David A. Barker

CONSULTING GEOLOGIST

Geologist's Report
Drilling Time and Sample Log

OPERATOR Chieftan Oil Co., Inc
LEASE Blick WELL NO. #2
FIELD MCGUIRE-GOEMANN SOUTH API No. 15-007-23874
LOCATION NW SE SE SW 340' FSL & 2300' FWL
SEC. 4 TWP. 33S RGE. 10W
COUNTY Barber STATE Kansas

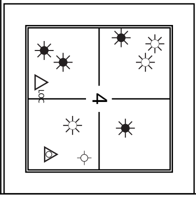
CONTRACTOR Fossil Rig #2
COMM. 05-05-2012 COMP. 05-14-2012
RTD 5110' LOG TD 5091'
SAMPLES SAVED FROM 3400' TO TD
DRILLING TIME KEPT FROM 3400' TO TD
SAMPLES EXAMINED FROM 3400' TO TD
GEOLOGICAL SUPERVISION FROM 3400' TO TD
MUD UP 3400' TYPE MUD CHEMICAL

ELEVATION
KB 1502'
DF
GL 1494'
Measuremnts Are All From KB

CASING RECORD
SURFACE 8 5/8" @ 315'W/ 300SX 7 JTS
PRODUCTION 5 1/2" 15.5# @ 5109' 121 JTS

ELECTRICAL SURVEYS
CNL / CDL, DIL

FORMATION	LOG TOP	LOG DATUM	SAMPLE TOP	SAMPLE DATUM	STRUCT. COMP.
Heebner	3562	-2060	3564	-2062	
Toronto	3579	-2077	3578	-2076	
Kansas City	4073	-2571	4075	-2573	
Hushpuckney Sh.	4266	-2764	4264	-2762	
Cherokee Sh.	4461	-2959	4458	-2956	
Mississippian	4520	-3018	4518	-3016	
Chattanooga Sh.	4772	-3270	4768	-3266	
Viola	4812	-3310	4817	-3315	
Base of Viola	4896	-3394	4894	-3392	
Simpson Sd.	4896	-3394	4894	-3392	
Lower Simpson Sd.	5030	-3528	5028	-3526	
Arbuckle	5054	-3552	5057	-3555	
TD	5112	-3610	5110	-3608	



REFERENCE WELL FOR STRUCTURAL POSITION

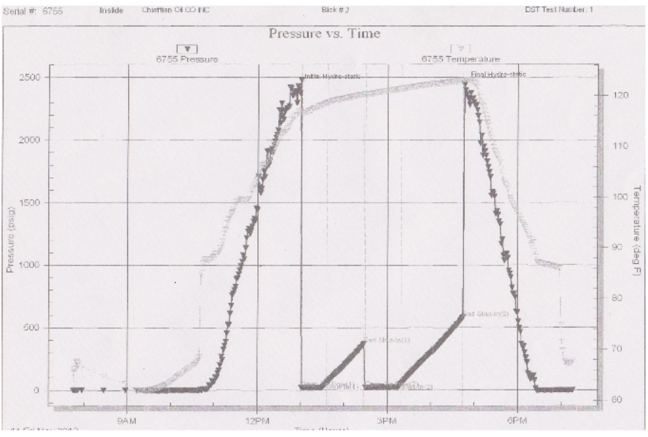
GEOLOGIST

Name: David A. Barker
Company:
Address: 212 N. Market, Suite# 320
Wichita, Kansas 67202
(316) 259-4294, 2 Barker@sbcglobal.net

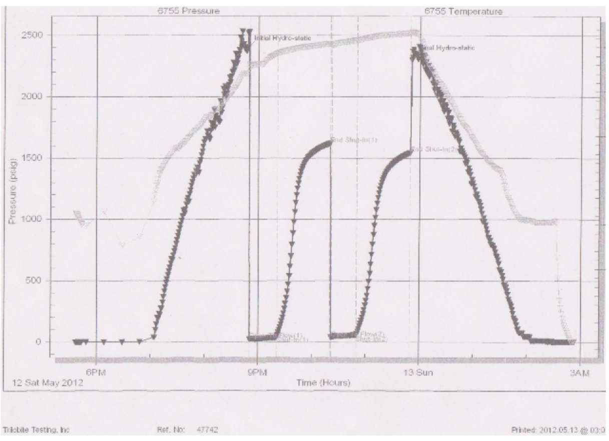
OPERATOR

Company: Chieftain Oil Co., Inc.
Address: 605 S. 6th, P.O. Box 124
Kiowa, Kansas 67070

DST #1, 4798 to 4836, 30-60-45-90, IF: weak blow 3 1/4", FF: strong blow BOB in 1 min., REC: 496 GIP, 40' gas cut mud, IFP: 21-60#, FFP: 21 to 55#, BHP 369 to 580#, HP 2430 to 2445#,



DST #2, 4883 to 4903, 30-60-30-60, IF: strong blow BOB in 18 min, FF: strong blow BOB in 1 min, REC: 930' GIP, 50' MOMG, (5% gas, 5 % oil, 50% wtr, 40% mud) 62' G,O,M,W 5%gas, 5%oil, 70% wtr, 20%mud) IFP: 23-50#, FFP 33-56#, BHP 1617 to 1542#, HP: 2396-2320#,



Daily Status

5/05/2012: depth 315', ran 7 jts of 8 5/8" casing, smt with 300 sx of 60/40 pzs cement, plug down at 3:30 A.M.
5/06/2012: morning depth: 1795'
5/07/2012: morning depth: 2736'
5/08/2012: morning depth: 3440'
5/09/2012: morning depth: 4173'
5/10/2012: morning depth: 4543
5/11/2012: morning depth: 4836' DST #1, 4868' to 4884'
5/12/2012: morning depth: 4670'
5/13/2012: morning depth: 5110' T.D. 11:00 P.M. run 5 stand short trip condition hole for E-logs.
5/14/2012: morning depth: 5110' Run 121 JTS of 5 1/2" casing, 15.5# Tally 5118 set at 5109' cmt w/200 sx, plug down at 10:30 PM.

Remarks

Set 5 1/2" casing to 5109' to further test the Mississippian formation through pipe.

Contractor

Fossile Drilling Rig #2
P.O. Box 464
Pratt, KS 67124-0464

ACCESSORIES

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

Pisolite
Plant
Strom
Fuss
Oomold

MINERAL
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
Chlorite
Dol

Sand
Slty

STRINGER
Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh
Clystn
Dol
Grysh
Gryslt

Lms
Sandylms
Sh
Sltstn

TEXTURE
Boundst
Chalky
CryxIn
Earthy
FinexIn
Grainst
Lithogr
MicroxIn
Mudst
Packst
Wackest

OTHER SYMBOLS

INTERVALS
Core
Dst
Dst

EVENTS
Rft
Sidewall
Cfs
Conn

POROSITY TYPE
Earthy
Fenest

Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

LITHOLOGY
Anhy
Cht
Congl
Shale
Shgy
Ss

Carb shale
Gray shale
Sandy lmst
Shale
Slt stn
Shaly slst
Slty shale
Blank
Gray lmst
Cream lmst
Red shale
Blue-green siltstn
D. green shale
Green shale

Brown lmst
Brown shale
Brown dol
Brown cream
D. green lmst
Light cream lmst
Gray cream lmst
Green dol
Gray dol

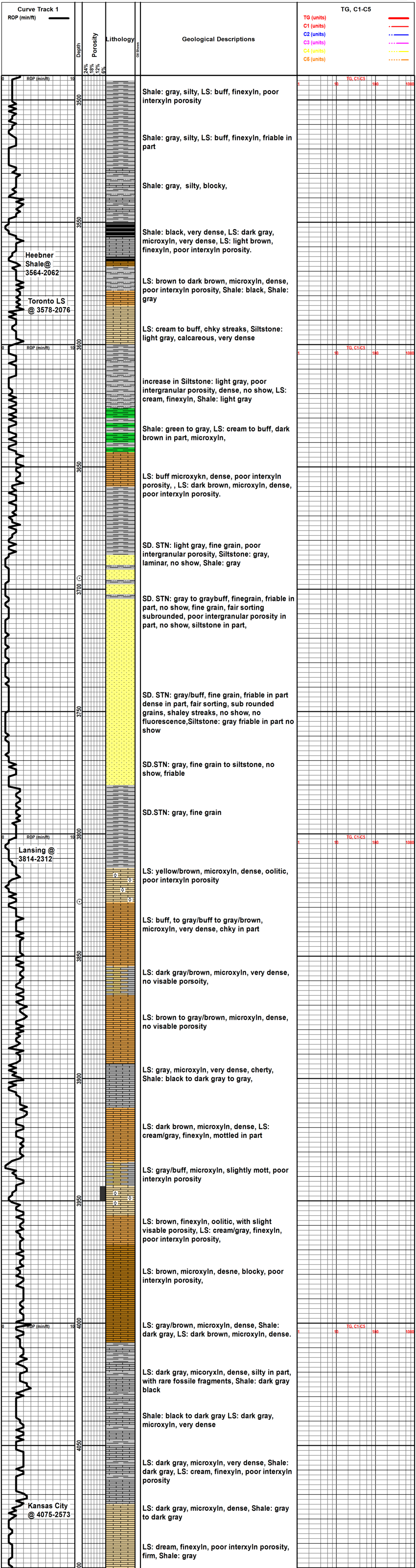
SORTING
Well
Moderate
Poor

ROUNDING
Rounded
Subrnd
Subang
Angular

OIL SHOWS
Even
Spotted
Ques
Dead
Gas show

ROCK TYPES

Anhy
Cht
Congl
Shale
Shgy
Ss
Carb shale
Gray shale
Sandy lmst
Shale
Slt stn
Shaly slst
Slty shale
Blank
Gray lmst
Cream lmst
Red shale
Blue-green silstn
D. green shale
Green shale
Brown lmst
Brown shale
Brown dol
Brown cream
D. green lmst
Light cream lms
Gray cream lms
Green dol
Gray dol



Shale: gray, silty, LS: buff, finexyln, poor interxyln porosity

Shale: gray, silty, LS: buff, finexyln, friable in part

Shale: gray, silty, blocky,

Shale: black, very dense, LS: dark gray, microxyln, very dense, LS: light brown, finexyln, poor interxyln porosity.

LS: brown to dark brown, microxyln, dense, poor interxyln porosity, Shale: black, Shale: gray

LS: cream to buff, chky streaks, Siltstone: light gray, calcareous, very dense

increase in Siltstone: light gray, poor intergranular porosity, dense, no show, LS: cream, finexyln, Shale: light gray

Shale: green to gray, LS: cream to buff, dark brown in part, microxyln,

LS: buff microxykn, dense, poor interxyln porosity, , LS: dark brown, microxyln, dense, poor interxyln porosity.

SD. STN: light gray, fine grain, poor intergranular porosity, Siltstone: gray, laminar, no show, Shale: gray

SD. STN: gray to graybuff, finegrain, friable in part, no show, fine grain, fair sorting subrounded, poor intergranular porosity in part, no show, siltstone in part,

SD. STN: gray/buff, fine grain, friable in part dense in part, fair sorting, sub rounded grains, shaley streaks, no show, no fluorescence,Siltstone: gray friable in part no show

SD.STN: gray, fine grain to siltstone, no show, friable

SD.STN: gray, fine grain

LS: yellow/brown, microxyln, dense, oolitic, poor interxyln porosity

LS: buff, to gray/buff to gray/brown, microxyln, very dense, chky in part

LS: dark gray/brown, microxyln, very dense, no visable porsoity,

LS: brown to gray/brown, microxyln, dense, no visable porosity

LS: gray, microxyln, very dense, cherty, Shale: black to dark gray to gray,

LS: dark brown, microxyln, dense, LS: cream/gray, finexyln, mottled in part

LS: gray/buff, microxyln, slightly mott, poor interxyln porosity

LS: brown, finexyln, oolitic, with slight visable porosity, LS: cream/gray, finexyln, poor interxyln porosity,

LS: brown, microxyln, desne, blocky, poor interxyln porosity,

LS: gray/brown, microxyln, dense, Shale: dark gray, LS: dark brown, microxyln, dense.

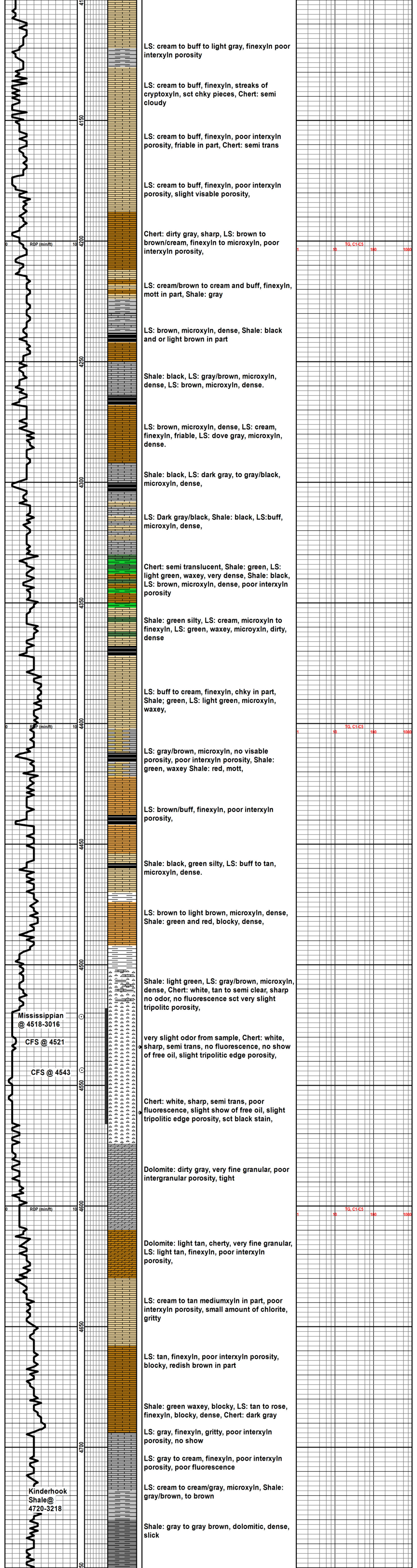
LS: dark gray, micoryxln, dense, silty in part, with rare fossile fragments, Shale: dark gray black

Shale: black to dark gray LS: dark gray, microxyln, very dense

LS: dark gray, microxyln, very dense, Shale: dark gray, LS: cream, finexyln, poor interxyln porosity

LS: dark gray, microxyln, dense, Shale: gray to dark gray

LS: dream, finexyln, poor interxyln porosity, firm, Shale: gray



LS: cream to buff to light gray, finexyln poor interxyln porosity

LS: cream to buff, finexyln, streaks of cryptoxyln, sct chky pieces, Chert: semi cloudy

LS: cream to buff, finexyln, poor interxyln porosity, friable in part, Chert: semi trans

LS: cream to buff, finexyln, poor interxyln porosity, slight visable porosity,

Chert: dirty gray, sharp, LS: brown to brown/cream, finexyln to microxyln, poor interxyln porosity,

LS: cream/brown to cream and buff, finexyln, mott in part, Shale: gray

LS: brown, microxyln, dense, Shale: black and or light brown in part

Shale: black, LS: gray/brown, microxyln, dense, LS: brown, microxyln, dense.

LS: brown, microxyln, dense, LS: cream, finexyln, friable, LS: dove gray, microxyln, dense.

Shale: black, LS: dark gray, to gray/black, microxyln, dense,

LS: Dark gray/black, Shale: black, LS:buff, microxyln, dense,

Chert: semi translucent, Shale: green, LS: light green, waxey, very dense, Shale: black, LS: brown, microxyln, dense, poor interxyln porosity

Shale: green silty, LS: cream, microxyln to finexyln, LS: green, waxey, microyxln, dirty, dense

LS: buff to cream, finexyln, chky in part, Shale; green, LS: light green, microxyln, waxey,

LS: gray/brown, microxyln, no visable porosity, poor interxyln porosity, Shale: green, waxey Shale: red, mott,

LS: brown/buff, finexyln, poor interxyln porosity,

Shale: black, green silty, LS: buff to tan, microxyln, dense.

LS: brown to light brown, microxyln, dense, Shale: green and red, blocky, dense,

Shale: light green, LS: gray/brown, microxyln, dense, Chert: white, tan to semi clear, sharp no odor, no fluorescence sct very slight tripolitc porosity,

very slight odor from sample, Chert: white, sharp, semi trans, no fluorescence, no show of free oil, slight tripolitic edge porosity,

Chert: white, sharp, semi trans, poor fluorescence, slight show of free oil, slight tripolitic edge porosity, sct black stain,

Dolomite: dirty gray, very fine granular, poor intergranular porosity, tight

Dolomite: light tan, cherty, very fine granular, LS: light tan, finexyln, poor interxyln porosity,

LS: cream to tan mediumxyln in part, poor interxyln porosity, small amount of chlorite, gritty

LS: tan, finexyln, poor interxyln porosity, blocky, redish brown in part

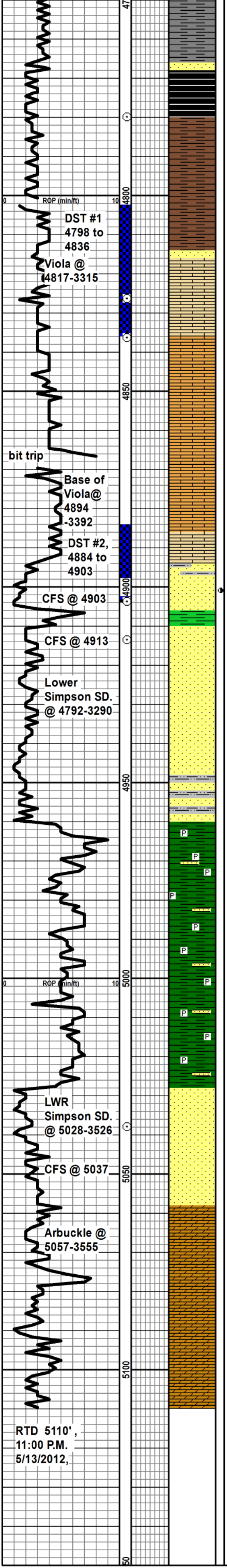
Shale: green waxey, blocky, LS: tan to rose, finexyln, blocky, dense, Chert: dark gray

LS: gray, finexyln, gritty, poor interxyln porosity, no show

LS: gray to cream, finexyln, poor interxyln porosity, poor fluorescence

LS: cream to cream/gray, microxyln, Shale: gray/brown, to brown

Shale: gray to gray brown, dolomitic, dense, slick



Shale: dark gray, brown, dolomitic,

SD. STN: gray to buff, very fine grain fraible in part, very dense in part, pyritic clusters in Shale: black, massive, dense, gassey, carbonaceous,

Shale: brown to dark brown, carbonaceous, with fluoresent spores,

Shale: brown to dark brown, carbonaceous, with fluoresent spores,

SD. STN: light gray to semi clear to gray, fine grain, grain to grain, sub angular, poor intergranular to friable, pyritic very dense in part, sct bright pinpoint fluorescence, possible show of free oil when chrushed, questionable ordor. LS: off white, finexyln, chky in part, slightly cherty in part sct very bright fluorescence, questionable show of free oil when chrushed.

4836 30 min circulation sample: LS: white, coarsexyln, poor interxyln porosity, LS: brown, finexyln, poor interxyln porosity, no show, LS: white, soft,

LS: tan, microxyln, dense, vitreous, no visable porosity, cherty, Chert: gray/tan, mottled, sharp

LS: gray/buff, medxyln, mott, poor interxyln porosity, Shale: green, blocky,

SD.STN: clear grained to light gray, fine grain, sub angular, to sub rounded, friable, slight odor from sample, fair to good fluorescence, gas bubbels from fresh cut surface,

SD.STN: medium grained, rounded, lightly cemented, no show, no fluorescence, poorly sorted, small amount of small gray shale particles,

SD.STN: clear to light gray, fine to medium grained, cluster, rounded, poorly sorted, fair intergranular porosity, no show

Sd.STN: pure white, poorly sorted, fine to very fine grained, poor intergranular porosity, no show

Shale: green to gray green, dense, with quartz grain lenses, waxey in part, sct loose pyrite

Shale: green, waxey, with fine grain sand stone lenses, loose pyrite

Shale: green wxey

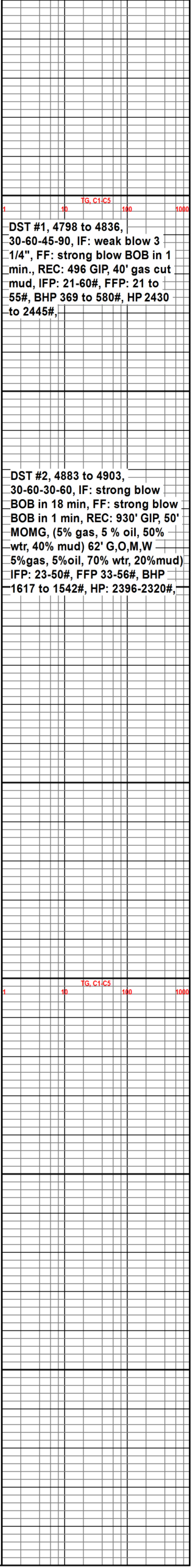
SD. STN: light gray/green, fine grain in part, sct medium grained, rounded, poorly sorted, shale particles, poor intergranular porosity, no show, no gas increase

SD. STN: light gray/light brown, medium grained, rounded, poorly sorted, poor intergranular porosity, no show,

SD. STN: light gray/light brown, medium grained, rounded, poorly sorted, poor intergranular porosity, no show,

Dolomite: dark brown, fine granular, poor intergranular porosity, mineral fluorescence,

Dolomite: brown to dark brown, gray/brown in part, fine granular to microgranular, dense, poor intergranular porosity, no show



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