

Covey

The Well Watchers

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

Well Name: SPICER A-3
Location: Section 2 - Township 34 South - Range 11 West
License Number: 15-007-23,668. 0000 Region: Barber County, KS.
Spud Date: 25 March 2011 Drilling Completed: 4 April 2011
Surface Coordinates: 1,980' FNL & 660' FEL
(C SE NE)

Bottom Hole
Coordinates:
Ground Elevation (ft): 1,432' K.B. Elevation (ft): 1,443'
Logged Interval (ft): 4,400' To: 5,170' Total Depth (ft): 5,170'
Formation: Kansas City Group -----> McLish Sandstone
Type of Drilling Fluid: Chemical; Low Solids (non-dispersed)
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: WOOLSEY OPERATING COMPANY, LLC
Address: 125 North Water, Suite 1000 Geologist:
Wichita, Kansas 67202 Dean Pattisson
(316) 267-4379

GEOLOGIST

Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776 - 0367 Cell: (316) 258-9976

FORMATION TOPS

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
Stark SH	4,338' (-2,895')	4,342' (-2,899')
Hushpuckney SH	4,367' (-2,924')	4,372' (-2,929')
B / KC	4,414' (-2,971')	4,418' (-2,975')
Pawnee LS	4,507' (-3,064')	4,512' (-3,069')
Cherokee Gp	4,558' (-3,115')	4,562' (-3,116')
Mississippian	4,581' (-3,138')	4,588' (-3,145')
Kinderhook Sh	4,780' (-3,337')	4,786' (-3,343')
Woodford Sh	4,861' (-3,418')	4,866' (-3,423')
Viola	4,896' (-3,453')	4,906' (-3,463')
Wilcox SS	5,022' (-3,579')	5,026' (-3,583')

RTD: 5,170' LTD: 5,174' ATD: 5,174'

E-log is 3' - 4' low to rotary sample depth.

Loggers:
Superior Well Services
Hays, Kansas

DAILY DRILLING STATUS - MARCH & APRIL

14-3/4" Hole
 25 Mar --- Spud @ 7:30pm.
 Drill to 223'.
 26 --- Run 10-3/4" casing.
 Set casing @ 219'.
 Cemented w/ 240 sx Class A
 (2% Gel + 3% CC). [Allied]
 Cement did circulate.
 Plug down @ 2:45am.
 WOC.

7-7/8" Hole
 26 Mar --- 7am @ 223'.
 Under surface casing @ 11:30am.
 27 --- 7am @ 1,439'.
 28 --- 7am @ 2,189'.
 29 --- 7am @ 2,895'.
 30 --- Displaced Mud @ 3,410'.
 7am @ 3,600'.
 31 --- 7am @ 4,267'.
 1 Apr --- 7am @ 4,570'.
 2 --- 7am @ 4,902'.
 Start &

7-7/8" Hole
 3 Apr --- 7am @ 5,028'.
 Finish DST #1:
 WILCOX (4,980' - 5,028')
 Resume Drilling @ 4:35pm.
 4 --- RTD (5,170') @ 4:30am.
 E-LOG.
 [Superior Well Services]

DST #1 - WILCOX

Rotary Depth: 4,980' - 5,028'
 Logger's Depth: 4,984' - 5,032'

Recovery: 10P: Gas to Surface (TSTM)
 2,709' Gas in Pipe
 2,250' Muddy OIL (1%M,,99%O) 40.8 deg API
 Total Fluid: 2,250'

Recovery Water: NA
 System Water: (5,000 ppm)
 Reported Rw = NA

IFP: 180# - 420# / 30"
 ISIP: 1,753# / 60"
 FFP: 497# -856# / 60"
 FSIP: 1,781# / 120"
 136 deg F
 MH: 2,499# - 2,358#

IF: Strong Blow, BOB in 1 minute. GTS in 20 minutes. TSTM.
 ISI: Bleed Off. Strong Blow. BOB.
 FF: Strong Blow, BOB in 1 minute.
 FSI: Bleed Off. Strong Blow. BOB.

Trilobite Testing, Inc.
 Pratt, KS.

HOLE DEVIATION (223' - 5,170')

DEPTH / TVD	INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
223' /	--- 1.25	(Surafce Casing)					
1,189' /	--- 0.50						
1,689' /	--- 0.50						
2,252' /	--- 0.75						
2,753' /	--- 0.75						
3,249' /	--- 0.75						
3,750' /	--- 0.50						
4,247' /	--- 0.75						
4,748' /	--- 1.00						
5,028' /	--- 1.25	(DST #1)					
5,170' /	--- 1.00	(RTD)					

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
25 Mar 2011	14-3/4"	VAREL L-117	3 / 15's	0' / 223'	223'	3.75	59.5
26 Mar 2011	7-7/8"	VAREL HE-21	15 - 15 - 15	223' / 5,170'	4,947'	139.75	31.1

ROCK TYPES

POROSITY

	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic
	Pinpoint
	Vuggy

LITHOLOGY

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Granite wash
	Congl
	Dol lmst
	Silty dol
	Calc dol
	Dol 2
	Dol
	Gyp
	Igne

	Lmst 2
	Lmst
	Meta
	Mrlst
	Salt
	Shale 3
	Shale 3
	Shale
	Shcol
	Shgy
	Sltst
	Ss
	Till
	Ss 2

MINERAL

	Mica
	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk

	Chtlt
	Dol
	Feldspar
	Ferrpel
	Ferr
	Glau
	Gyp
	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff
	Copper
	Ooliticastic
	Ooloid
	Oolite
	Sucrosic
	Dark specks

STRINGER

	Calc dol
	Silty dol
	Anhy
	Arg
	Bent
	Coal
	Dol
	Gyp
	Ls
	Mrst
	Calc dol
	Sltstrg
	Ssstrg
	Chalk
	New symbol

SHOW

	Oil
	Spotted
	Ques
	Dead
	Gas
	Oil/gas
	Bed contact

ACCESSORIES

FOSSIL

	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Spore
	Crin
	Echin
	Fish
	Foram
	Fossil
	Gastro
	Oolite
	Ostra
	Pelec
	Pellet

	Pisolite
	Plant
	Strom

MINERAL

	Mica
	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	Dol
	Feldspar
	Ferrpel
	Ferr

	Glau
	Gyp
	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff
	Copper
	Ooliticastic
	Ooloid
	Oolite
	Sucrosic

	Dark specks
--	-------------

STRINGER

	Calc dol
	Silty dol
	Anhy
	Arg
	Bent
	Coal
	Dol
	Gyp
	Ls
	Mrst
	Calc dol
	Sltstrg
	Ssstrg
	Chalk
	New symbol

OTHER SYMBOLS

ACTIVITY

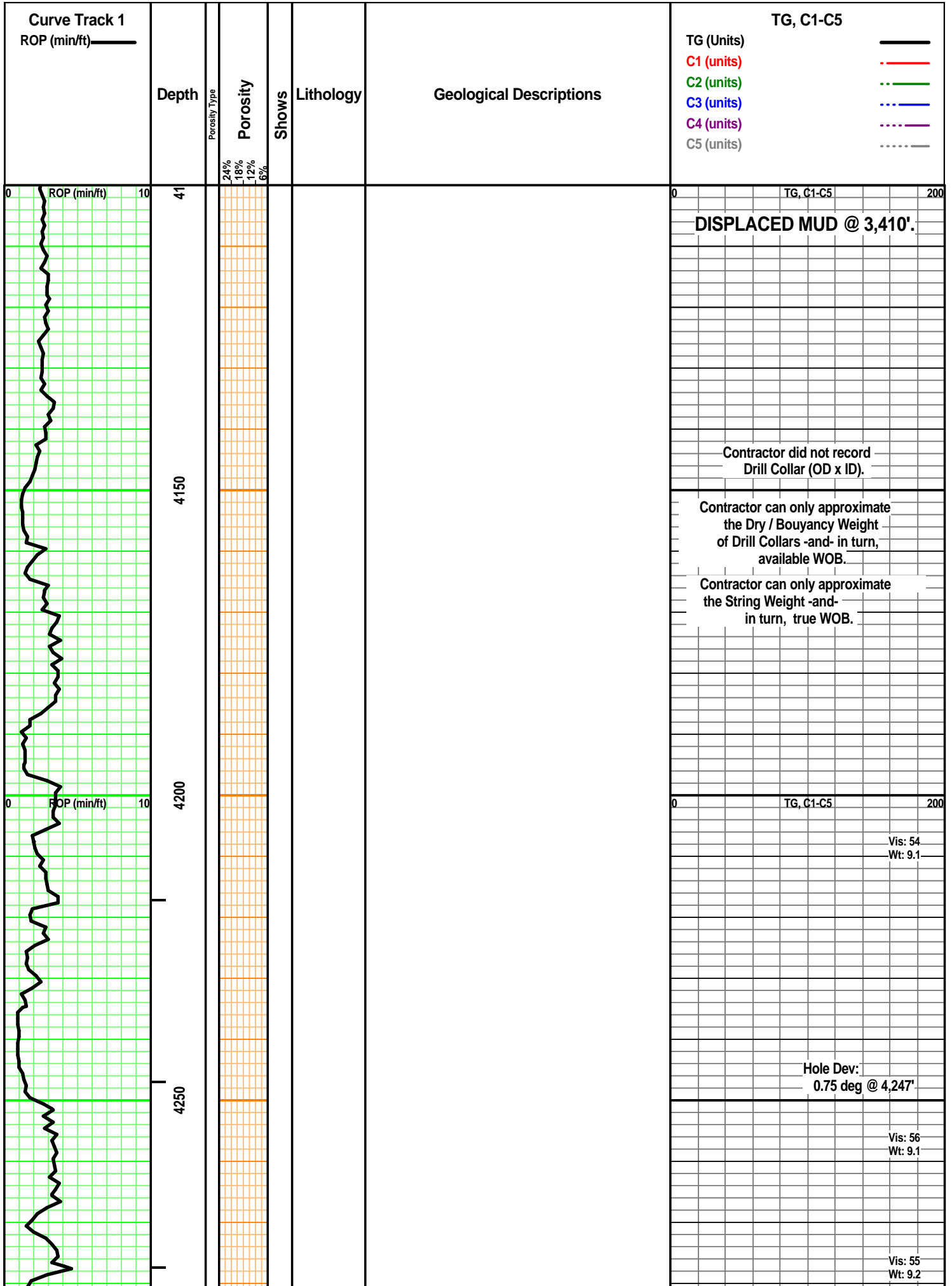
	Lost circluation
	Circulate for sample 2

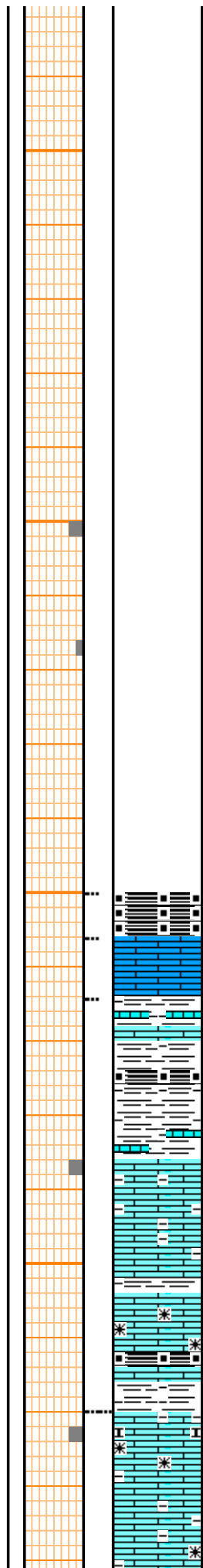
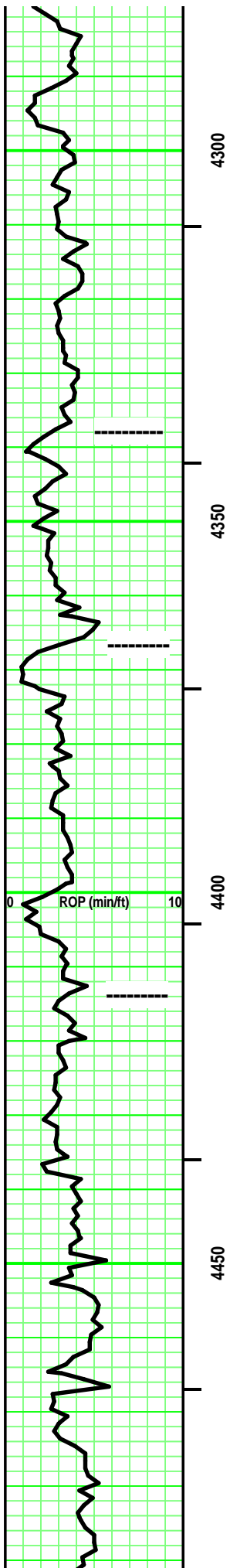
	Circulate for samples
	Rtd
	Trip

EVENT

	Connection
	Rft

	Sidewall
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----- STARK SH 4,338' (2,895')

----- HUSHPUCKNEY SH 4,367' (-2,924')

SH - Black, Carb. rare pyritic. partly fissile. partly soft.

LS - Tans/ tr Off White & Grays. Sing/ tr Mot. XF-/ Micro-xln. xln por. some argil/ shaly in part. some Re-xln. Firm. No/ tr vis por.

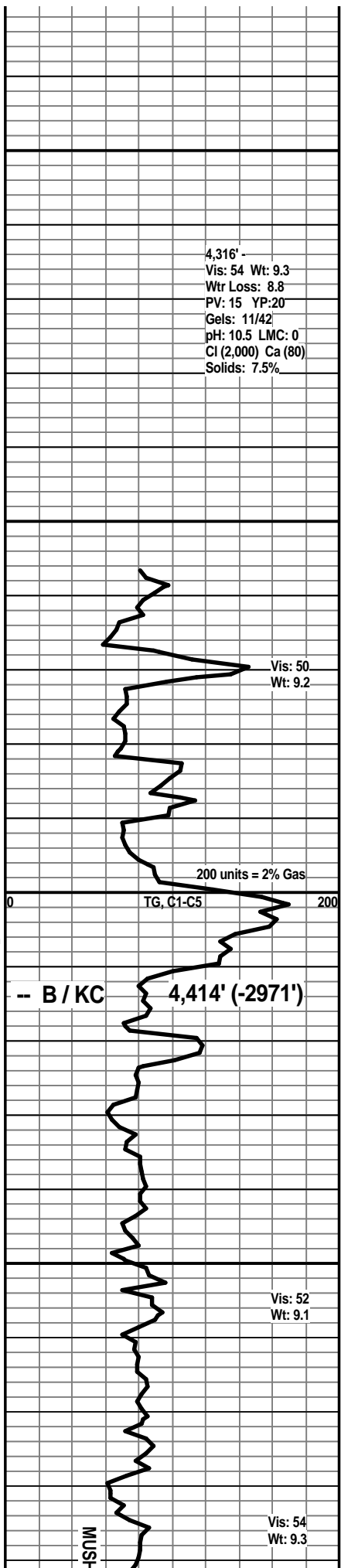
----- Intermixed & interbedded SH & LS

SH - Med/ Dark Grays, Black - carb. Sing. some Ls intermixed & interbedded / rare rubble.

SH - Grays, Greenish Grays, Silverish Gray. Black & Carb. Sing. tr silty.

LS - Tans/ Grays, rare Off White. Sing. Micro-/ tr crypto-xln. xln por. some Re-xln. some argil. rare fossil frag. Firm. No/ tr vis por.

LS - Tans/ Grays. tr Sing/ mostly Mot. mostly Micro-xln, tr XF-xln. xln por. tr Re-xln. some argil/shaly in part. subchalky in part. Firm. No/ tr vis por.



4,316' -
 Vis: 54 Wt: 9.3
 Wtr Loss: 8.8
 PV: 15 YP:20
 Gels: 11/42
 pH: 10.5 LMC: 0
 Cl (2,000) Ca (80)
 Solids: 7.5%

Vis: 50
 Wt: 9.2

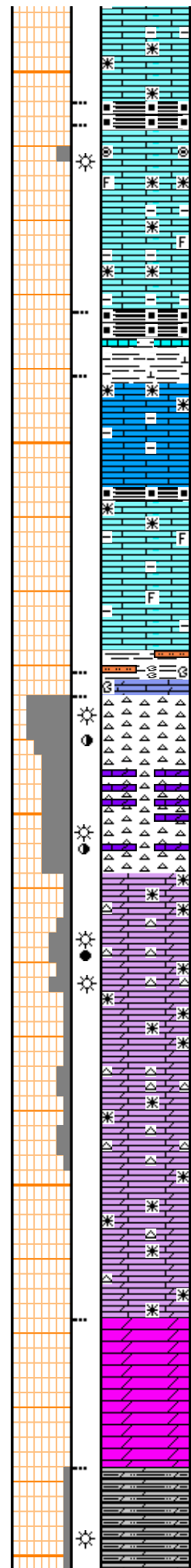
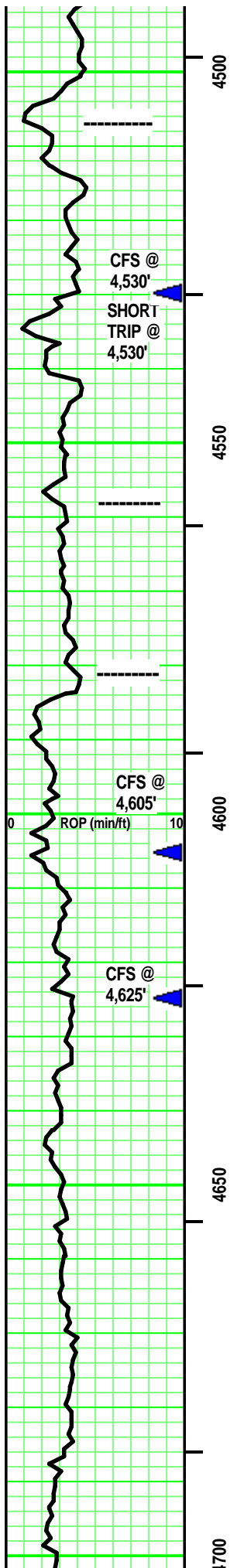
200 units = 2% Gas

----- B / KC 4,414' (-2971')

Vis: 52
 Wt: 9.1

Vis: 54
 Wt: 9.3

HUSH



SH - Black. Sing. carb. soft.

----- **PAWNEE 4,507' (-3,064')**

LS - Tan, tr Dark Tan/ mixed with Off White XF-/ Micro-xln. tr Re-xln. tr fossil frags. [rare Micro- Oolites & Ooloids. Clear Matrix. Opaque to Transparent. some soft.] mostly Firm. No/ tr vis por.

?/ Faint odor. rare Spotted yellow fluorescence. A/C, no free oil. rare gas bubble.. No stain. Pos cut/ residual. Pos acid/ residual.

SH - Black. Sing. Carb. Soft. limy streak. SH - Med/ Dark Gray. tr calc.

LS - Tan/ some Lt & Med Gray. Sing/ some Mot. XF-/ Micro-xln. xln por. Re-xln. some argil/ shaly in part. mostly Firm. No/ tr vis por.

SH - Black. Sing. Carb. Soft.

----- **CHEROKEE GP 4,558' (-3,115')**

LS - Tans/ Lt & Med Gray, Med Gray with depth. Sing/ tr Mot. XF-/ Micro-xln. xln por. some Re-xln. argil in part. tr fossil frags. some, minute limy frags. mostly Firm. mostly No/ tr vis por.

SH - Med/ Dark Gray, some Greenish Gray. tr Black, carb, soft. tr pyritic. some limy streaks in part. misc silty frags.

Rubble

----- **MISS 4,581' (-3,138')**

CHERT - Off White/ White/ Tan/ some Silvery Gray, Bluish Gray. Mot. Opaque to semitransparent. some misc fossil frags/hash Inclusions. Limy dol or dol frags & streaks in part. Tr/ fair vis por

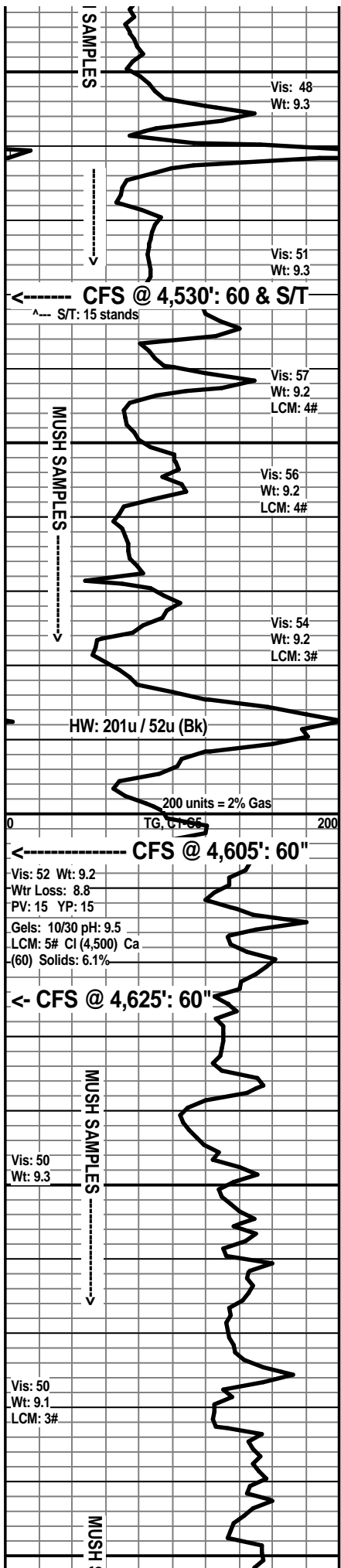
Faint to Good odor. Spotted/ some Uniform Yellow fluorescence. No free oil/ rare minute gas bubble. Spotted/ some Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain. Stain as above (30% - 80%) . Weak Pos/ Pos cut & residual. Weak Pos/ Pos acid & residual. few/ some Oil spots on wash water.

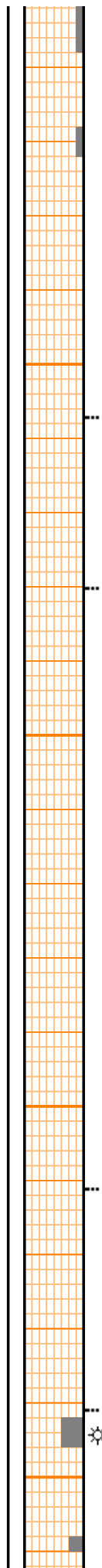
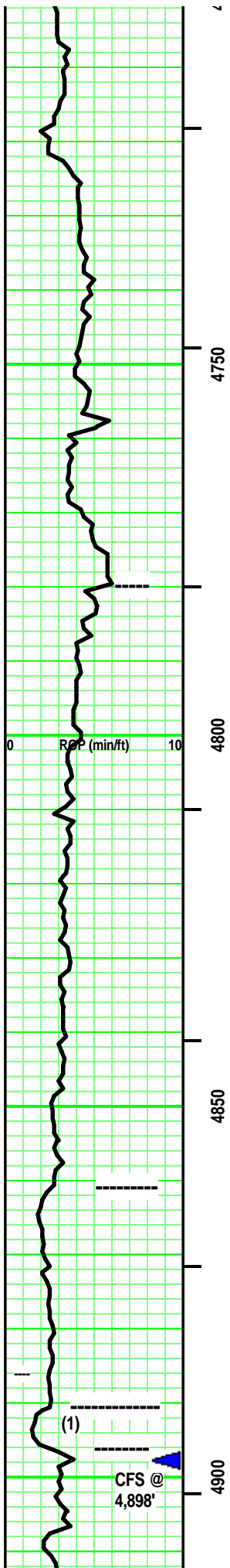
Dolomite (Calc) - Tans / Lt Gray & tr Med Gray. Sing. Re-xln. xln & tr sucrosic por. tr Silty in part. [tr CHERT - similar to immediately above. Add: tr glauc grains/ Green. similar show in part.] Add: tr free, Dark Brown oil. Massive. some No/ mostly tr vis por.

Dolomite (no/ tr calc) - Tans/ some Lt & Med Gray. Sing. XF-/ Micro-xln. xln & rare sucrosic por. some Re-xln. silty in part. Massive. tr vis por.

Dolomite - Med/ some Dark Gray. tr Lt Gray. - Sing. Micro-Re-xln. xln por. highly Silty. rare misc, minute inclusion. Massive. No/ tr vis por.

rare ncs: similar to immediately above. Add:





... rare, minute gas bubble.

Dolomite - Med/ some Dark Gray. tr Lt Gray. - Sing. Micro-Re-xln. xln por. highly Silty. rare misc, minute inclusion. Massive. No/ tr vis por.

LS - Tan/ Pale Off Whitish Tan. Sing. Micro-/XF-xln. xln por. tr Re-xln. argil/shaly with depth. partly Firm. No/ tr vis por.

----- KINDERHOOK SH 4,780' (-3,337')

SH - Dark Gray, Greenish Gray. Sing/ tr Mot. Firm. tr calc/ LS stringers in part.

SH - Dark Gray/ Greenish Med & Dark Gray. Sing/ tr Mot. Firm. Massive. rare limy streak.

SH - Dark & V Dark Gray/ Greenish Med & Dark Gray. Sing/ tr Mot. Firm. Massive.

----- WOODFORD SH 4,861' (-3,418')

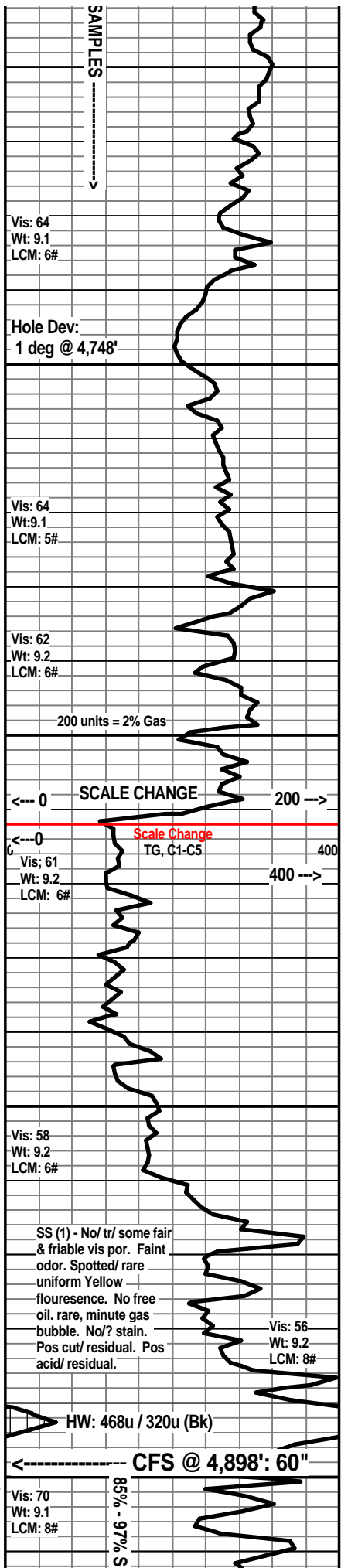
SH - Black. Sing. carb. (Brown hue scratch.) Massive. some blocky. tr pyritic.

SH - Black/ Dark Grayish Black. Sing. carb in part. Blocky. Massive. some brec frags at depth.

SS (1) - Clear/ Grays/ tr Green. Mot/Mixed Sil/ VF qtz & tr glauc grains. SA/ SR. Mod sort & sph. Vitreous / some frosted luster. tr point/ mostly sutured grain contact. Calc/ Si cement. lots SR, oval argil frags. tr LS frags with depth. part Firm to Dense. ---->

----- VIOLA 4,896' (-3,453')

rare / few pcs: LS (tr dolo in part) - Off White/ Tans. Sing/ Mot. mixture of Crypto-/ Micro-xln. xln por. subchalky at top. some highly dol in part. some Re-xln. (tr/some CHERT - Clear/ White, Mottled -or- Tan, Grays, White, Clear - Mottled. Opaque to mixed semitrans-parent. rare Inclusions: fossil hash/ fragments. No/ some tripolitic.) Firm. No/ tr vis por.



Vis: 64
Wt: 9.1
LCM: 6#

Hole Dev:
1 deg @ 4,748'

Vis: 64
Wt: 9.1
LCM: 5#

Vis: 62
Wt: 9.2
LCM: 6#

200 units = 2% Gas

SCALE CHANGE

Scale Change
TG, C1-C5

Vis: 61
Wt: 9.2
LCM: 6#

Vis: 58
Wt: 9.2
LCM: 6#

SS (1) - No/ tr/ some fair & friable vis por. Faint odor. Spotted/ rare uniform Yellow fluorescence. No free oil. rare, minute gas bubble. No/? stain. Pos cut/ residual. Pos acid/ residual.

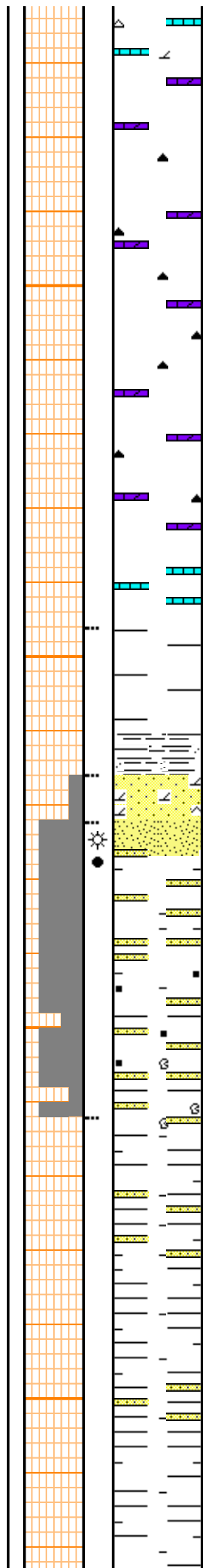
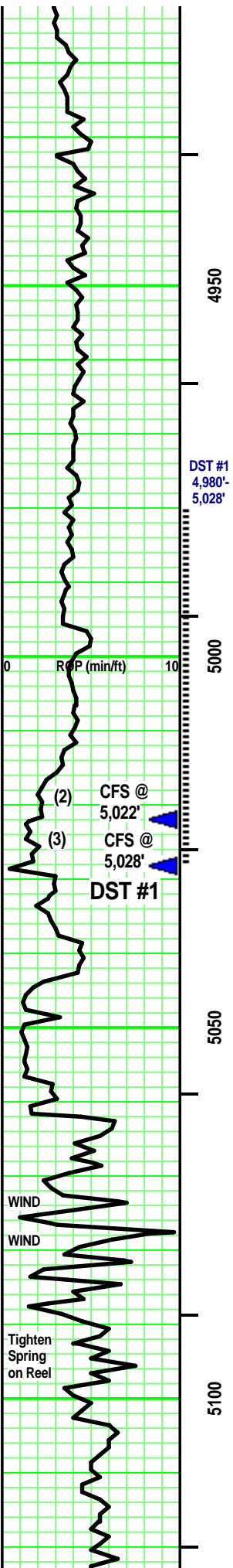
Vis: 56
Wt: 9.2
LCM: 8#

HW: 468u / 320u (Bk)

CFS @ 4,898: 60"

Vis: 70
Wt: 9.1
LCM: 8#

85% - 97% S



rare / few pcs: LS (tr Dol) - Tans/ Grays. Sing/ Mot. rare VF-/ mostly XF- & Micro-xln. xln por. some Re-xln. [some CHERT - Tans/ Grays. Sing/ some Mot. Opaque. No/ rare White inclusions. No tripolitic.] tr/ some minute black specks in part. Firm. No/ tr vis por.

LS - Tans/ tr Lt Gray. Sing. Micro-xln. xln por. rare Re-xln. Massive. No/ tr vis por

SH - Green/ Greenish Gray/ Blue Green. Sing. Firm. Massive. tr ductile. tr sandy as below.

WILCOX "C" SS 5,022' (-3,579')

SS (2) - Clear/ Pale Greenish Gray/ Off White/ tr Tan. Mot. VF-/ tr silt sized qtz grains, tr glauc grains. SR/SA. Mod sort. Mod sph. Vitreous/ some frosted grain contact. Dol/ tr sil cement. some Point/ mostly sutured grain contact. tr argil in part. partly Friable. Fair/ good vis por.

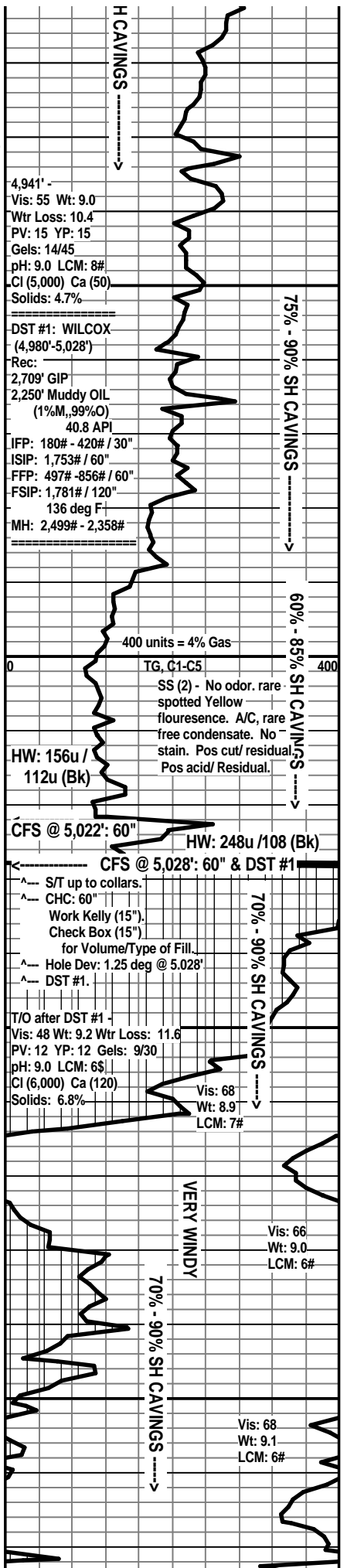
SS (3) - mostly Clear/ rare Lt Brownish Tan. Mot. VF-/ tr silt sized qtz grains. SR/SA. Mod sort. Mod sph. Vitreous/ some frosted grain contact. Calc/ tr sil cement. some/ highly sutured grain contact. some SR, VF obliterated argil grains & carb flecks in part. partly Friable. Fair/ Good vis por. ?/ Faint odor. mix of Barren/ mostly spotted Yellow fluorescence. A/C, no to rare free oil. On own & A/C, free minute gas bubbles. No/? stain. Pos cut & residual. Pos acid & residual.

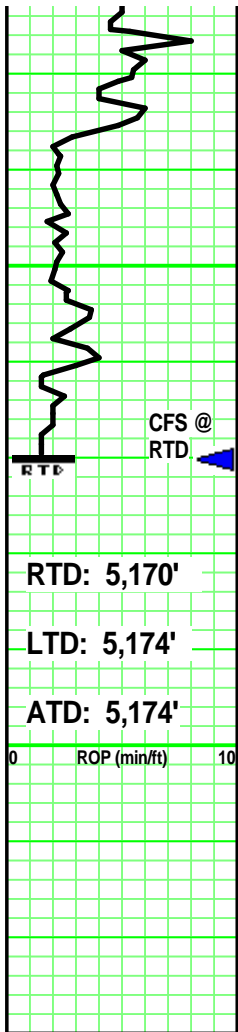
Interbedded SH & SS

SH - Gray/ Greenish Gray. Sing. tr sandy.

SS - similar to above. misc brecc frags.

SH - Grays/ Green Gray/ Pale Greenish Gray. Sing/ tr Mot. highly sandy stringers in part (similar to immediately above). mixture of 'crumbly' / grainy / blocky / some waxy. Massive.





RTD: 5,170'

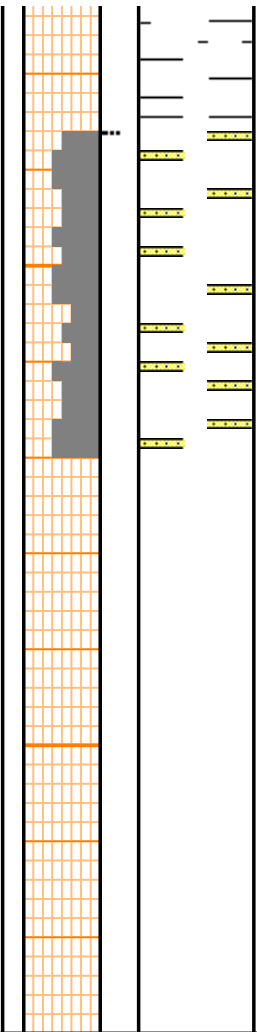
LTD: 5,174'

ATD: 5,174'

0 ROP (min/ft) 10

5150

5200

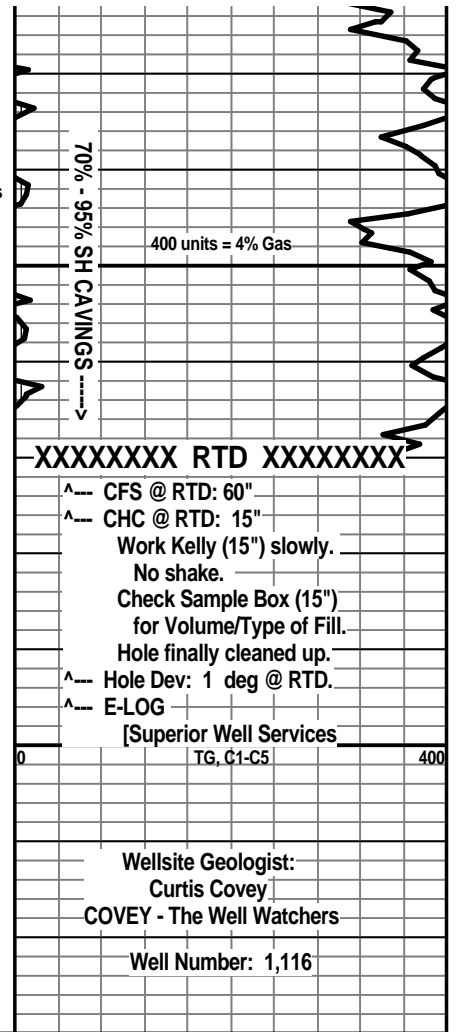


few pcs SS - Clear/ Pale Lt Gray. Mot. Silt/ VF/ tr F qtz grains. SA/SR. Mod sort. Mod sph. Frosted luster. Sutured grains contact. Si cement/ infill. rare/ tr (silt/VF sized, SA) argil / feldspar frags. rare minute pyrite. mostly Friable. Tr/ Fair vis por.

SPICER A - 3

1,980' FNL & 660' FEL 2-T34S-R11W
Barber County, Kansas

WOOLSEY OPERATING COMPANY
Wichita, Kansas



XXXXXXX RTD XXXXXXXX

^ CFS @ RTD: 60"

^ CHC @ RTD: 15"

Work Kelly (15") slowly.

No shake.

Check Sample Box (15")

for Volume/Type of Fill.

Hole finally cleaned up.

^ Hole Dev: 1 deg @ RTD.

^ E-LOG

[Superior Well Services

TG, C1-C5

Wellsite Geologist:

Curtis Covey

COVEY - The Well Watchers

Well Number: 1,116