

Andrew White

Petroleum Geologist

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

Well Name: Spring Valley Ranch #1-14X
Location: 14-14S-41W
License Number: API: 15-199-20420
Spud Date: 08-20-14
Surface Coordinates: 2542' FNL, 791' FEL

Region: Wallace Co, KS
Drilling Completed: 08-28-14

Bottom Hole
Coordinates:
Ground Elevation (ft): 3703 K.B. Elevation (ft): 3714
Logged Interval (ft): 3800 To: 5300 Total Depth (ft): 5300
Formation: Mississippian
Type of Drilling Fluid: Chemical

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

OPERATOR

Company: White Explorartion, Inc.
Address: 1635 N. Waterfront Pkwy, Suite 100
Wichita, KS 67206

GEOLOGIST

Name: Andrew White
Company: White Exploration, Inc.
Address: 1635 N. Waterfront Pkwy, Suite 100
Wichita, KS 67206

Remarks

Due to Log evaluation and Sample evaluation, the decision was made to Plug the Spring Valley Ranch 1-14X

General Info

Drilling Contractor: Murfin Drilling Rig 22

Logs: Nabors
Compensated Density/Neutron, Dual Induction, Micro, Sonic

Drilling Mud: Mudco/Service Mud, Inc.

Surveys: 335'-.75; 432'-1; .2006'-.4; 2760'-.4; 3614'-.5; 3792'-.9; 3957'-.8;4113'-.3,4291'-.8; 5300'-.75

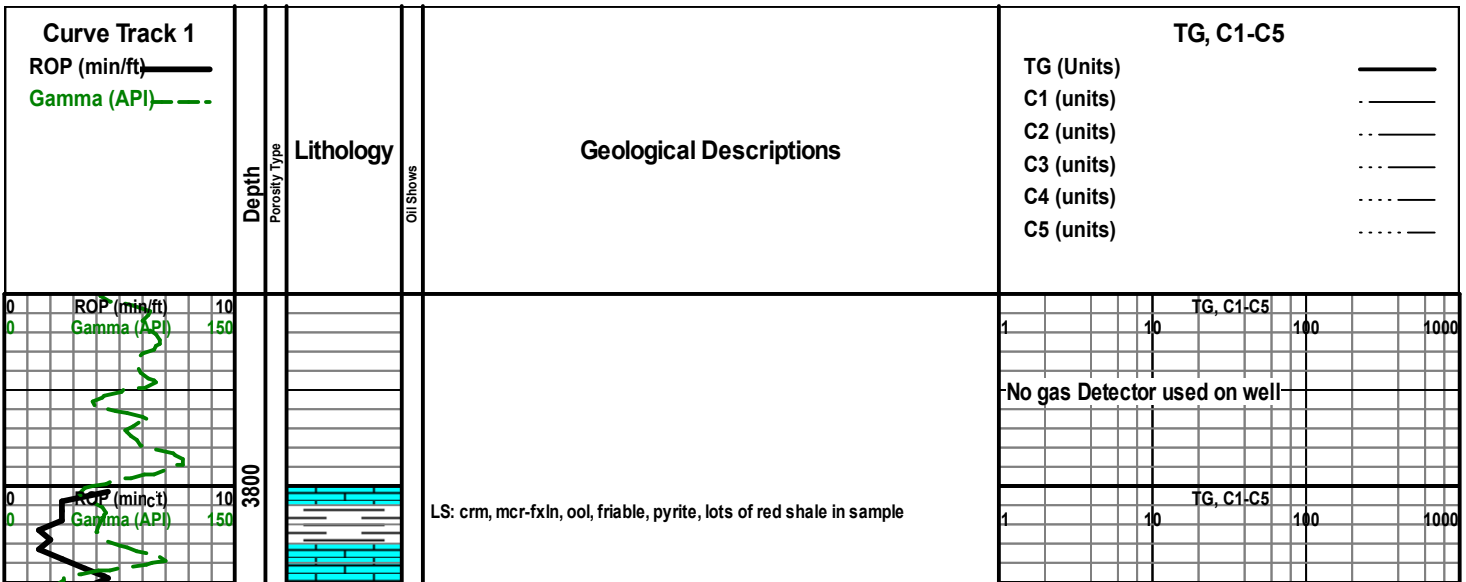
Daily Status

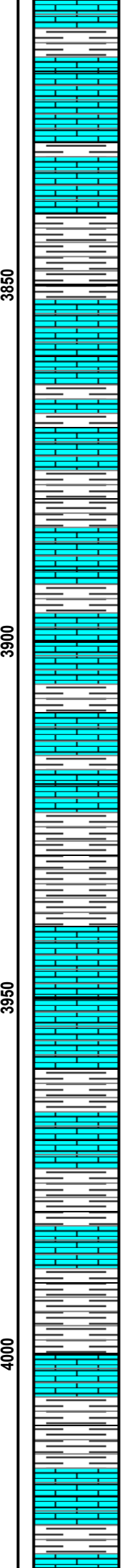
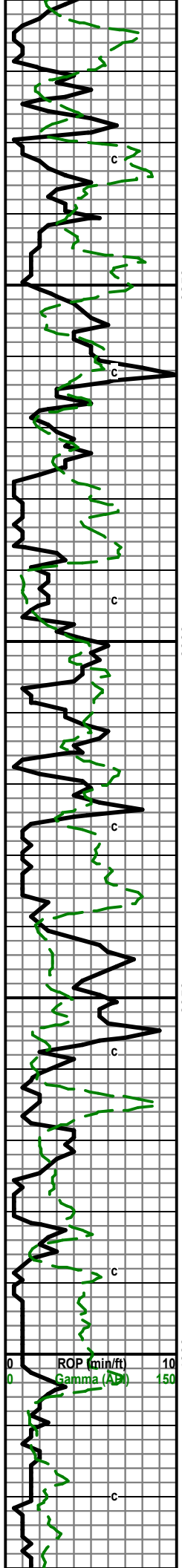
08/19/14: Skid Murfin Rig #22
 08/20/14: Running Surface casing, 335', 8 joints of 13-3/8", 340 sacks common cement with 3% CC and 2% gel.
 Lost circ @ 370' and 432', total of 190 bbls
 08/21/14: Drilling @ 900'
 08/22/14: Drilling @ 2845'
 08/23/14: Drilling @ 3970', Lost circ @ 4394', lost approx. 250 bbls
 08/24/14: Waiting on more fluid,
 08/25/14: Drilling @ 4625', have lost approx, 15-20 bbls in last 24 hrs
 08/26/14: Drilling @ 4920
 08/27/14: Drilling @ 5205, Drilled down to 5300' RTD, Rig up Nabors for log
 08/28/14: Plugged with 255 sacks of 60/40 Poz Mix with 4% gel and 1/4# Floseal/sack, 50 scks @ 2835', 100 scks @ 1800', 385 scks @ 50', 10 scks @ 40', 30 scks in Rat, 15 scks in Mouse

Spring Valley Ranch #1-14x 2542' FNL, 791' FEL 14-14S-41W KB: 3714					Cities Service Pearce #1 10-14S-41W Structural Relationship KB: 3772			Cherokee Operating Frank #1 4950' FSL, 3406' FEL 24-14S-41W Structural Relationship KB: 3733		
Formation	Sample	Sub-Se	Log	Sub-Sea	Sample	Log	Sample	Log		
Heebner	4160	-446	4162	-448	-59	-61	-28	-30		
Lansing	4214	-500	4217	-503	-56	-59	-25	-28		
BKC	4570	-856	4584	-870	-35	-49	-10	-24		
Marmaton	4590	-876	4599	-885	-32	-41	-19	-28		
Cherokee	4746	-1032	4746	-1032	-43	-43	-35	-35		
Morrow	4967	-1253	4970	-1256	-33	-36	-20	-23		
Keyes	5106	-1392	5110	-1396	-80	-84	-5	-9		
Mississippi	5206	-1492	5200	-1486	-164	-158	-12	-6		

ROCK TYPES

LITHOLOGY Anhy Bent Brec Cht Clyst Black shale Congl	Dol Gyp Igne Lmst Meta Mrlst Salt Shale	STRINGER Anhy Shcol Shgy Sltst Ss Till	Arg Bent Coal Dol Gyp Ls Mrst Sltstg	Ssstrg OIL SHOW Even Spotted Ques Dead
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LS: crm-gry, mcrxln, sli ool, Sh: gry-grn-red

Sample mostly Sh: red/orange-brwn, gry, with some LS: gry, mcrxln, sli friable

LS: crm, mcrxln, sli fos, dense, with good amount of Sh: green/blue, red/orange, gry

LS: crm-gry, mcrxln, sli friable, with Sh: A.A.

LS: crm, mcrxln, sli friable, still good amount of Sh: A.A.

Sample contained mostly Sh: A.A. with some drk gry-blck

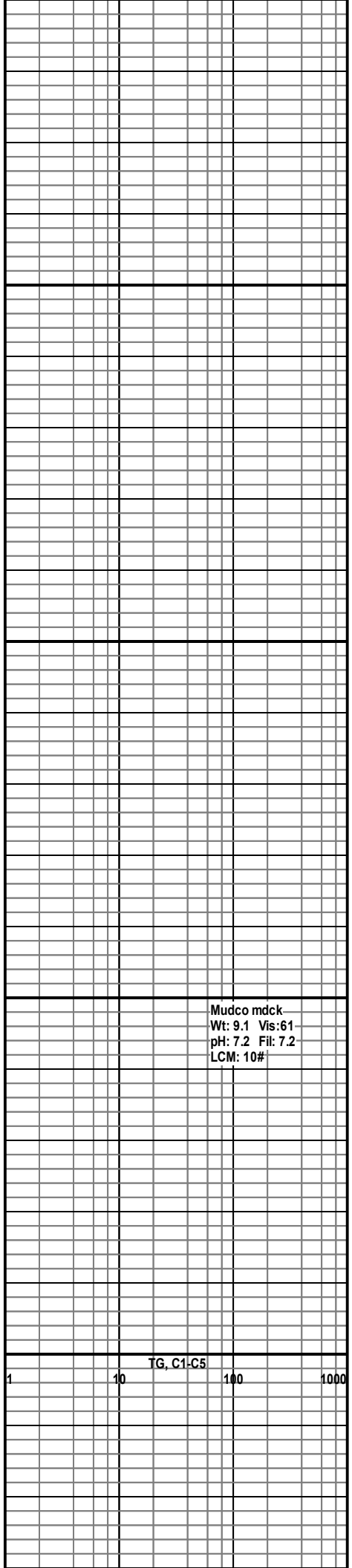
LS: gry, mcrxln, dense sub friable, sli chalky, still Sh: red/orange-gry

LS: gry, mcrxln, dense sub friable, chalky, with Sh: red

LS: gry, mcrxln, friable, dense, Sh: red-green-gry

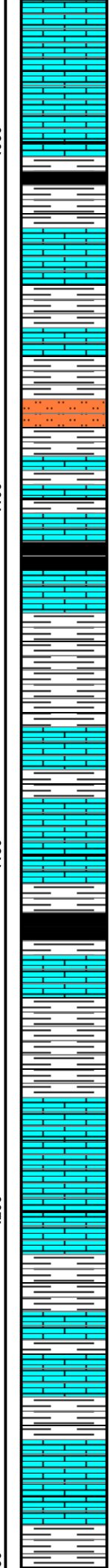
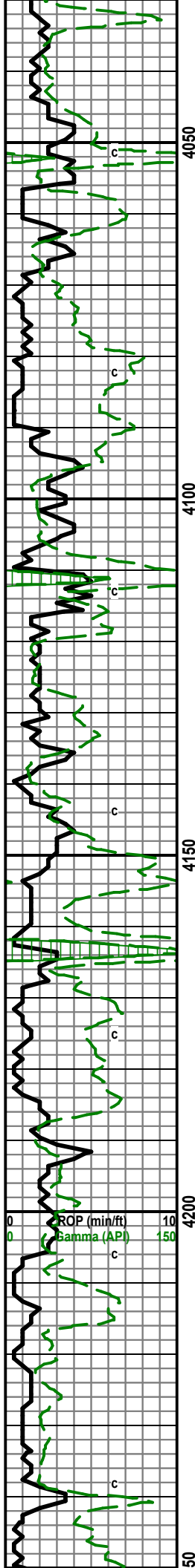
Sh: grn-rd-gry, lots of chalk, few small pieces of LS: crm, mcrxln

LS: crm, mcrxln, sli friable, very chalky, with Sh: gry-drk gry



Mudco mdck
 Wt: 9.1 Vis:61
 pH: 7.2 Fil: 7.2
 LCM: 10#

TG, C1-C5



LS: crm, mcr-fxln, chalky, sli friable

Sh: gry-red, som blk, trace LS: crm-tan, mcrxln, chalky

LS: crm, mcrxln, chalky, some Sltst, gry-crm, Sh: red-gry, some gm

Sh: gry-red, some blk, LS: crm some gry-brn, fxln, sli ool,

LS: wh-tan, mcr-fxln, trc ool, sli chalky, Sh: gry-drk gry-red

Sh: gry-lt gry-red, LS: crm-tan, mcr-fxln, sli chalky

LS: crm-tan, mcr-fxln, sli ool, sli fos, sli chalky, with some Sh: blk-drk gry

LS: tan, mcrxln, dense, with Sh: gry-grn-red some Sltst

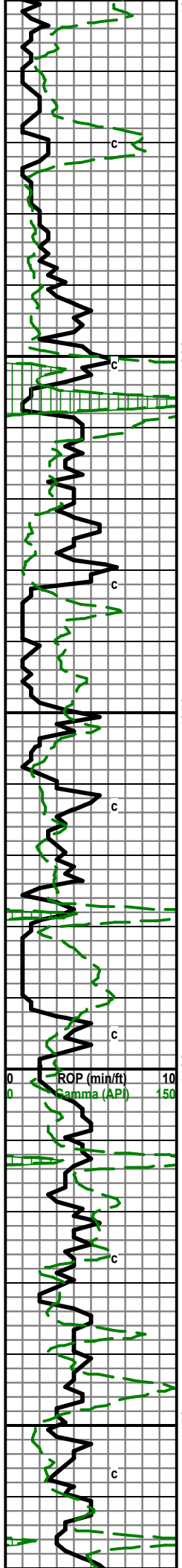
LS: crm-tan, some gry, mcr-fxln, sli fos, sli chalky, some Sh: grn-lt gry

LS: crm-tan, sli fos, sli ool, dense, sli chalky, Sh: gry-grn-red

Sh: grn/gry-gry, with LS: crm-tan, mcr-fxln, sli fos, chalky, few pieces tan chert

Heebner: 4160 (-446)

TG, C1-C5
1 10 100 1000



42
4300
4350
4400
4450

LS: crm-tan, mcrxln some fxln, fos, some gry, mcrxln, ool, Sh: gry-lt gry-gry/grn few drk gry

LS: crm, mcrxln, ool, sli fos, some Sh: gry-grn

LS: crm, mcrxln, dense, Sh: gry-grn

LS: crm-gry, mcrxln, sli fos, Sh: gry-drk gry-blck

sample was basically all chalk with some Sh: gry-red

Sample still basically all chalk with few Sh: gry-red-grn

No sample 4380 sample mostly all shale in 4400 sample after drilling resumed

4410 sample contained lots of red-grn-gry shale with some LS: crm, ool and LS: tan, mcrxln

LS: crm-gry, mcrxln-fxln, fos, sli chalky, some pieces ool

LS: crm-tan, some gry, mcrxln, some fxln, sli fos, good amount of gry Sh in sample

LS: crm, mcrxln, sli fos, some drk gry-blck Sh

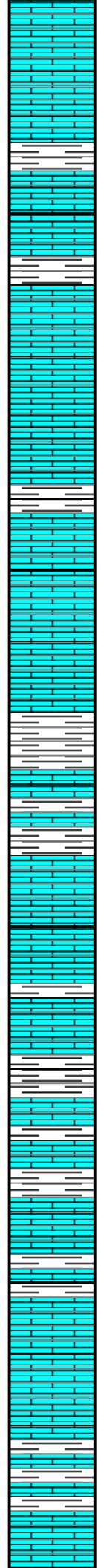
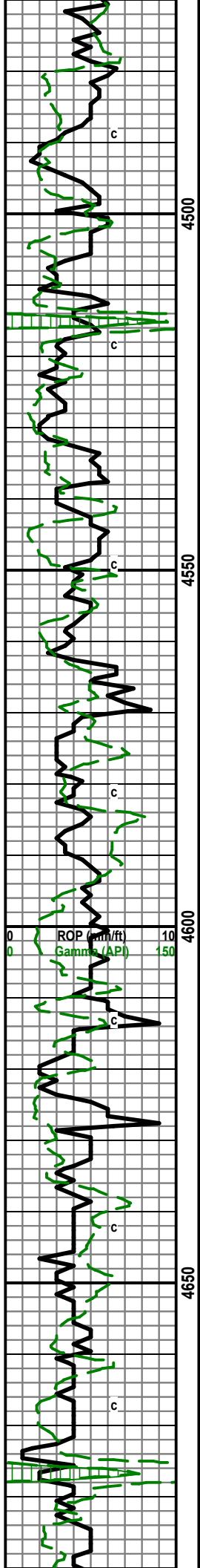
LS: crm-tan, sli gran, fos, with Sh: gry-drk gry some blck

LS: crm-tan, mcrxln, dense, some gry, mcrxln, with calcite veins

LS: gry-crm-tan, f-mxln, sli ool, some Chert: opaque-white

Lost circ. lost 250 bbls @4394, Chg from PDC to Button

Mudco mdck:	
Wt: 9.2	Vis: 54
pH: 9.5	Fil: 8.8
LCM 24#	1000
Mud is new batch after lost circ	



LS: crm, mcrxln, sli ool in part, some gry, mcrxln, Sh: gry-drk gry

LS: gry-crm, mcrxln, dense, few ool, some pyrite

LS: A.A. with some Sh: gry-drk gry

LS: crm-gry, mcrxln, fos, dense

LS: crm-gry, mcrxln, dense, fos, Sh: gry-drk gry

LS: crm-gry, mcr-fxln, some gran, very fos, some chalk

LS: crm-tan, some gry, sli gran, fos

LS: crm-lt gry, mcrxln, sli fos, some chalk, Sh: drk gry

LS: crm, mcr-fxln, sli fos, some Sh: blk

LS: A.A. with some Sh: blue/grn, some red

LS: tan-crm-gry, mcrxln-fxln, fos, Sh: gry-red

LS and Sh: A.A.

LS: tan-gry, mcrxln, fos, poor sample quality

LS: crm-tan, mcrxln-fxln, dense, fos

LS: crm, mcrxln, fos, Sh: red-grn

LS: A.A. with good amount of Sh: red-grn-gry

crm-gry, mcrxln, few fos pieces, Sh: A.A.

LS: crm-gry, mcr-fxln, fos

LS: crm-tan, mcrxln, ool, some sli fos, Sh: gry

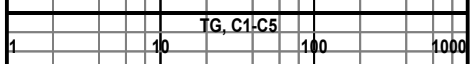
LS: tan, some gry-crm, mcrxln, some fine, sli fos

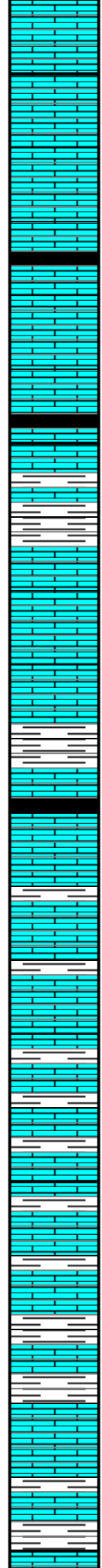
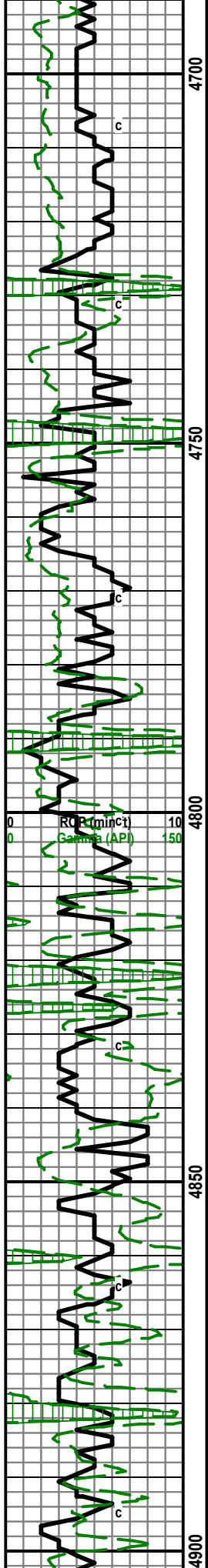
LS: gry-tan, fxln, ool, some Sh: gry-drk gry

LS: gry-crm mcrxln, sli fos, Sh: A.A.

BKC: 4570 (-856)

Marmaton: 4590 (-876)

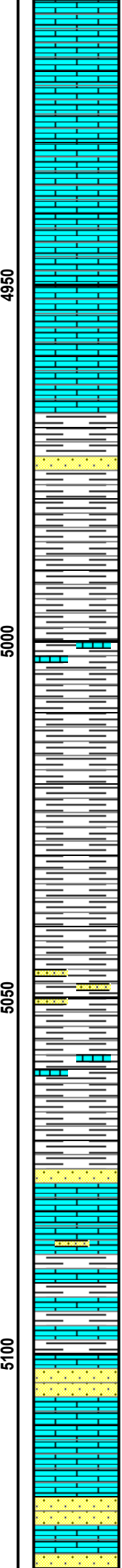
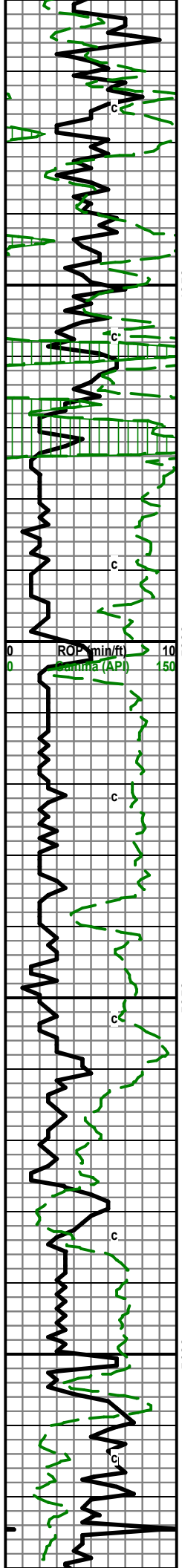




LS: A.A. with some sli ool
 LS: gry-crm, mcrxln, dense
 LS: gry-crm, some tan, m-fxln, sli fos
 LS: A.A. with some pyrite
 LS: gry-crm, mcrxln, sli fos, Sh: blk
 LS: gry-tan, mcrxln, sli fos w/ some crm, ool
 Sh: blk
 LS: crm-gry, mcr-fxln, ool
 LS: gry-tan, mcr-fxln, ool, Sh: blk-gry-grn
 LS: crm-tan, some gry, mcrxln some fxln, sli ool, sli fos
 LS: A.A. with some Sh: gry-drk gry
 LS: A.A. with Sh: gry
 LS: crm, mcrxln, sli chalky, Sh: drk gry-blck
 LS: crm-lt gry, mcr-fxln, some gran, ool, Sh: A.A.
 LS: crm, f-mxln, fos, some Sh: A.A.
 LS: crm-tan, f-mxln, few gran, fos, Sh: drk gry-gry
 LS: crm-tan-gry, mcr-fxln, some mxln, fos, Sh: A.A.
 poor sample, some LS: crm-gry, mxln, sli fos
 LS: crm-tan, f-mxln, sli fos, Sh: gry-drk gry-blck
 LS: tan-crm, mcr-fxln some mxln, sli fos, Sh: A.A.
 LS: crm-tan-gry, mcr-fxln, some ool, some fos, Sh: gry-drk gry
 LS: tan some crm, f-mxln, sli fos, Sh: A.A.
 LS: crm-gry, f-mxln, sli fos, Sh: A.A. w/ some gm

Cherokee Shale: 4746 (-1032)

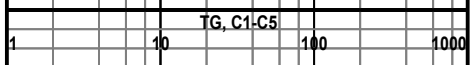
TG, C1-C5
1 10 100 1000



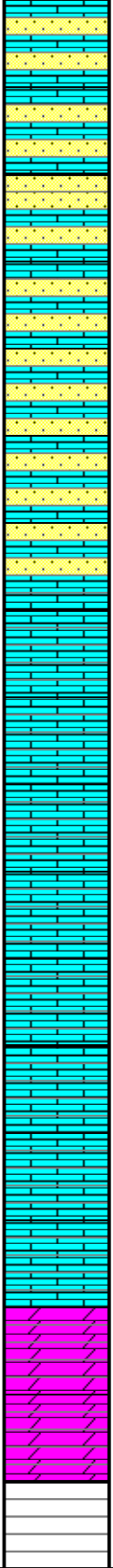
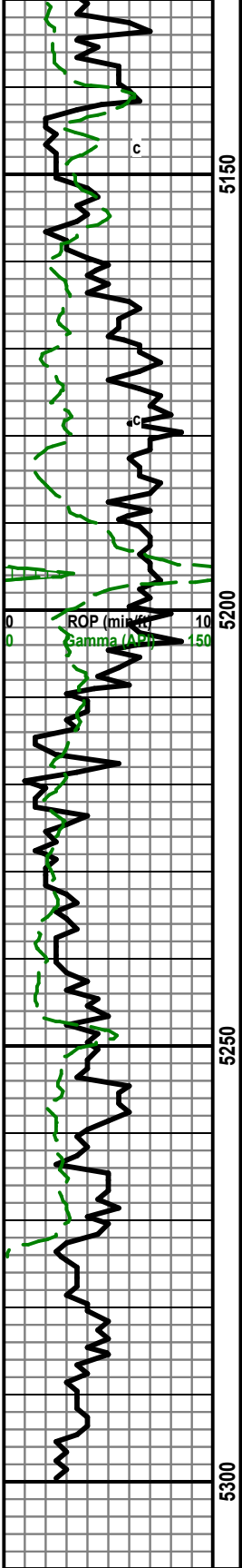
LS: gry-crm, sli tan, mcr-fxln, some m, sli fos
LS: A.A.
LS: gry-crm, mcr-fxln, sli fos, Sh: gry-drk gry
LS: A.A.
LS: crm-gry, some tan, mcr-fxln, some m, sli fos,
LS: A.A.
LS: crm-gry, mcrxln, dense, sli fos, Sh: drk gry-gry
SS: clusters of clear-opaque, f-mgrn, some coarse, tite, sub angular-sub round, no odor, no fluor, no show
Sh: gry-drk gry, circ has the same lime from above
SH: gry-drk gry, sample has a lot of the lime from above sample
Sh: gry-lt gry-drk gry, some pyrite
Sh: gry-drk gry, few pieces of LS: gry-crm, mcrxln-fxln, dense, Sample had one piece of SS: A.A.
Sh: A.A. LS: A.A. with some crm sandy lime, and Silty-sandy shale, gry
Sh and LS: A.A. with some pyrite
Sh: gry-drk gry, some silty lt gry, found one piece of SS: clear-opaque, f gm, sub rounded, well sorted, no show, no fluor
Sh: A.A., SS: A.A. only a few clusters, pyrite
Sh: gry-drk gry, pyrite, some LS: tan, mcr-fxln, sli fos, sli sandy
Sh: gry-lt gry sli silty, few sand Clusters: clear-opaque, sub round, well sort, no show, no fluor, no odor
SS: clear, f-m gm, tite, well sorted, rounded to sub angular, sli glauc, pyritic, no show, no fluor, no odor
LS: brn, mcrxln, dense
LS: A.A., some fos, Sh: gry-drk gry, some silty, few pieces of SS: A.A.
LS: gry-tan, mcr-fxln, dense, fos, sli ool
SS: clear-opaque, f gm, tite, well sorted, sub round, sli glauc, no show, no fluor, no odor
LS: gry-crm, mcr-fxln, some mxln, fos, sli ool, dense, Sh: gry-drk gry, some pyrite
SS: clr-opaque, f-m gm, well sorted, sub round-sub angular, tite (some pieces unbreakable), sli glauc, sli pyrite, no show, odor, or fluor some LS:

Morrow: 4967 (-1253)

CFS @ 4980 60 min



Keyes Lime: 5106 (-1392)



tan-brn-gry, mcrxln, dense

SS: A.A. with some tan/brown, LS: crm-gry, mcrxln, dense

Chert: fresh, crm-brn, LS: crm, mcr-fxln, fos, and gry-brwn, mcr part gran, sli fos, SS: clr-opaque, f-m gm, well sorted, sub round, sli glauc, sli pyrite, no show, fluor, or odor

LS, SS, and Chert: A.A.

LS: tan-crm, mcrxln, dense, few clusters of SS: A.A.

LS: A.A. with some Chert: A.A.

LS, Chert, and SS: A.A.

LS: tan-brn-crm, mcr-fxln, dense, sli fos

LS: crm-tan-gry, mcr-fxln, dense, some brwn, fxln, dolomitic

LS: crm-tan-gry, mcr-mxln, scat Chert: white, fresh

LS: crm-tan, mcr-fxln, dense, Dolo, brown

LS: gry-tan, f-mxln, dense, sli dolo

LS: gry-tan, mcr-fxln, dense, sli fos

LS: A.A.

LS: gry-tan, some crm and brwn, mcr-mxln, sli glauc, sli pyrite

Dolo: brn-gry, mcr-f xln

RTD: 5300
LTD: 5302

CFS @5155 60 min	
TG, C1-C5	
1	1000
Miss: 5206 (-1492)	
Mudco mdck Wt: 9.5 Vis: 55 pH: 9.0 Fil: 7.2 LCM: 20#	