

GEOLOGIC REPORT

DAVID J. GOLDAK

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

Well Name: Schwartz-Stuart #1-21
Location: Section 21 - T27S - R7W
License Number: API: 15-095-22252
Spud Date: 05 / 01 / 2012
Surface Coordinates: 2500' FSL and 2020' FWL
Approx. C - E/2 - W/2
Region: Kingman Co., KS
Drilling Completed: 05 / 10 / 2012
Bottom Hole Coordinates:
Ground Elevation (ft): 1578' K.B. Elevation (ft): 1587'
Logged Interval (ft): 1900' To: 4243' Total Depth (ft): 4243'
Formation: Viola
Type of Drilling Fluid: Chemical - Mud-Co

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

OPERATOR

Company: American Energies Corporation
Address: 155 N. Market., Suite 710
Wichita, Kansas 67202

GEOLOGIST

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

General Info

CONTRACTOR: Landmark Drilling, Rig #6

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ- ? - RR	15-15-15	311	311	7.00
2	7-7/8	JZ-QX20	15-15-14	4243	3932	97.25

SURVEYS: 311'-1.0, 2070'-1.0, 3902'-1.5, 4243'-1.25

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 30,000-35,000 lbs. on bit and 75-80 RPM.
Running 9 stands of collars; 526.58'
Pumping 60 S/M, 7.7 B/M, and 800 psi at standpipe.

Daily Status

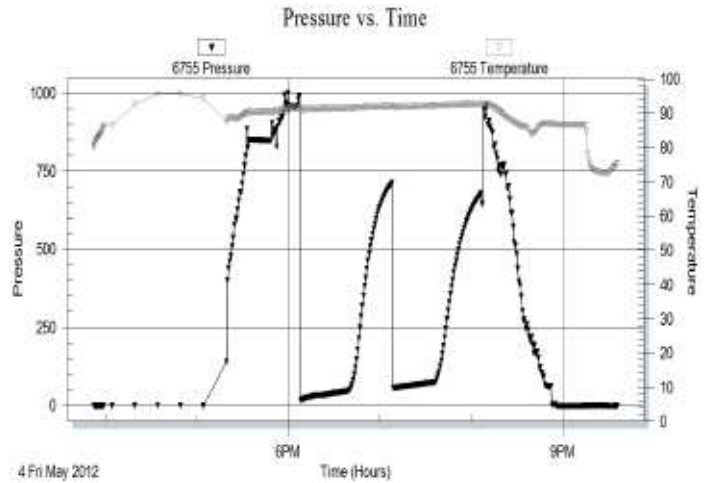
05/01/12 - Spud @ 3:30 PM; Set 8-5/8" Csg at 309'
 05/02/12 - 311' WOC; Drill plug @ 12:30 PM
 05/03/12 - 1,141' Repairing pump
 05/04/12 - 1,897' Drilling; DST #1 @ 2,070'
 05/05/12 - 2,360' Drilling; Displace mud @ 2,785'
 05/06/12 - 3,045' Drilling; Trip for hole ib pipe @ 3,373'
 05/07/12 - 3,515' Drilling
 05/08/12 - 3,902' TOOH for DST #2
 05/09/12 - 4,100' Drilling
 05/10/12 - 4,243' Logging

DST #1: 2,037' - 2,070' (Indian Cave)
30" - 30" - 30" - 30"

IF: Weak blow, building to 4 inches
ISI: No blow back
FF: Weak blow, building to 3 inches
FSI: No blow back

RECOVERY: 130' Total Fluid, consisting of:
 130' WM (40% W, 60% M); Chlorides: 17,000 ppm

SIP: 712-678; **FP:** 17-46, 57-95; **HP:** 959-946;
BHT: 93

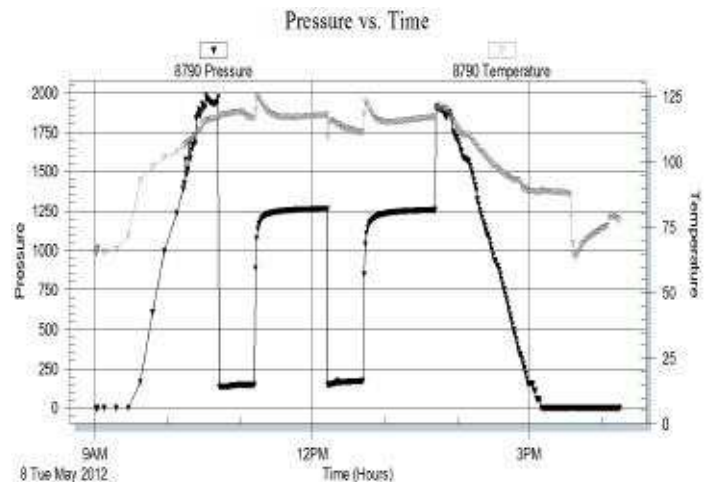


DST #2: 3,887' - 3,902' (Miss. Chert)
30" - 60" - 30" - 60"

IF: GTS in 3 min., gauged with 1/2 in. orifice:
 10 min - 255 MCF, 20 min - 300 MCF, 30 min - 312 MCF
ISI: No blow back
FF: Gas gauged with 1/2 in. orifice:
 10 min - 334 MCF, 20 min - 363 MCF, 30 min - 363 MCF
FSI: No blow back

RECOVERY: 317' Total Fluid, consisting of:
 77' GWCM (10% G, 20% W, 70% M)
 178' MCW (70% W, 30% M)
 62' MCW (95% W, 5% M); Chlorides: 90,000 ppm

SIP: 1262-1256; **FP:** 137-150, 145-172; **HP:** 1971-1910; **BHT:** 117



ROCK TYPES

	Anhy		Gyp		Shgy		Sandylms
	Bent		Igne		Sltst		Shale
	Brec		Lmst		Ss		Sltstn
	Cht		Meta		Till		Shlyslts
	Clyst		Mrlst		Carb sh		Sltysht
	Coal		Salt		Dol		Lms
	Congl		Shale		Dtd		
	Dol		Shcol		Gry sh		

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
- Silty

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

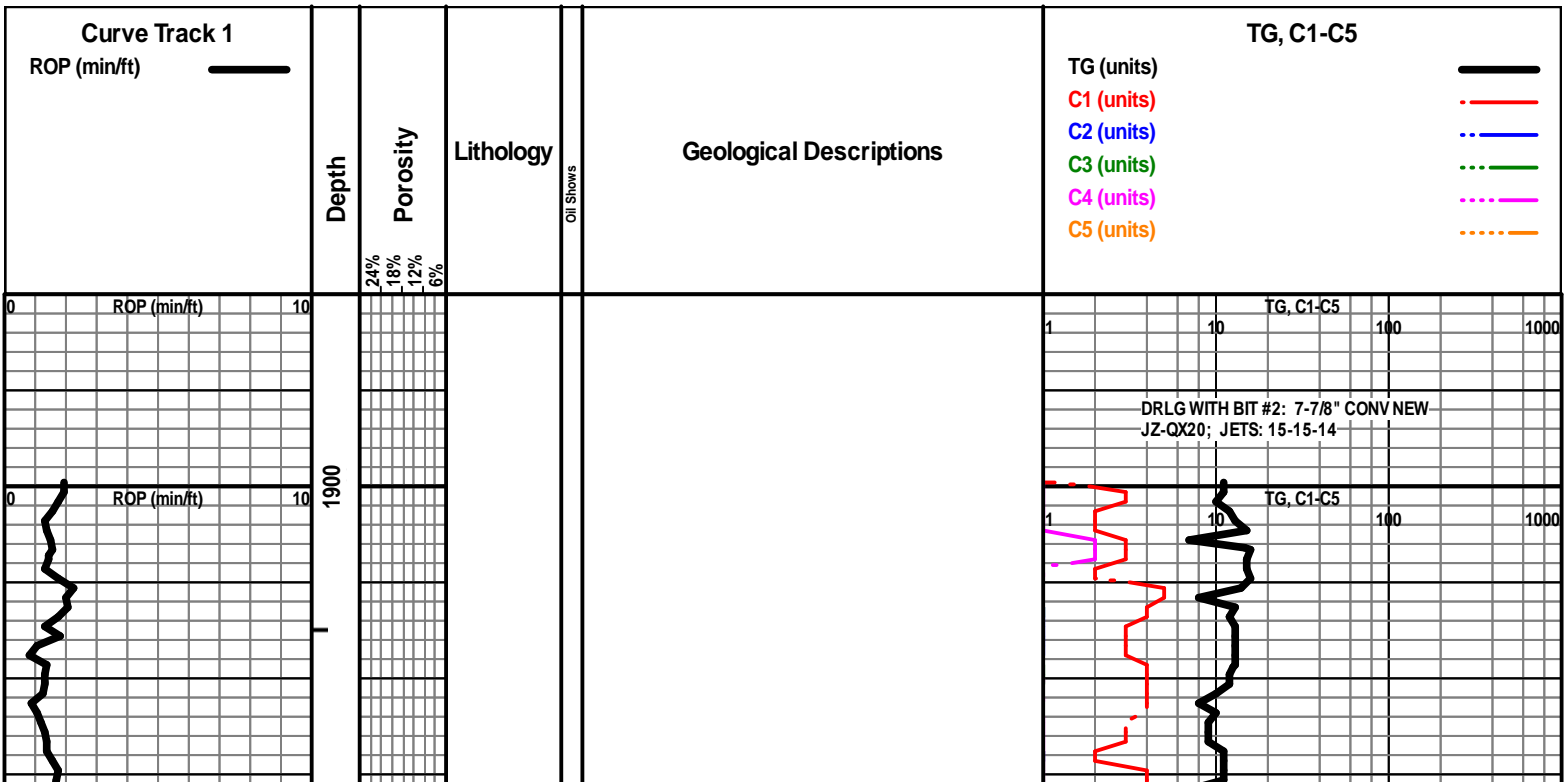
- Core
- Dst

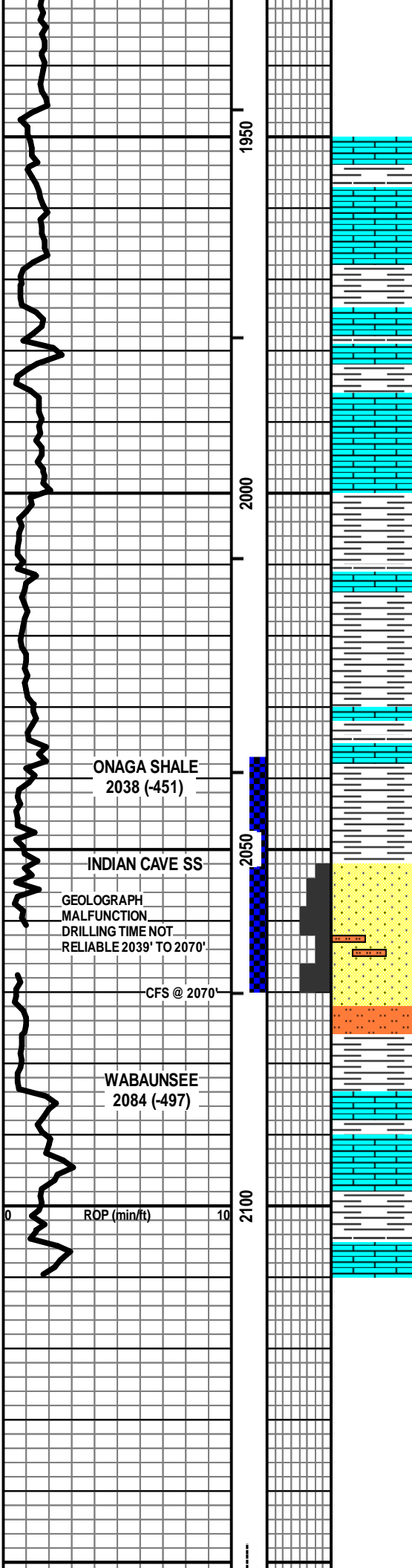


- Dst
- Dst_1_t
- Dst_1_b

EVENTS

- Rft
- Sidewall
- Conn





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

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

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

SH - LT / DK GY W/LS - TAN / GY, MOT IN PT, VF / F XLN, SL FOSS, PRED DNS, NS

ONAGA SHALE
2038 (-451)

INDIAN CAVE SS

GEOLOGRAPH
MALFUNCTION
DRILLING TIME NOT
RELIABLE 2039' TO 2070'

CFS @ 2070'

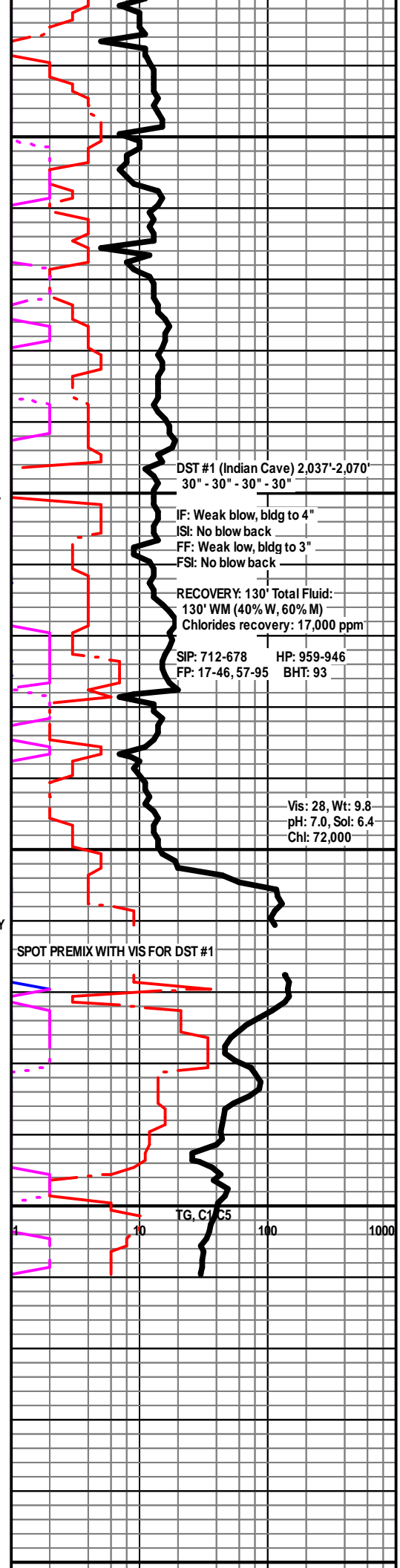
WABAUNSEE
2084 (-497)

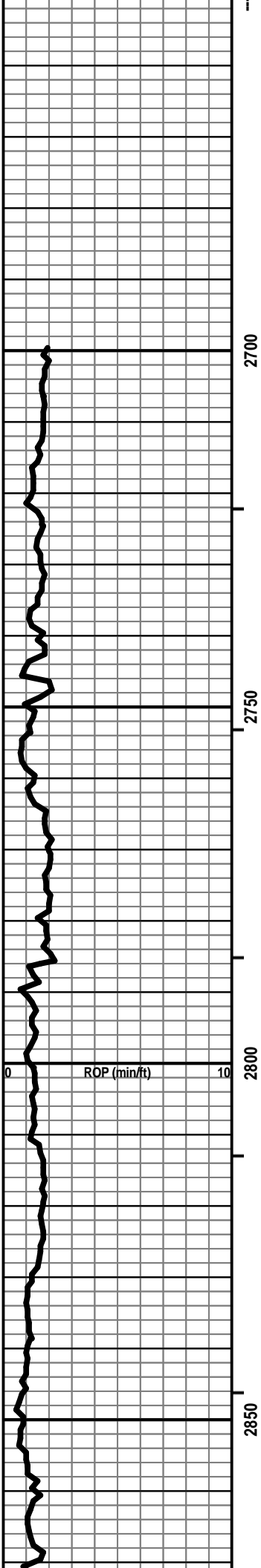
SS - LT GY, PRED VF QTZ GR, SLTY IN PT, SA / SR, W SRTD, PRED SIL CEM, MIC, F / G INTGR POR, SL / G SGB, SL / F OILY / DIST FILM

SS - AS ABOVE, SCAT SSGB + OILY / DIST FILM W/SLTST - LT / MED GY W/SH - LT / DK GY

LS - TAN / CRM / GY, VF / F XLN, FOSS IN PT, PRED DNS, NS W/SH - LT / MED GY

ROP (min/ft)





2700

2750

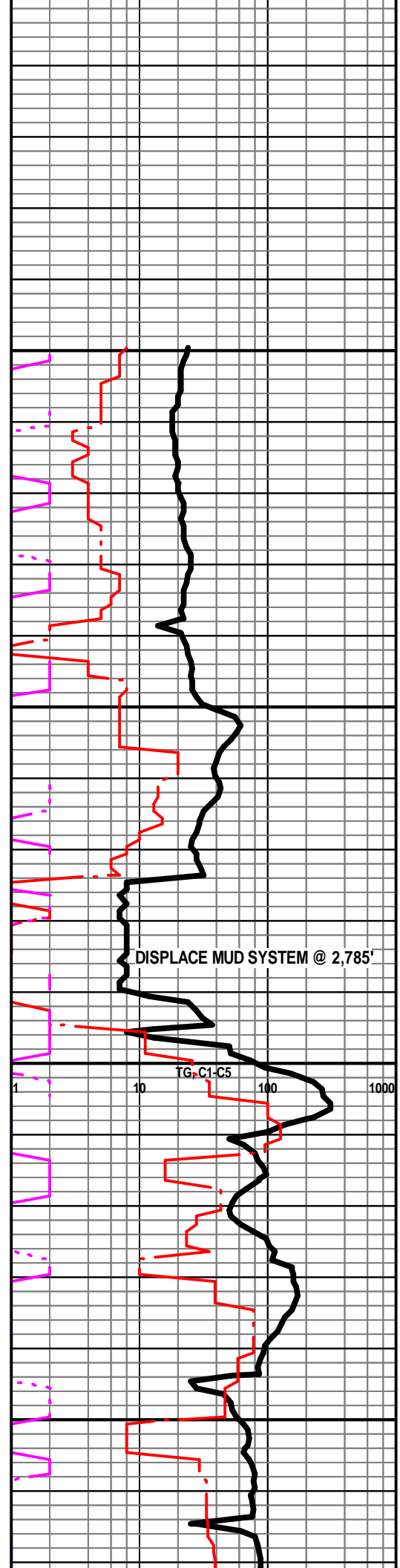
2800

2850

ROP (min/ft)

0

10



DISPLACE MUD SYSTEM @ 2,785'

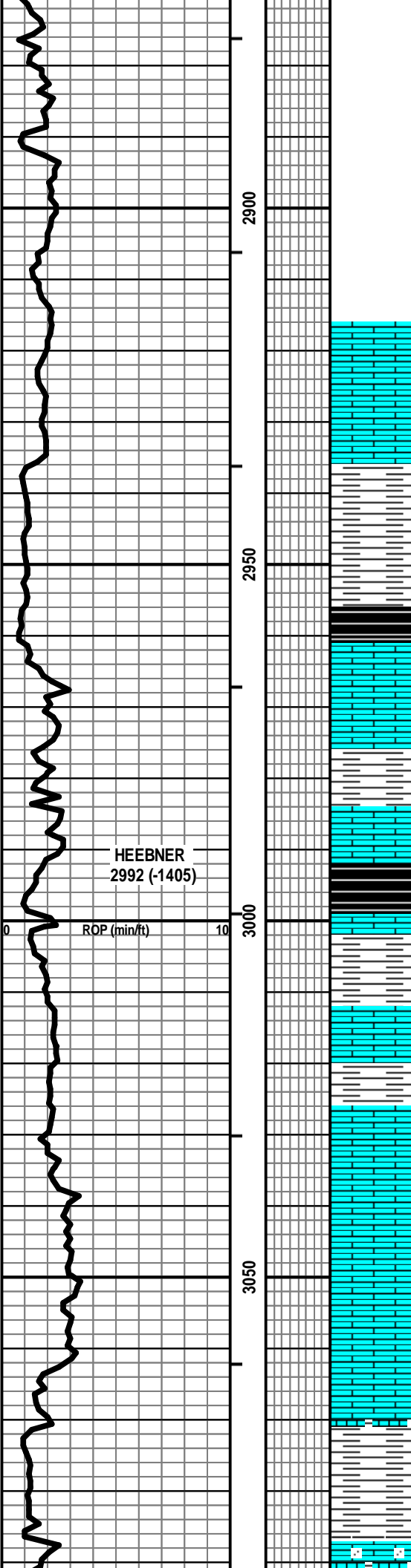
TG, C1-C5

1

10

100

1000



HEEBNER
2992 (-1405)

ROP (min/ft)

2900

2950

3000

3050

LS - TAN / GY, MOT IN PT, VF / F XLN, SCAT M XLN, FOSS IN PT, PRED DNS, NS

SH - MED / DK GY / BLK, CARB IN PT

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

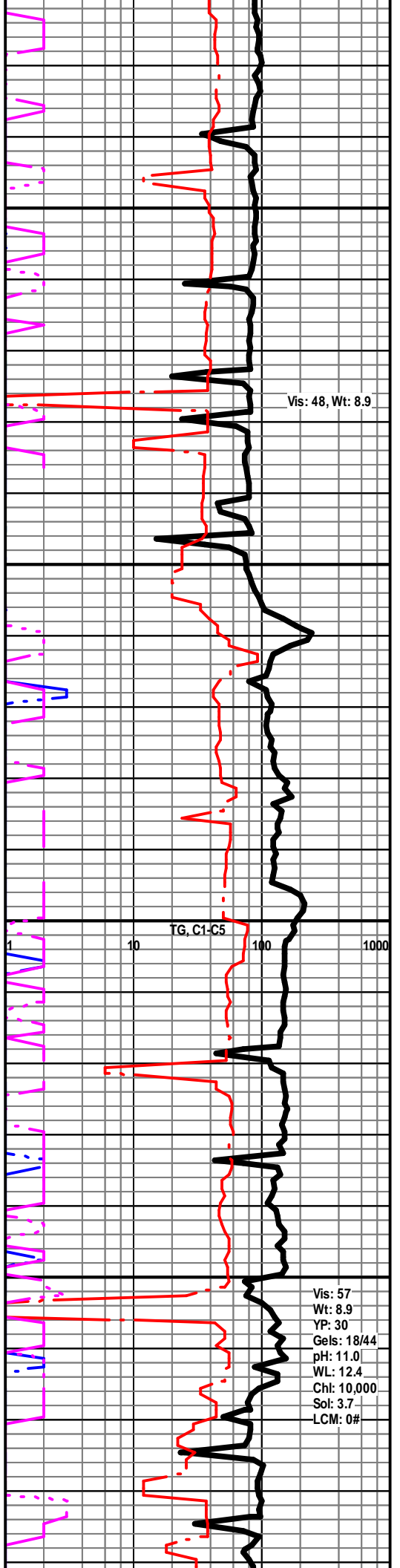
PRED SH - GY / BLK, CARB IN PT W/LS - AA

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

LS - TAN / BRN, VF / F XLN, TR FOSS, SUBCHKY IN PT, PRED DNS, NS

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

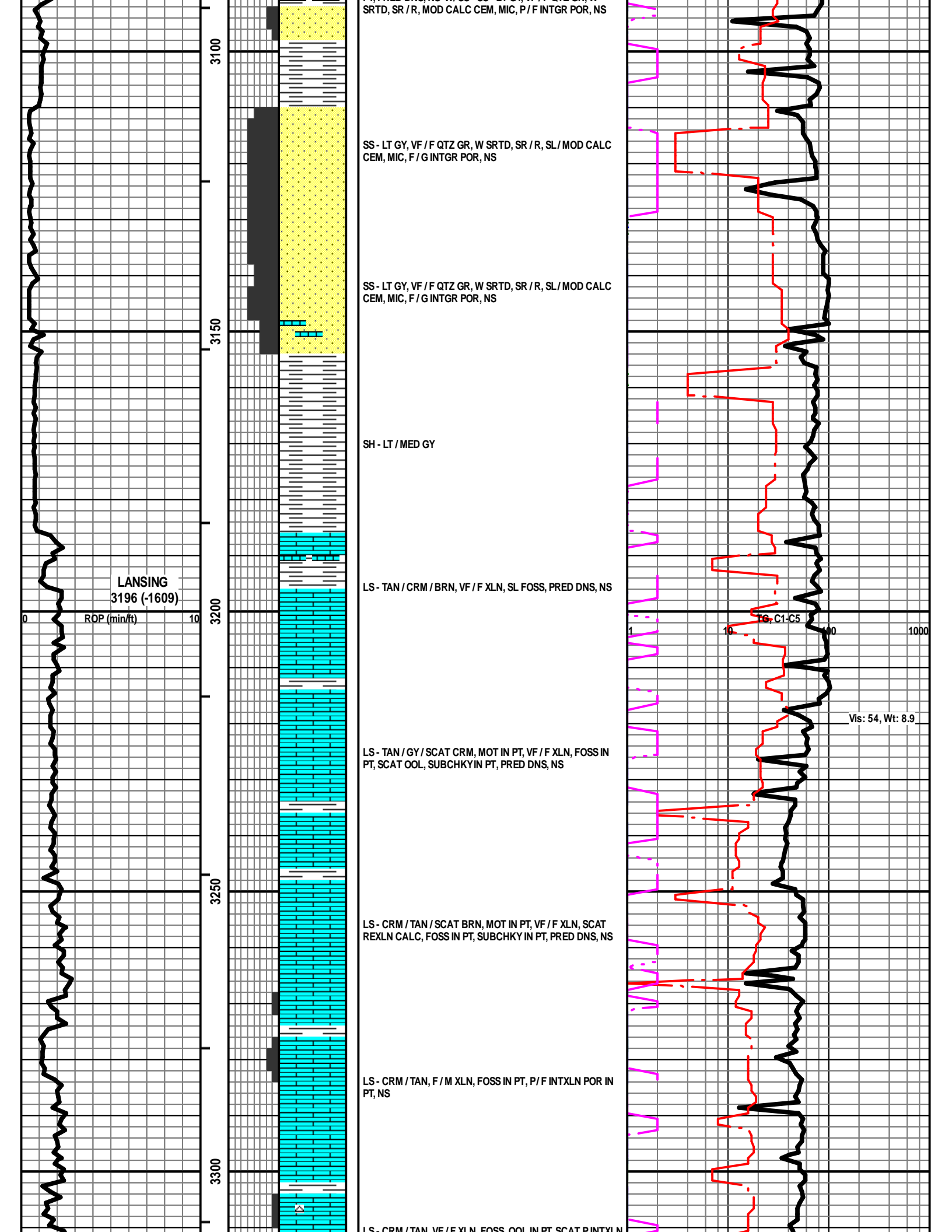
SH - GY / SCAT GRN W/LS - GY / CRM, VF / F XLN, AREN IN PT, PRED DNS, NS W/SS - SS - LT GY, VF / F QTZ GR. W



Vis: 48, Wt: 8.9

TG, C1-C5

Vis: 57
Wt: 8.9
YP: 30
Gels: 18/44
pH: 11.0
WL: 12.4
Chl: 10,000
Sol: 3.7
LCM: 0#



LS - CRM / TAN, VF / F XLN, FOSS IN PT, SCAT P INTXLN
POR, NS W/ TR CHT - LT GY / WHT

LS - CRM / TAN / SCAT GY, VF / F XLN, FOSS IN PT, SCAT P /
TR F INTXLN POR, TR PPT POR, NS

LS - CRM / TAN, VF / F / SCAT M XLN, FOSS IN PT, TR OOL, P /
F INTXLN POR, SCAT PPT POR, NS

LS - CRM / GY / TAN, VF / F XLN, TR P PPT + INTXLN POR,
CHKY IN PT, PRED DNS, NS W/ SH - MED / DK GY

LS - CRM / TAN, VF / F XLN, FOSS IN PT, TR P / F INTXLN +
MOLDIC POR, PRED DNS, NS

LS - TAN / BRN / CRM, MOT IN PT, VF / F XLN, SL FOSS, SCAT
CHKY, PRED DNS, NS W/ SCAT CHT - TAN / GY W/ SCAT SH
- MED / DK GY

LS - TAN / GY, VF / CRYPTO XLN, SL FOSS, PRED DNS, NS W/
SCAT CHT - GY / TAN

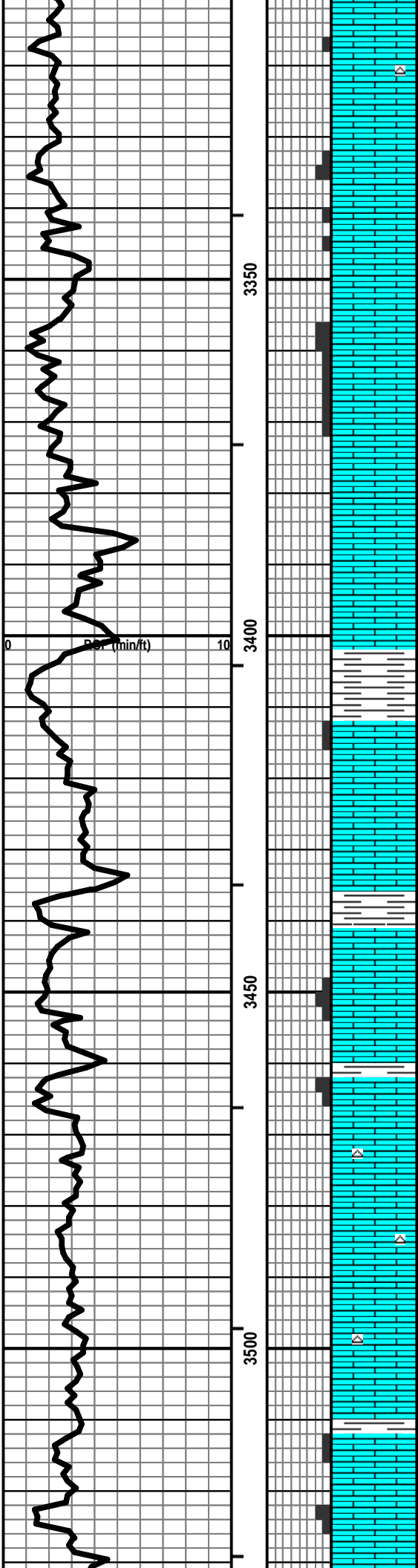
LS - CRM / TAN, VF / F XLN, SL FOSS, SCAT PPPT + INTXLN
POR, TR GB, NSFO, V FT ODOR, TR SPTY STN

TRIP FOR HOLE IN PIPE @ 3,373'

Vis: 50, Wt: 9.1

TG, C1-C5

Vis: 15, Wt: 9.2



Por (min/ft)

3350

3400

3450

3500

1000

10

1

Vis: 48, Wt: 9.3
YP: 15, Gels: 13/42
pH: 11.0, WL: 11.2
Chl: 8,000, Sol: 5.9
LCM: 0#

STARK SH
3548 (-1961)

3550

LS - CRM / TAN / LT GY, VF / F XLN, SCAT REXLN CALC, OOL
+ FOSS IN PT, TR P OOM POR, CHKY IN PT, PRED DNS, TR
GB, NSFO, V FT ODOR, TR SPTY STN W/ SH - BLK, CARB

LS - CRM / TAN, VF / F XLN, SL FOSS, PRED DNS, NS

ROP (min/ft)

3600

LS - CRM / TAN, F XLN, OOL, F / G OOM + INTXN POR, NS,
NO ODOR, NO STN

CFS @ 3610'

LS - TAN / CRM / BRN, VF / F XLN, SL FOSS, PRED DNS, NS

3650

LS - TAN / BRN / GY, F XLN, SCAT REXLN CALC, FOSS IN PT,
SCAT OOL, PRED DNS, NS W/ SH - GY / GRN / RED

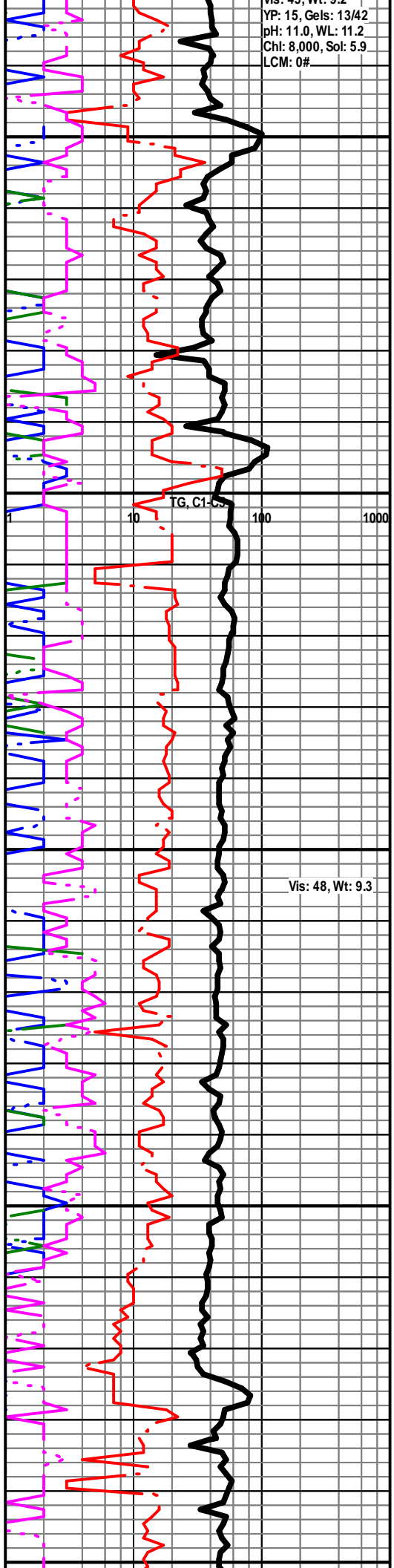
Vis: 48, Wt: 9.3

3700

LS - TAN / CRM, VF / F XLN, SCAT CRYPTO XLN, SL FOSS,
PRED DNS, NS

3750

LS - TAN / CRM / GY, MOT IN PT, VF / F XLN, FOSS IN PT,
SUBCHKY IN PT, PRED DNS, NS



CHEROKEE
3785 (-2198)

LS - TAN / CRM, VF / F XLN, FOSS IN PT, PRED DNS, NS W/
SH - MED / DK GY / BLK

Vis: 50, Wt: 9.5
LCM: 1#

ROP (min/ft)

LS - TAN / CRM / SCAT GY, MOT IN PT, VF / F XLN, FOSS IN PT,
PRED DNS, NS W/SH - DK GY / BLK

TG, C5

DST #2 (Miss Chert) 3,887'-3,902'
30" - 60" - 30" - 60"

IF: GTS in 3 min., gauged with 1/2 in. orifice:
10 min - 255 MCF, 20 min - 300 MCF,
30 min - 312 MCF

ISI: No blow back

FF: Gas gauged with 1/2 in. orifice:
10 min - 334 MCF, 20 min - 363 MCF,
30 min - 363 MCF

FSI: No blow back

SH - MED / DK GY / BLK / SCAT GRN W/SCAT LS - TAN / GY,
MOT IN PT, VF / F XLN, PRED DNS, NS

RECOVERY: 317' Total Fluid:
77' GWCM (10% G, 20% W, 70% M)
178' MCW (70% W, 30% M)
62' MCW (95% W, 5% M)
Chlorides recovery: 90,000 ppm

SIP: 1262-1256 HP: 1971-1910
FP: 137-150, 145-172 BHT: 117

SH - MED / DK GY / BLK / GRN W/SCAT LS - TAN / BRN, F /
M XLN, PRED DNS, NS

Vis: 48, Wt: 9.4
YP: 15, Gels: 12/44
pH: 10.5, WL: 9.6
Chl: 6,500, Sol: 7.4
LCM: 2#

MISS CHERT
3880 (-2293)

CHT - WHT / SCAT CRM, 85% F / G WEATH, ABNT TRIP +
MOD VUG POR, F / G SGB, SL / F SFO, G ODOR, SPTY / SEMI
SAT LT / MED STN, PRED G FLOUR + CUT

DST #2
3887'-3902'

CFS @ 3902'

CHT - WHT / SCAT CRM, 85% F / G WEATH, ABNT TRIP +
MOD VUG POR, F / G SGB, SL / F SFO, F ODOR, SPTY / SCAT
SAT LT / MED STN, P / G FLOUR + CUT

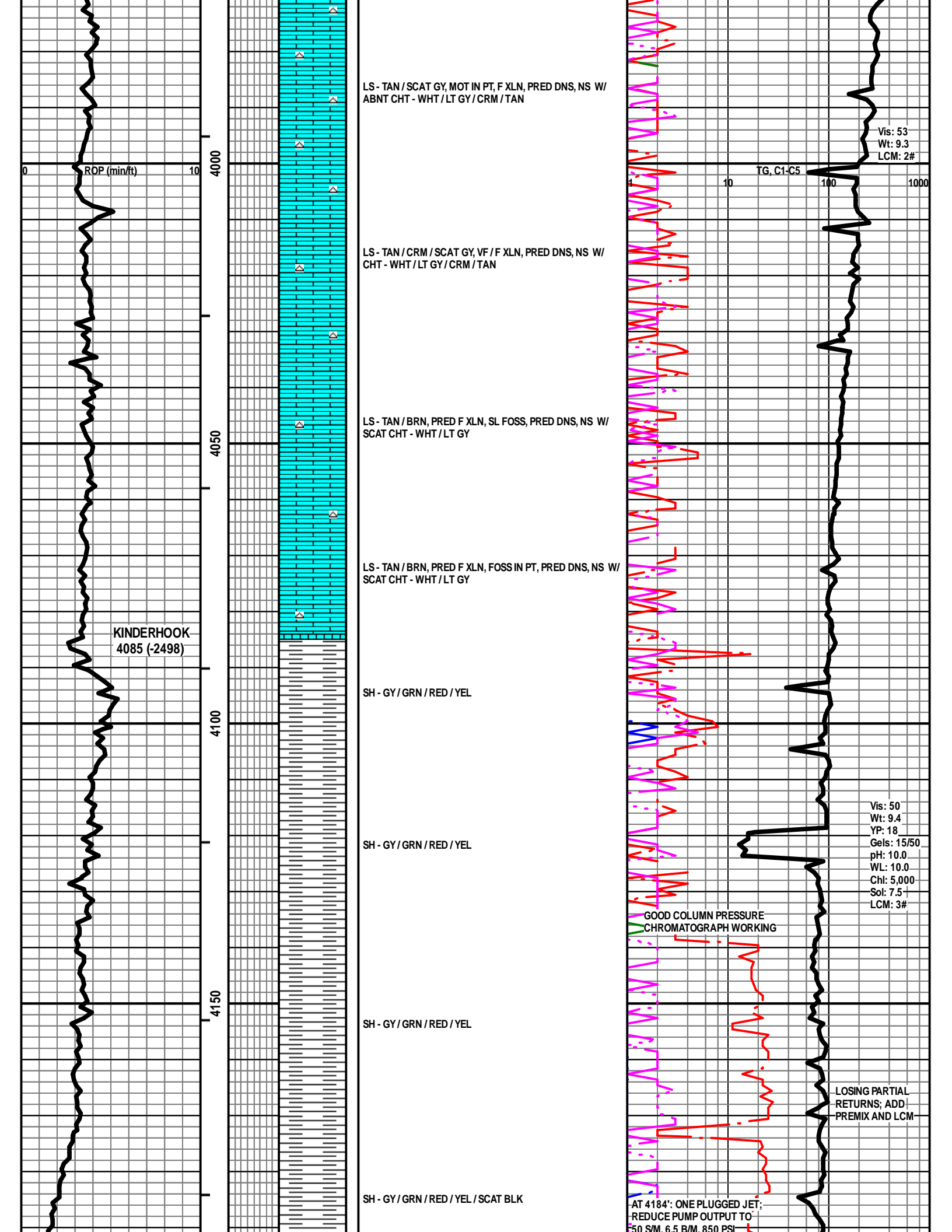
PIPE STRAP @ 3,902': LONG 4.13'

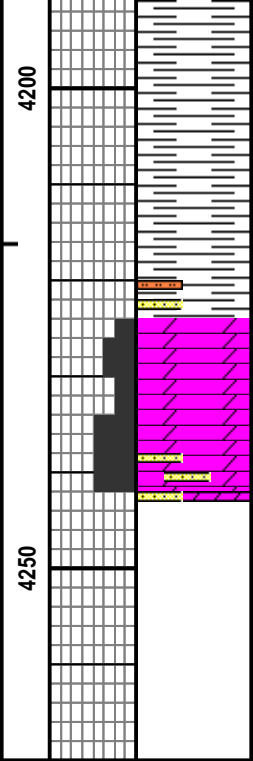
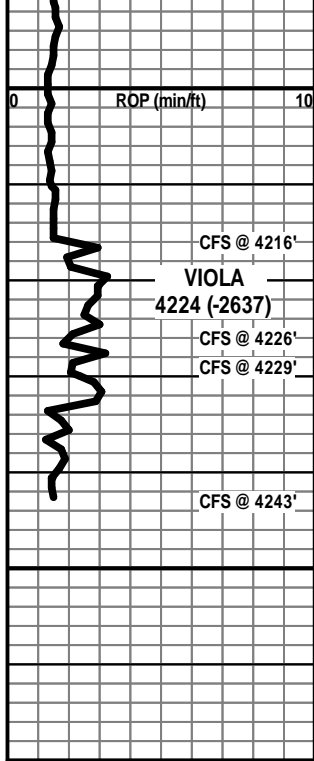
GAS DILUTED TO PROTECT
HOTWIRE FILAMENT 3903'-3953'

COLUMN PRESSURE WEAK
CAUSING CHROMATOGRAPH
MALFUNCTION 3903-4140'

CHT - WHT / SCAT CRM, 75% F / G WEATH, TRIP + VUG POR
IN PT, PRED NS, V FT ODOR, SPTY BLK GILS STN, PRED NO
FLOUR + CUT

LS - GY / TAN, MOT IN PT, F XLN, PRED DNS, NS W/ ABNT
CHT - WHT / LT GY / CRM





SH - GY / GRN / RED / YEL / SCAT BLK

SH - GY / GRN / RED / YEL / SCAT BLK W/ SCAT SLTST - GY / SCAT GRN W/ TR SS - LT GY, F QTZ GR, W SRTD, SR / R, P INTGR POR, NS

DOLO - LT GY / WHT, M / C XLN, SCAT PYR, P / SCAT G INTXLN POR, SCAT VUG POR, SSFO IN PT, TR GB, PRED NS, V FT ODOR, TR SPTY STN, NO / SCAT G FLOUR + CUT

DOLO - LT GY / WHT, M / C XLN, RHOMBIC IN PT, SCAT PYR, AREN IN PT, P / G INTXLN POR, SCAT VUG POR, NO / P SFO IN PT, PRED NS, NO ODOR, SCAT SPTYSTN

TOTAL DEPTH 4243 (-2656)

