

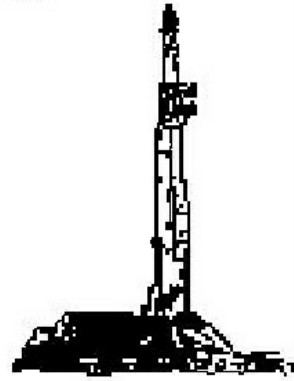
# **G**OOLSBY BROTHERS and associates, inc.

575 Union Blvd, Suite 208  
Lakewood, CO 80228  
303-945-2860 Office



## **Geological Wellsite Supervision**

[www.goolsbybrothers.com](http://www.goolsbybrothers.com)



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

**Well Name:** JACK CREEK #2

**API:** 05-121-11079

**Location:** SENE Sec 4 T2S R51W Washington County, CO.

**License Number:**

**Region:** Wild Cat

**Spud Date:** December 15, 2018

**Drilling Completed:** December 18, 2018

**Surface Coordinates:** 900' FSL, 600' FEL (SESE)

39.905070 N Latitude, -103.089550 W Longitude

**Bottom Hole** Same

**Coordinates:**

**Ground Elevation (ft):** 4,594'

**K.B. Elevation (ft):** 4,614'

**Logged Interval (ft):** 503'

**To:** 4277'

**Total Depth (ft):** 4285'

**Formation:** D SAND & J SAND TARGET

**Type of Drilling Fluid:** Gel Lime/native wtr. surf. - 2506, LGNS 2506' - 4,285' DMTD

Printed by StripLog from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### **OPERATOR**

**Company:** ST CROIX Operating Inc.

**Address:** Paul Melnychinko  
PO Box 13799  
Denver, CO. 80201

### **GEOLOGIST**

**Name:** Phillip Willcox

**Company:** Goolsby Brothers & Assoc. (GBA), Inc. ([www.goolsbybrothers.com](http://www.goolsbybrothers.com))

**Address:** 575 Union Blvd.  
Suite 208,  
Lakewood CO. 80228

### **Logs**

Open Hole Logs Schlumberger Ran AI, LDT/CNL, ML, BHC

## Casing

8 5/8" Surface Casing set @ 503'  
P&A 12/20/18

## Contractors

1) Drilling Contractor: WW DRILLING INC.; Rig #20

Toolpusher: John Rouse

2) Company Man: Tom Thomas, Integrated Petroleum

3) Mud Company: Basin Fluids

4) Open Hole Logs Schlumberger: Ran AIT, TLD/CNL, ML

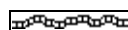


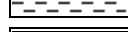




Engineer: Ashley Rosacker


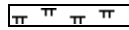
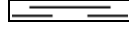
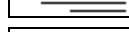




Technologies




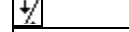
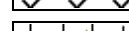



Mud Engineer



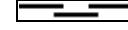

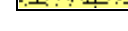
Glen Halliday

## ROCK TYPES




















 Bent  
 Arg ss  
 Cht  
 Clyst  
 Coal  
 Congl  
 Dol  
 Gyp











 Ls  
 Mrst  
 Sh  
 Shcol  
 Shgy  
 Ss  
 Cement  
 Sltst









 Ss  
 Chlk  
 Mdstn  
 Fracture  
 Anhyd  
 Mdstn  
 Ss  
 Sltly sh

 Arg dol  
 Clybasedsltst  
 Carb sh  
 Carb chalk  
 Arg lmy ss

## 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

**FOSSIL**  
 Algae  
 Amph  
 Belm  
 Bioclst  
 Brach  
 Bryozoa  
 Cephal  
 Coral












 Crin  
 Echin  
 Fish  
 Foram  
 Fossil  
 Gastro  
 Oolite  
 Ostra  
 Pelec  
 Pellet  
 Pisolite  
 Plant  
 Strom

### STRINGER

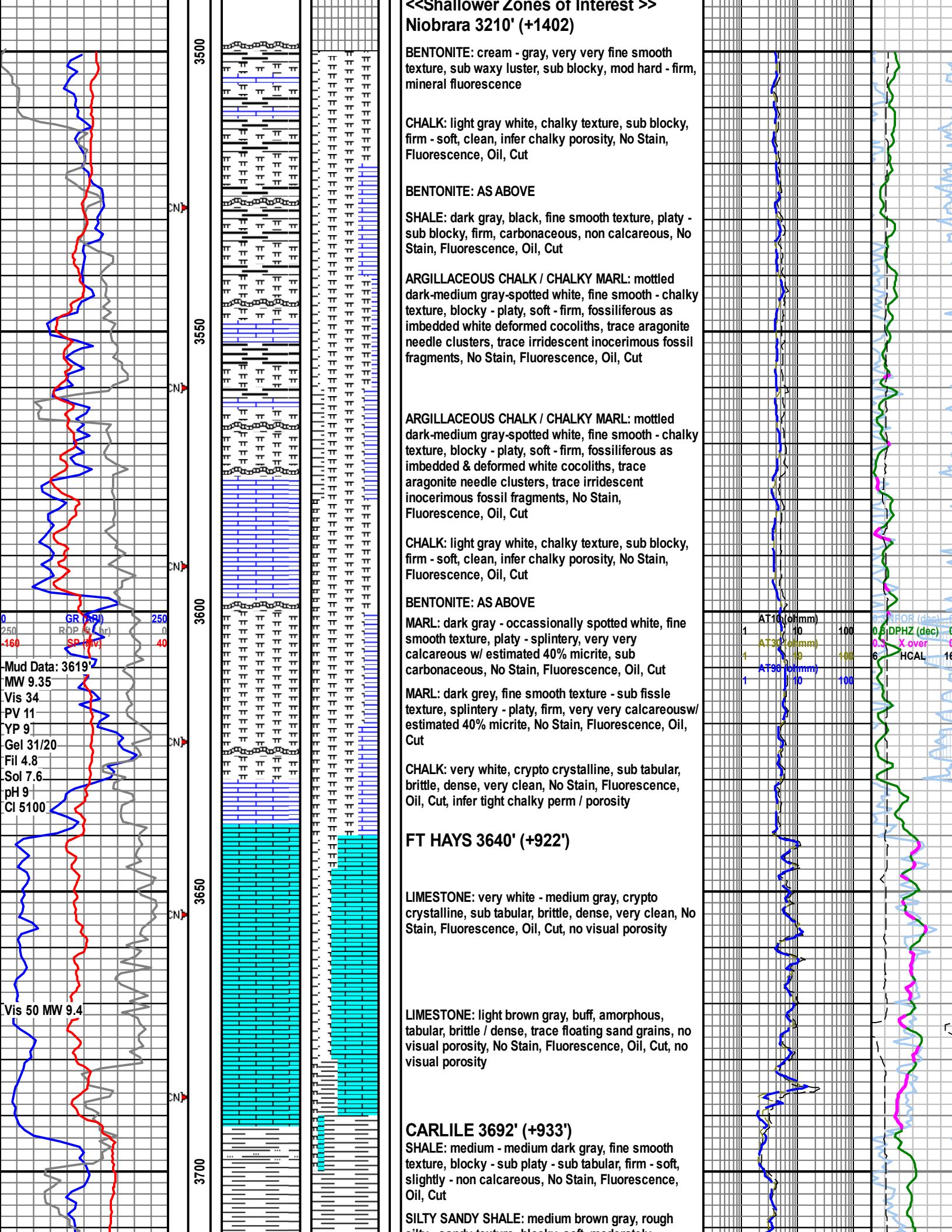
 Anhy  
 Arg  
 Bent  
 Coal  
 Dol

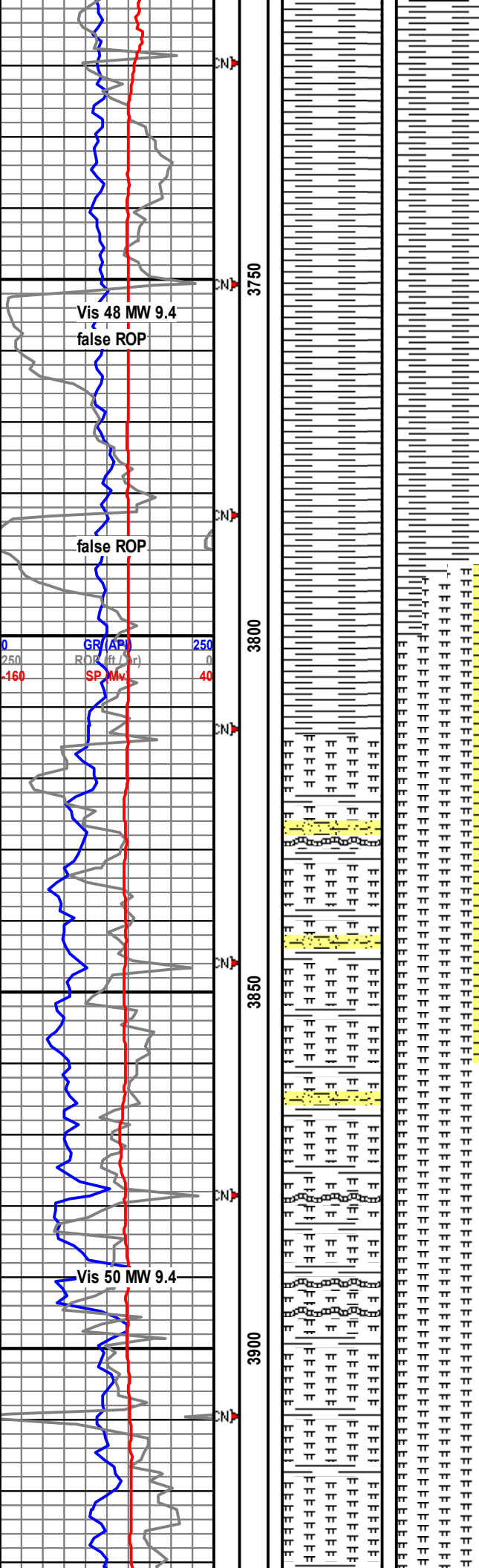
 Gyp  
 Ls  
 Mrst  
 Sltstrg  
 Ssstrg

### TEXTURE

 Boundst  
 Chalky  
 Cryxln  
 Earthy  
 Finexln  
 Grainst  
 Lithogr  
 Microxln  
 Mudst  
 Packst  
 Wackest

[illegible]





silty - sandy texture, blocky, soft, moderately calcareous, grading to argillaceous siltstone, trace black inclusions, no visual porosity,

As Above and grading to clay rich shale

SHALE: medium - medium dark gray, fine smooth texture, blocky - sub platy - sub tabular, firm - soft, slightly - non calcareous, No Stain, Fluorescence, Oil, Cut

SHALE: medium - medium dark gray, fine smooth texture, blocky - sub platy - sub tabular, firm - soft, slightly - non calcareous, No Stain, Fluorescence, Oil, Cut

SHALE: medium - medium dark gray, fine smooth texture, blocky - sub platy - sub tabular, firm - soft, slightly - non calcareous, No Stain, Fluorescence, Oil, Cut

MARL: (poor sample) medium dark gray, brown gray, mottled light gray, firm, some argillaceous very fine grain sandstone, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

### GREENHORN 3810' (+804')

MARL: medium dark gray, brown gray, mottled light gray, firm, some argillaceous very fine grain sandstone, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

MARL: medium dark gray, brown gray, mottled light gray, firm, some argillaceous very fine grain sandstone, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

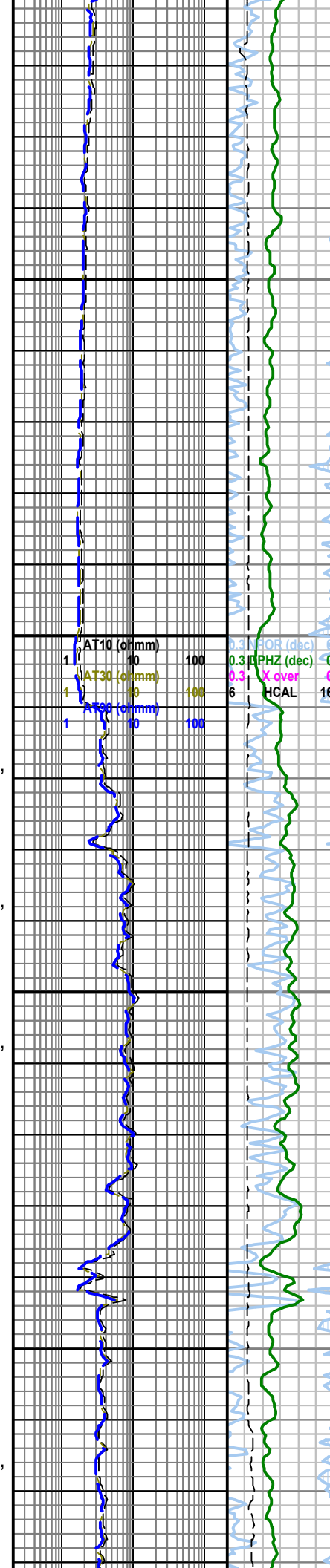
MARL: medium dark gray, brown gray, mottled light gray, firm, some argillaceous very fine grain sandstone, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

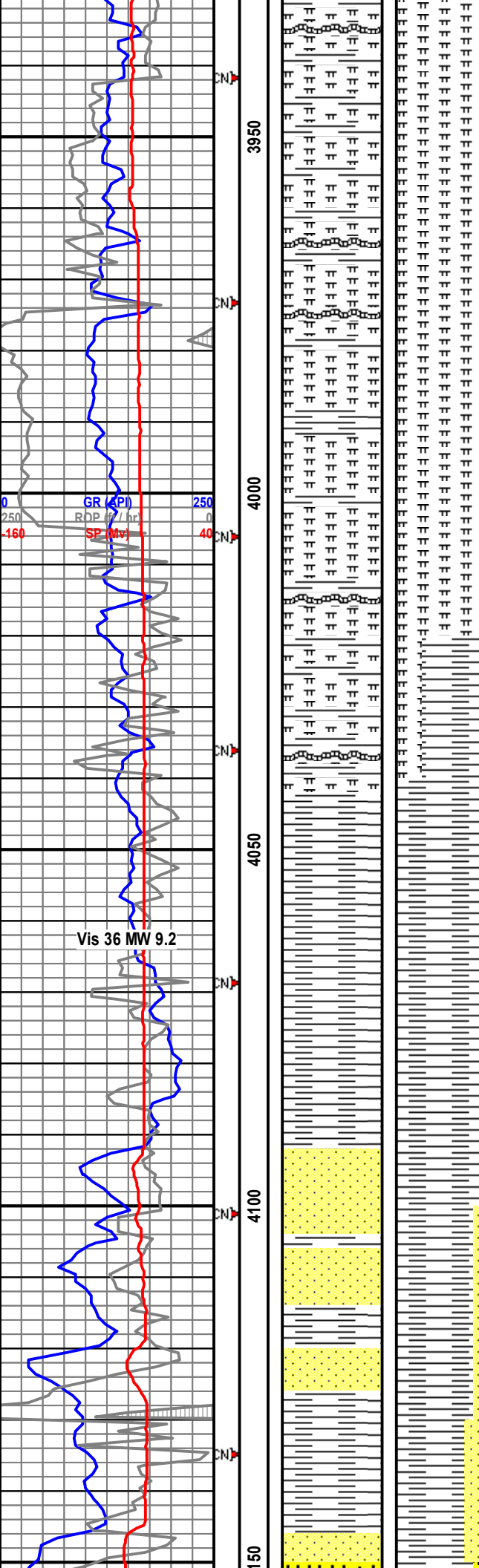
MARL: medium dark gray, brown gray, firm, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

MARL: medium dark gray, brown gray, firm, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

### SHORT TRIP @ 3911', 9 Stands

MARL: medium dark gray, brown gray, fine - rough texture, firm - soft, very fine grain argillaceous sandstone, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity





MARL: medium dark gray, brown gray, firm, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

BENTONITE: medium gray - tan, very very fine smooth texture, sub waxy luster, platy, mineral fluorescence in parts

MARL: medium dark gray, brown gray, fine - rough texture, firm - soft, very fine grain argillaceous sandstone, very calcareous, No Stain, Fluorescence, Oil, Cut, no visual porosity

### X BENTONITE 4015' (+599')

BENTONITE: medium gray - tan, very very fine smooth texture, sub waxy luster, platy, mineral fluorescence in parts

SHALE: dark gray, fine smooth texture, platy, soft, non calcareous

SHALE: dark gray, fine smooth texture, platy, soft, non calcareous

SHALE: dark gray, fine smooth texture, platy, soft, non calcareous

SHALE: dark gray, fine smooth texture, platy, soft, non calcareous

SHALE: dark gray, fine smooth texture, platy, soft, non calcareous

### D SAND 4092' (+522')

SANDSTONE: light brown gray, upper - lower very fine grain, sub round, well sorted, well consolidated, siliceous cement, well consolidated, clean, NSFOC

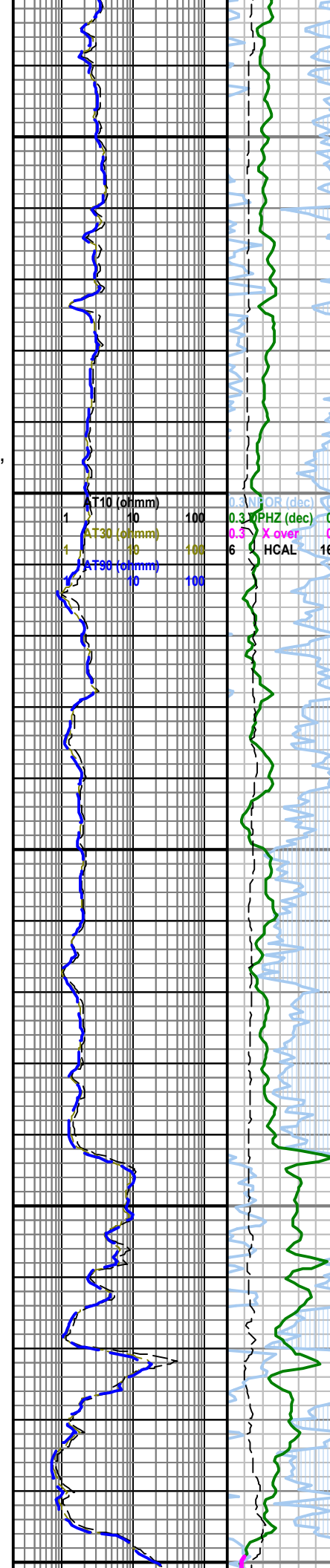
SANDSTONE: light brown gray, upper - lower very fine grain, sub round, well sorted, well consolidated, siliceous cement, well consolidated, clean, NSFOC

### HUNTSMAN 4126' (+488')

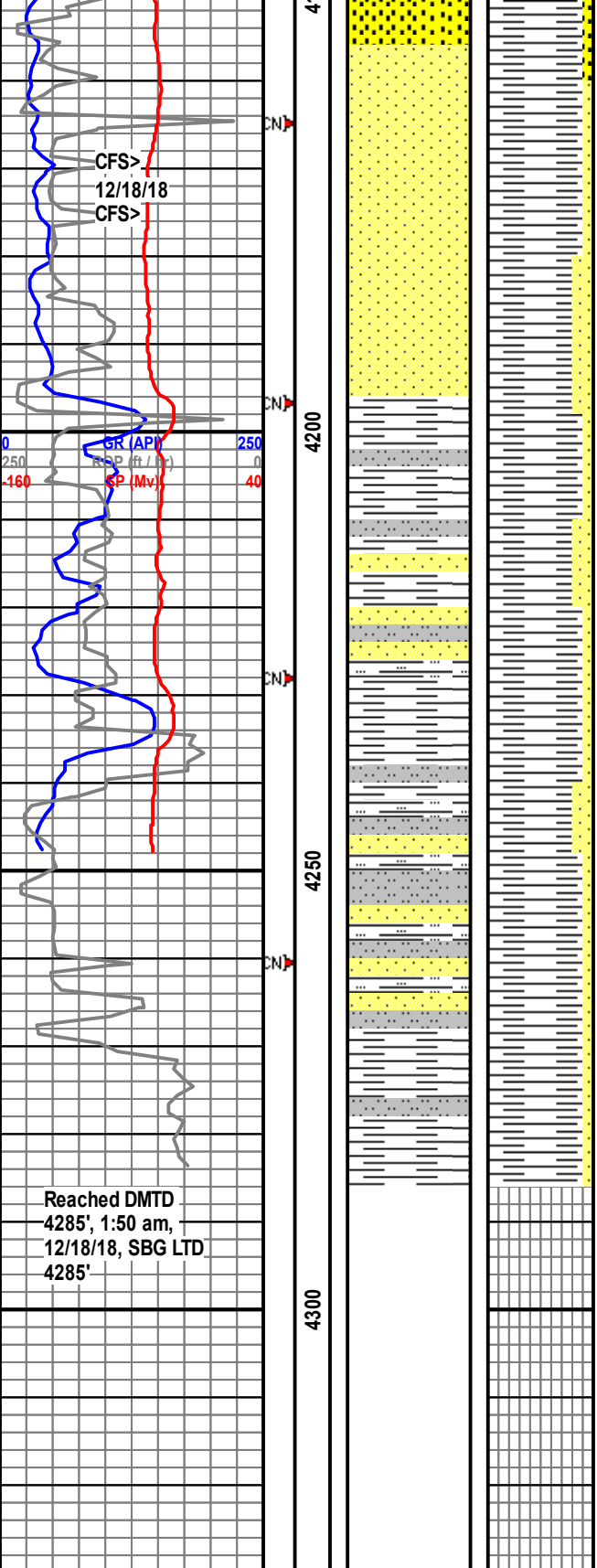
SHALE: dark gray, fine smooth texture, platy, firm, non calcareous

### J SAND 4146' (+468')

As Above w/ some upper fine - lower medium grain







Sandstone: (4169') light brown gray, translucent, upper - lower fine - unconsolidated lower medium grain, sub round, moderately sorted, moderately consolidated - unconsolidated, siliceous, clean, 10% w/ bright yell uniform fluorescence, poor cut, trace tan patchy oil stain

very poor sample 4175' LCM, 4170' As above  
Sandstone as below w/o fluorescence

Sandstone: light brown gray, translucent, upper - lower fine - very fine grain in parts, sub round, moderate - well sorted, moderate - well consolidated, siliceous, clea, 30% moderate to bright yellow  
**SKULL CREEK 4195' MD, (+419')**

SHALE: dark gray, fine smooth texture, platy - blocky, firm, sub carbonaceous, non - slightly calcareous

Sandstone: translucent, gray - gray white, lower - upper fine - upper very fine grain, sub round - sub angular, moderately sorted, moderately consolidated - unconsolidated, poor siliceous cement, clean - white clay fill in part, est 22% visual porosity, NSFOC

SILTSTONE: medium - dark gray, sandy, argillaceous, slightly calcareous, interbedded w/ shale

SHALE: dark gray, fine smooth texture, platy - blocky, firm, sub carbonaceous, non - slightly calcareous

#### GEOPHYSICAL LOG TOPS BELOW

FT HAYS	3640'	922'
CARLILE	3692'	933'
GREENHORN	3810'	804'
X BENTONITE	4015'	599'
D SAND	4092'	522'
J SAND	4126'	488'
SKULL CREEK	4195'	419'

THANK YOU!!!  
Phillip Willcox, Goolsby Brothers

