



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

Well Name: CORBIN-REXFORD "A" # 1-5
Location: E/2- SE - SW of Sec. 5 - T. 30 S. - R. 30 W.
License Number: A.P.I. #15 - 119 - 21,347 - 00 - 00
Spud Date: 9/18/2013
Surface Coordinates: SPOT: 660' FSL & 2310' FWL

Region: MEADE CO., KS.
Drilling Completed: 09/29/2013

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2813' **K.B. Elevation (ft):** 2824'
Logged Interval (ft): SURFACE To: 5670' **Total Depth (ft):** 5675'
Formation: MISSISSIPPIAN
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2988'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: McCOY PETROLEUM CORPORATION KCC LIC. NO. # 5003
Address: 8080 E. CENTRAL, STE. 300
WICHITA, KANSAS 67206-2366

GEOLOGIST

Name: DAVID P. WILLIAMS, P.G.
Company: DW ENERGY, LLC
Address: 312 N. BROADVIEW STREET
WICHITA, KANSAS 67208

CASING & DEVIATION

Spud at 12:00 pm on 09/18/13. Drilled 12-1/4" to 1836'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 1815.' Set at 1831' KB. Welded straps on shoe, bottom 3 joints and top 2 joints, tacked collars on the remainder. Centralizers (5) on joints 1-3-5-7-9. Float insert in top of 1st joint. Cemented with 680 sks 65/35 POZ; 6% Gel; 3% CC, & 1/4# FS; Plus tailed with 200 sks Class A with 2% Gel; 3% CC & 1/4# CF. Cement did circulate. Plug down at 1:00 am on 09/19/13. Allied Cementing ticket #52005.

Deviation Survey's Taken: @ 1836' = 1/2 degree; @ 4652' = 3/4 degree; @ 4978' = 1/4 degree; @ 5675' = 1 1/2 degrees.

4 1/2" production casing was run in this well to further test the comercial nature of this well.

DSTs

~~~DST # 1 4528' - 4652'. Times: 30"- 60"- 60"-90";

**Blow: IF= Strong/ BOB /45 Sec. & 5" Blow Back During ISIP.**

**FF= Strong Blow BOB / Instant With GTS @ 1" into FF & TSTM. Strong Blowback During FSIP.**

**Recovery: 2133' GIP: 2480' TF: (186' GMWCO (5% G; 80% O; 5% M)); (2294' GW (10% G; 90% Wtr). A.P.I. Grv.=41.5 degrees. Rw= .08 @ 80 degrees F.; Temp.=122 degrees F.**

**Pressures: IH=2637#; FH=2287#; IF=551-1131#; FF=1157-1350#; ISIP = 1358#; FSIP = 1385#.**

~~~DST # 2 4930'-4978'. Times: 30"- 60"-30"- 60";

Blow: IF= Weak/1"; No Blow During ISIP. FF= Weak Blow /1"; No Blow During ISIP.

Recovery: 125' MCW: (60% W & 40% M).

Pressures: IH= 2582#; FH= 2376#; IF= 24-65#; FF= 69-100#;

ISIP= 1479#; FSIP= 1452#; Temp.= 120 degrees F.; Chl.= 15,000 Ppm.; RW= 0.55 @ 56 degrees F..

~~~DST # 3 5188'-5263'. Times: 30"-60"-60"-90";

**Blow: IF= Strong/ BOB /30 Sec.. G.T.S./5". No Blow Back During ISIP. FF= Strong Blow BOB/Immed. w/G.T.S.. No Blow Back During FSIP. (See Gas Gauges Below).**

**Recovery: 5182' GIP: 5' GCM (10% G & 90% M)..**

**Pressures: IH=2579#; FH=2374#; IF=167-127#; FF=152-151#;**

**ISIP=1749#; FSIP=1706#; Temp.= 126 degrees. F..**

**DST # 3 Continued Gas Gauge. IF: @ 10"=285 Mcf; @ 20"=340 Mcf; @ 30" =340 Mcf. FF Gas Gauge: @ 10"=636.7 Mcf; @ 20" =974 Mcf; @ 30"=974 Mcf; @ 40"=872.9 Mcf; @ 50"=872.9 Mcf; @ 60"=872.9 Mcf.**

~~~DST # 4 5263"-5297". Times: 30"- 30"- 30"- 30";

Blow: IF=Weak 1/4"& Died/18"; No Blow BackDuring ISIP. FF=No Blow; No Blow BackDuring FSIP.

Recovery: 5' M:

Pressures: IH=2614#; FH=2433#; IF=24-43#; FF=26-31#; ISIP =50#; FSIP= 35#; Temp.=120 degrees F.

~~~DST # 5 (Straddle) 55519"-5600'. Times:30"-60"-30"-60".

**Blow: IF= Weak 1/4"; No Blow Back During ISIP. FF= No Blow. No Blow Back During FSIP.**

**Recovery: 10' M:**

**Pressures: IH= 2946#; FH= 2532#; IF= 31-51#; FF= 46-55#; ISIP =1300#; FSIP=918#; Temp.= 129 degrees F.**


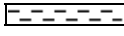

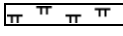
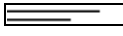
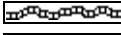




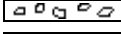


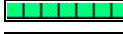




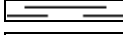
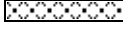
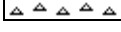


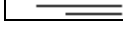
### Comments

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 production casing should be run in order to further evaluate this well.










































































Respectfully submitted,

David P. Williams, P. G # 88 Kansas



























### ROCK TYPES

|                                                                                          |                                                                                          |                                                                                          |                                                                                              |                                                                                           |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
|  Anhy    |  Clyst  |  Gry sh |  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

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

### OTHER SYMBOLS

|                                                                                             |                                                                                              |                                                                                              |                                                                                             |                                                                                                             |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>POROSITY</b>                                                                             |  Vuggy    | <b>ROUNDING</b>                                                                              |  Even    |  Straddle test tail pi |
|  Earthy   | <b>SORTING</b>                                                                               |  Rounded  |  Spotted |  Dst_alt               |
|  Fenest   |  Well     |  Subrnd   |  Ques    | <b>EVENT</b>                                                                                                |
|  Fracture |  Moderate |  Subang   |  Dead    |  Rft                   |
|  Inter    |  Poor     |  Angular  | <b>INTERVAL</b>                                                                             |  Sidewall              |
|  Moldic   |                                                                                              | <b>OIL SHOW</b>                                                                              |  Core    |                                                                                                             |
|  Organic  |                                                                                              |  Gas show |  Dst     |                                                                                                             |
|  Pinpoint |                                                                                              |                                                                                              |                                                                                             |                                                                                                             |

Curve Track 1

ROP (min/ft) ———  
Gamma (API) - - - - -

Depth

Geological Descriptions

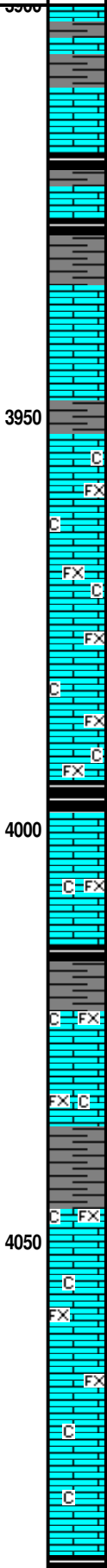
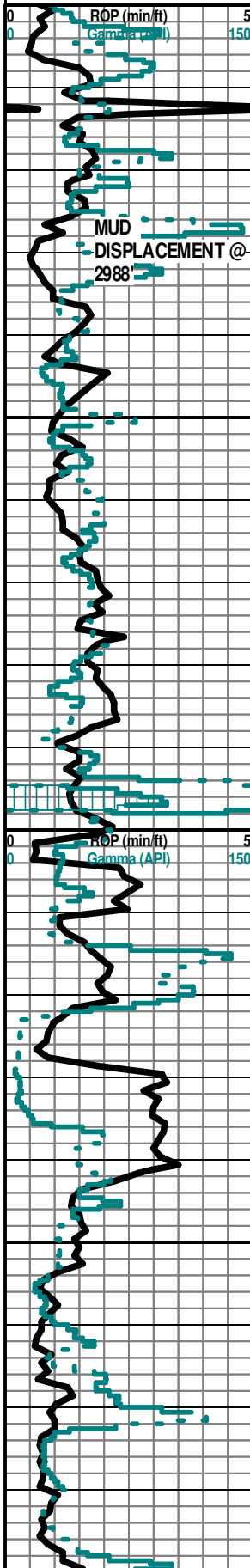
Oil Shows

Geological Descriptions

TG (Units)

TG, C1-C5

—————



**McCOY PETROLEUM CORPORATION**  
**CORBIN-REXFORD "A" # 1-5**  
**SPOT: 660' FSL & 2310' FWL**  
**E/2- SE - SW**  
**Sec. 5 - T. 30 S. - R. 30 W.**  
**MEADE COUNTY, KANSAS**  
**A.P.I. # 15 - 119 - 21,347 - 00 - 00**  
**ELEVATION : 2824' K. B. ; 2813' G. L.**  
**CONTRACTOR: STERLING DRILLING - RIG # 2**  
**Geologist: David P. Williams, P. G.**

Geologist on location @ (3817') 6:07 PM 9-21-13

STONE CORRAL ANHYDRITE SAMPLE TOP = 1765' (+1059).  
STONE CORRAL ANAYDRITE SAMPLE BASE = 1780' (+1044).

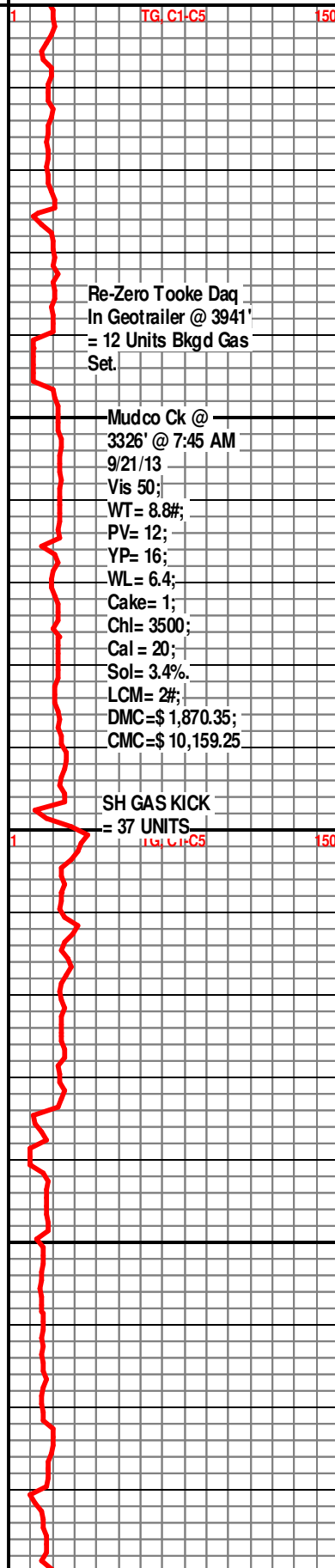
Deviation Survey's Taken: @ 1836' = 1/2 degree; @ 4652' = 3/4 degree; @ 4978' = 1/4 degree; @ 5675' = 1 1/2 degreeS.

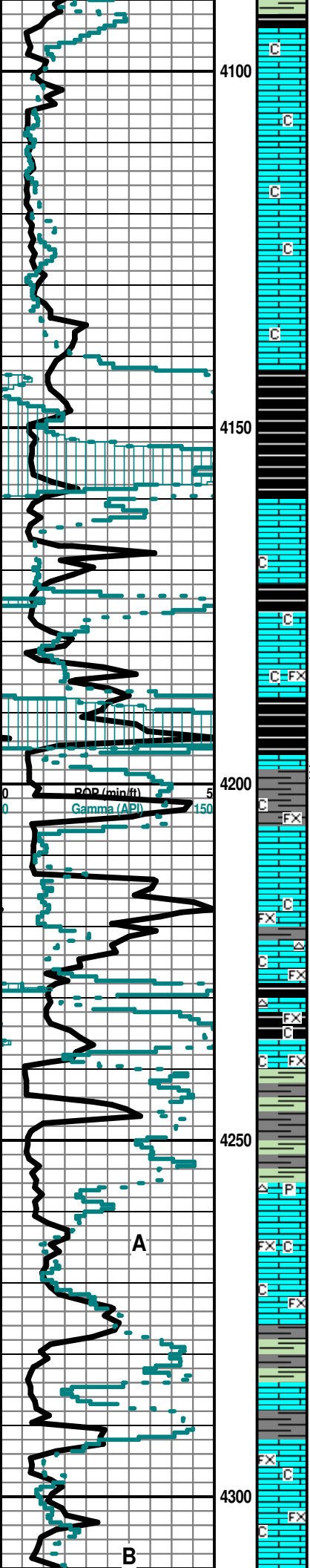
Note: All samples have been lagged to depth by calculated time.  
Begin 31' Sample Examination @ 4000'.

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Chalk Abd Sh  
Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Chalk Abd Sh  
Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Chalk Abd Sh  
Char-Gry Soft No Odor No Stn No Flor NS





Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor  
 OOM Por Poor Develop Poor Vug Dissolu Poor Leaching Chalk Sh Char-Gry  
 Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Por Grad  
 Poor OOM Por Poor Develop Poor Vug Dissolu Poor Leaching Chalk Sh  
 Char-Gry-Blk Carb Fissil-Soft No Odor No Stn No Flor NS

Sh Blk Carb -Char-Gry Fissil Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor  
 Pin-Pt Ixln Por Chalk Soft No Odor No Stn No Flor NS

HEEBNER 4188' (- 1364)

TORONTO 4204' (- 1380)

Sh Blk Carb-Char-Gry-Maroon Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad  
 Pin-Pt Ixln Por Chalk No Odor No Stn No Flor NS

DOUGLAS 4228' (- 1404)

Sh Char-Gry (w/Pyr Inklus)-Maroon Soft-Fissil Ls Wht-Crm-Gry Fxln Dns  
 Micrite Grad Pin-Pt Ixln Por Cht Wht Op Shp Vit Chalk No Odor No Stn No  
 Flor NS

LANSING 4256' (- 1432)

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Chalk Sh  
 Char-Gry-Blk Carb-Maroon Fissil Soft No Odor No Stn No Flor NS

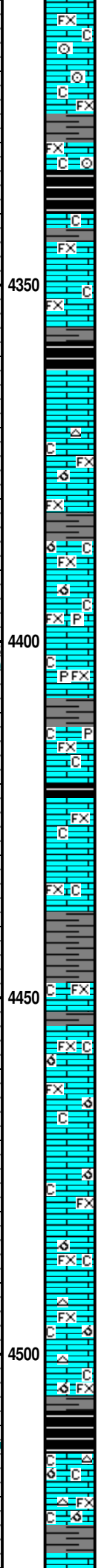
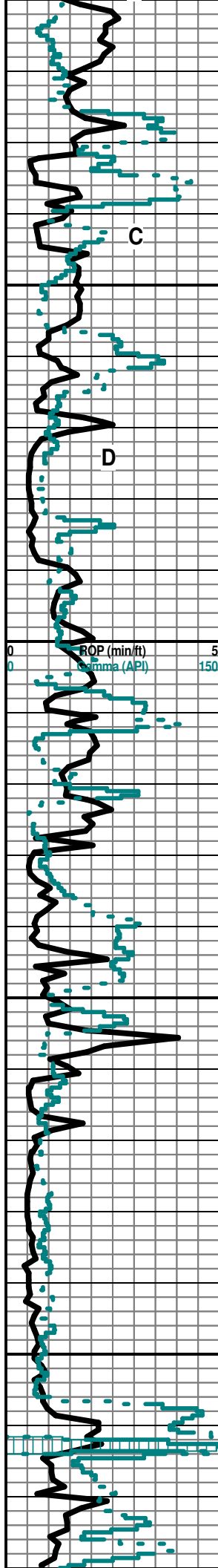
SH GAS KICK =  
 97 UNITS.

TG C1-C5 1 150

Scale Change  
 TG C1-C5 1 75

A

B



Ls Wht-Crm FxIn Micrite Barren Grad Fair IxIn Por Chalk Fos (Crin) Sh Blk Carb-Char-Gry-Aqua Fissil Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Fair-Med Pin-Pt IxIn Por Grad Med-Good OOMPor Poor InterOOM Por Barren Chalk Cht Wht Op Shp Vit Sh Char-Gry-Olive-Maroon Fissil Soft No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Poor- IxIn Por Barren Chalky Sh Char-Gry (w/Pyr Incls) Sh-Blk Carb Fissil No Odor No Flor No Stn NS

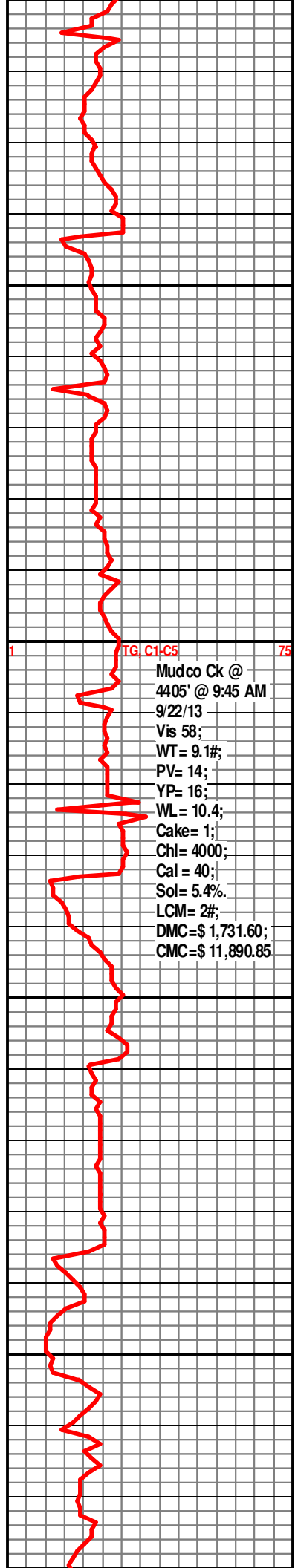
Ls Wht-Crm-Tan-Gry Fair IxIn Por Barren Chalk Abd Sh Char-Gry- Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan Fair-Med-Lg XIn Por Barren Grad Poor-Fair OOM Por Poor Dissolu Fair Dissolu Poor vug Leaching Sh Char- Gry Fissil No Odor No Flor No Stn NS

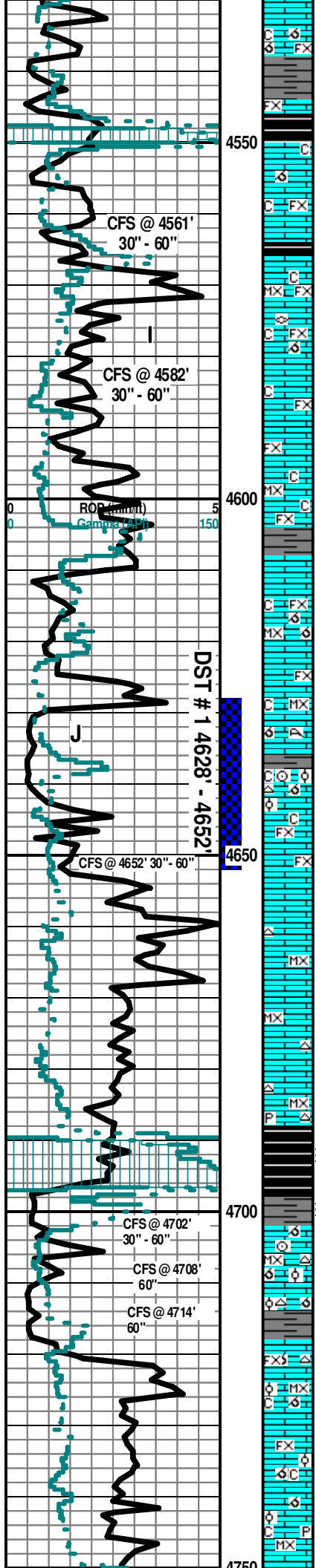
Ls Crm-Tan-Gry FxIn Med-Good OOM Por Poor-Fair InterOOM Vug Por (w/Small-Med Ooids in pl) Barren Cht Wht Op Shp Vit Sh AA No Odor No Flor No Stn NS

BEGIN 10' SAMPLE EAMINATION @ 4550'

LANSING "G" 4529' (- 1705)



Mudco Ck @  
4405' @ 9:45 AM  
9/22/13  
Vis 58;  
WT= 9.1#;  
PV= 14;  
YP= 16;  
WL= 10.4;  
Cake= 1;  
Chl= 4000;  
Cal = 40;  
Sol= 5.4%.  
LCM= 2#;  
DMC=\$ 1,731.60;  
CMC=\$ 11,890.85



30" CFS @ 4561' Ls Crm-Tan-Gry FxIn Med-Good OOM Por Med- Good InterOOM Vug Por Barren Cht Wht Op Shp Vit Sh AA No Odor ? Sli Min Flor No Stn NS

60" CFS @ 4561' Ls Crm-Tan-Gry FxIn Med-Good OOM Por Med- Good InterOOM Vug Por Barren Cht Wht Op Shp Vit Sh Blk Carb-Char-Gry No Odor No Flor No Stn NS

30" CFS @ 4582' Sh Blk Carb-Char-Gry-Aqua-Maroon-Red Soft-Fissil Ls Crm-Tan-Gry MicroIn-FxIn Micritic (w/Pyr Includ) Grad Med-Good OOM Por Med- Good InterOOM Vug Por AA Barren Cht Wht Op Shp Vit No Odor No Flor No Stn NS

60" CFS @ 4582' Ls Crm-Tan-Gry FxIn Micritic (w/Pyr Includ) Grad Med-Good OOM Por Med- Good InterOOM Vug Por Barren Fos (Crin, Fuss) Sh Blk Carb-Char-Gry-Aqua- Maroon-Red Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Sh AA No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Sh AA No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Med-Good OOM Por Good InterOOM (w/ Small-Med OOids in pl) Por Barren Grad MicroxIn Micrite Sh AA No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Med-Good OOM Por Good InterOOM (w/ Small-Med OOids in pl) Por Barren Grad MicroxIn Micrite Sh AA No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Med-Good Chalky OOM Por (w/Small-Med OOids in pl) Good InterOOM Por (w/SG (Lt Brn) & SSO in Wtr Under Heat w/Broken ? Flor) Soft Good Dissolu Good Leaching Grad FxIn Vug IxIn Por Cht Wht Op Shp Vit Fos (Crin, Coral) Chalky Abd Sh Blk Carb-Char-Gry Fissil Good Odor Sli Flor Few Pcs (10) w/ Lt Brn Stn SSG & SSO

30" CFS @ 4652' Ls Crm-Tan FxIn Med-Good OOM Por Good InterOOM Por (w/SG (lt Brn) in Wtr Under Heat w/Broken ? Flor) Soft Good Dissolu Good Leaching Grad FxIn (Small-Med-Lg) Pin-Pt Vug IxIn Por Cht Wht Op Shp Vit Fos (Crin, Coral) Chalky Sh Blk Carb-Char-Gry Fissil Good Odor Sli Flor AA Lt Brn Stn Tr SSG & SSO

60" CFS @ 4652' Ls Crm-Tan FxIn Med OOM Por Fair-Med InterOOM Por Dissolu Fair Dec Leaching Grad Poor FxIn Vug IxIn Por Grad Dns Micrite Cht Wht Op Shp Vit Fos (Crin) Chalky Sh Blk Carb-Char-Gry Fissil Faint Odor Sli ? Flor No Stn VSSG & VSSO

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Gry Op Shp Vit Sh Char- Gry Soft (Tr Only) No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Gry Op Shp Vit Sh Char- Gry Soft (Tr Only) No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Gry Op Shp Vit Sh Char- Gry Soft (Tr Only) No Odor No Stn No Flor NS

**STARK SHALE 4689' (- 1865)**

30" CFS @ 4702' Sh Blk Carb Fissil (w/SG) Ls Wht-Crm-Tan-Brn MicroxIn Dns Micrite (w/Pyr Includ) Cht Wht Op Shp Vit No Odor No Stn No Flor NS

**KANSAS CITY "SWOPE" (K) 4703' (-1879)**

60" CFS @ 4702' Ls Wht-Crm-Tan-Brn MicroxIn Dns Micrite (w/Pyr Includ) Grad FxIn Good Med-Lg Vug InterOOM Por (1 Pcs w/SG & Good Leaching Por) Cht Wht Op Shp Vit Fos (Crin) Sh Blk Carb Fissil (w/SG) No Odor No Stn No Flor SSG

60" CFS @ 4708' Ls Wht-Crm-Tan-Brn MicroxIn Dns Micrite (w/Pyr Includ) Cht Wht Op Shp Vit Sh Blk Carb Fissil (w/SG) No Odor No Stn No Flor NS

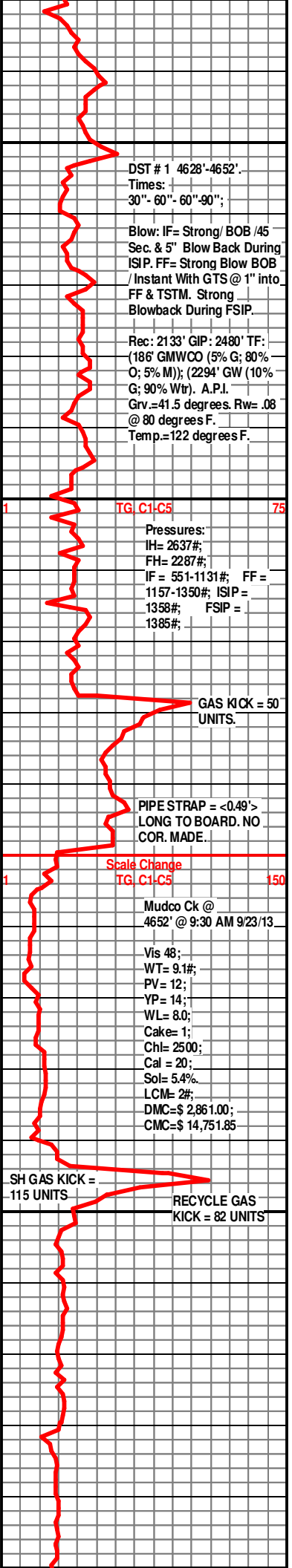
60" CFS @ 4714' Ls Wht-Crm FxIn Med-Good OOM Por (w/ Med OOids in pl) Good Leaching Good Dissolu Barren Cht Wht Op Shp Vit Sh Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Med OOM Por (w/ Med OOids in pl) Med-Good Leaching AA Med-Good Dissolu Barren Grad MicroxIn Dns Micrite Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Med OOM Por (w/ Med OOids in pl) Med-Good Leaching AA Med-Good Dissolu Barren Grad MicroxIn Dns Micrite Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn MicroxIn Dns Micrite & Med OOM Por AA Dec Fair Leaching AA Fair Dissolu Barren Grad Chalky Sh Char-Gry (w/Pyr Includ) Fissil No Odor No Stn No Flor NS

**HUSHPUCKNEY SHALE 4750' (- 1926)**



DST # 1 4628'-4652'  
Times:  
30"- 60"- 60"-90";

Blow: IF= Strong/ BOB /45 Sec. & 5" Blow Back During ISIP. FF= Strong Blow BOB / Instant With GTS @ 1" into FF & TSTM. Strong Blowback During FSIP.

Rec: 2133' GIP: 2480' TF: (186' GMWCO (5% G; 80% O; 5% M)); (2294' GW (10% G; 90% Wtr). A.P.I. Grv.=41.5 degrees. Rw= .08 @ 80 degrees F. Temp.=122 degrees F.

Pressures:  
IH= 2637#;  
FH= 2287#;  
IF = 551-1131#; FF = 1157-1350#; ISIP = 1358#; FSIP = 1385#;

GAS KICK = 50 UNITS.

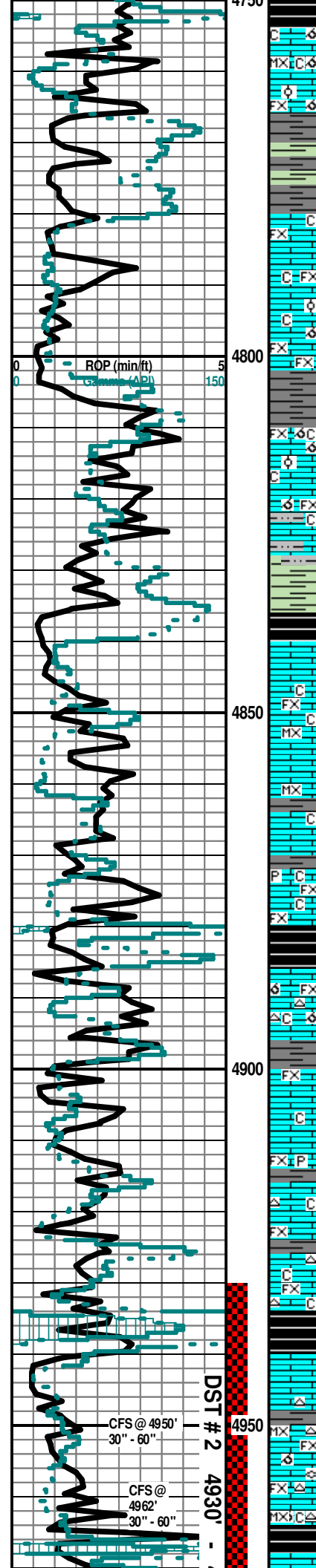
PIPE STRAP = <0.49> LONG TO BOARD. NO COR. MADE.

Scale Change TG C1-C5 150

Mudco Ck @ 4652' @ 9:30 AM 9/23/13

Vis 48;  
WT= 9.1#;  
PV= 12;  
YP= 14;  
WL= 8.0;  
Cake= 1;  
Ch= 2500;  
Cal = 20;  
Sol= 5.4%  
LCM= 2#;  
DMC=\$ 2,861.00;  
CMC=\$ 14,751.85

SH GAS KICK = 115 UNITS  
RECYCLE GAS KICK = 82 UNITS



Sh Blk Carb Fissil Ls Wht-Crm-Tan-Brn Microxln Dns Micrite & OOM Por AA No Odor No Stn No Flor NS

**KANSAS CITY "HERTHA (L)" 4764' (- 1940)**

Ls Wht-Crm Fxln Med OOM Por (w/ Med OOids in pl) Med-Good Leaching AA Med-Good Dissolu Barren Grad Microxln Dns Micrite Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Sh Char-Gry Fissil Ls Wht-Crm-Gry Fxln Dns Micritic Barren Chalky No Odor No Flor No Stn NS

**KANSAS CITY "HERTHA POR" 4781' (-1957)**

Sh Char-Gry Fissil Ls Wht-Crm-Gry Fxln Dns Micritic Barren Chalky No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Micritic Grad Fair OOM Por (w/OOL in pl) Poor Dissolu Poor Develop Poor Leaching Chalk Sh Char-Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Micritic Grad Fair OOM Por (w/OOL in pl) Poor Dissolu Poor Develop Poor Leaching Chalk Sh Char-Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Micritic Grad Poor-Fair OOM Por (w/OOL in pl) Poor Dissolu Poor Develop Poor Leaching Chalk Sh Char-Grn/Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Micritic Grad Poor OOM Por Poor Dissolu Poor Develop Poor Leaching Chalk Sh Char-Grn/Gry Grad Siltstn-Gry Soft- Fissil No Odor No Flor No Stn NS

**MARMATON 4840' (- 2016)**

Sh Char- Grn/Gry -Maroon-Red Fissil Ls Crm-Tan Fxln Micritic Grad Poor OOM Por Poor Dissolu Poor Develop Poor Leaching Chalk Pyr Mass No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Microxln-Fxln Poor Ixln Por Micritic Dns Barren Chalk Wht Soft Sh Char-Gry-Grn Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Microxln-Fxln Poor Ixln Por Micritic Dns Barren Chalk Wht Soft Sh Char-Gry-Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic (w/Pyr Includ) Dns Barren Chalk Sh Char-Gry -Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Chalk Sh Char-Gry -Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

**MARMATON "B" 4886' (- 2062)**

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Grad Poor OOM Por Poor InterOOM Por Cht Gry Op Shp Vit Chalk Sh Char-Gry -Siltstn Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic (w/Pyr Includ) Dns Barren Cht Amber-Tan Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Cht Amber-Tan Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Cht Amber-Tan Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

**PAWNEE 4940' (- 2116)**

30" CFS @ 4950' Ls Crm-Tan-Wht Fxln Poor Ixln Por Micritic Dns Barren Chalk Wht Cht Wht Op Shp Vit Sh Char-Gry-Blk Carb-Aqua-Maroon Fissil No Odor No Flor No Stn NS

60" CFS @ 4950' Sh Blk Carb Fissil Ls AA Chalk AA No Odor No Stn No Flor NS

30" CFS @ 4962' Ls Wht-Crm-Tan Microxln Micrite Grad Fxln Med OOM Por Fair-Med Inter-OOM Por Cht Gry Op Shp Vit Sh Blk Carb-Aqua Faint Odor No Flor No Stn ? Show

60" CFS @ 4962' Ls Wht-Crm-Tan Microxln Micrite Grad Fxln Poor OOM Por Poor Inter- OOM (w/Small OOids in pl) Por Poor Dissolu Grad Poor Pin-Pt Ixln Por Cht Amber Translu-Op Shp Vit Fos (Fuss) Sh Blk Carb-Aqua Faint Odor No Flor No Stn ? Show

**FORT SCOTT 4969' (-2145)**

TG C1-C5 150

GAS TEST AT EXTRACTOR = 118 UNITS.

Mudco Ck @ 4909' @ 11:15 AM 9/24/13  
 Vis 55;  
 WT = 9.2#;  
 PV = 17;  
 YP = 19;  
 WL = 8.8;  
 Cake = 1;  
 Chl = 3100;  
 Cal = 40;  
 Sol = 6.3%.  
 LCM = 2#;  
 DMC = \$3,023.00;  
 CMC = \$ 17,775.55

DST # 2 4930'-4978'  
 Times: 30" - 60" 30" - 60";

Blow: IF = Weak 1"; No Blow During ISIP. FF = Weak Blow /1"; No Blow During ISIP.

Recovery: 125' MCW: (60% W & 40% M).

Pressures:  
 IH = 2582#;  
 FH = 2376#;  
 IF = 24-65#;  
 FF = 69-100#;  
 ISIP = 1479#;  
 FSIP = 1452#;  
 Temp = 120 degrees F.  
 Chl = 15,000 Ppm.  
 RW = 0.55 @ 56 degrees F.

SH GAS KICK = 106 UNITS (AV Set Too Low)

@ 4950' ADJ. AV = 188.28. LAG DEPTH 4950'

GAS KICK = 40 UNITS

Mudco Ck @ 4978' @ 10:50 AM 9/25/13  
 Vis 66;  
 WT = 9.1#;

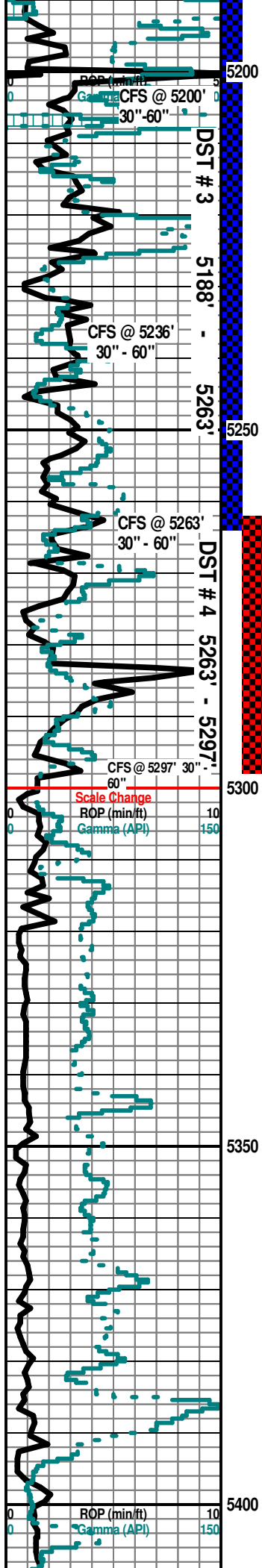
DST # 2 4930'

CFS @ 4950' 30" - 60"

CFS @ 4962' 30" - 60"







60" CFS @ 5200' Sh Char-Gry-Tr Blk Carb (w/SG) Fissil Abd Ls Crm-Wht- Tan Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk (w/Wht Fos Includ)-Gry-Tan Op Shp Vit Fos (Fuss w/VSSO Includ & Lt Brn Stn - 1Pc) No Odor No Flor No Stn NS

**MORROW SHALE 5206' (- 2382)**

30" CFS @ 5236' Sh Blk Carb Fissil Abd Ls Crm-Tan MicroIn Poor Ixln Por Micritic Dns Barren No Odor No Flor No Stn NS

**MISSISSIPPIAN CHESTER 5226' (- 2402)**

60" CFS @ 5236' Sh Blk Carb-Char-Gry Fissil Abd Ls Crm-Wht- Tan Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk (w/Wht Fos Includ)-Gry Op Shp Vit No Odor No Flor No Stn NS

30" CFS @ 5263' Ls Crm-Tan Fxn Fair-Med OOL Vug Por (w/Small- Med OOids in pl) Grad Med-Good Ixln Pin-Pt & Matted Fos Includ (Brach, Bry, Crin, Fuss, Spicule) Por (w/Med-Good SG & SO (Gas & Oil Do Not Flor)) Fair SFO (w/Broken In Wtr Under Heat) Faint Odor Drk Med-Good Brn Hvy Gillsonitic Stn No Flor M-GSG & M-GSO

60" CFS @ 5263' Ls Crm-Tan Fxn Fair-Med OOL Vug Por (w/Small- Med OOids in pl) Grad Med-Good Ixln Pin-Pt & Matted Fos Includ (Brach, Bry, Crin, Fuss, Spicule) Por (w/Med-Good SG & SO (Gas & Oil Do Not Flor)) Fair SFO (w/Broken In Wtr Under Heat & SFO in tray) Faint Odor Drk Brn Hvy Gillsonitic Stn AA No Flor M-GSG & M-GSO

30" CFS @ 5297' Ls Crm-Tan Fxn Fair OOL Vug Por AA Grad Fair-Med Ixln (Banded w/Lt Brn Stn) Pin-Pt & Matted Fos Vug Por (w/Fos Includ (Lg Crin, Gastro) V Abd (w/SG (Gas Does Not Flor)) Cht Wht-Amber Translu-Op Shp Vit Pyr Mass ? Faint Odor Drk Brn Hvy Gillsonitic Stn AA No Flor SG

60" CFS @ 5297' Ls Crm-Tan Fxn Fair OOL Vug Por AA Grad Fair-Med Ixln (Banded w/Lt Brn Stn) Pin-Pt & Matted Fos Vug Por (w/Fos Includ (Lg Crin) V Abd (w/SG (Gas Does Not Flor)) Cht Wht-Amber Translu-Op Shp Vit Pyr Mass ? Faint Odor Drk Brn Hvy Gillsonitic Stn AA No Flor SG

Sh Char- Gry- Drab Grn- Blk Carb Fissil Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Fos Includ AA) Pyr Mass & Ls (w/Streaks Pyr Includ) Grad Dolo Gray MicroIn Dns Micrite Sh Char-Gry-Drab Grn-Blk Carb Fissil No Odor No Flor NS

Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Fos Includ AA & w/Streaks Pyr Includ) Grad Dolo Gry MicroIn Poor Ixln Por Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS

Sh Char- Gry-Drab Grn- Blk Carb- Fissil Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Fos Includ AA & w/Streaks Pyr Includ) Grad Dolo Gry MicroIn Poor Ixln Por Pyr Mass Abd Sh Char-Gry-Drab Grn-Blk Carb Fissil No Odor No Flor NS

Dolo Gry MicroIn Poor Ixln Por Grad Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Fos Includ AA & w/Streaks Pyr Includ) Pyr Mass Abd Sh Char-Gry-Drab Grn-Blk Carb Fissil No Odor No Flor NS

Dolo Gry MicroIn Poor Ixln Por Grad Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Fos Includ AA & w/Streaks Pyr Includ) Pyr Mass Abd Sh Char-Gry-Drab Grn-Blk Carb Fissil No Odor No Flor NS

Dolo Gry MicroIn Dns Micrite No Vis Por Ls AA Chalk Sh Char-Blk Carb- Gry- Grn-Aqua-Maroon Soft-Fissil No Odor No Flor No Stn NS NS

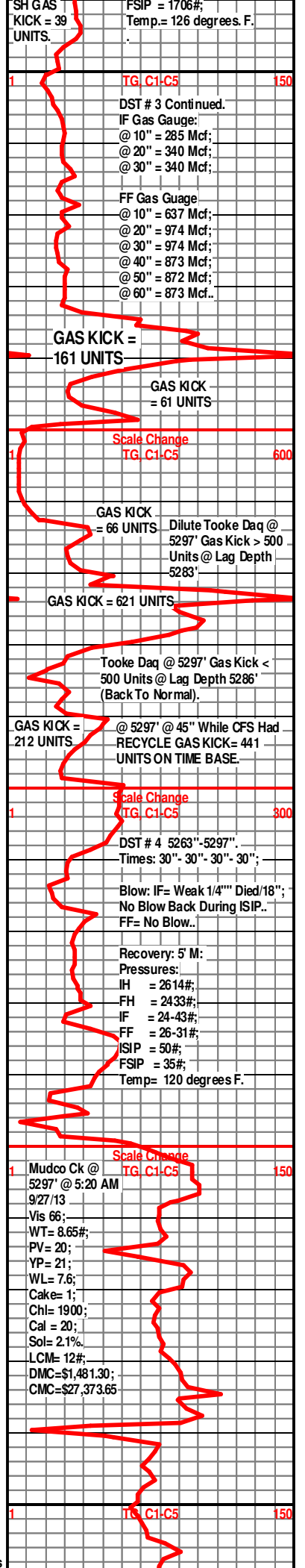
Dolo Gry MicroIn Dns Micrite No Vis Por Ls AA Chalk Sh Char-Blk Carb- Gry- Grn-Aqua-Maroon Soft-Fissil No Odor No Flor No Stn NS NS

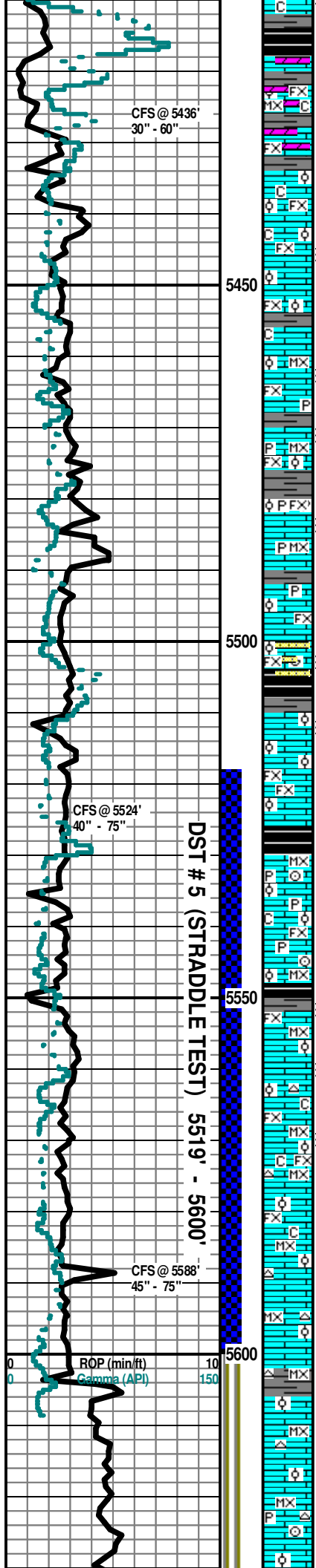
**MISSISSIPPIAN "Ste. GEN" 5390' (- 2576)**

Ls Wht-Lt Aqua (in Aqua CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Grad Dolo Gry MicroIn Dns Micrite Chalk Sh Char-Blk Carb-Gry-Grn-Aqua-Maroon Soft-Fissil No Odor No Flor No Stn NS NS

Ls Wht-Lt Aqua (in Aqua CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Grad Dolo Gry MicroIn Dns Micrite Chalk Sh Char-Blk Carb-Gry-Grn-Aqua-Maroon Soft-Fissil No Odor No Flor No Stn NS NS

30" CFS @ 5436' Ls Crm-Wht-Lt Aqua (in Aqua CaCo3 Matrix) MicroIn-Fxn Poor Ixln Por Dns Micrite Grad Dolo Gry MicroIn (w/SG) Fissil Abd Ls Crm-Wht- Tan Fxn Poor Ixln Por Dns Micrite Dns Barren Chalk Cht Drk Blk (w/Wht Fos Includ)-Gry-Tan Op Shp Vit Fos (Fuss w/VSSO Includ & Lt Brn Stn - 1Pc) No Odor No Flor No Stn NS





60" CFS @ 5436' Ls Crm-Wht-Lt Aqua (in Aqua CaCo3 Matrix) MicroIn-Fxl n Poor IxIn Por Dns Micrite Grad Poor-Fair OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Fair-Med InterOOL Por V Friable Dolo Gry-Maroon (Abd) MicroIn Chalk Sh Char-Blk Carb-Gry-Grn-Aqua-Maroon-Red Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Brn FxIn Poor-Fair OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Fair-Med InterOOL Por V Friable (w/? Dead Brn Stn) Chalky Sh Char-Blk Carb-Gry-Grn Fissil No Odor No Flor NS

Ls Wht-Brn FxIn Poor-Fair OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Fair-Med InterOOL Por V Friable Chalky Sh Char-Blk Carb-Gry-Grn Fissil No Odor No Flor NS

Ls Wht-Brn FxIn Poor-Fair OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Poor InterOOL Por V Friable Chalky Sh Char-Aqua-Blk Carb-Gry-Grn Fissil No Odor No Flor NS

Ls Wht-Crm-Gry FxIn-MicroIn Poor InterOOL Por (w/V Small OOL in pl) "Sandy Ooid Ls" (w/Scatt Lt Brn Stn w/SSG w/Under Heat in Wtr) Gas Does Not Flor Grad Dns Micrite No Vis Por Chalky Pyr Mass Sh Char-Aqua-Blk Carb Fissil No Odor ? Lt Brn Stn No Flor VSSG

Ls Wht-Crm-Gry FxIn-MicroIn Poor InterOOL Por (w/V Small OOL in pl) "Sandy Ooid Ls" (w/Scatt Lt Brn Stn w/VSSG w/Under Heat in Wtr) Gas Does Not Flor Grad Dns Micrite No Vis Por Chalky Pyr Mass Sh Char-Aqua-Blk Carb Fissil No Odor ? Sli Lt Brn Stn No Flor VSSG

Ls Wht-Crm-Gry FxIn-MicroIn Poor InterOOL Por (w/V Small OOL in pl) "Sandy Ooid Ls" (w/Scatt Lt Brn Stn w/VSSG w/Under Heat in Wtr) Gas Does Not Flor Grad Dns Micrite No Vis Por Chalky Pyr Mass Sh Char-Aqua-Blk Carb Fissil No Odor ? Sli Lt Brn Stn No Flor VSSG

Ls Wht FxIn Poor InterOOL Por (w/V Small-Med OOL in pl) "Sandy Ooid Ls (w/Scatt Lt Brn "Dead" Stn) Chalky Pyr Mass Sh Char-Aqua-Blk Carb Fissil No Odor ? Sli Lt Brn Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Poor InterOOL Por (w/V Small OOL in pl) "Sandy Ooid Ls" (w/Scatt Lt Brn Stn w/VSSG w/Under Heat in Wtr) Gas Does Not Flor Grad Ls Crm-Tan-Gry FxIn Dns Micrite Fos (Brach) Qtz Ss Wht-Lt Brn Small-Med Ang Grains Good IGran Por V Friable (w/GilIsonitic "Dead Oil" Lt-Drk Brn Stn Residue) Sh Char-Aqua-Blk Carb Fissil No Odor Lt Brn-Blk Stn No Flor ? VSSG

40" CFS @ 5524' Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Poor InterOOL Por (w/V Small OOL in pl) "Sandy Ooid Ls" Grad Crm-Tan-Gry FxIn Dns Micrite Sh Char-Aqua-Blk Carb Fissil No Odor No Stn No Flor NS

75" CFS @ 5524' Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Poor InterOOL Por (w/V Small OOL in pl) "Sandy Ooid Ls" Grad Crm Tan-Gry FxIn Dns Micrite Sh Char-Aqua-Blk Carb Fissil No Odor No Stn No Flor NS

**MISS. "ST. LOUIS" POROSITY 5540' (- 2716)**

Ls Wht-Crm-Lt Gry MicroIn-Fxl n Poor IxIn Por Dns Micrite Grad Poor InterOOL Por (w/V Small OOids in pl w/ Pyr Inclus) Friable "Sandy OOL Ls" Fos (Crin) Pyr Mass Sh Char-Blk Carb-Lt Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry MicroIn-Fxl n Poor IxIn Por Dns Micrite Grad Poor InterOOL Por (w/V Small OOids in pl w/ Pyr Inclus) Friable "Sandy OOL Ls" Fos (Crin) Pyr Mass Sh Char-Blk Carb-Lt Gry Fissil? Faint Odor ? Scat Stn ? Sli Flor ? Show

Ls Wht-Crm-Lt Gry MicroIn-Fxl n Poor IxIn Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry Fissil Faint Odor ? Scat Stn ? Sli Flor SSG & SSO

Ls Wht Med OOL Por (w/OOL in Pl) Friable Fair-Med InterOOL Por (w/Drk Brn-Blk Stn on Ooid Edges Grad Poor Pin-Pt IxIn Por (w/SSG & SSO Under Heat in Wtr) Cht Wht Op Shp Vit Chalky Sh Blk Carb-Gry Faint Odor ? Sli Flor ? Scat Stn SSG & SSO

45" CFS @ 5588' Ls Wht Med OOL Por (w/OOL in Pl) Friable Fair-Med InterOOL Por (w/Drk Brn-Blk Stn on Ooid Edges Grad Poor Pin-Pt IxIn Pin-Pt Por w/SSG & SSO Under Heat in Wtr) SSG & SSO Under Heat in Wtr) Cht Wht Op Shp Vit Chalky Sh Blk Carb-Gry Faint Odor ? Sli Flor ? Scat Stn SSG & SSO

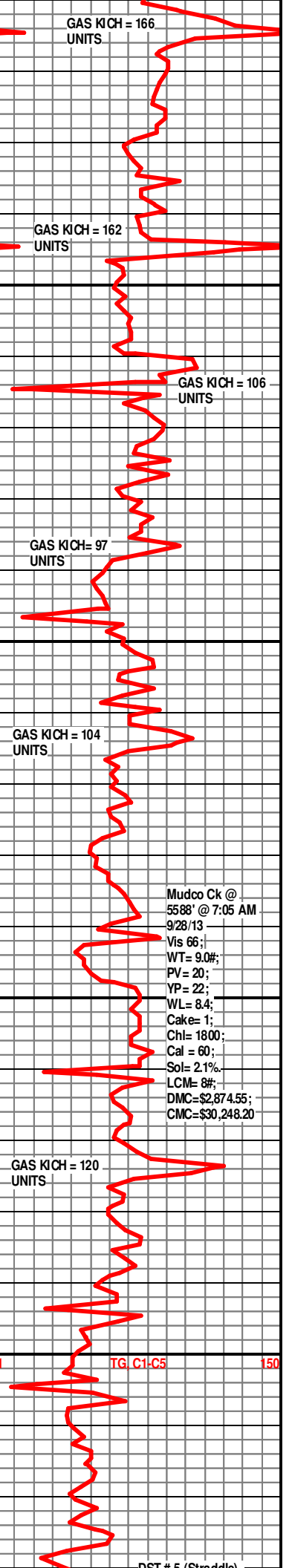
75" CFS @ 5588' Ls Wht Med OOL Por (w/OOL in Pl) Friable Fair-Med InterOOL Por (w/Drk Brn-Blk Stn on Ooid Edges Grad Poor Pin-Pt IxIn Pin-Pt Por w/SSG & SSO Under Heat in Wtr) SSG & SSO Under Heat in Wtr) Cht Wht Op Shp Vit Chalky Sh Blk Carb-Gry Faint Odor ? Sli Flor ? Scat Stn SSG & SSO

Ls Crm-Gry MicroIn Poor IxIn Por Dns Micrite Grad Poor InterOOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Blk Carb-Lt Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Gry MicroIn Poor IxIn Por Dns Micrite Grad Poor InterOOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Blk Carb-Lt Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Gry MicroIn Poor IxIn Por Dns Micrite Grad Poor InterOOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Blk Carb-Lt Gry Fissil No Odor No Stn No Flor NS

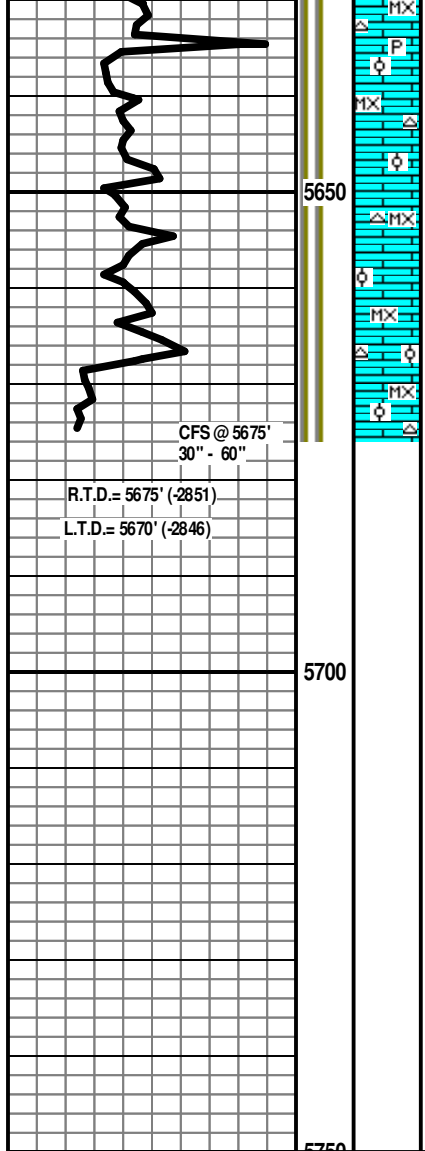
Ls Crm-Gry MicroIn Poor IxIn Por Dns Micrite Grad Poor InterOOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Fos (Crin) Pyr Mass Sh Char-Blk Carb-Lt Gry Fissil No Odor No Stn No Flor NS



Mudco Ck @  
5588' @ 7:05 AM  
9/28/13  
Vis 66;  
WT= 9.0#;  
PV= 20;  
YP= 22;  
WL= 8.4;  
Cake= 1;  
Chl= 1800;  
Cal = 60;  
Sol= 2.1%  
LCM= 8#;  
DMC=\$2,874.55;  
CMC=\$30,248.20

TG C1-C5

DST # 5 (Straddle)



Ls Crm-Gry Microxn Poor lxIn Por Dns Micrite Grad Poor Inter OOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Pyr Mass Sh Char-Blk Carb-Lt Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Gry Microxn Poor lxIn Por Dns Micrite Grad Poor Inter OOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Crm-Gry Microxn Poor lxIn Por Dns Micrite Grad Poor Inter OOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

30" @ 5675' Ls Crm-Gry Microxn Poor lxIn Por Dns Micrite Grad Poor Inter OOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

60" @ 5675' Ls Crm-Gry Microxn Poor lxIn Por Dns Micrite Grad Poor Inter OOL Por Barren Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

**Electric Logs Run: By Halliburton Logging: Dual Induction; Compensated Density-Neutron; Sonic; Microresistivity Logs.**

**Geologist Left Location At: 1:00 PM on 9/29/2013**

DST # 3 (Straddle)  
55519"-5600'.

Times: 30" - 60" - 30" - 60";

Blow: IF= Weak 1/4"; No Blow Back During ISIP. FF= No Blow. No Blow Back During FSIP.

Recovery: 10' M:

Pressures:  
IH = 2946#;  
FH = 2532#;  
IF = 31-51#;  
FF = 46-55#;  
ISIP = 1300#;  
FSIP = 918#;  
Temp= 129 degrees F.