fxln Dns Micritic Poor Ixln Por Grad Good Med-Lg OOM Por
Fair-Good Dis (w/ OOL in p) Med-Good Develop Med-Good InterOOM Por Med
Leaching Por Chalk Sh Gry-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Crm-Tan-Gry Fxln w/ Pry Includ Dns Micritic Poor Ixln Por Tr OOM Por Cht
Wht-Gry Op Shp Vit Chalk Sh Char-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Crm-Tan-Gry Fxln w/ Pry Includ Dns Micritic Poor Ixln Por OOM por AA Cht
Wht-Gry Op Shp Vit Chalk Sh Char-Grn Fissil No Odor Scatt ? Min Flor NS

Sh V Abd Char-Grn-Aqua Fissil w/Pry Includ Ls Dec Crm-Tan-Gry Fxln w/ Pry
Includ Dns Micritic Poor Ixln Por Barren Cht Wht-Gry Op Shp Vit Tr Chalk No
Odor Tr Scatt ? Min Flor NS

Ls Wht-Crm Fxln Dns Micritic Poor Ixln Por Grad Good-Lg OOM Por Good Dissolu
(w/ OOL in p) Good Develop Good InterOOM Por Good Leaching Por Chalky Sh
Gry-Grn Fissil No Odor Scatt ? Min Flor NS

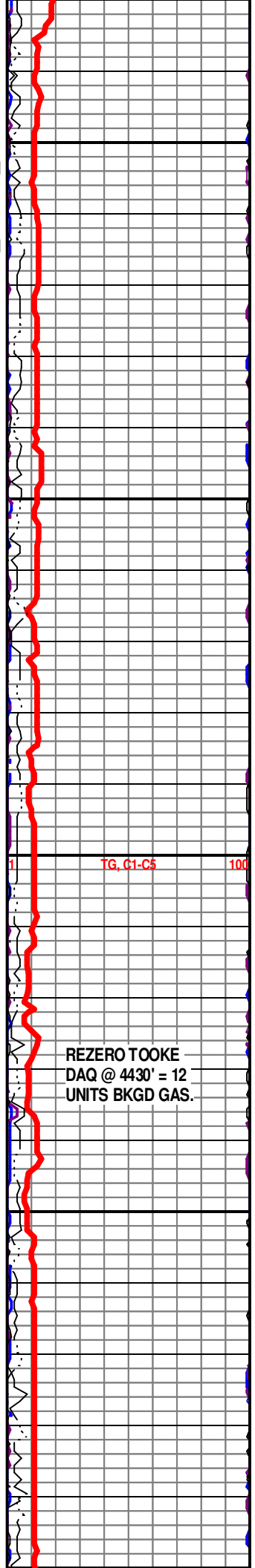
Ls Wht-Crm AA Fxln Dns Micritic Poor Ixln Por Grad Good Lg OOM Por Fair-Good
Dis (w/ OOL in p) Good Develop Good InterOOM Por Good Leaching OOL Por
Abd Chalk Sh Gry-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln w/Pry Includ Dns Micritic Poor Ixln Por Barren Cht Wht-Gry
Op Shp Vit Tr Chalk Sh Char-Grn Fissil No Odor Tr Scatt ? Min Flor NS

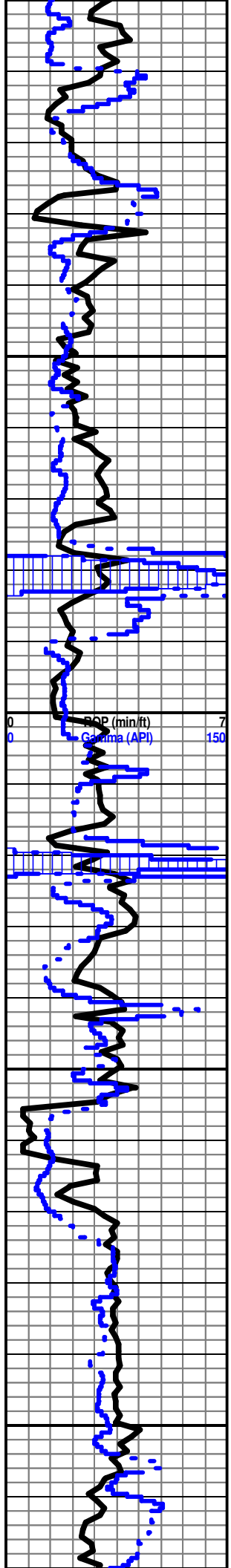
Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Barren Cht Wht-Gry Op Shp Vit
(w/OOL in pl) Chalky Sh Char-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Cht Wht-Gry Op Shp Vit Sh
Char-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Barren Grad Good Lg OOM Por



45
4550
4600
4650
4700



Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Barren Grad Good Ly OOM Por Good Dis (w/ OOL in pl) Good Develop Good InterOOM Por Med-Good Leaching OOM Por Cht Wht-Gry Op Shp Vit Chalky Sh Char-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Barren Grad Good Med OOM Por Fair Dissolu (w/ OOL in pl) Med Develop Med InterOOM Por Med Leaching OOM Por Cht Wht-Gry Op Shp Vit Chalky Sh Char-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Barren Tr OOM Por AA Sh Char-Grn Fissil No Odor Tr Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Barren Tr OOM Por AA Sh Char-Grn Fissil No Odor Tr Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Grad OOM Por Sh Char-Grn Fissil No Odor Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Grad Poor OOM Por Sh Char-Grn Fissil No Odor Tr Scatt ? Min Flor NS

Ls Wht-Crm-Gry Fxln Dns Micritic Poor Ixln Por Cht Gry Op Shp Vit Sh Char-Grn Fissil No Odor Scatt ? Min Flor NS

STARK SHALE 4576' (- 1770)

KANSAS CITY "SWOPE (K)" 4584' (- 1778)
Ls Wht Fxln Poor Ixln Pin-Pt Por Poor Leaching Por w/Poor Leached Por Cht Gry-Wht (w/Fos (Spicule) Inclus Op Shp Vit Sh Blk Carb Fissil No Odor No Flor NS

Ls Wht Fxln w/Poor Ixln Pin-Pt Por Poor-Fair Leaching Por w/Poor Leached Por Faint Odor Sli Flor (Lt Grn) No Stn Poor ? SSO/SSG

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalky Cht AA Sh Blk Carb Fissil No Flor No Odor NS

HUSHPUCKNEY 4620' (- 1824)

Sh Blk Carb Fissil Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Cht AA No Flor No Odor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Cht Sh Blk Carb Fissil No Flor No Odor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Cht Wht-Brn Op Shp Vit Char Sh Blk Carb -Char Abd Fissil Scatt ? Min Flor No Odor NS

Sh Blk Carb -Char Abd Fissil Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalky Cht Wht-Brn Op Shp Vit Char Sh Blk Char Fissil Scatt ? Min Flor No Odor NS

Ls Crm-Tan Fxln Dns Micritic Poor Ixln Por Barren Grad Tr Poor OOM Por Poor Dis w/ OOL in pl Poor Develop Poor-No InterOOM Por Poor-No Leaching OOM Por Chalk Sh Char Fissil No Odor Tr Scatt ? Min Flor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Sh Char Abd Fissil Tr Scatt ? Min Flor No Odor NS

BASE KANSAS CITY 4674' (- 1868)

Sh Char Abd Fissil Ls Gry Fxln Poor Ixln Por Mricritic Chalk Tr Scatt ? Min Flor No Odor NS

Sh Char Abd Fissil Ls Gry Inc Fxln Poor Ixln Por Micritic Chalk Tr Scatt ? Min Flor No Odor NS

Sh Char Abd Fissil Ls Gry Inc Fxln Poor Ixln Por Micritic Chalk Tr Scatt ? Min Flor No Odor NS

MARMATON 4708' (- 1902)

Sh Char-Gry Fissil Abd Ls Wht-Crm Fxln Poor Pin-Pt Ixln Por Mostly Micritic Chalk No Flor No Odor NS

Sh Char AA Fissil Ls Wht-Crm Fxln Poor Ixln Por Micritic Grad Poor Small OOM Por Fair Dissolu Fair InterOOM Por Chalky Cht -Wht Op Shp Vit No Flor No Odor NS

Mud co Ck @ 4550' @ 10:15 AM 9/27/12

Vis 54;
WT= 9.1;
PV= 18;
YP= 20;
WL= 8.8;
Cake= 1;
Chl= 2000;
Cal= 20;
Sol= 5.6%.
LCM= 2#;
DMC=\$ 2530.55;
CMC=\$ 15002.10

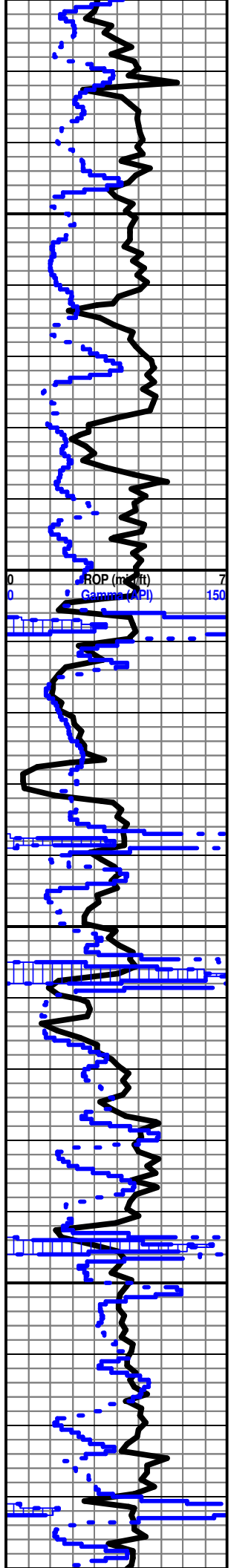
SH GAS KICK @ 4577' = 26 UNITS.

GAS KICK @ 4592' = 31 UNITS

TG, C1-C5 100

SH GAS KICK @ 4618' = 39 UNITS

SH GAS KICK @ 4646' = 28 UNITS



4750

4800

4850

4900

Sh Char AA Fissil Ls Wht-Crm Fxln Poor Ixln Por Micritic Grad Poor Small OOM Por Fair Dissolu Fair InterOOM Por Fos (Crin) Chalky Cht -Wht Op Shp Vit No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Grad Poor Small OOM Por (w/Tr OOL in pl) Fair-Good Dis Fair Inter OOL Por Chalk Sh Char AA Fissil No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Grad Poor Small OOM Por Barren w/Tr OOL in pl Fair-Good Dis Fair Inter OOL Por Chalk Sh Char AA Fissil No Flor No Odor NS

Sh Char-Gry V Abd Fissil Ls Wht-Crm Fxln Poor Ixln Por Micritic Grad Poor Small OOM Por Poor InterOOM Por Chalk No Flor No Odor NS

Ls Tan-Crm Fxln Poor Ixln Por Micritic Fos (Crin) Chalky Sh Char-Gry Dec Fissil No Flor No Odor NS

Ls Wht-Crm-Tan Fxln Poor Ixln Por Micritic Chalky Sh Char -Gry -Aqua- Blk Carb Fissil No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Grad Poor Small OOM Por (w/Tr OOL in pl) Poor-Fair Dissolu Poor-Fair Inter OOM Por Chalk Sh Char-Gry-Blk Carb Fissil No Flor No Odor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic w/ Tr Poor OOM Por (w/OOL in pl) Poor Dissolu Por Develop Chalky Cht Gry (w/OOL Inclu) Op Shp Vit Sh Char-Gry (w/Pyr Includ)-Blk Carb Soft- Fissil No Flor No Odor NS

Ls Wht-Crm-Tan Fxln Poor Ixln Por Micritic w/ Tr Poor OOM Por Fos (Brach) Chalk Cht Gry Op Shp Vit (Tr Only) Sh Char-Gry Grn Soft- Fissil No Flor No Odor NS

PAWNEE 4810' (- 2004)

Ls Wht-Crm Fxln Poor Ixln Por Micritic w/ Tr Poor OOM Por Chalky Sh Char-Gry-Blk Carb Soft- Fissil No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic w/ Tr Poor OOM Por (Dec) Chalky Sh Char-Gry-Blk Carb Soft- Fissil No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Chalky Sh Char-Gry-Blk Carb Soft- Fissil No Flor No Odor NS

FORT SCOTT 4837' (- 2031)

Ls Wht-Crm-Tan Fxln Poor Ixln Por Micritic w/ Tr Poor OOM Por Chalk Cht Tan Op Shp Vit (Tr Only) Sh Char-Gry-Blk Carb Fissil No Flor No Odor NS

CHEROKEE SHALE 4854' (- 2045)

Sh Blk Carb-Gry-Char Fissil Abd Ls Crm-Tan-Wht Fxln Poor Ixln Por Micrite Cht Wht (w/Fos ? Includ) Op Shp Vit Chalky No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxln Poor Ixln Por Micrite Grad Poor Pin-Pt Ixln Por Cht Tan (w/Fos ? Includ) Op Shp Vit Chalky Sh Blk Carb-Gry-Char-Aqua Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Gry-Char-Aqua Fissil Ls Wht-Crm Fxln Poor Ixln Por Micrite Cht Wht Op Shp Vit Fos (Bry, Brach Abd) Chalky No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Fxln Poor Ixln Por Micrite Cht Gry Op Shp Vit Chalky Sh Blk Carb-Gry-Char Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Fxln Poor Ixln Por Micrite Cht Gry Op Shp Vit Chalky Fos (Bry Abd) Sh Blk Carb-Gry-Char Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Fxln Poor Ixln Por Micrite Cht Tan-Amber Translu-Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Fxln Poor Ixln Por Micrite Cht Tan-Amber Translu-Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Fxln Poor Ixln Por Micrite Cht Tan-Amber Translu-Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

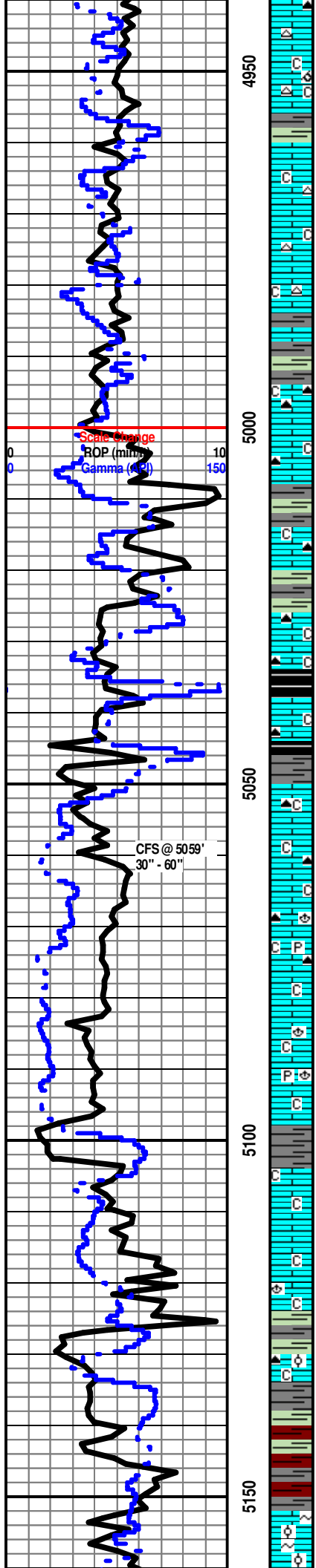
Ls Crm-Tan-Gry Fxln Poor Ixln Por Micrite Cht Tan Translu-Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Mudco Ck @ 4880'
@ 8:55 AM 9/28/12
Vis 54;
WT = 9.2;
PV = 18;
YP = 19;
WL = 8.0;
Cake = 1;
Chl = 2000;
Cal = 20;
Sol = 5.6%.
LCM = 2#;
DMC = \$ 3195.45;
CMC = \$ 18197.55

SH GAS KICK @ 4840' = 48 UNITS

SH GAS KICK @ 4858' = 38 UNITS

SH GAS KICK @ 4693' = 32 UNITS



Ls Crm-Tan-Gry Fxln Poor Ixln Por Micrite Cht Tan-Amber Translu-Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic (w/ Tr Poor-Fair OOM Por) Poor InterOOM Por Fair Develop Fair Leaching Chalk Cht Tan Op Shp Vit (Tr Only) Sh Char-Gry Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Tan Op Shp Vit (Tr Only) Sh Char-Gry-Blk Carb Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Tan Op Shp Vit (Tr Only) Sh Char-Gry-Blk Carb Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Tan-Amber Translu- Op Shp Vit (Inc) Sh Char-Gry-Blk Carb Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Blk-Amber-Tan Op Shp Vit (Tr Only) Sh Char-Gry-Blk Carb Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Amber-Tan Translu-Op Shp Vit Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Amber-Tan Translu-Op Shp Vit Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Amber-Tan Translu-Op Shp Vit Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Odor NS

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Amber-Tan Translu-Op Shp Vit Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Odor NS

MORROW SHALE 5036' (- 2230)

Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Amber-Tan Translu-Op Shp Vit Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Odor NS

30" CFS @ 5059' Ls Crm-Tan Fxln Poor Ixln Por Micritic Chalk Cht Amber-Tan Translu-Op Shp Vit Sh Char-Gry-Blk Carb-Aqua-Red Fissil No Stn No Flor No Odor NS

60" CFS @ 5059' Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm-Tan Fxln Poor Ixln Por Micritic Grad Fxln Chalk Cht Wht-Amber-Tan Translu-Op Shp Vit No Stn No Flor No Odor NS

Ls Wht-Crm-Tan-Gry Fxln Poor Ixln Por Micritic Chalk Fos (Brach) Cht Amber Translu Shp Vit Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm-Tan-Gry Fxln Poor Ixln Por Micritic (w/Pyr Inclus) Chalk Cht Amber Translu Shp Vit Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Chalk Inc Abd Fos (Brach) Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Chalk Inc Abd Fos (Brach) Sh Char-Gry-Blk Carb-Aqua (w/Pyr Inclus) Inc Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Chalky Sh Char-Gry-Blk Carb- Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Chalky Sh Char-Gry-Blk Carb-Aqua Fissil No Flor No Stn No Odor NS

Sh Char-Gry-Blk Carb-Aqua (Abd) Fissil Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Fos (Brach) Chalky No Stn No Flor No Odor NS

? PROBABLE CHESTER 5131' (- 2325)

Ls Wht-Crm Fxln Micrite AA Grad Poor Igran OOL Aqua/Grn "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix (w/Clay Matrix) Cht Drk Brn Op Shp Vit Sh Char-Gry-Aqua Fissil No Flor No Stn No Odor NS

Sh Red-Char-Gry-Blk Carb-Aqua Fissil (Wash Red) Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor Igran OOL Aqua/Grn/Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix (w/Clay Matrix) Cht Drk Brn Op Shp Vit Chalky No Stn No Flor No Odor NS

MISSISSIPPIAN STE. GEN 5152' (- 2346)

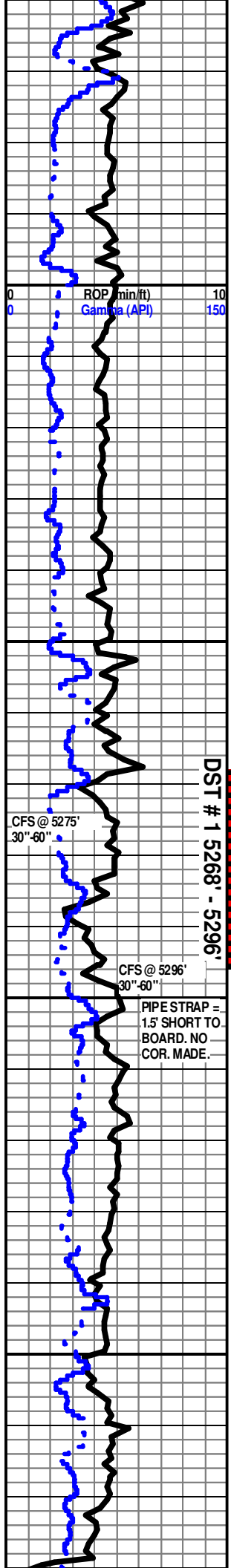
Sh Red-Char-Gry-Blk Carb-Aqua (Abd) Fissil (Wash Red) Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor Igran OOL Aqua/Grn (Glacu) Grad Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Chalky No Stn Sli ? Min Flor (Tr Only) No Odor NS

BIT TRIP @ 5000'
TG, C1-C5 100

CHANGE OUT GAS FILIMENT @ 5000' & GAS TEST= 154 UNITS

SH GAS KICK = 34 UNITS.

SH GAS KICK = 36 UNITS.



5200
5250
5300
5350

DST # 1 5268' - 5296'

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in Gm (Glacu) CaCO3 Matrix Chalky Sh Red-Char-Gry-Blk Carb-Aqua (Abd) Fissil No Stn Sli ? Min Flor (Tr Only) Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Chalky Sh Red-Char-Gry-Blk Carb-Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

Ls Wht Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Chalky Sh Red-Char-Gry-Blk Carb-Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

Ls Wht Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in Grm (Glacu) CaCO3 Matrix Chalky Sh Char-Gry-Blk Carb-Maroon Fissil No Stn No Flor No Odor NS

ST. LOUIS 5200' (- 2394)

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Cht Wht-Amber Translu-Op Shp Vit Pyr Mass Chalky Sh Red-Char-Gry-Blk Carb-Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Cht Wht (Frosted) Translu-Op Shp Vit Chalky Sh Red-Char-Gry-Blk Carb-Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Chalky Sh Red-Char-Gry-Blk Carb-Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Cht Org-Red (w/OOL Includ) -Yell-Tan Translu-Op Shp Vit Chalky Sh Red-Char-Gry-Blk Carb- Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Cht Org-Red (w/OOL Includ) Inc Drk Char (w/OOL in pl) Translu-Op Shp Vit Chalky Pyr Mass Sh Red-Char-Gry-Blk Carb- Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Poor Ixln Pin-Pt Por Micritic Grad Poor-Fair Igran OOL Wht "Sandy" Por (w/Small OOL in pl) in CaCO3 Matrix Cht Org-Red (w/OOL Includ) Inc Drk Char (w/OOL in pl) Translu-Op Shp Vit Chalky Pyr Mass Sh Red-Char-Gry-Blk Carb- Aqua (Tr Only) Fissil No Stn No Flor No Odor NS

ST. LOUIS UPPER B POR 5260' (- 2454)

30" CFS @ 5275' Ls Wht-Crm Fxln Poor-Fair Igran OOL Wht "Sandy" Por (w/Small-Med OOL in pl) in CaCO3 Matrix Cht Org-Red-Tan (w/OOL Includ) Inc Char (w/OOL in pl) Translu-Op Shp Vit Chalky Sh Red-Char-Gry-Blk Carb- Aqua (Tr Only) Fissil No Stn Faint Odor Tr Sli Flor (Dull Wht) NS

60" CFS @ 5275' Ls Wht-Crm Fxln Poor-Fair Igran OOL Wht "Sandy" Por (w/Small-Med OOL in pl) in CaCO3 Matrix Cht Org-Red-Tan (w/OOL ? Fos (Bry) Includ) Inc Char (w/OOL in pl) Translu-Op Shp Vit Chalky Sh Red-Char-Gry-Blk Carb- Aqua (Tr Only) Fissil No Stn Faint Odor Tr Sli Flor (Dull Wht) NS

ST. LOUIS LOWER B POR 5283' (-2477)

30" CFS @ 5296' Ls Wht Mxln Med Good OOL Por (w/OOL in pl) w/Med-Good InterOOL Por (w/Med-Good MSG/MSO in Wtr Under Heat) Soft Friable (w/Scat Drk Brn Stn Around OOL Edges) Free OOL (Med-Lg Ooids in Spl) Cht AA Chalk AA Sh AA Fissil Fair Odor No Flor (G & O Do Not Flor) Med-Good SO/SG

60" CFS @ 5296' Ls Wht Mxln Med Good OOL Por (w/OOL in pl) w/Med-Good InterOOL Por (w/Med-Good SG/SO (GSFG/GSFO in Wtr Under Heat) Soft Friable (w/Scat Drk Brn Stn Around OOL Edges) Free OOL (Med-Lg Ooids in Spl) Cht AA Chalk AA Sh AA Fissil Fair-Med Odor No Flor (G & O Do Not Flor) Good SO/SG

Ls Wht-Crm Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Org Transl-Op Shp Vit Tr Chalk Fos (Brach) Sh Gry-Char-Aqua Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Org Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua-Blk Carb Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Org Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Org Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua Fissil No Stn No Flor No Odor NS

Ls Wht-Crm Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Org Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua Fissil No Stn No Flor No Odor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Org Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua-Maroon Fissil No Stn No Flor No Odor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Org Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua-Maroon Fissil No Stn No Flor No Odor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu (Tr 1 Pxs Good Lg OOM Por (w/Lg OOL in pl) Good Dissolu good Develop Good Leaching w/ SG & SG " Sluff From Above) Cht Gry-Org Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua-Maroon Fissil No Stn No Flor No Odor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu Cht Gry-Tan Transl-Op Shp Vit Tr Chalk Sh Gry-Char-Aqua-Maroon Fissil No Stn No Flor No Odor NS

CHANGE OUT EXTRACTOR FILTER @ 5170'

ADJUST AV= 143.30 @ 5182 LAG DEPTH @ 7.5 BBL/MIN.

TG, C1-C5 100

CHANGE OUT EXTRACTOR FILTER @ 5134'

Mudco Ck @ 5296' @ 6:45 AM 9/30/12

Vis 60;

WT= 9.1;

PV= 20;

YP= 21;

WL= 8.4;

Cake= 1;

ChI= 2400;

Cal = 20;

Sol= 456%.

LCM= 3 1/2#;

DMC=\$ 1192.60;

CMC=\$ 20574.65

GAS KICK = 15 UNITS

GAS TEST @ EXTRACTOR = 40 UNITS.

DST # 1 5268'-5296'

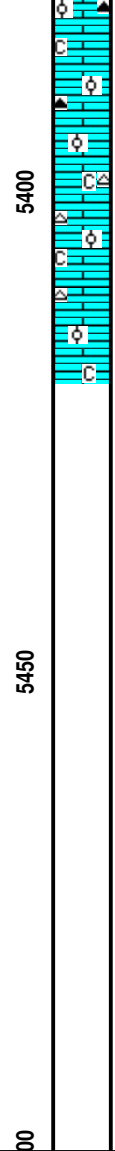
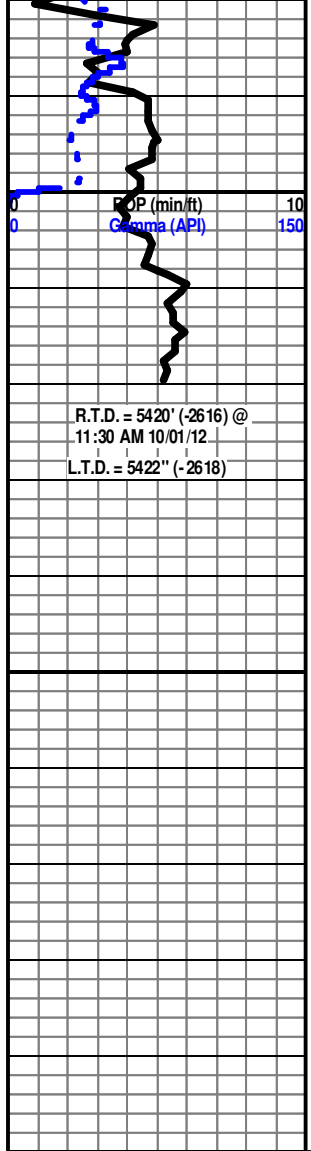
Times: 5"-90"-30"-60".

Blow: IF= Weak 1/4" Surface Blow; FF Weak 1/4" Blow/ Died @ 10".

Flushed Tool @ 20". Had Surge & Blow Died.

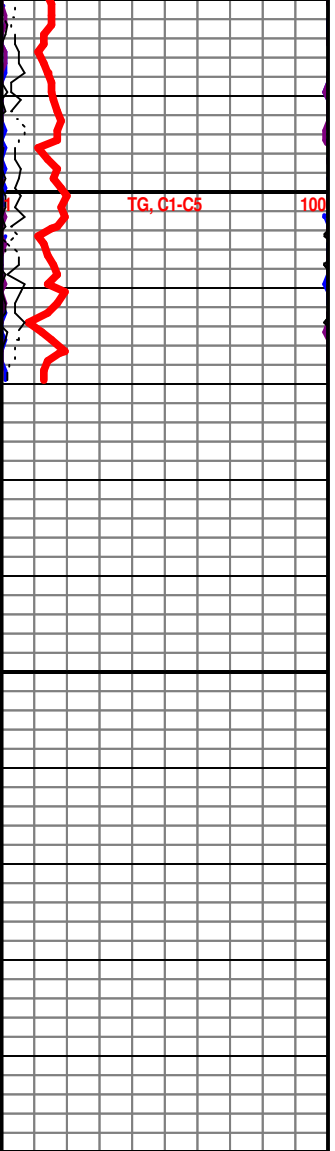
Recovery: 10' VSOCM (1% O & 99% M).

Pressures: IH = 2495#; FH = 2493#; IF = 6-7#; FF = 7-12#; ISIP = 1231#; FSIP = 1136#; Temp = 124 Degrees F.



Ls Wht-Crm-Gry FxIn Micrite Barren Tr Gran AA w/Tr Small OOL Por-Poor InterOOL Por No Dissolu (Tr 1 Pxs Good Lg OOM Por (w/Lg OOL in pl) Good Dissolu good Develop Good Leaching w/ SG & SG) " Sluff From Above) Cht Gry-Tan Transl-Op Shp Vit Tr Chalk Sh Aqua-Gry-Char-Maroon Fissil No Stn No Flor No Odor NS
 Ls Wht-Crm-Gry FxIn Micrite Barren Tr Gran AA w/Tr Small OOL Por -Poor InterOOL Por No Dissolu Cht Gry-Tan Transl-Op Shp Vit Tr Chalk Sh Aqua-Gry-Char-Maroon Fissil No Stn No Flor No Odor NS
 Ls Wht-Crm-Gry FxIn Micrite Barren Tr Gran AA w/Tr Small OOL Por -Poor InterOOL Por Poor Dissolu Cht Wht-Tan Transl-Op Shp Vit Tr Chalk Sh Aqua-Gry-Char-Blk Carb Fissil No Stn No Flor No Odor NS
 Ls Wht-Crm-Gry FxIn Micrite Barren Tr Gran AA w/Tr Small OOL Por -Poor InterOOL Por Poor Dissolu Cht Wht-Tan Transl-Op Shp Vit Tr Chalk Sh Aqua-Gry-Char-Blk Carb Fissil No Stn No Flor No Odor NS

Electric Logs Run: By Pioneer (LogTech) Logging:
Dual Induction; Compensated Density-Neutron; Sonic;
Microresistivity & Cased Hole Gamma Ray-Nutron Logs.
 Geologist left Location @ 11: PM on 10-01-12



R.T.D. = 5420' (-2616) @
 11:30 AM 10/01/12
 L.T.D. = 5422" (-2618)

Corrected

ALLIED OIL & GAS SERVICES, LLC 052470

Federal Tax I.D.# 20-5975804

Irish Flats

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

SERVICE POINT:

Liberal

DATE <u>9/23/12</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <u>10:30</u>	JOB FINISH <u>1:30</u>
LEASE <u>Irish Flats</u>	WELL # <u>1-1 NE</u>	LOCATION <u>Copeland</u>			COUNTY <u>Gray</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>						1.01	7.45

CONTRACTOR Sterling Drilling
 TYPE OF JOB Surface
 HOLE SIZE 12.25 T.D.
 CASING SIZE 8 5/8 DEPTH 1864
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 42"
 PERFS.
 DISPLACEMENT 115

OWNER
 CEMENT
 AMOUNT ORDERED 450 Class A
150 Class C

EQUIPMENT
 PUMP TRUCK CEMENTER Stephen Houze 1
 #549-552 HELPER Ruben/Angel Jurgin 3
 BULK TRUCK
 # 556 DRIVER Kiko / TWS
 BULK TRUCK
 # DRIVER

COMMON <u>450 sks</u>	@ <u>17.90</u>	<u>8055.00</u>
POZMIX	@	
GEL	@	
CHLORIDE	@	
A5C	@	
CC <u>18 sks</u>	@ <u>64.00</u>	<u>1216.00</u>
<u>Class C 150 sks</u>	@ <u>24.40</u>	<u>3660.00</u>
<u>Sup Seal 9 sks</u>	@ <u>37.00</u>	<u>333.00</u>
<u>Melco 846 lb</u>	@ <u>3.30</u>	<u>2791.80</u>
<u>Etacole 113 lb</u>	@ <u>2.97</u>	<u>335.61</u>
	@	
	@	
HANDLING <u>1000 lbs</u>	@ <u>2.48</u>	<u>1634.80</u>
MILEAGE <u>1196</u>	@ <u>2.60</u>	<u>3109.60</u>
		TOTAL <u>21,443.21</u>

REMARKS:
25 BBL OMT to surface

Lead: 3 1/2 CC, 2 1/2 Sup Seal, 2 1/2 Melco, 25 1/2 Etacole
Trail: 2 1/2 CC, 25 1/2 Etacole

SERVICE

DEPTH OF JOB <u>1864</u>	
PUMP TRUCK CHARGE	<u>2213.75</u>
EXTRA FOOTAGE	@
MILEAGE <u>Heavy Veh. 40</u>	@ <u>7.70</u> <u>308.00</u>
MANIFOLD	@
<u>Light vehicle 40</u>	@ <u>4.40</u> <u>176.00</u>
<u>Head/Item/Fold 1</u>	@ <u>275.00</u> <u>275.00</u>
TOTAL <u>2972.75</u>	

CHARGE TO: Falcon Exploration
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>Guide Shoe 1</u>		<u>460.98</u>
<u>AFU Float Valve 1</u>	@ <u>446.94</u>	<u>446.94</u>
<u>Controlizer 3</u>	@ <u>74.88</u>	<u>224.64</u>
<u>CMF Basket 3</u>	@ <u>559.20</u>	<u>1677.78</u>
<u>Top Rubber Plug 1</u>	@ <u>131.04</u>	<u>131.04</u>
	@	
TOTAL <u>2941.38</u>		

To: Allied Oil & Gas Services, 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) 1440.69
 TOTAL CHARGES \$ 27057.34
 DISCOUNT 8117.20 IF PAID IN 30 DAYS
\$ 18,940.14 Net

PRINTED NAME _____
 SIGNATURE [Signature]

ALLIED CEMENTING CO., INC.

Federal Tax I.D.# 48-0727860

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

KB
27184
SERVICE POINT:
Liberal, Ks

DATE <u>10-2-12</u>	SEC. <u>4</u>	TWP. <u>28S</u>	RANGE <u>30W</u>	CALLED OUT	ON LOCATION	JOB START <u>8:00 AM</u>	JOB FINISH <u>9:20 AM</u>
TRASH LEASE FEET	WELL # <u>1-14</u>	LOCATION <u>Copland Nth</u>		COUNTY <u>Gila</u>	STATE <u>Ks</u>		
OLD OR NEW (Circle one) <u>NEW</u>				Mig Sign		1.03 7.45	

CONTRACTOR <u>STERLING #5</u>	OWNER <u>SAME</u>
TYPE OF JOB <u>PTA</u>	
HOLE SIZE <u>7 1/2</u>	T.D. <u>5420</u>
CASING SIZE <u>5 7/8</u>	DEPTH <u>1850'</u>
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2 XH</u>	DEPTH <u>1890</u>
TOOL	DEPTH
PRES. MAX <u>200</u>	MINIMUM <u>Ø</u>
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	

CEMENT	
AMOUNT ORDERED <u>170 60/40 4%</u>	
GEL <u>GEL</u>	
COMMON <u>102 A @ 17.90</u>	<u>1825.50</u>
POZMIX <u>68 @ 9.35</u>	<u>635.50</u>
GEL <u>656 @ 23.40</u>	<u>15240.00</u>
CHLORIDE	
ASC	

EQUIPMENT	HANDLING	MILEAGE	TOTAL
PUMP TRUCK CEMENTER <u>ALAN</u>	<u>176 @ 2.45</u>	<u>761 x 50 x 2.6</u>	<u>436.40</u>
# <u>530/484</u> HELPER <u>LENN BAETA/Edi</u>			<u>989.50</u>
BULK TRUCK			
# <u>562/534</u> DRIVER <u>KIKO MARRONRO (TWS)</u>		<u>380.50</u>	<u>4027.11</u>
BULK TRUCK			
#			

REMARKS:

Thank You

CHARGE TO: FALCON Exp

STREET _____

CITY _____ STATE _____ ZIP _____

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper 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 & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SERVICE	TOTAL
DEPTH OF JOB <u>1890'</u>	
PUMP TRUCK CHARGE	<u>2249.44</u>
EXTRA FOOTAGE @	
MILEAGE <u>50 mi @ 7.20</u>	<u>385.00</u>
MANIFOLD @	
<u>CTUEA W 50 @ 4.90</u>	<u>220.00</u>
TOTAL	<u>2854.44</u>

PLUG & FLOAT EQUIPMENT	TOTAL
<u>NA</u>	
TOTAL	

TAX <u>512.75</u>	
TOTAL CHARGE <u>6882.62</u>	
DISCOUNT <u>2064.74</u>	IF PAID IN 30 DAYS
<u>4817.88</u>	
<u>ALAN LOFFIS</u>	PRINTED NAME

SIGNATURE Alan Loffis