



**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
Spud Date: 5/3/11
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

Region: Gray Co., Kansas
Drilling Completed: 5/17/11

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

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.


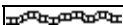




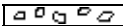

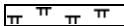














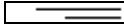
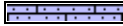
Electric Logs Run & Comments

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

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

ACCESSORIES

- MINERAL**
- Anhy
 - Arggrn
 - Arg
 - Bent
 - Bit
 - Brefracg
 - Calc
 - Carb
 - Chtdk
 - Chtlt
 - Dol
 - Feldspar
 - Ferrpel
 - Ferr
 - Glau
 - Gyp

- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Sity
- 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

- Sltstrg
- Ssstrg
- Sandylms
- Sandylms

- STRINGER**
- Anhy
 - Arg
 - Bent
 - Coal
 - Dol
 - Gyp
 - Ls
 - Mrst

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

OTHER SYMBOLS

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

- Vuggy
- SORTING**
- Well
 - Moderate
 - Poor

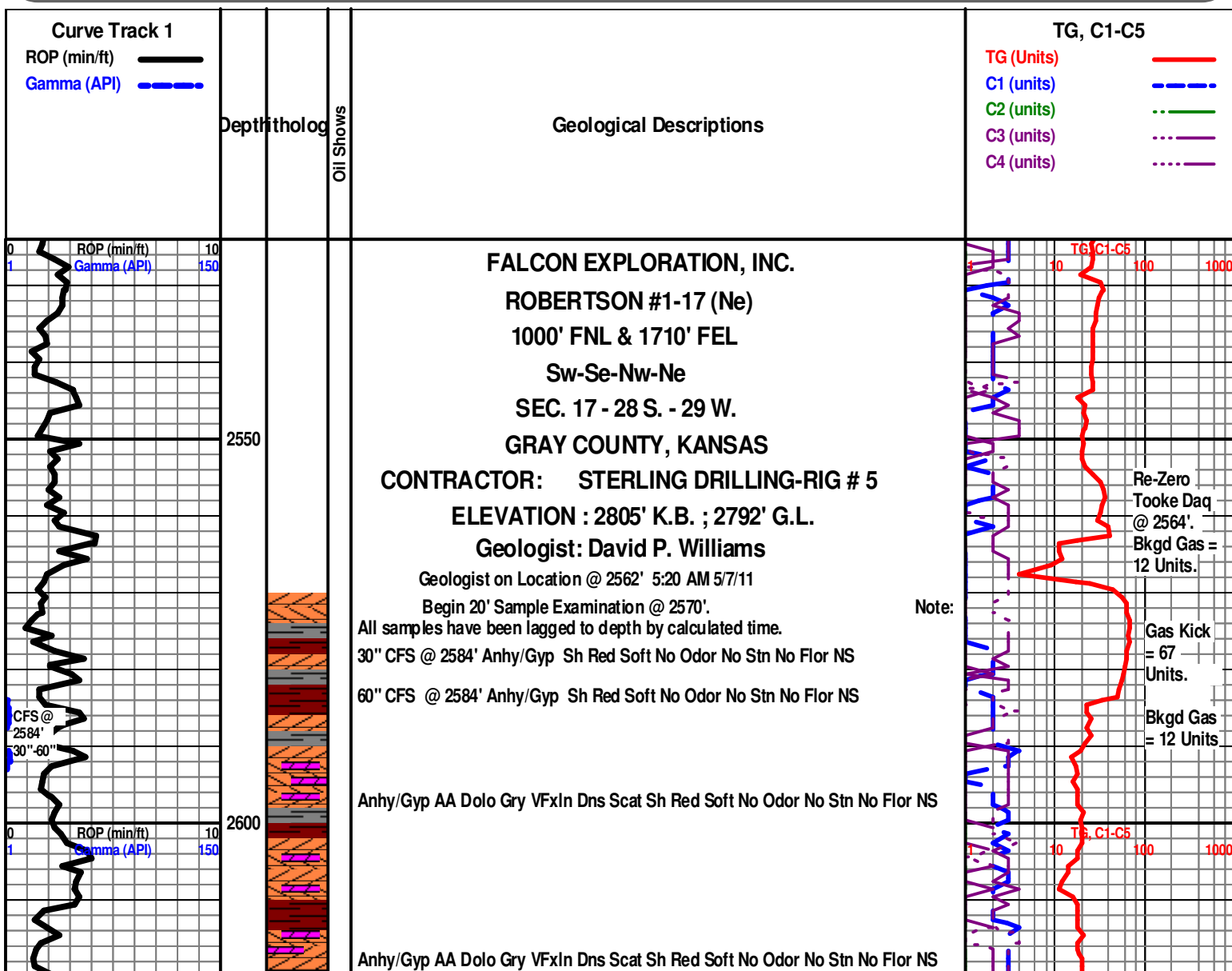
- ROUNDING**
- Rounded
 - Subrnd
 - Subang
 - Angular

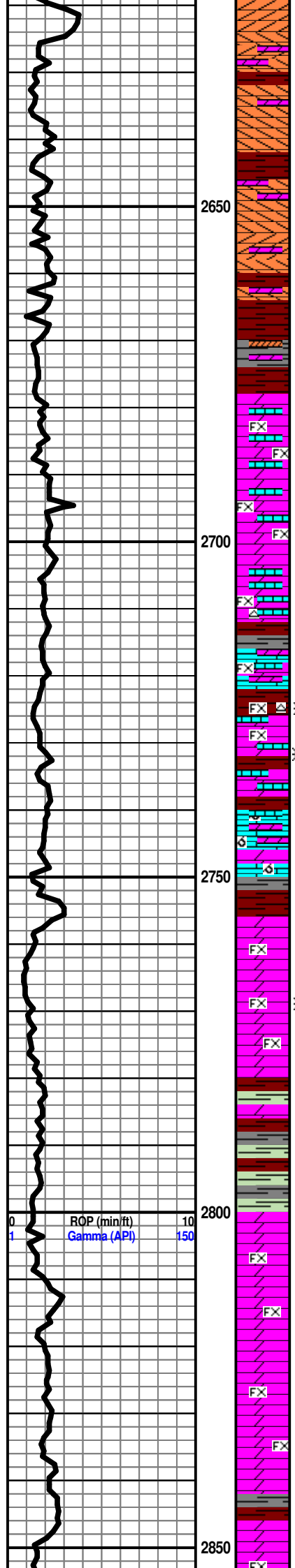
- OIL SHOW**
- Even

- Spotted
- Ques
- Dead
- Gas show
- Spotted oil stn

- INTERVAL**
- Core

- Dst
 - Dst
- EVENT**
- Rft
 - Sidewall





Anhy/Gyp AA Dolo Gry VFxn Dns Scat Sh Red Soft No Odor No Stn No Flor NS

2650

Anhy/Gyp AA Dolo Gry VFxn Dns Scat Sh Red Soft No Odor No Stn No Flor NS

CHASE GROUP 2678' (+ 127)

Dolo Crm-Gry VFxn Poor Ixln Por Grad Ls Gry-Wht Fxln Poor Ixln Por Sh Red-Char Fissil-Soft AA No Odor No Stn No Flor NS

2700

KRIDER 2702' (+ 103)

Dolo Crm-Gry VFxn 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 VFxn Poor Ixln Por Grad Ls Gry-Crm AA Fxln w/Poor Ixln ? Frac Por No Odor No Stn No ? Flor (V Pale Gm ?) (SG From Tooke Daq Detector) ? Sli Show

Sh Red-Char-Grn Fissil-Soft (V Abd) Tr/Dolo Crm-Gry VFxn 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 Gm ?) NS

2750

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

2800

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

2850

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

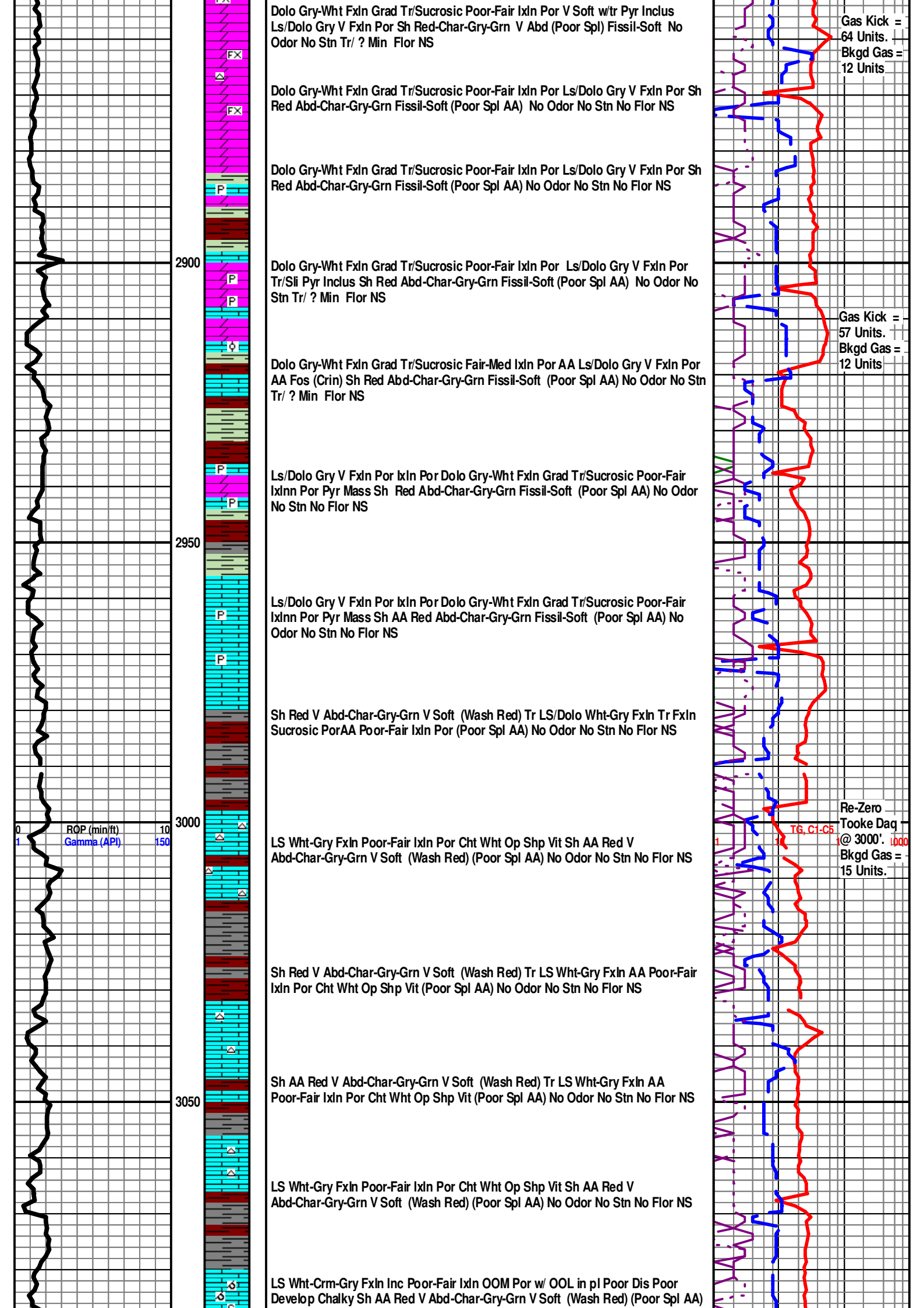
C1-C4 Data Lost
2664'-2718'. Ck
Extractor & Lines.
CO Spl. Box.

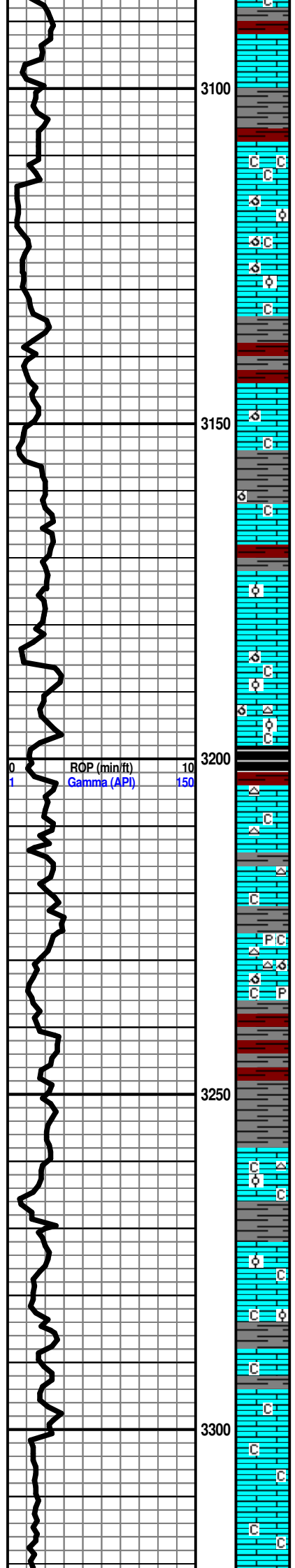
Gas Kick =
53 Units.
Bkgd Gas =
12 Units

Gas Kick =
43 Units.
Bkgd Gas =
12 Units

Gas Kick =
64 Units.
Bkgd Gas =
12 Units

1 10 100 1000
K6, C1-C5





No Odor Scatt Stn Flor (Lt Grn) NS

BADER 3093' (- 288)

LS Wht-Crrm- Gry FxIn Inc Poor-Fair IxIn 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 FxIn Inc Poor-Fair IxIn OOM Por w/ OOL in pl Poor Dis Poor Develop
Poor-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 FxIn Grad Dns
Micritic (Poor Spl AA) No Odor No Stn No Flor NS

LS Wht-Tan FxIn Inc Poor-Fair IxIn OOM Por w/ OOL in pl Poor Dis Poor Develop
Poor-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 PI 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 FxIn Poor IxIn 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 FxIn Poor IxIn Micritic Tr OOM Por w/OOL In PI Poor InterOOM Por
w/Tr Pyr Inklus 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 FxIn Poor Pin-Pt IxIn Micritic Por
Chalk No Odor No Stn No Flor NS

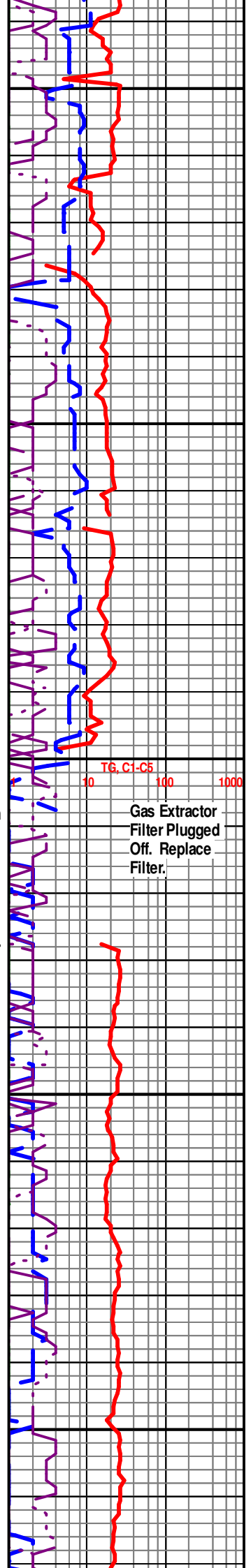
LS Wht-Crm-Gry FxIn Poor IxIn Micritic Grad Poor OOL (Granular) FxIn Por Chalk
V Abd Sh Char-Gry-Red Abd No Odor No Stn No Flor NS

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

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



TG, C1-C5
10 100 1000

Gas Extractor
Filter Plugged
Off. Replace
Filter.

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

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

Re-Zero Tooke
Daq @ 3347'. Bkgd
Gas = 15

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

Mudco Mud Ck @
3377" @ 11:15 AM
5/8/11 Vis 48; Wt
8.7#; Pv 15; Yp 17;
WL 9.0; Cake 1;
Chl = 1800 Ppm;
Cal 00; Sol. 2.7;
LCM 2#;
DMC=\$2,072.15
CMC=\$ 14,097.85

LS Crm- Gry Fxln Tr Poor Pin-Pt Ixln 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

Re-Zero Tooke
Daq @ 3482'.
Bkgd Gas = 15
UNITS. LAG IS
3472'.

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

GAS TEST TOOKE
DAQ @
GEOTRAILER @
3494' = 750 UNITS.
LAG IS 3480'.

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

GAS TEST TOOKE DAQ
@ EXTRACTOR @ 3502' =
750 UNITS. LAG IS 3492'.

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

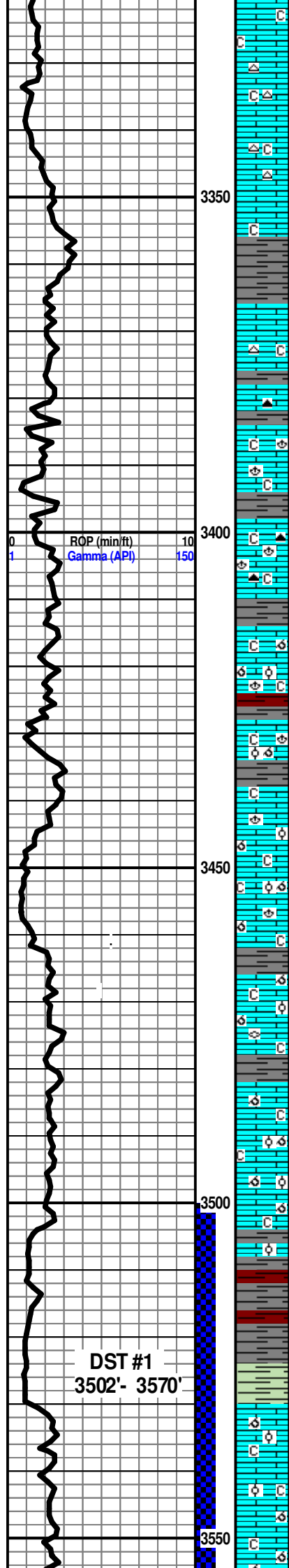
Sh Char-Gry-Olive-Red V Soft- Fissil LS AA Wht-Crm-Gry Fxln Poor Pin-Pt Ixln
Micritic Dec Chalk AA No Odor No Stn No Flor NS

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

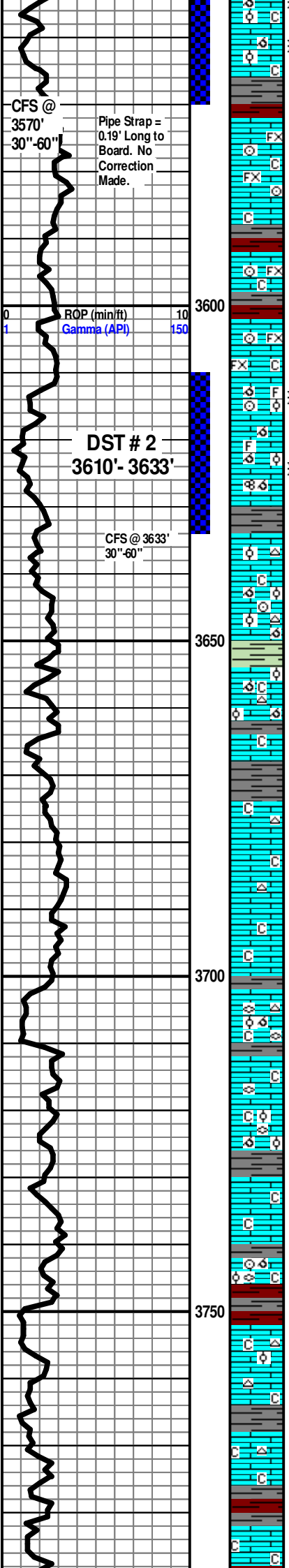
STOTLER 3530' (- 725)

LS Wht-Crm Fxln V- Fxln Pin-Pt Por w/SSG W/Brokm 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



DST #1
3502'- 3570'



SSG
 60" CFS Ls Wht-Crm AA FxIn V- FxIn 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 Flr 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 FxIn Micritic Tr/ Vfg Pin-Pt lxn Por w/ tr/ Poor Vug Lechjng w/ Abd Fos (Crim, Spic) Poor lxn Por Grad Dns Tr Chalk Sh Char-Red Fissil No Odor Scat Stn Flour (Lt Grn) NS

Ls Crm-Wht-Gry FxIn Micritic Tr/ Vfg Pin-Pt Por w/ tr/ Poor Vug Leaching w/ Abd Fos (Crim, Spic) Poor lxn 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 FxIn Micritic Fos (Crim, Brach) Poor lxn Por Dns Tr Chalk Sh Char-Red Fissil No Odor Sli Scat Stn Flour (V Lt Grn) NS

30" CFS Ls Wht-Crm FxIn Tr/ Vfg Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOMP Por w/Small OOL in pl Cht Gry Abd Op Shp Vit Tr Chalk Sh Char-Gry Fos (Crim,Spic) Fissil Faint Odor Sli Scat Stn Flour (V Lt Grn) SSG

60" CFS Ls Wht-Crm FxIn Tr/ Vfg Pin-Pt Gran Por Grad Tr/OOMP Por w/OOL in pl Poor InterOOL/OOMP 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 FxIn Tr/ Vfg Pin-Pt Gran Por Grad Tr/OOMP Por w/OOL in pl Poor InterOOL/OOMP Por w/Small OOL in pl Poor Dis Poor Develop Cht Gry Abd Op Shp Vit Tr Chalk Fos (Crim) Sh Char-Gry Fissil ? Faint Odor Tr Sli Scat Stn Flour (V Lt Grn) Few Pcs AA (???) Trip Gas Kick- No Show Gas In Spl.

Ls Crm FxIn Tr/ Vfg Pin-Pt Gran Por Grad Tr/OOMP Por w/OOL in pl AA Poor InterOOL/OOMP Por w/Small OOL in pl Poor Dis Poor Develop Chalk Wht Sh Char-Grn Fissil Tr Sli Scat Stn ? Min Flr No Odor NS

Ls Wht FxIn Grad Micrite Dns Poor lxn Por Chalk Wht Sh Char- Grn Fissil Tr Sli Scat Stn ? Min Flr No Odor NS

Ls Crm-Gry FxIn Grad Micrite Dns Poor lxn Por Cht Wht Op Shp Vit Tr/Chalk Wht Sh Char- Grn Fissil No Stn No Flr No Odor NS

Ls Crm-Gry FxIn Grad Micrite Dns Poor lxn Por Cht Wht Op Shp Vit Tr/Chalk Wht Sh Char- Grn Fissil No Stn No Flr No Odor NS

Ls Crm-Gry AA FxIn Micritic Tr Poor lxn 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 FxIn Tr/Poor OOM Por Tr/Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOMP Por w/Small OOL in pl Poor InterOOM Por Fos (Fuss) Chalk Sh Char Fissil No Odor Sli Scat Stn Flour (V Lt Grn) NS

Ls Crm-Gry-Wht FxIn Tr/Pin-Pt Por Poor-Fair lxn Gran Por Fos V Abd (Fuss) Tr Chalk Sh Char Fissil No Odor No Stn No Flour NS

Ls Wht-Crm FxIn Poor lxn 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 FxIn Poor lxn Por Mostly Mricrite Dns Chalk AA Sh Char Fissil No Odor No Stn No Flour NS

Ls Wht-Crm FxIn Poor lxn 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

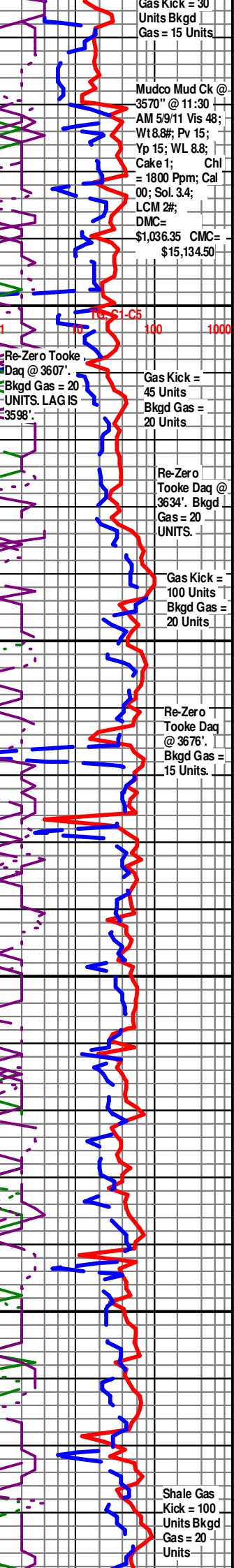
Ls Crm FxIn Poor-Fair OOM Por w/ OOL in pl Poor Dis Poor Develop Poor Leaching Chalk Abd Sh Char-Red Fissil No Odor No Stn No Flour NS

Ls Crm FxIn Gran Poor lxn Por Cht Wht Op Shp Vit Chalk AA Fos (Fuss) Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS

Ls Crm FxIn Gran Poor lxn Por Cht Wht Op Shp Vit Abd Chalk Inc AA Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS

Ls Crm FxIn Gran Poor lxn Por Abd Chalk Inc AA Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS

30" CFS Ls Crm FxIn Gran Poor lxn Por Abd Chalk Inc Sh Char-Red-Grn Fissil No



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

Re-Zero Tooke Daq @ 3607'. Bkgd Gas = 20 UNITS. LAG IS 3598'

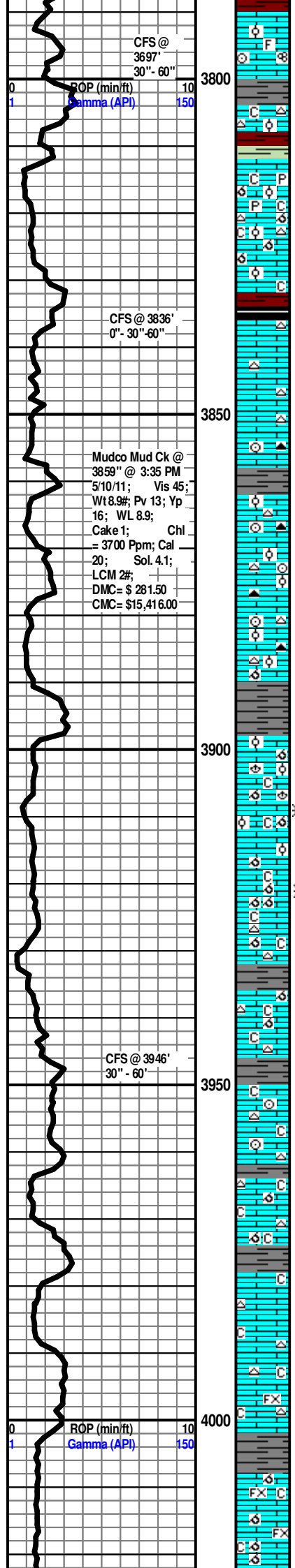
Gas Kick = 45 Units Bkgd Gas = 20 Units

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



Odor No Stn No Flour Sli ? Min Flour

TOPEKA 3804' (- 999)

0' CFS Ls Wht Fxn 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

30' CFS Ls Wht Fxn 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

60' CFS Ls Wht Fxn 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 Fxn 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 Fxn 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 (Crim) Sh Char-Red-Aqua-Blk Carb ? AA Fissil No Odor No Stn No Flour NS

Ls Crm Wht Fxn 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 (Crim) Sh Char-Red-Aqua-Blk Carb ? AA Fissil No Odor No Stn No Flour NS

Ls Crm Wht Fxn 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 (Crim) Sh Char-Red-Aqua-Blk Carb ? AA Fissil No Odor No Stn No Flour NS

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

Ls Wht-Gry Fxn 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

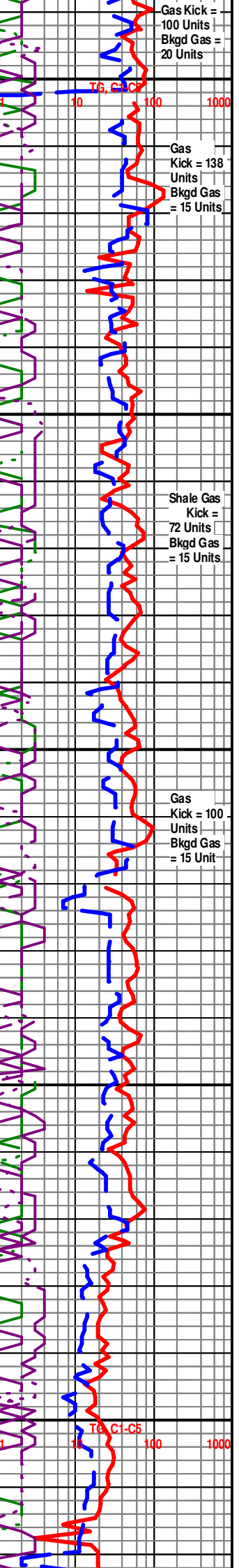
LECOMPTON 3979' (- 1174)

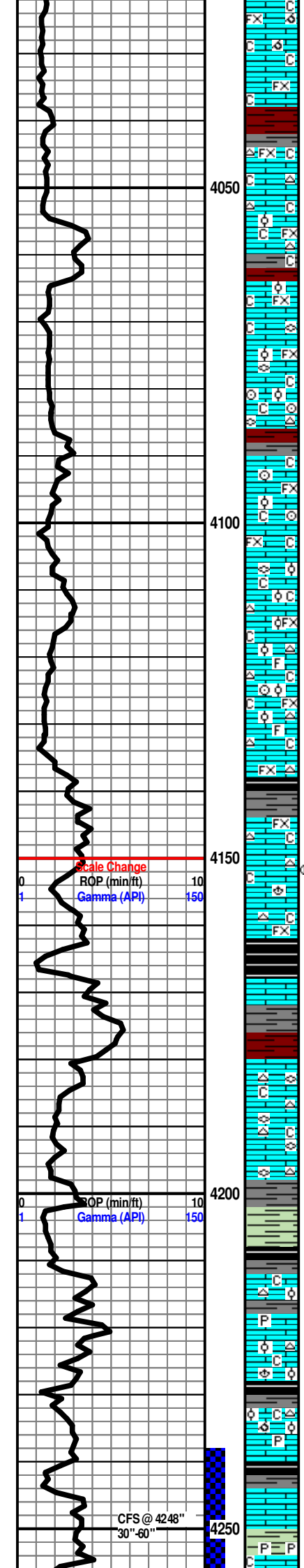
Ls Crm-Wht Fxn Poor Ixln Por Micritic Grad Fxn Poor Pin-Pt Por Cht Wht-Gry AA Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor ? Scat Min Flour NS

Ls Gry-Crm-Wht Fxn Poor Ixln Por Micritic Grad Tr Fxn 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 Fxn 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 Fxn 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





Ls Wht-Crm Fxln Poor Micritic Tr Poor Pin-Pt Gran Por Grad Chalk Abd AA Sh Tr Fair-Med Poro 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

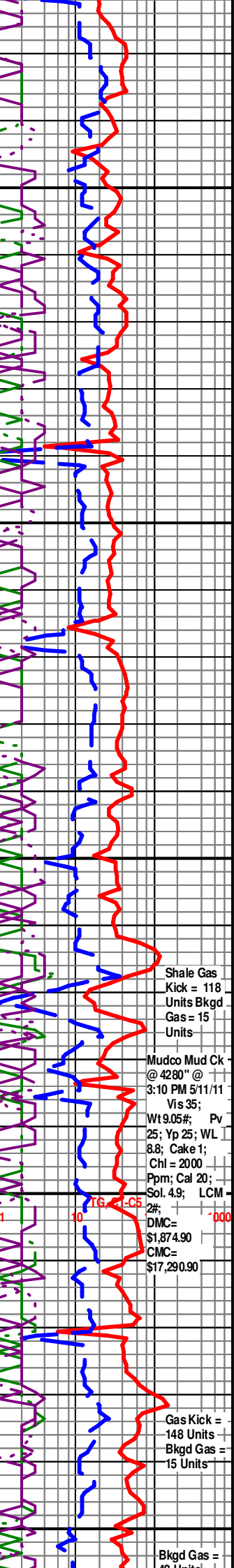
Ls Wht-Gry Fxln Dns Micritic Tr Grad OOL Por AA Poor Develop Poor Leaching Fos (Brach) Cht Wht Op Vit Shp Chalk Sh Blk Char-Gry-Grn Fissil No Odor Sli Min ? Flour NS

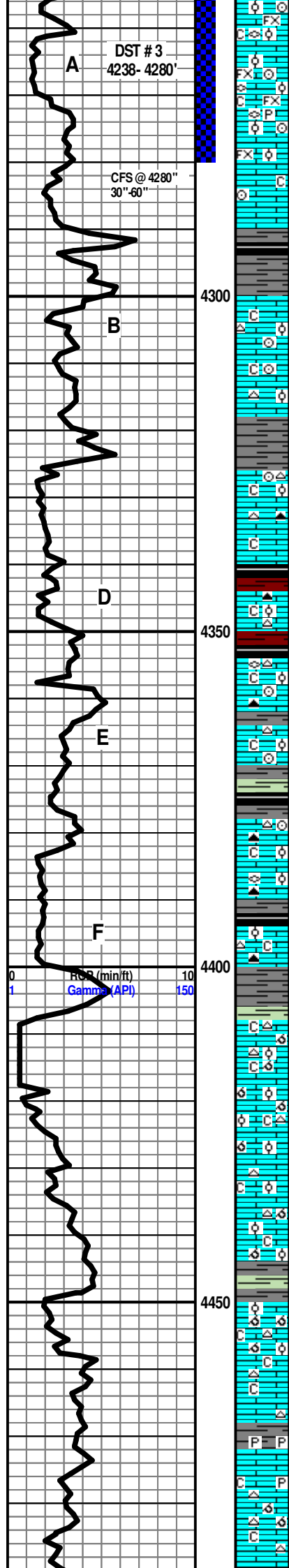
30" CFS Ls Crm- Fxln Dns Micritic Tr Grad OOL Por AA Poor Develop Poor Leaching Fos Abd (Crin, Fuss) Cht Wht Op Vit Shp Chalk Wht Sh Tr/Blk Carb-Char-Gry-Grn (w/Pry Inclus) Fissil No Odor Sli Scat ? Min Flour NS

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





"Salt & Pepper" Por W/ Fair SG/ SO No Flour (Gas/Oil < 35 API Grv.) Cht Wht Op Sh Grn (w/Pry Inklus) Fissil Fos (Crin, Fuss) Abd Fair Odor Sli Scatt Flour (Dull Lt Grn) SSG/SSO

30" CFS Ls Wht-Crm FxIn Pin-Pt Por Fair lxn Por w/ Tr/ OOL/OOM in Pl w/Poor-Fair InterOOL Por Poor to Fair Dis Poor-Fair Develop Fair Inc Pin-Pt lxn "Salt & Pepper" Por Fair SG/ SO No Flour (Gas/Oil < 35 API Grv.) Cht Wht-Drk Gry-Brn Op Sh Grn (w/Pry Inklus) Fissil Fos (Crin, Fuss) Fair-Good Inc Odor Sli Scatt Flour (Dull Lt Grn) SG/ SO

60" CFS Ls Wht-Crm FxIn Pin-Pt Por Fair lxn Por w/ Tr/ OOL in Pl w/Poor-Fair InterOOL Por Fair Inc Pin-Pt lxn "Salt & Pepper" Por Fair SG/ SO No Flour (Gas/Oil < 35 API Grv.) Cht Wht-Drk Gry-Brn Op Sh Grn (w/Pry Inklus) 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 FxIn Micritic Poor-Fair lxn 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 FxIn Micritic Grad Tr OOL Por Poor lxn-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 FxIn Micritic AA Grad OOL Por Inc Poor lxn-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 FxIn 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 FxIn Micritic AA Grad OOL Por Dec Poor lxn-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 FxIn 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 FxIn Micritic Grad OOL Por Inc Poor-Fair lxn-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 FxIn 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 lxn-InterOOL Por Poor Develop Poor Leaching Grad Micritic FxIn Dns Cht Char-Blk Op Vit Shp Fos (Fuss) Chalk Dec Sh Char-Gry Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic Dns Grad OOL Por Poor lxn-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 FxIn Micritic Dns Grad OOL w/ Poor-Fair lxn-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 FxIn Micrite Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS

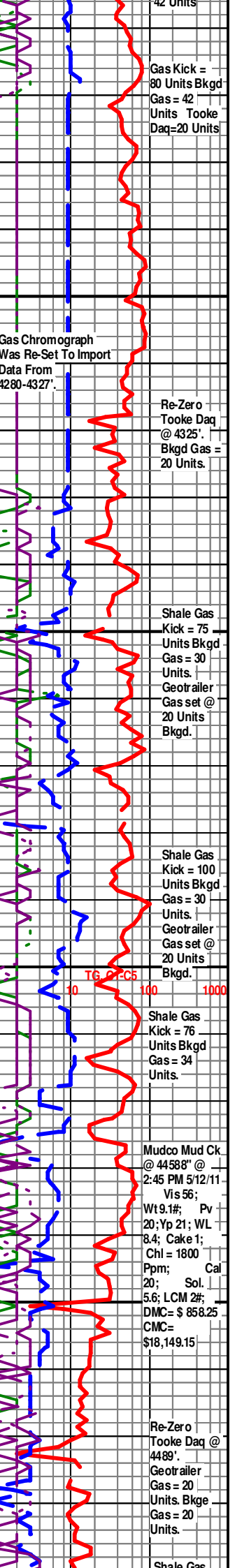
Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Good Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS

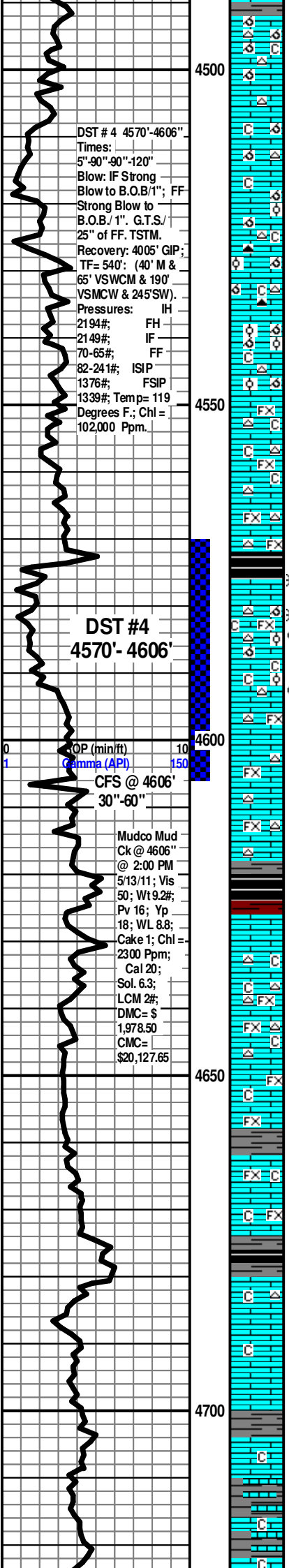
Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Grad FxIn Micrite Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS

Ls Crm-Gry FxIn 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 Inklus) Fissil Ls Crm-Gry FxIn Micritic Grad Tr OOM Fair w/ Fair-Good Leaching (w/Pyr Inklus) Fair Develop Cht Gry Op Vit Shp Chalk Wht Inc No Odor No Flour NS

Ls Gry-Crm FxIn 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





Ls Gry-Crm FxIn 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 FxIn 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 FxIn 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 FxIn Micritic Tr/Chalk Wht Dec Tr/Cht "Smoky Gry" Op Vit Shp Sh Char Fissil No Odor No Flour NS

Ls Crm FxIn 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 FxIn 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 FxIn 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 FxIn 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 FxIn 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 FxIn 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 FxIn 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 FxIn 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)

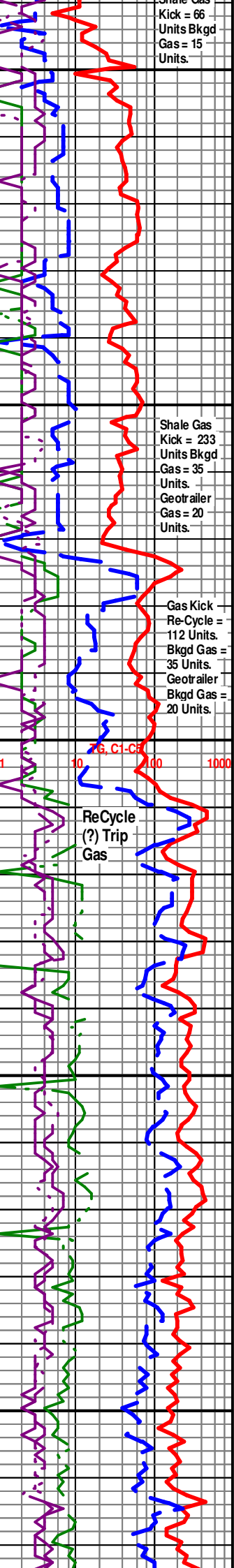
Sh Blk Carb-Char Abd Fissil Ls Wht-Gry AA FxIn Dns Micritic Grad Fair-Tr/OOM Por Cht Gry Dec (1 Pc) Op Vit Shp Chalk No Odor No Flour NS

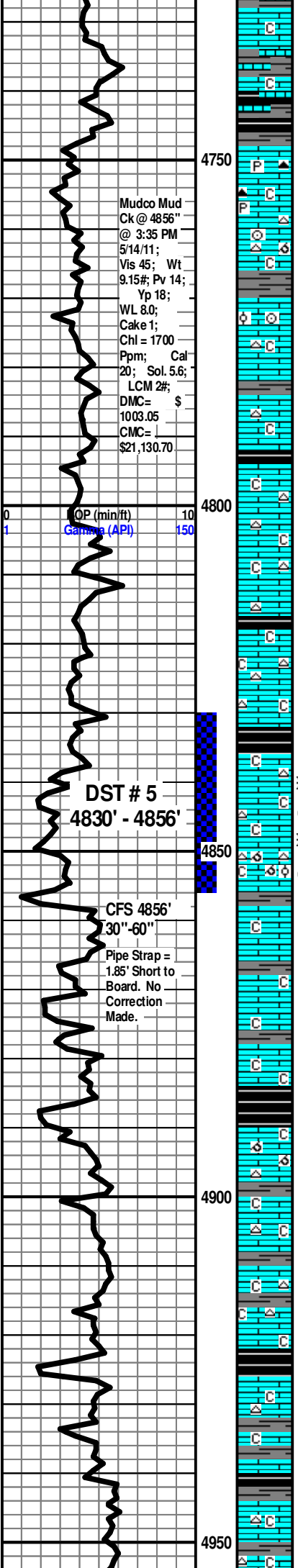
Ls Crm-Gry FxIn Micritic Dns No Vis Por Chalk Wht (Tr Only) Sh Char AA (Fissil No Odor No Flour NS

Ls Crm-Gry FxIn 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 FxIn 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 FxIn 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





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

DST # 5
4830' - 4856'

CFS 4856' 30"-60"
Pipe Strap = 1.85' Short to Board. No Correction Made.

Sh 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 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 Includ Chalk Wht Cht Drk Gry Op Shp Vit Sh Char Gry-Gm-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 Includ 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 Includ 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 Includ 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 Includ 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-Gooof 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-Gooof 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

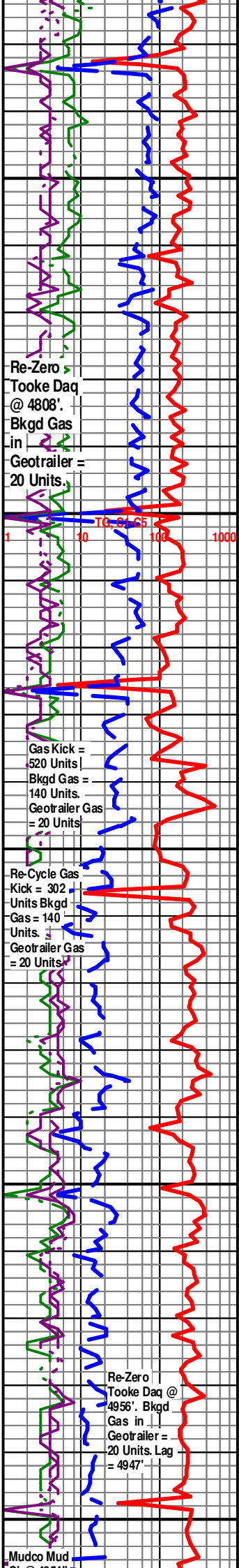
Ls Wht-Crm Fxln Dns Micrite No Vis Por Chalk AA Wht Cht Tan-Gry Sh Blk Carb Abd-Char Gry Fissil No Vis Por No Odor No Stn No Flor NS

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 Grv Sh Blk Carb Abd -Char-Gry Fissil No Odor No Flor



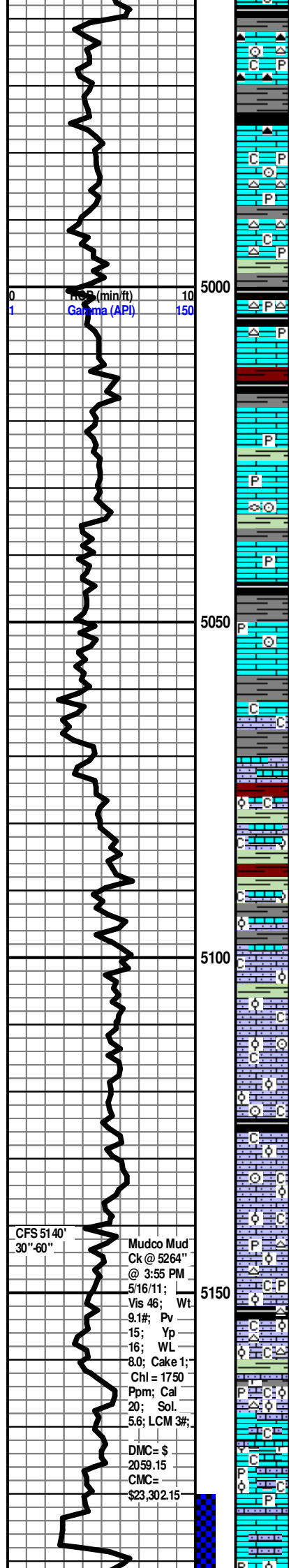
Re-Zero Tooke Daq @ 4808' Bkgd Gas in Geotrailer = 20 Units.

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



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 Includ 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 Includ 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 Includ 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 Includ 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 Includ 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 Includ 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 Includ 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 Includ Fissil-Soft Ls Wht-Pale Grn Fxln w/OOL (V Small in pl) Fair Ixln Por Poor InterIn/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 Includ w/Tr Dec Micritic

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 Includ 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 Includ No Odor No Flour No Stn NS

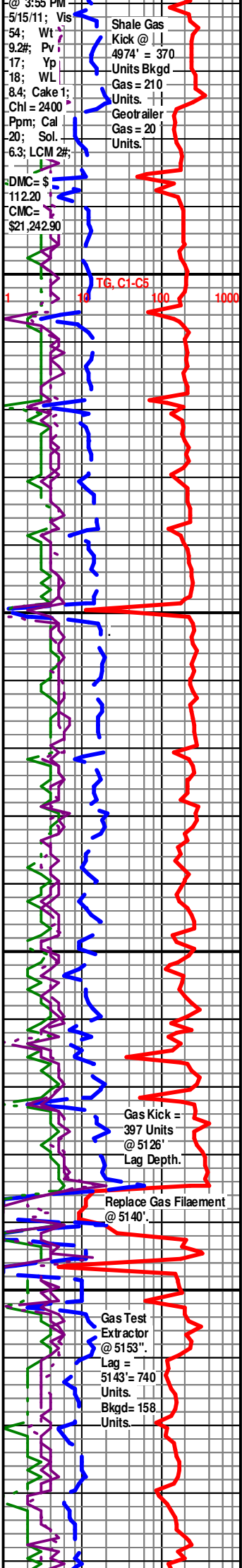
ST. LOUIS 5162' (- 2357)

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 Includ No Odor No Flour No Stn NS

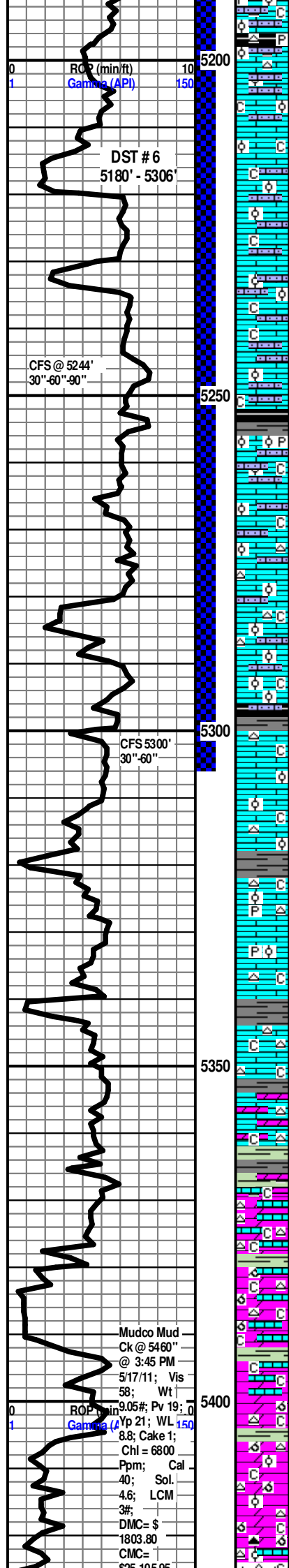
Ls Wht Fxln Grad Dns Micrite Grad Fxln OOL Por w/ OOL in pl Inc in size w/Inc Fair InterOOL Por w/tr Pyr Includ Cht Wht-Gray Banded-Amber Inc Op Shp Vit Tr Chalk Sh Blk Carb-Char-Gry-Grn-Aqua w/Pyr Includ No Odor ? Sli Min Flour No Stn NS

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 Includ No Odor ? Sli Min 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



CFS 5140' 30"-60"
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



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

Ls Crm-Wht-Fxn 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-Fxn w/OOL (Med-Lg in size & in pl) Fair-Med Inc InterOOL Por Fair-Med Dis Fair-Med Develop Friable W/tr (2 Pcs) Fxn 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-Fxn Fxn 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 Fxn 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 Fxn Grad Poor-Fair OOL Por w/OOL (F-M in size & in pl) Poor-Fair InterOOL Fxn Por Friable Chalk Sh Char-Grn-Red Fissil-Soft No Odor No Flor No Stn NS

90" CFS Ls Wht-Crm-Gry Fxn Grad Poor-Fair OOL Por w/OOL (F-M in size & in pl) Poor-Fair InterOOL Fxn 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 Fxn Grad Poor-Fair OOL Por w/OOL (Small Granular in size & in pl) Poor-Fair InterOOL Fxn Por Friable Chalk Sh Blk Carb-Grn Fissil-Soft No Odor No Flor No Stn NS

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

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

Ls Wht-Gry Fxn Grad Poor-Fair OOL Por w/OOL (Small Granular in size & in pl) Poor-Fair InterOOL Fxn 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 Fxn Grad Poor-Fair OOL Por w/OOL (S-F-M in size & in pl) Poor-Fair InterOOL Fxn 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 Fxn Grad Poor-Fair OOL Por w/OOL (S-F-M in size & in pl) Poor-Fair InterOOL Fxn 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-Fxn Fxn Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop Mostly Fxn Dns Micritic Chalk Sh Tr Char Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxn Fxn Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop Mostly Fxn 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-Fxn Fxn Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop w/Pyr Includ Mostly Fxn 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-Fxn Fxn Dns Micrite Grad Tr Only Poor OOL Por w/OOL (Small in size) No-Poor InterOOL Por Poor Dis Poor Develop w/Pyr Includ Mostly Fxn 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-Fxn Fxn Dns Micrite AA Tr Dolo Gry Fxn Poor IxIn Por Chalk Inc Cht Gry Op Shp Vit Sh Tr Char-Aqua Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Fxn Fxn Dns Micrite AA Tr Dolo Gry Fxn Poor IxIn 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-Fxn Fxn Dns Micrite AA Tr Dolo Gry Fxn Poor IxIn 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 Fxn Dns Micrite "Blocky" No Vis Por Assoc w/LS Crm-Tan Grad Tab AA Fxn OOL Por w/OOL in pl Poor InterOOL Por Grad to Fxn 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 Fxn Dns Micrite Grad Fair OOM Por Tr Fair-Med Dis Fair Develop Fair Leaching Assoc w/ Abd LS Crm-Tan Grad Tan AA Fxn OOM Por w/OOL in pl Poor InterOOL Por Grad to Fxn 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

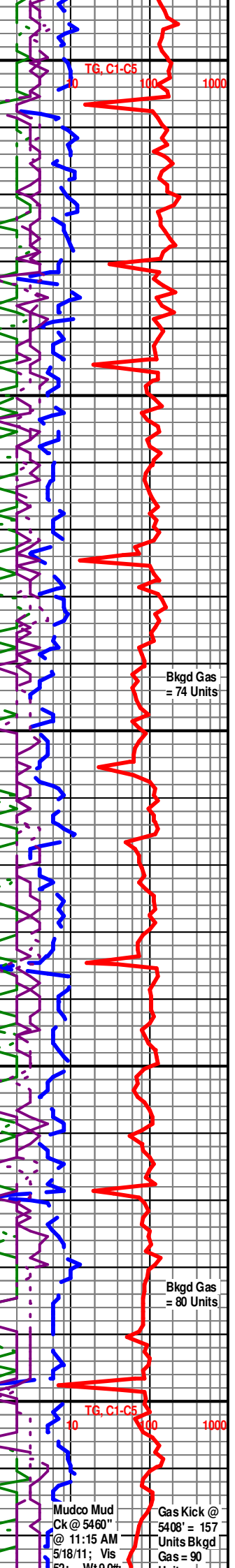
Dolo Tan-Brn Fxn Dns Micrite "Blocky" No Vis Por Assoc w/LS Crm-Tan Grad Tab AA Fxn OOL Por w/OOL in pl Poor InterOOL Por Grad to Fxn Dns Micritic Cht Wht OP Shp Vit Abd Chalk Wht Sh Pale-Drab Grn- Fissil-Soft No Odor No Flor No Dtn NS

Dolo Tan-Brn Fxn Dns Micrite "Blocky" No Vis Por Assoc w/LS Crm-Tan Grad Tab AA Fxn OOL Por w/OOL in pl Poor InterOOL Por Grad to Fxn 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 Fxn 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 Fxn 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

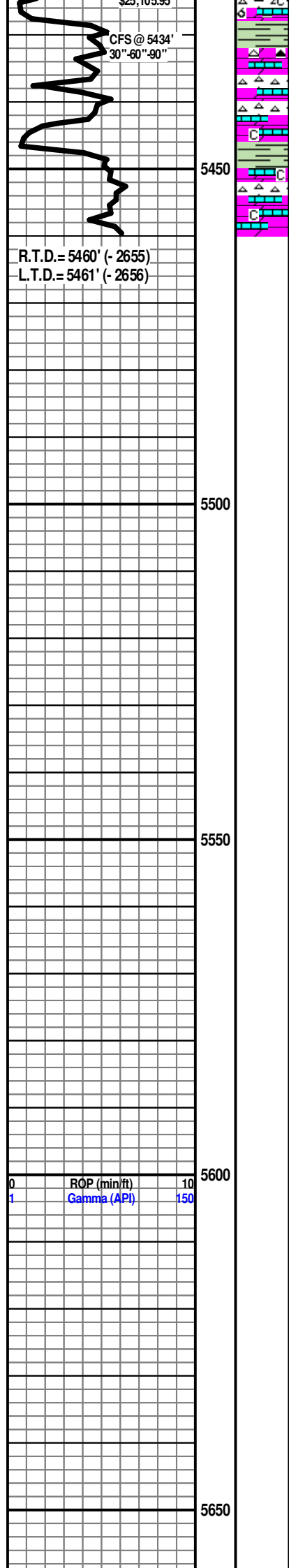
Mudco Mud Ck @ 5460" @ 3:45 PM 5/17/11; Vis 58; Wt 19.05#; Pv 19; Yp 21; WL 150 8.8; Cake 1; Chl = 6800 Ppm; Cal 40; Sol 4.6; LCM 3#; DMC= \$ 1803.80 CMC= 105.05



Bkgd Gas = 74 Units

Bkgd Gas = 80 Units

Mudco Mud Ck @ 5460" @ 11:15 AM 5/18/11; Vis 58; Wt 19.05# Gas Kick @ 5408' = 157 Units Bkgd Gas = 90



CFS @ 5434'
30"-60"-90"

R.T.D. = 5460' (- 2655)
L.T.D. = 5461' (- 2656)

ROP (min/ft) 10
Gamma (API) 150

90" CFS Dolo Tan-Crm-Wht-Gry FxIn AA Fair-Med-Good OOM Por w/ OOL in pl Fair-Med-Good InterOOM/OOL Por Fair Diiis 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

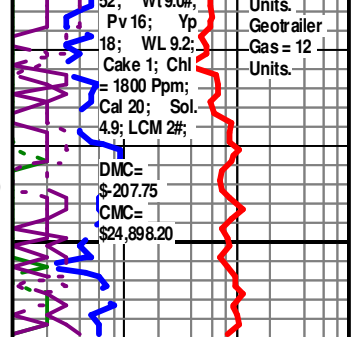
30 CFS Dolo Tan-Gry FxIn Dns Micrite "Blocky No Vis Por Grad OOL/OOMP Por w/ OOL in pl Poor-Tair InterOOMPor Grad Dns Micritic Ls AA Chalk Wht Cht Wh-Tan-Gry Op-Translu Shp Vit Abd Sh (V SII Tr) Drab Grb Soft No Odor No Flor No Dtn NS

60" CFS Dolo Tan-Gry FxIn Micritic Por Is AA Chalk Wht Cht Wh-Tan-Gry OP Shp Vit Abd Sh Tr Char-Grn Soft No Odor No Flor No Dtn NS

Units.
Geotrailer
Gas = 12
Units.

Pv 16; Yp
18; WL 9.2;
Cake 1; Chi
= 1800 Ppm;
Cal 20; Sol.
4.9; LCM 2#;

DMC=
\$ 207.75
CMC=
\$24,898.20



TG, C1-C5
1 10 100 1000

5700

5750

5800

5850

ROP (min/ft) 10
Gamma (API) 150

TG, C1-C5 1 10 100 1000

5900

5950

6000

6050

6100

ROP (min/ft) 10
Gamma (API) 150

TG, C1-C5 10 100 1000

6150

6000