

GEOLOGIC REPORT

DAVID J. GOLDAK

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

Well Name: Stephen-Higgins Unit #1-23
Location: Section 23 - T17S - R21W
License Number: API: 15-135-25900
Spud Date: 01 / 30 / 2016
Surface Coordinates: 2537' FNL and 1465' FEL
SE - SE - SW - NE
Region: Ness Co., KS
Drilling Completed: 02 / 06 / 2016
Bottom Hole Coordinates:
Ground Elevation (ft): 2171' K.B. Elevation (ft): 2176'
Logged Interval (ft): 3550' To: 4260' Total Depth (ft): 4260'
Formation: Kinderhook
Type of Drilling Fluid: Chemical - Mud-Co

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

OPERATOR

Company: Stelbar Oil Corporation
Address: 1625 N. Waterfront Pkwy., Suite 200
Wichita, Kansas 67206-6602

GEOLOGIST

Name: David J. Goldak
Company: D. J. GOLDAK, INC.
Address: 155 N. Market, Suite 710
Wichita, Kansas 67202

General Info

CONTRACTOR: Murfin Drilling, Rig #16

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	Varel-ERT-RR	3-15s	319	319	2.25
2	7-7/8	HTC-GX20C	18-16-16	4260	3958	103.25

SURVEYS: 302'-0.25, 4182'-1.00

GENERAL DRILLING & PUMP INFORMATION:

Drilling with 35,000-36,000 lbs on bit and 75-80 RPM.
Drilling with 8-1/2 stands of collars (6.25"x2.25"): 505.67'
Pumping 62 S/M; 8.0 B/M; 700-800 psi at standpipe.

Daily Status

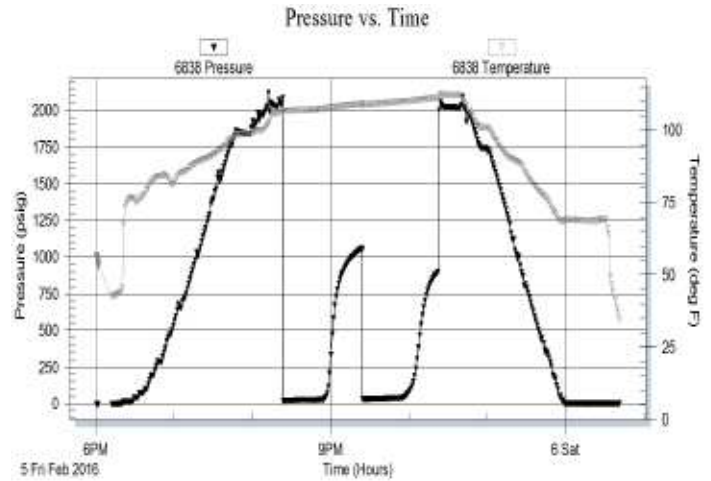
01/30/16 - Spud at 1:15 PM; Set 8-5/8" csg @ 301'
 01/31/16 - 440' WOC
 02/01/16 - 2,260' Drilling; Pump repair-down 11.25 hrs.
 02/02/16 - 2,660' Drilling; Displace @ 3,220'
 02/03/16 - 3,305' Drilling
 02/04/16 - 3,815' Drilling; Short trip @ 4,050'
 02/05/16 - 4,105' CFS; DST #1 @ 4,182'
 02/06/16 - 4,182' Drilling; RTD 4,260' at 12:05 PM

DST #1: 4,165' - 4,182' (Mississippian)
 30" - 30" - 30" - 30"

IF: Weak blow building to 1/2 inch
ISI: No blow back
FF: Surface blow, died in 10 minutes
FSI: No blow back

RECOVERY: 45' Total Fluid, consisting of:
 45' SWCOSM (10% W & 90% M)
Sampler: 1000 ml O, 1350 ml M, 150 ml W @ 35 psi
Oil Gravity: 44 API; Chlorides Rec: 23,000 ppm

SIP: 1060-897; FP: 15-26, 29-38; HP: 2084-2002;
BHT: 112



ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Congl
	Dol

	Gyp
	Igne
	Lmst
	Meta
	Mrlst
	Salt
	Shale
	Shcol

	Shgy
	Sltst
	Ss
	Till
	Carb sh
	Dol
	Dtd
	Gry sh

	Sandylms
	Shale
	Sltstn
	Shlyslts
	Sltyslts
	Lms

ACCESSORIES

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
- Sltly

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram

- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh

- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

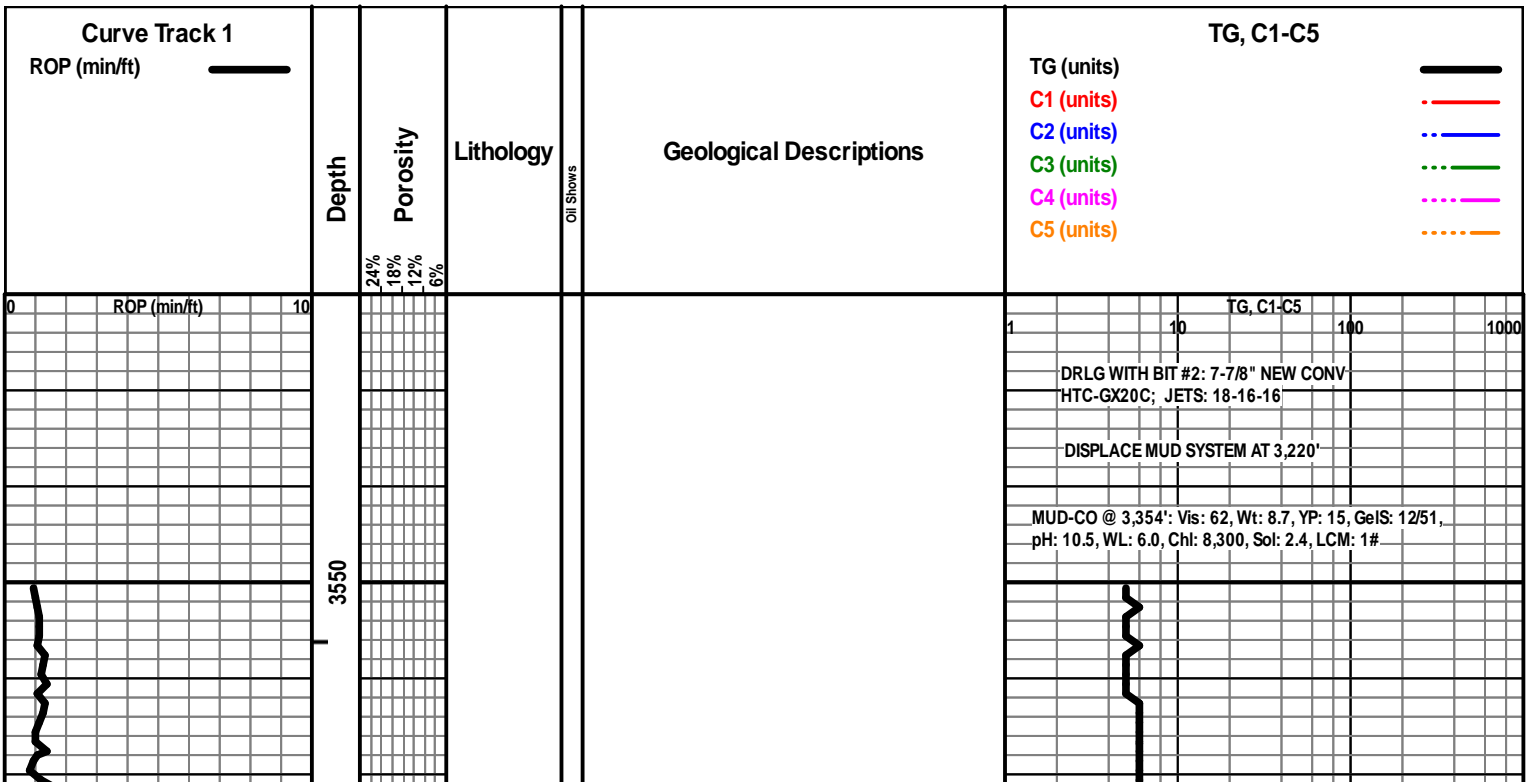
INTERVALS

- Core
- Dst

- Dst_1_t
- Dst_1_b
- Dst

EVENTS

- Rft
- Sidewall
- Conn



HEEBNER
3586 (-1410)

ROP (min/ft)

0 10

3600

3650

3700

3750

1

10

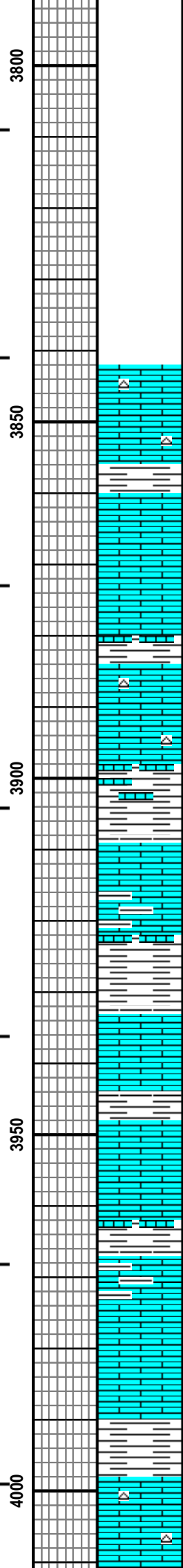
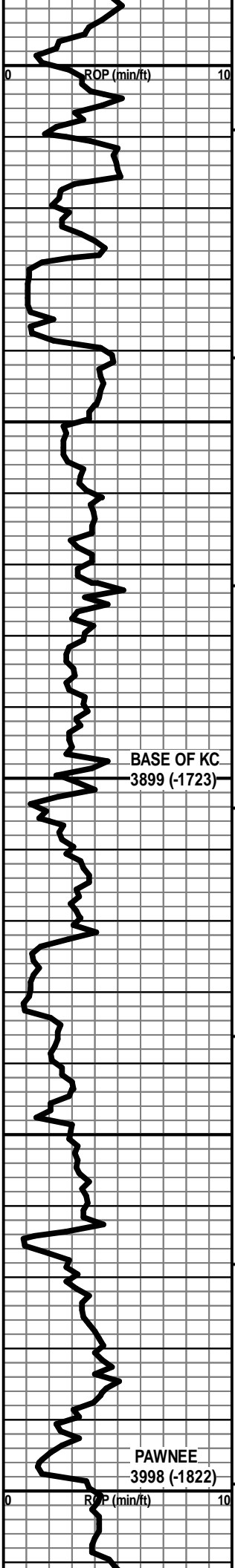
TG, C1-C5

100

1000

Vis: 54, Wt: 8.9
LCM: 1#

Vis: 55, Wt: 8.9
LCM: 1#



LS - CRM / TAN / SCAT BRN + GY, VF / F XLN, OOL + FOSS IN PT, SUBCHKY IN PT, SCAT G OOM POR (FROM ABOVE ?), PRED DNS, NS W/ SCAT CHT - GY / CRM

LS - CRM / TAN, VF / F XLN, OOL IN PT, PRED DNS, NS W/ SCAT SH - GY / GRN

LS - CRM / TAN / SCAT BRN, VF / F XLN, OOL IN PT, SCAT CHKY, PRED DNS, NS W/ SCAT CHT - LT GY

SH - RED / GY / BRN / GRN

LS - CRM / TAN / SCAT GY, VF / F XLN, FOSS + OOL IN PT, PRED DNS, NS W/ SH - GY / GRN

SH - GY / RED / GRN

LS - TAN / GY, VF XLN, FOSS IN PT, PRED DNS, NS

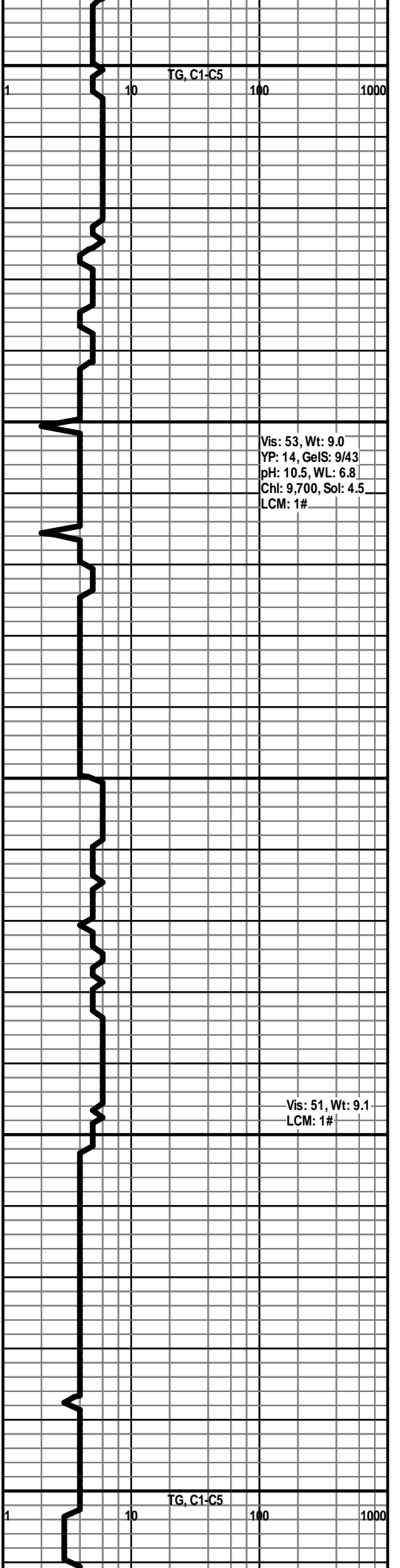
LS - CRM / TAN / GY, VF / F XLN, SLOOL + FOSS, SUBCHKY IN PT, PRED DNS, NS W/ SH - GRY / RED

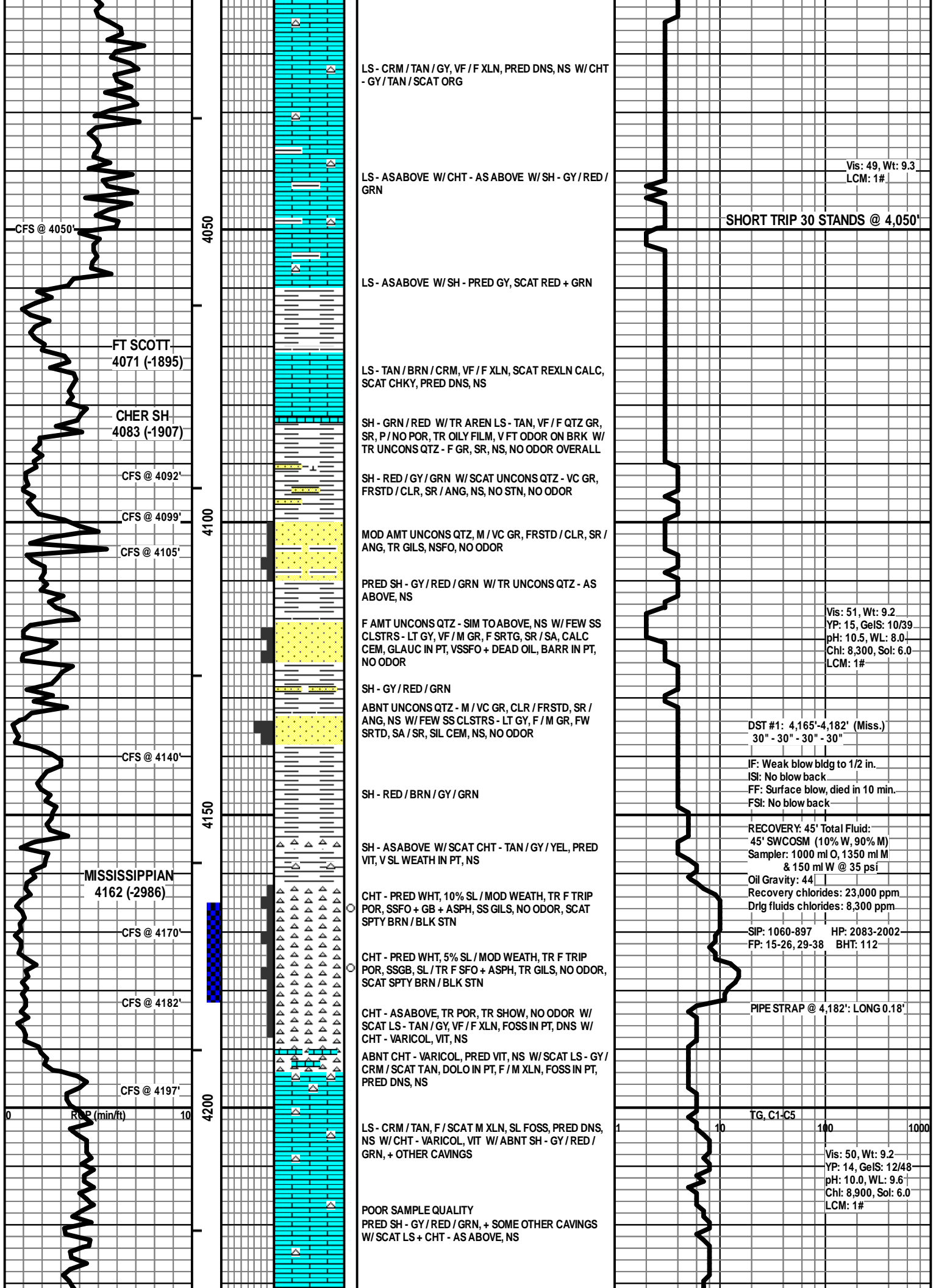
ABNT SH - GY / RED W/LS - SIM TO ABOVE, PRED DNS, NS

LS - TAN / GY, VF / CRYPTO XLN, TR FOSS, CHKY IN PT / PRED DNS, NS W/ F AMT SH - AS ABOVE

SH - GY / RED / GRN

LS - CRM / GY / WHT, VF / F XLN, CHKY IN PT, PRED DNS, NS W/ CHT - TAN / YEL / ORG / GY





LS - CRM / TAN / GY, VF / F XLN, PRED DNS, NS W/ CHT - GY/TAN / SCAT ORG

LS - ASABOVE W/ CHT - AS ABOVE W/ SH - GY / RED / GRN

Vis: 49, Wt: 9.3
LCM: 1#

SHORT TRIP 30 STANDS @ 4,050'

LS - ASABOVE W/ SH - PRED GY, SCAT RED + GRN

LS - TAN / BRN / CRM, VF / F XLN, SCAT REXLN CALC, SCAT CHKY, PRED DNS, NS

SH - GRN / RED W/ TR AREN LS - TAN, VF / F QTZ GR, SR, P / NO POR, TR OILY FILM, V FT ODOR ON BRK W/ TR UNCONS QTZ - F GR, SR, NS, NO ODOR OVERALL

SH - RED / GY / GRN W/ SCAT UNCONS QTZ - VC GR, FRSTD / CLR, SR / ANG, NS, NO STN, NO ODOR

MOD AMT UNCONS QTZ, M / VC GR, FRSTD / CLR, SR / ANG, TR GILS, NSFO, NO ODOR

PRED SH - GY / RED / GRN W/ TR UNCONS QTZ - AS ABOVE, NS

F AMT UNCONS QTZ - SIM TO ABOVE, NS W/ FEW SS CLSTRS - LT GY, VF / M GR, F SRTG, SR / SA, CALC CEM, GLAUC IN PT, VSSFO + DEAD OIL, BARR IN PT, NO ODOR

Vis: 51, Wt: 9.2
YP: 15, GeIS: 10/39
pH: 10.5, WL: 8.0
Chl: 8,300, Sol: 6.0
LCM: 1#

SH - GY / RED / GRN

ABNT UNCONS QTZ - M / VC GR, CLR / FRSTD, SR / ANG, NS W/ FEW SS CLSTRS - LT GY, F / M GR, FW SRTD, SA / SR, SIL CEM, NS, NO ODOR

DST #1: 4,165'-4,182' (Miss.)
30" - 30" - 30" - 30"

IF: Weak blow bldg to 1/2 in.
ISI: No blow back
FF: Surface blow, died in 10 min.
FSI: No blow back

SH - RED / BRN / GY / GRN

SH - ASABOVE W/ SCAT CHT - TAN / GY / YEL, PRED VIT, V SL WEATH IN PT, NS

RECOVERY: 45' Total Fluid:
45' SWCOSM (10% W, 90% M)
Sampler: 1000 ml O, 1350 ml M
& 150 ml W @ 35 psi
Oil Gravity: 44
Recovery chlorides: 23,000 ppm
Drig fluids chlorides: 8,300 ppm

MISSISSIPPIAN
4162 (-2986)

CHT - PRED WHT, 10% SL / MOD WEATH, TR F TRIP POR, SSG, SL / TR F SFO + ASPH, TR GILS, NO ODOR, SCAT SPTY BRN / BLK STN

SIP: 1060-897 HP: 2083-2002
FP: 15-26, 29-38 BHT: 112

CHT - PRED WHT, 5% SL / MOD WEATH, TR F TRIP POR, SSG, SL / TR F SFO + ASPH, TR GILS, NO ODOR, SCAT SPTY BRN / BLK STN

PIPE STRAP @ 4,182': LONG 0.18'

CHT - ASABOVE, TR POR, TR SHOW, NO ODOR W/ SCAT LS - TAN / GY, VF / F XLN, FOSS IN PT, DNS W/ CHT - VARICOL, VIT, NS

ABNT CHT - VARICOL, PRED VIT, NS W/ SCAT LS - GY / CRM / SCAT TAN, DOLO IN PT, F / M XLN, FOSS IN PT, PRED DNS, NS

LS - CRM / TAN, F / SCAT M XLN, SL FOSS, PRED DNS, NS W/ CHT - VARICOL, VIT W/ ABNT SH - GY / RED / GRN, + OTHER CAVINGS

TG, C1-C5

Vis: 50, Wt: 9.2
YP: 14, GeIS: 12/48
pH: 10.0, WL: 9.6
Chl: 8,900, Sol: 6.0
LCM: 1#

POOR SAMPLE QUALITY
PRED SH - GY / RED / GRN, + SOME OTHER CAVINGS W/ SCAT LS + CHT - AS ABOVE, NS

KIND SH ?
4238 (-2062)

4250

POOR SAMPLE QUALITY
PRED SH - GY / RED / GRN, + SOME OTHER CAVINGS
W/ SCAT LS + CHT - AS ABOVE, NS

POOR SAMPLE QUALITY
PRED SH - GY / RED / GRN, + SOME OTHER CAVINGS
W/ SCAT LS + CHT - AS ABOVE, NS

TOTAL DEPTH 4260 (-2084)

Vis: 52, Wt: 9.3
LCM: 1#