



eog resources

600 Seventeenth Street
Suite 1000N
Denver, CO 80202
(303) 572-9000

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

Well Name: Criter Creek 30-26H
Location: Hereford Ranch Prospect
License Number: API# 05-123-32328
Spud Date: Prespud 09/20/10, Drill out 11/5/10
Surface Coordinates: SESE (501 ft. FSL & 777 ft. FEL, Section 26, T11N - R63W, Weld County, Colorado)
Region: DJ Basin
Drilling Completed: 11/19/2010
Bottom Hole Coordinates: SESE (600 ft. FSL & 1450 ft FEL), Section 36, T11N - R63W, Weld County, Colorado
Ground Elevation (ft): 5,161' K.B. Elevation (ft): 5,184'
Logged Interval (ft): 1,274' To: TD Total Depth (ft): 12,282'
Formation: Niobrara (Kn), Kn "B" Chalk
Type of Drilling Fluid: Polymer/Chem gel
Printed by WellSight Log Manager from WellSight Systems 1-800-447-1534 www.WellSight.com

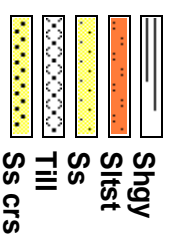
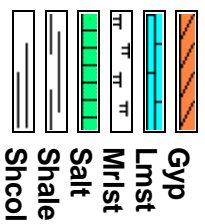
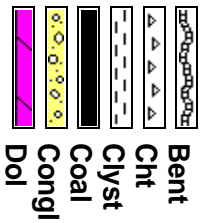
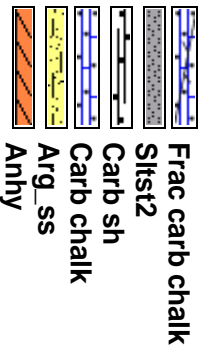
OPERATOR

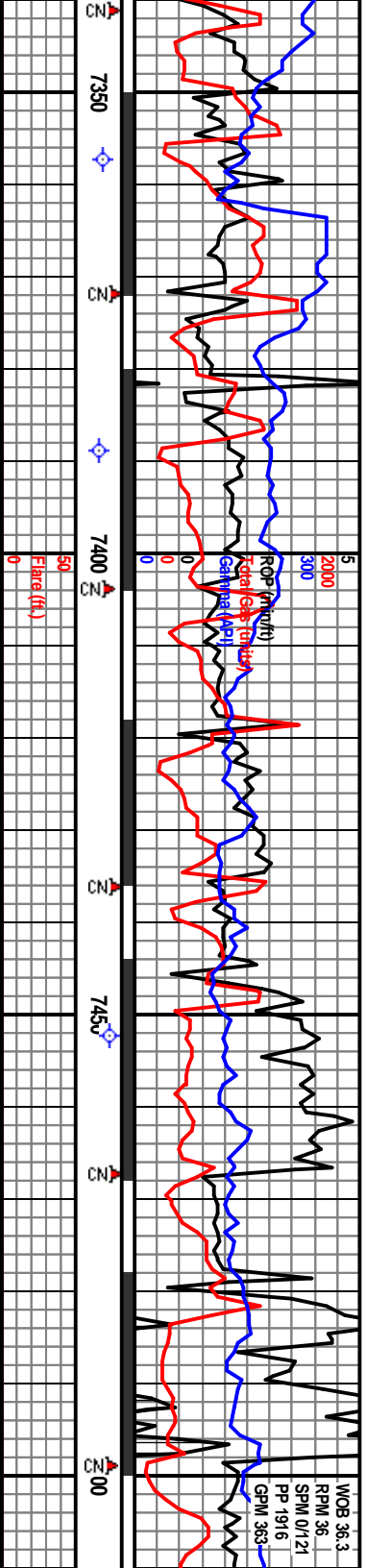
Company: EOG RESOURCES INC.
Address: 600 Seventeenth Street, Suite 1000N
Denver, Colorado, 80202

GEOLOGIST

Name: John W. Husk
Company: Husk Inc.
Address: 8229 E. Briarwood Avenue
Centennial, CO 80112-1306
Robert J. Groth
G & H Production Co, LLC
518 17th Street, Suite 1060
Denver, Colorado 80202

ROCK TYPES





WOB 36.3
RPM 36.1
SPM 0/7.21
PP 1916
GPM 363

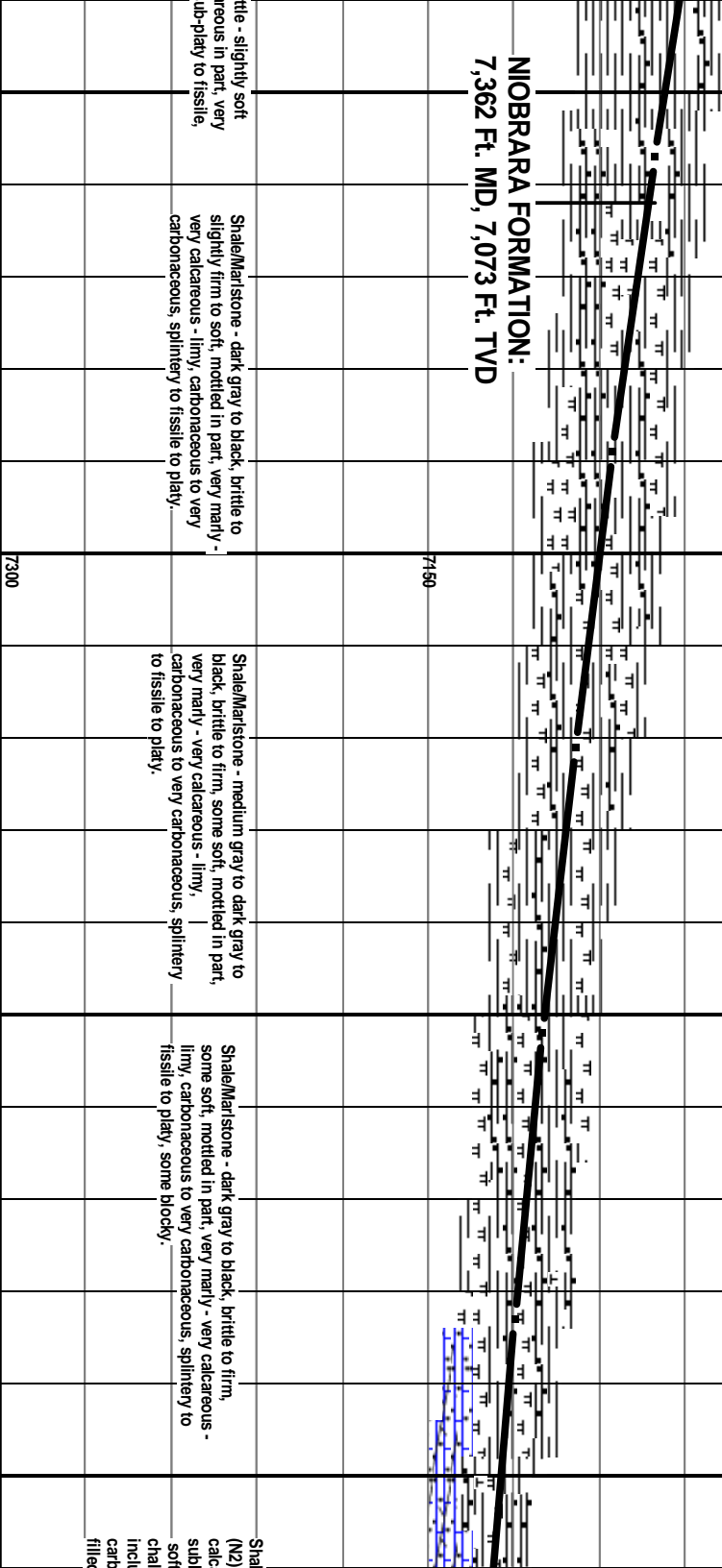
Nov. 11, 2010

DS 7389', Incl. 64.5°, Azm. 131.1°, TVD 7085.27', VS 1655.29'

7000 TVD

DS 7452', Incl. 70.0°, Azm. 131.0°, TVD 7109.73', VS 1712.64'

**NIORARA FORMATION:
7,362 Ft. MD, 7,073 Ft. TVD**



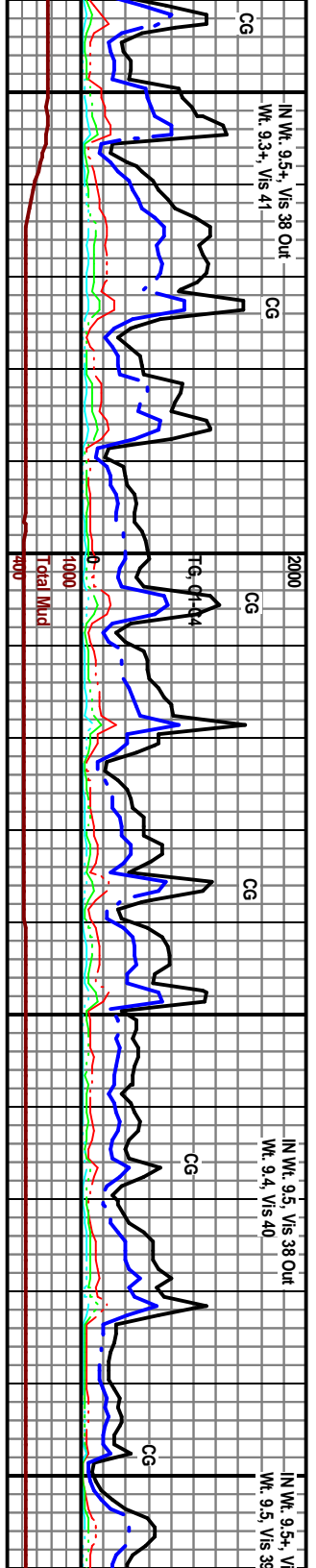
Shale - slightly soft
- calcareous in part, very
- blocky to platy to fissile.

Shale/Marlstone - dark gray to black, brittle to
slightly firm to soft, mottled in part, very marly -
very calcareous - limy, carbonaceous to very
carbonaceous, splintery to fissile to platy.

Shale/Marlstone - medium gray to dark gray to
black, brittle to firm, some soft, mottled in part,
very marly - very calcareous - limy, -
carbonaceous to very carbonaceous, splintery
to fissile to platy.

Shale/Marlstone - dark gray to black, brittle to firm,
some soft, mottled in part, very marly - very calcareous -
limy, carbonaceous to very carbonaceous, splintery to
fissile to platy, some blocky.

Shale
(N2)
calic
subbl
soft
chalc
incl
carb
filled



IN Wt. 9.5+, Vis 38 Out
Wt. 9.3+, Vis 41

CG

CG

IN Wt. 9.5, Vis 38 Out
Wt. 9.4, Vis 40

IN Wt. 9.5+, Vis 38
Wt. 9.5, Vis 38

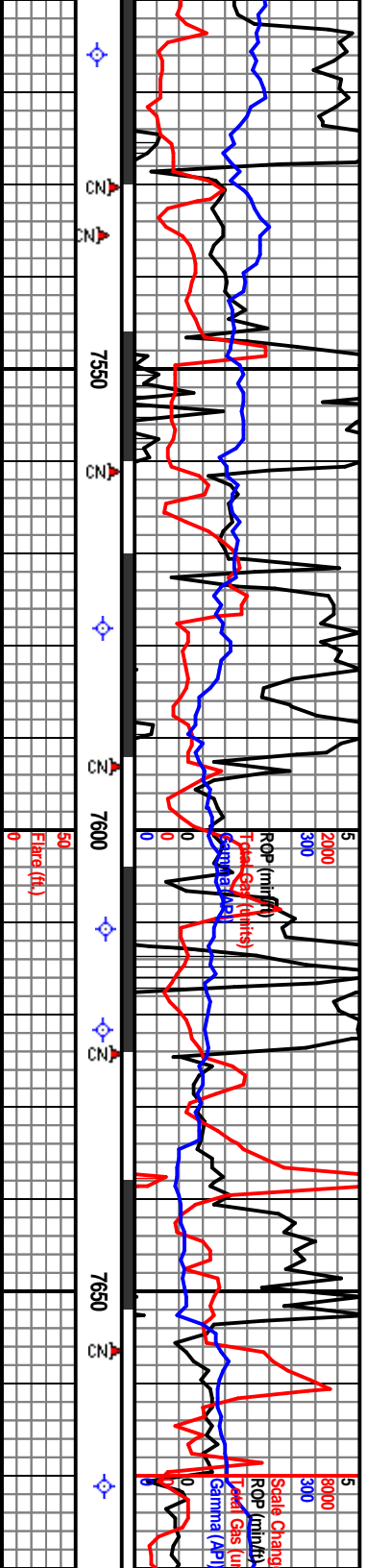
CG

CG

CG

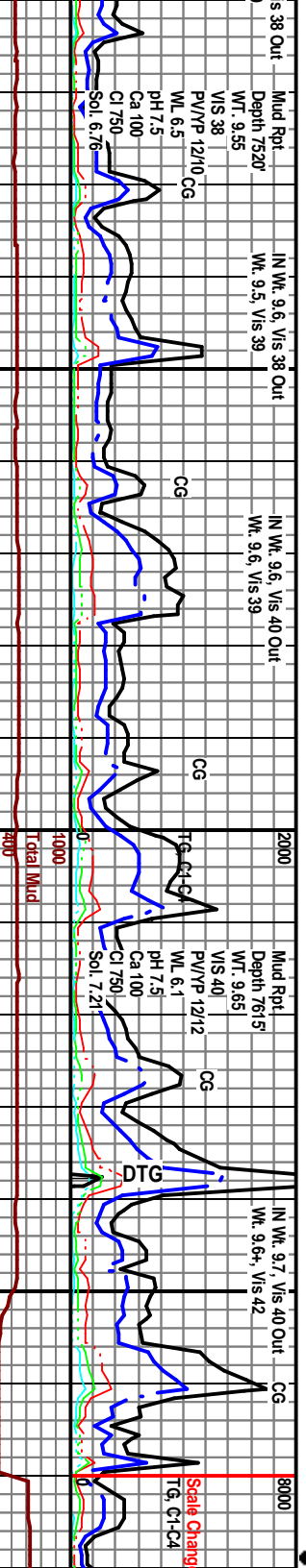
CG

2000
1000
0
-1000
-2000
Total Mud



NIORARA "B" CHALK
7545 Ft. MD, 7135 Ft. TVD

<p>S 7515', Incl. 75.1° Azim. 130.4°, TVD 7128.56', S 1771.95'</p>	<p>DS 7578', Incl. 80.5° Azim. 130.4°, TVD 7141.95', VS 1832.65'</p>	<p>DS 7624', Incl. 85.4° Azim. 130.1°, TVD 7147.67', VS 1877.62'</p>	<p>DS 7671', Incl. 88.1° Azim. 132.9°, TVD 7150.34', VS 1924.03'</p>
<p>Marlstone - dark gray (N3) to blackish gray mottled in part, very finely - very silty - limy in part, subplaty to splintery to calcareous, carbonaceous to very carbonaceous, brittle to firm. Traces of Carbonaceous k, <1% dark gray with brownish gray (N3) to blackish gray (N2), subblocky earthy, carbonaceous, very calcareous, rare calcite microfractures, firm to hard.</p>	<p>Carbonaceous chalk, 25% dark gray (N3) with brownish gray (SVR 4/1) to light brownish gray (SVR 6/1) inclusions, subblocky to subplaty earthy, carbonaceous, very calcareous, rare calcite filled microfractures, soft to firm to hard. Shale/Marlstone - 75% dark gray (N3) to blackish gray (N2), mottled in part, very finely - very calcareous - limy in part, subplaty to splintery to subblocky, carbonaceous to very carbonaceous, soft to brittle to firm.</p>	<p>Carbonaceous chalk, medium light gray (N6) to medium gray (N5) mottled with dark gray (N3), subblocky to subplaty earthy, carbonaceous to very carbonaceous, limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm.</p>	<p>Carbonaceous chalk, medium light gray to medium gray mottled with dark gray, subblocky to subplaty, earthy to fairly subwaxy, carbonaceous to very carbonaceous, limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm.</p>

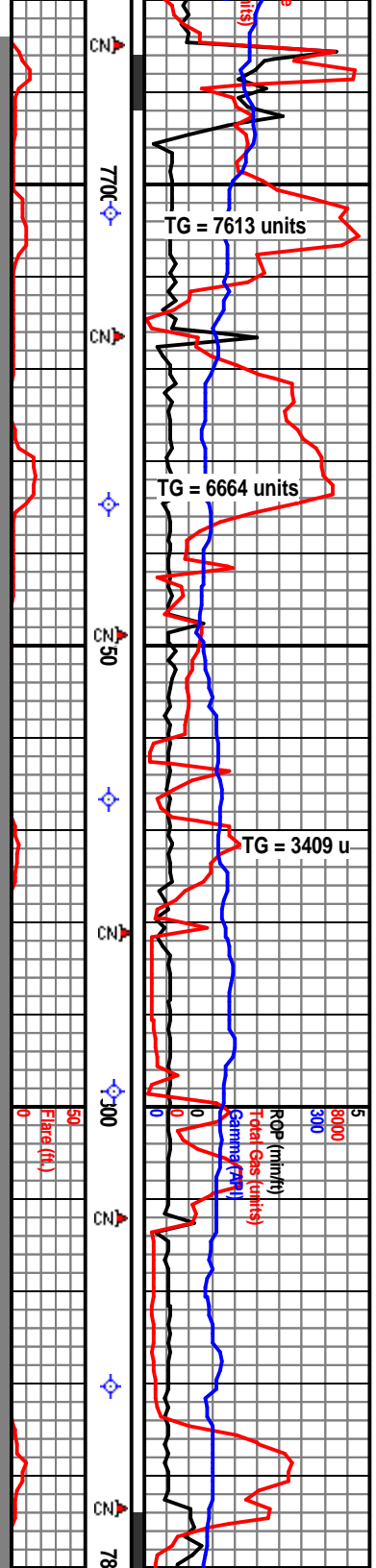


Bit #2, 8 3/4 in.,
HTC, GT-1, cut 699
ft. in 31.0 hrs.

November 12-15, 2

New B
QD 4
Land
MD re
Nove

Scale Changing
TG, C1-C4



010

DS 7734', Incl. 88.0°
Azim. 131.1°, TVD 7152.51';
VS 1986.37'

DS 7798', Incl. 88.0°
Azim. 131.1°, TVD 7154.86';
VS 2049.56'

7110 TVD

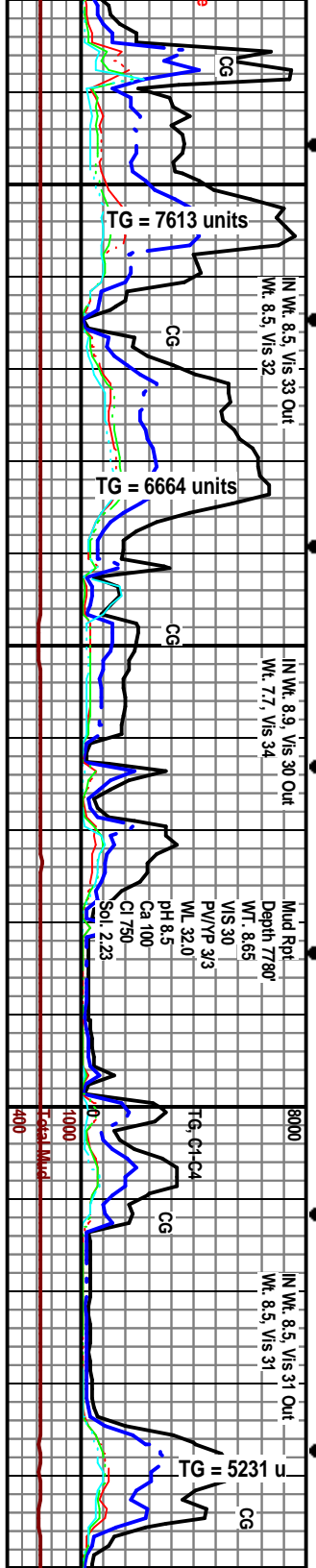
Carbonaceous chalk, medium light gray to medium gray (N5) mottled with dark gray, subblocky to subplaty earthy, carbonaceous to very carbonaceous, limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in washed sample, immediate milky white flashing cut, thick film and ring when dry.

Carbonaceous chalk, medium light gray to medium gray (N5) mottled with dark gray, subblocky to subplaty earthy, carbonaceous to very carbonaceous, limy in part, very calcareous, occasionally limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in washed sample, immediate milky white flashing cut, thick film and ring when dry.

Carbonaceous chalk, mostly dark gray (N3) mottled with medium light gray (N6) to medium gray (N5), subblocky to subplaty, earthy, very carbonaceous, occasionally limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in washed sample, immediate milky white flashing cut, thick film and ring when dry.

Carbonaceous chalk, medium light gray (N6) to medium gray (N5) mottled with dark gray (N8), subblocky to subplaty earthy, carbonaceous to very carbonaceous, limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in sample washed with clear water, spotty in soapy water, immediate milky white flashing cut, thick film and ring when dry.

7198
7160
7210

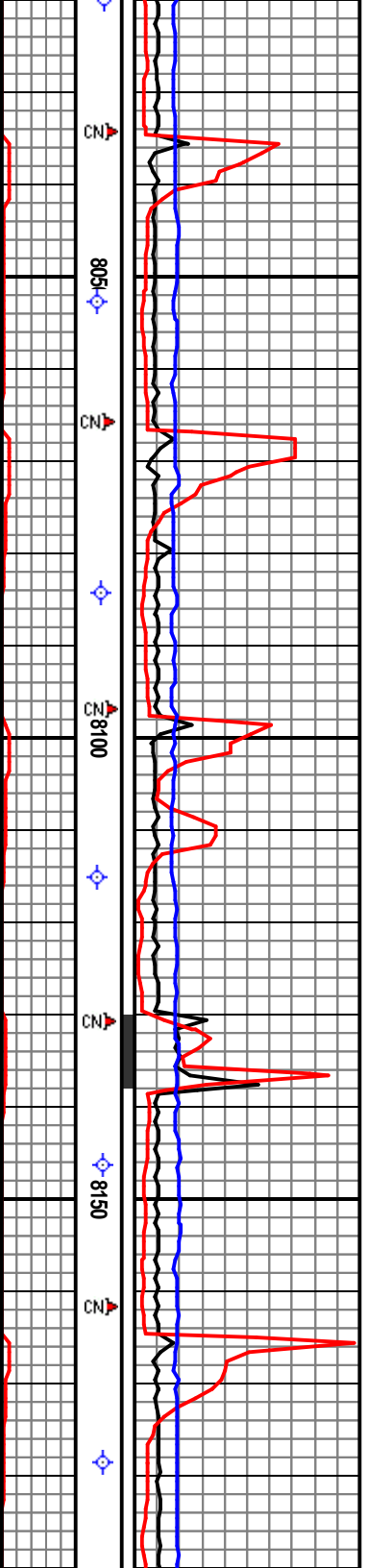


Carbonaceous chalk, medium light gray to medium gray (N5) mottled with dark gray (N8), subblocky to subplaty earthy, carbonaceous to very carbonaceous, limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in washed sample, immediate milky white flashing cut, thick film and ring when dry.

Carbonaceous chalk, medium light gray to medium gray (N5) mottled with dark gray, subblocky to subplaty earthy, carbonaceous to very carbonaceous, limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in washed sample, immediate milky white flashing cut, thick film and ring when dry.

Carbonaceous chalk, mostly dark gray (N3) mottled with medium light gray (N6) to medium gray (N5), subblocky to subplaty, earthy, very carbonaceous, occasionally limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in washed sample, immediate milky white flashing cut, thick film and ring when dry.

Carbonaceous chalk, medium light gray (N6) to medium gray (N5) mottled with dark gray (N8), subblocky to subplaty earthy, carbonaceous to very carbonaceous, limy in part, very calcareous, rare calcite filled microfractures, mostly soft to firm. Bright yellow solid fluorescence in sample washed with clear water, spotty in soapy water, immediate milky white flashing cut, thick film and ring when dry.

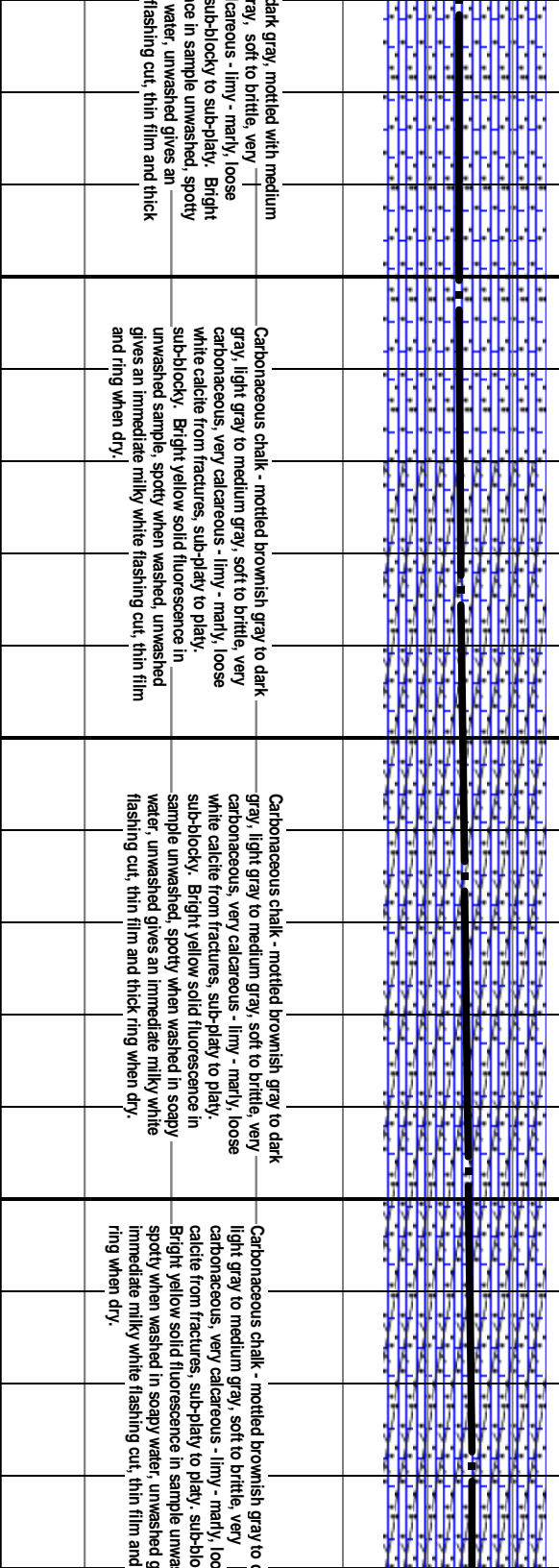


DS 8052, Incl. 90.30°
Azim. 130.30°, TVD 7156.26',
VS 2299.78'

DS 8115, Incl. 91.00°
Azim. 129.40°, TVD 7155.69',
VS 2361.83'

DS 8179, Incl. 90.70°
Azim. 129.00°, TVD 7154.48',
VS 2424.76'

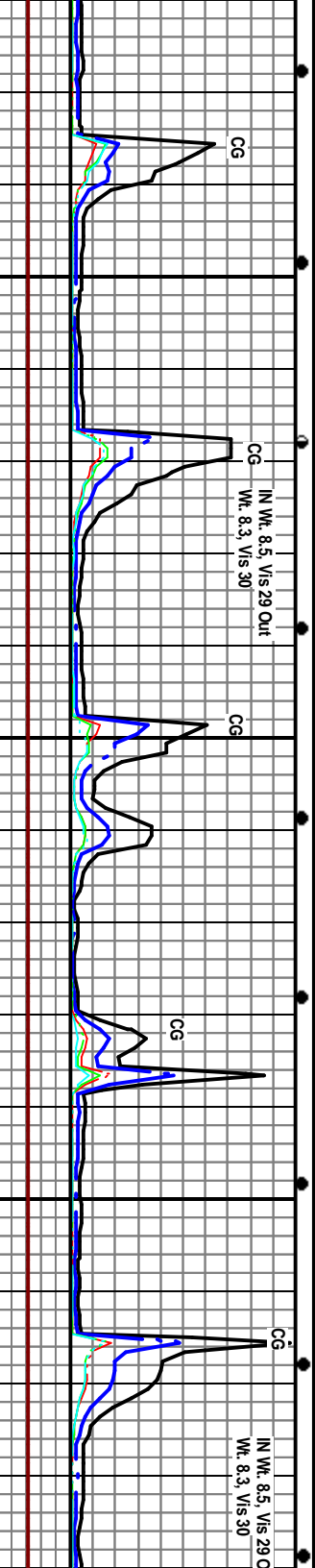
November 16, 2010



Carbonaceous chalk - mottled brownish gray to dark gray, light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy - marly, loose white calcite from fractures, sub-platy to platy, sub-blocky. Bright yellow solid fluorescence in unwashed sample, spotty when washed, unwashed gives an immediate milky white flashing cut, thin film and ring when dry.

Carbonaceous chalk - mottled brownish gray to dark gray, light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy - marly, loose white calcite from fractures, sub-platy to platy, sub-blocky. Bright yellow solid fluorescence in sample unwashed, spotty when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.

Carbonaceous chalk - mottled brownish gray to light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy - marly, loose calcite from fractures, sub-platy to platy, sub-blocky. Bright yellow solid fluorescence in sample unwashed, spotty when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and ring when dry.



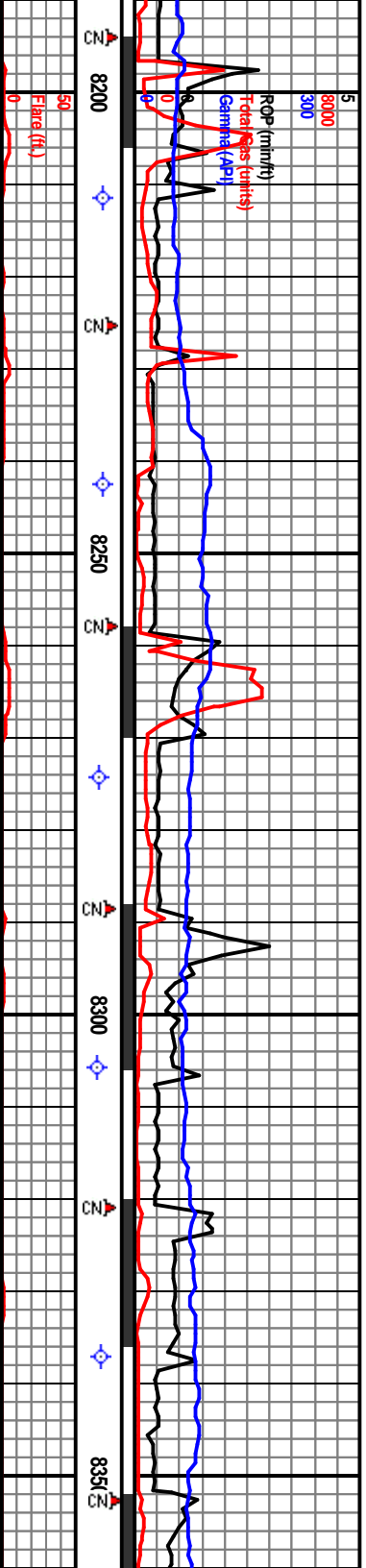
CG

CG IN Wt. 8.5, Vis 29 Out
Wt. 8.3, Vis 30

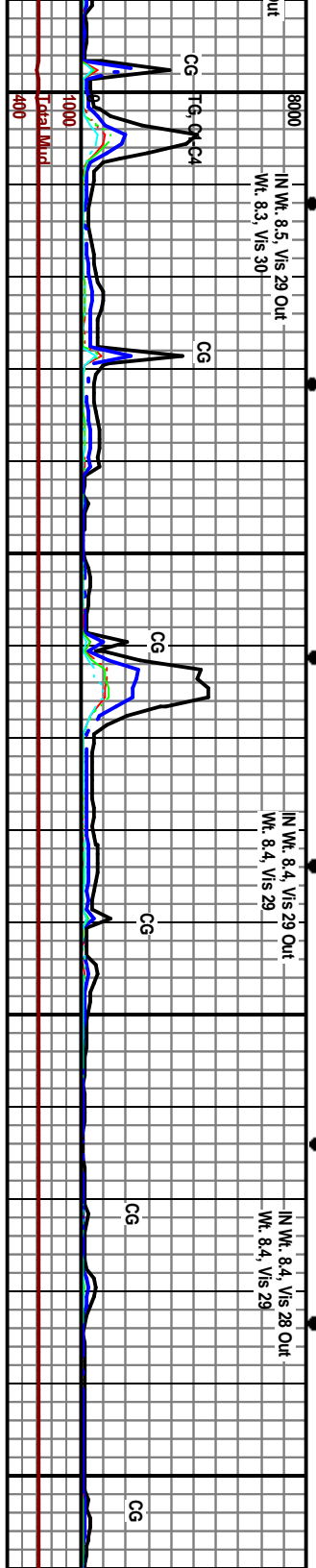
CG

CG

CG IN Wt. 8.5, Vis 29 O
Wt. 8.3, Vis 30



7110 TVD	DS 8242' Incl. 89.29° Azim. 131.00° TVD 7155.17', VS 2486.77'	DS 8306' Incl. 89.10° Azim. 133.10° TVD 7155.21', VS 2550.04'	DS 833 Azim. VS 26
7160			
7210			



dark gray,
se white
chicky,
ives an
thick

Carbonaceous chalk - mottled brownish gray to dark gray, light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy - marly, loose white calcite from fractures, sub-platey to platy, sub-blocky. Bright yellow solid fluorescence in sample unwashed, spotty when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.

Carbonaceous chalk - mottled brownish gray to dark gray, light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy - marly, loose white calcite from fractures, sub-platey to platy, sub-blocky. Bright yellow solid fluorescence in sample unwashed, spotty when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.

Carbonaceous chalk - dark gray, mottled brownish gray, light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy - marly, loose white calcite from fractures, sub-platey to platy, sub-blocky. Bright yellow solid fluorescence in sample unwashed, spotty when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.

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suspen

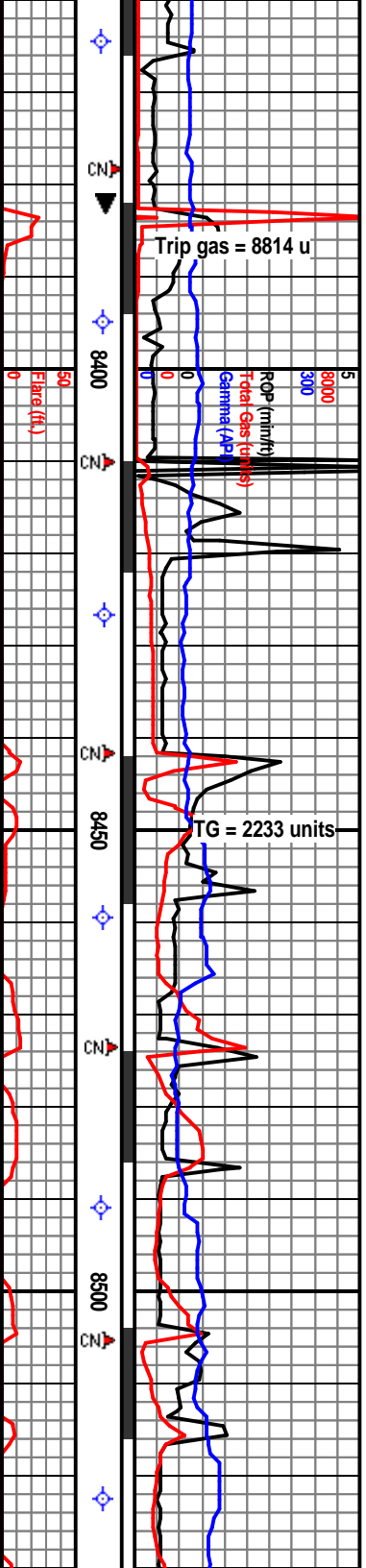
IN Wt. 8.5, Vis 29 Out
Wt. 8.3, Vis 30

IN Wt. 8.4, Vis 29 Out
Wt. 8.4, Vis 29

IN Wt. 8.4, Vis 28 Out
Wt. 8.4, Vis 29

CG
FG
CA
Total Mud

CG



6.4° Incl. 89.6°,
136.10° TVD 7156.90',
07.80'

7110 TVD

DS 8427', Incl. 89.9°
Azim. 138.70° TVD 7157.42',
VS 2670.72'

DS 8491', Incl. 91.2°
Azim. 138.70° TVD 7156.39',
VS 2734.70'

TRIP at 8,383 ft. to add
stabilizers to BHA

WPT 2 @ 8900' MD ~3150' VS
7148-7156' TVD

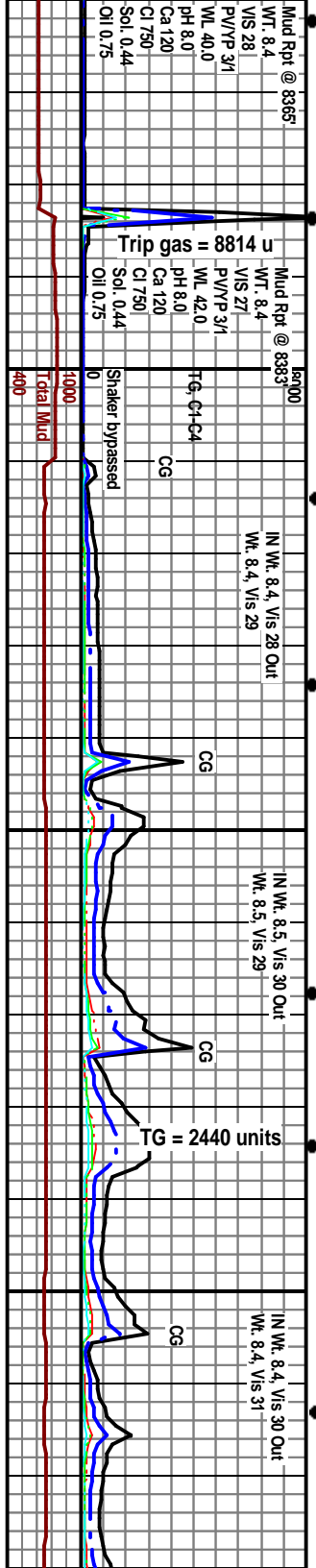
trip sample after trip. Cuttings in
suspension. Carbonaceous chalk as before.

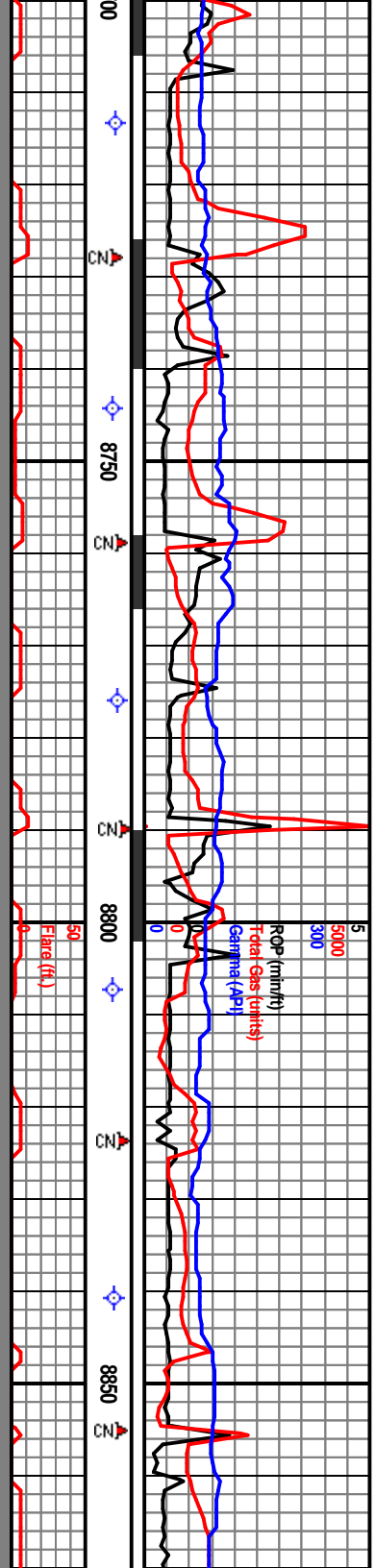
Carbonaceous chalk, mostly medium gray (N5) with
dark gray (N3) to medium dark gray (N4) mottling,
subblocky to subplaty, earthy, very carbonaceous, very
calcareous, loose calcite, mostly soft to firm. Bright
yellow solid fluorescence in unwashed samples, spotty
to patchy when washed in soapy water, unwashed gives
an immediate milky white flashing cut, thin film and
thick ring when dry.

Carbonaceous chalk, mostly medium gray (N5) with dark gray
(N3) to medium dark gray (N4) mottling, subblocky to subplaty,
earthy, very carbonaceous, very calcareous, loose calcite,
mostly soft to brittle. Bright yellow solid fluorescence in
unwashed samples, spotty to patchy when washed in soapy
water, unwashed gives an immediate milky white flashing cut,
thin film and thick ring when dry.

Carbonaceous chalk - dark gray and
light gray to medium gray, soft to brittle
very calcareous - lily, increased loose
microfractures, sub-blocky to sub-platy
fluorescence in unwashed samples,
washed in soapy water, unwashed gives
white flashing cut, thin film and thick

Heavy olive green oil coming over shaker.





DS 8744', Incl. 89.60°
Azim. 145.0°, TVD 7155.45',
VS 2987.41'

7110 TVD
DS 8808', Incl. 91.5°
Azim. 146.6°, TVD 7154.69',
VS 3051.03'

DS 887
Azim. 1
VS 3111

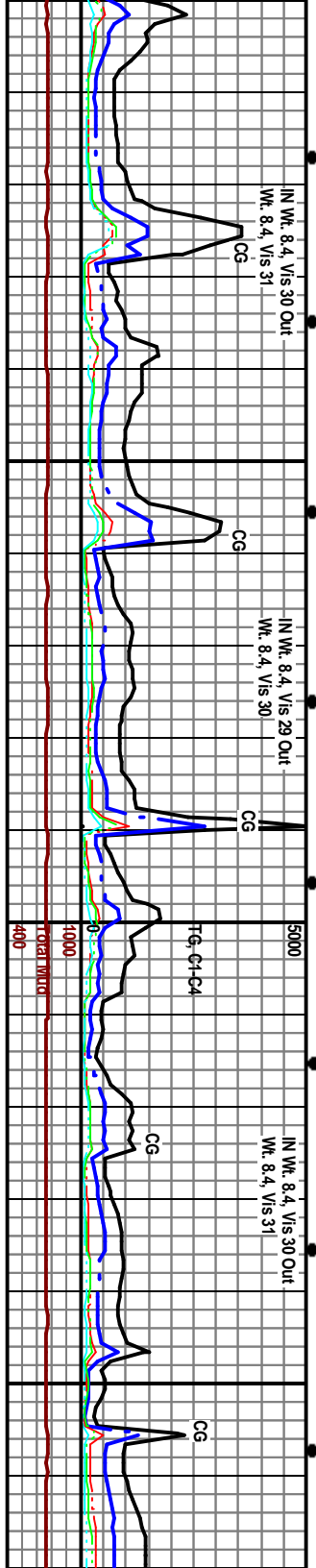
**WPT 3 @ 9300' MD ~3450' VS
7139- 7143' TVD, Dip ~ 90.9**

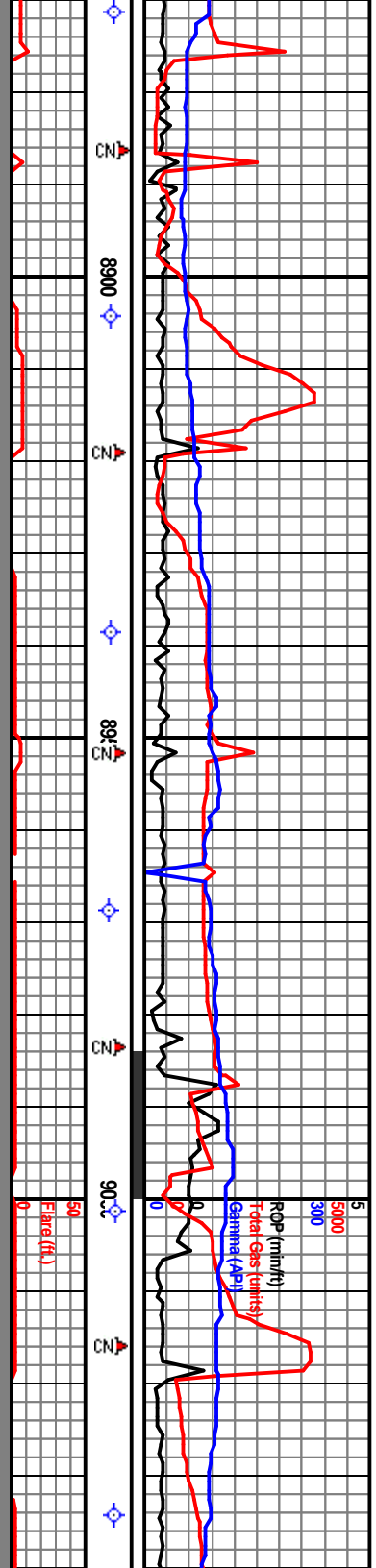
Carbonaceous chalk - dark gray and mottled with medium light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy, loose calcite pieces - calcite filled microfractures, sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.	Carbonaceous chalk - dark gray and mottled with medium light gray to medium gray, soft to brittle, very carbonaceous, very calcareous - limy, loose calcite pieces - calcite filled microfractures, sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.	Carbonaceous chalk - dark gray and mottled with medium brownish gray, some light gray, soft to brittle, very carbonaceous, very calcareous - limy, loose calcite pieces - calcite filled microfractures, sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.	Carbonaceous chalk - medium brownish gray very carbonaceous, very calcite pieces - calcite sub-blocky to sub-platy fluorescence in unwashed when washed in soap immediate milky white ring when dry
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IN Wt. 8.4, Vis 30 Out
Wt. 8.4, Vis 31

IN Wt. 8.4, Vis 30
Wt. 8.4, Vis 30

IN Wt. 8.4, Vis 30 Out
Wt. 8.4, Vis 31



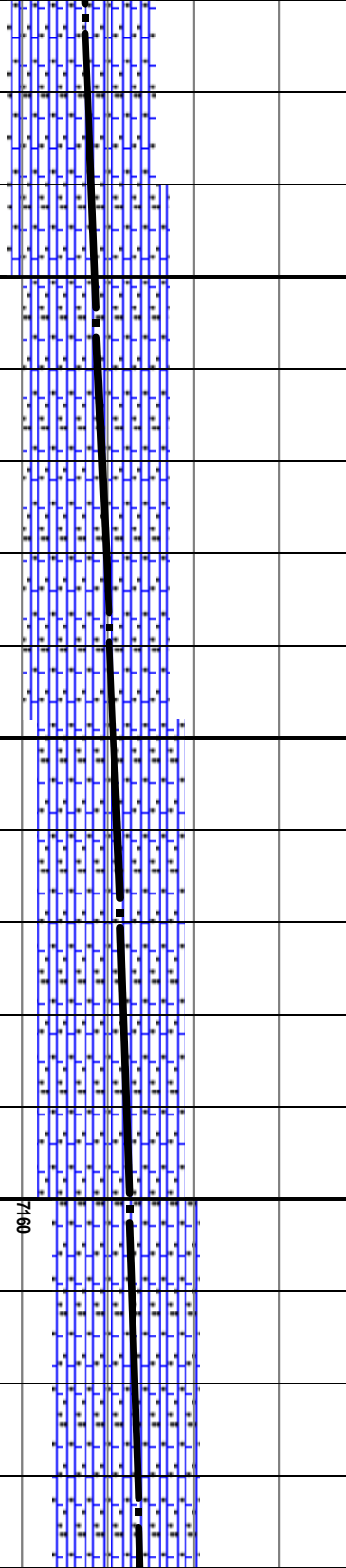


2, Incl: 92.1°, Azm: 146.3°, TVD 7152.57', 4.60'

DS 8938', Incl: 92.6°, Azm: 144.7°, TVD 7149.95', VS 3180.26'

DS 9001', Incl: 91.8°, Azm: 147.3°, TVD 7147.54', VS 3242.86'

7110 TVD



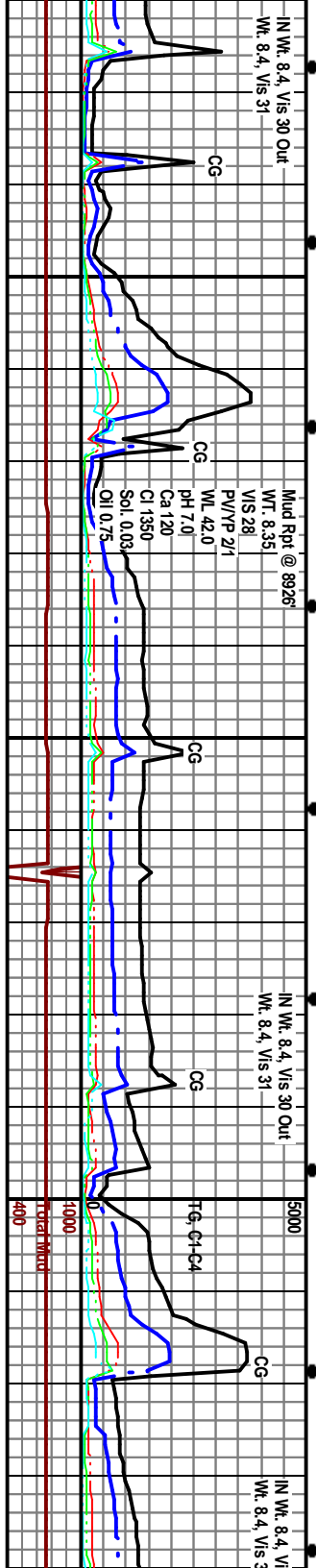
dark gray and mottled with some light gray, soft to brittle, calcareous - limy, loose filled microfossils. Bright yellow solid samples, spotty to patchy in water, unwashed gives an flashing cut, thin film and thick

Carbonaceous chalk - predominantly dark gray to black, mottled with medium brownish gray, some light gray, soft to brittle, very carbonaceous, very calcareous - limy, loose calcite pieces - calcite filled microfossils, sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry

Carbonaceous chalk - predominantly dark gray to black, mottled with medium brownish gray, some light gray, soft to brittle, very carbonaceous, very calcareous - limy, loose calcite pieces - calcite filled microfossils, sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry

Carbonaceous chalk - predominantly dark gray to black, mottled with medium brownish gray, light gray, soft to brittle, very carbonaceous, calcareous - limy, loose calcite pieces - calcite filled microfossils, sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry

Heavy olive green oil coming over shaker.

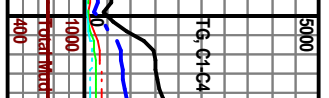


IN Wt. 8.4, Vis 30 Out Wt. 8.4, Vis 31

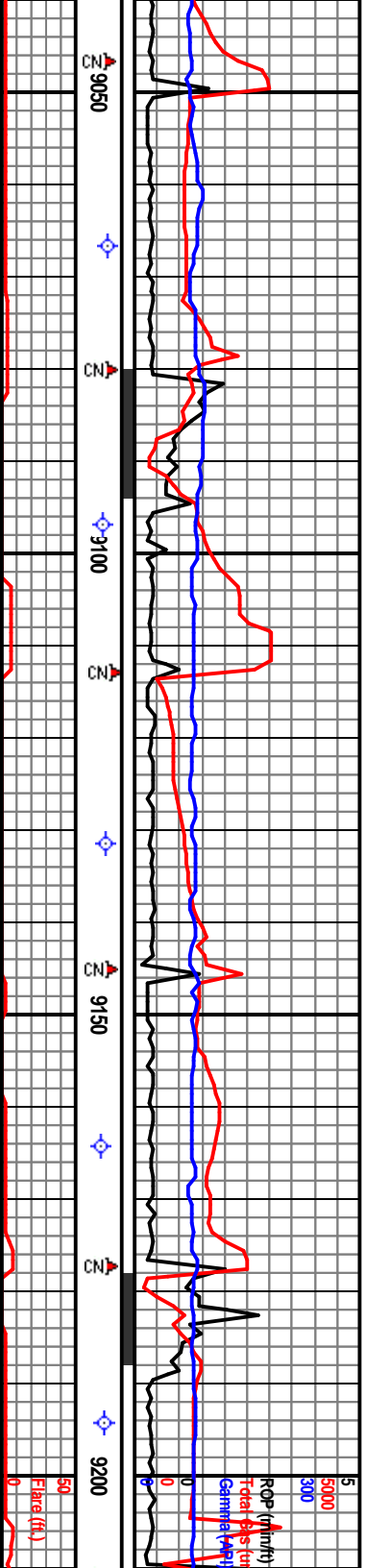
Mud Rot @ 8926' WT 8.35 V/S 28 P/V/Y/P 2/1 WL 42.0 pH 7.0 Ca 120 Cl 1350 Sol. 0.03 Oil 0.75

IN Wt. 8.4, Vis 30 Out Wt. 8.4, Vis 31

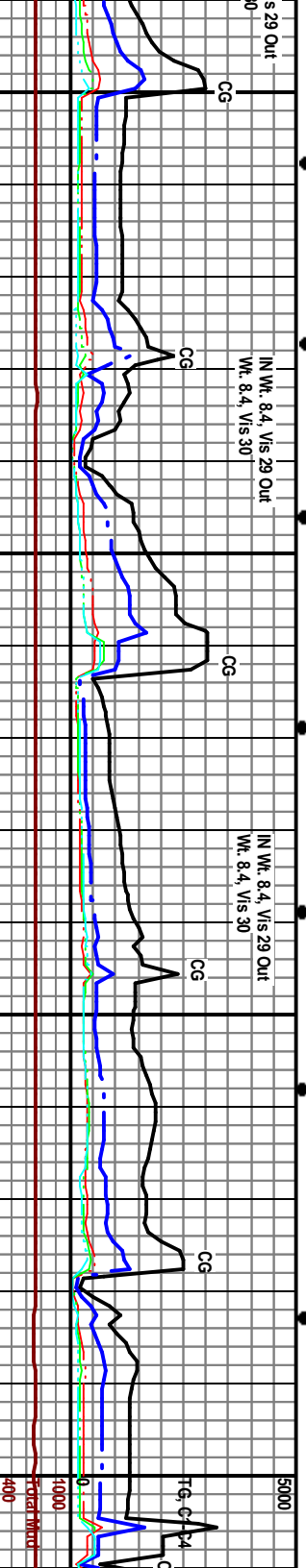
IN Wt. 8.4, Vis 30 Out Wt. 8.4, Vis 31

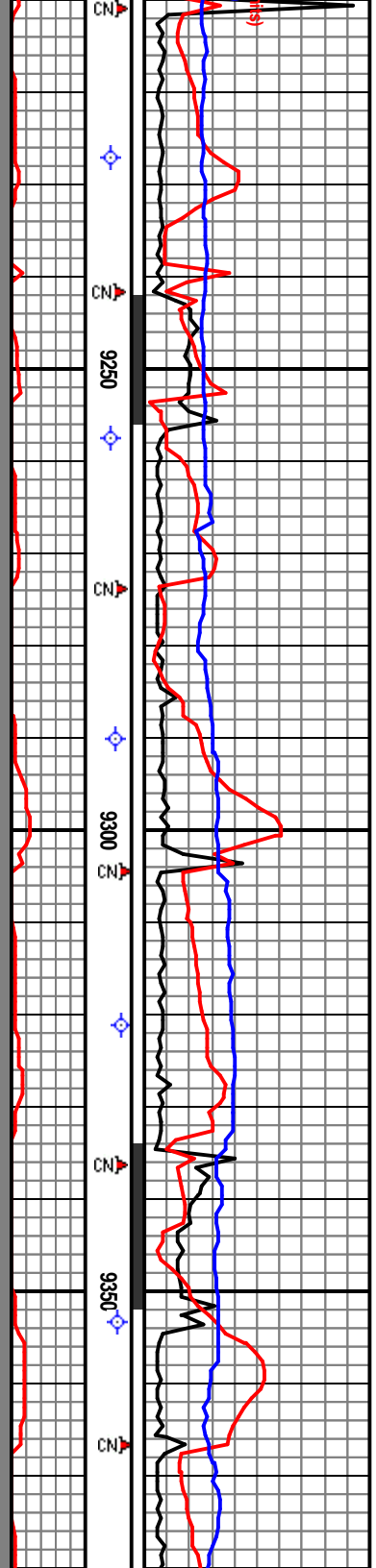


FG-C4-C4 Total Mud 4000



DS 9066', Incl. 91.9°, Azm. 147.1°, TVD 7145.52', VS 3307.28'	Carbonaceous chalk - predominantly dark gray to black, mottled with medium brownish gray, some light gray, soft to brittle, very carbonaceous, very calcareous - limy, loose calcite pieces - calcite filled microfractures sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry
DS 9131', Incl. 90.9°, Azm. 147.1°, TVD 7144.61', VS 3371.79'	Carbonaceous chalk - dark gray, mottled with medium brownish gray, some light gray, soft to brittle, very carbonaceous, very calcareous - limy, loose calcite pieces - calcite filled microfractures, sub-blocky to sub-platy, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry
ADJUSTED WP13 @ 9600' MD ~3840' VS 7144-7152' TVD Dip ~ 90.4	Carbonaceous chalk - grayish black (N2) to dark gray (N3), mottled with brownish gray (STR 4/1) and medium gray (N5) inclusions, subblocky to subplaty, earthy, very carbonaceous, very calcareous - loose calcite fragments - calcite filled microfractures, soft to brittle, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry
DS 9195', Incl. 90.3°, Azm. 144.8°, TVD 7143.82', VS 3435.44'	Carbonaceous (N3), mottled with brownish gray (N5) and medium gray (N5) fragments - very calcareous - loose calcite fragments - Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry





DS 9258', Incl. 89.0°,
Azim. 145.0°, TVD 7143.90',
VS 3498.18'

DS 9321', Incl. 89.6°,
Azim. 145.0°, TVD 7144.38',
VS 3560.90'

DS 9336', Incl. 89.6°,
Azim. 145.0°, TVD 7144.38',
VS 3622.90'

Carbonaceous chalk - grayish black (N2) to dark gray (N3) mottled with brownish gray (5YR 4/1) and medium brownish gray (5YR 4/1) to subplaty, earthy, carbonaceous, very calcareous, - loose calcite inclusions, subblocky to subplaty, earthy, carbonaceous, very calcareous, - loose calcite fragments - calcite filled microfractures, soft to brittle, yellow solid fluorescence in unwashed samples, patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, and thick ring when dry.

Carbonaceous chalk - dark gray (N3), mottled with brownish gray (5YR 4/1) and medium gray (N5) inclusions, subblocky to subplaty, earthy, very carbonaceous, very calcareous, - loose calcite fragments - calcite filled microfractures, soft to brittle, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.

Heavy olive green oil coming over shaker.

Carbonaceous chalk - dark gray (N3), mottled with brownish gray (5YR 4/1) and medium gray (N5) inclusions, subblocky to subplaty, earthy, very carbonaceous, very calcareous, - loose calcite fragments - calcite filled microfractures, soft to brittle, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.

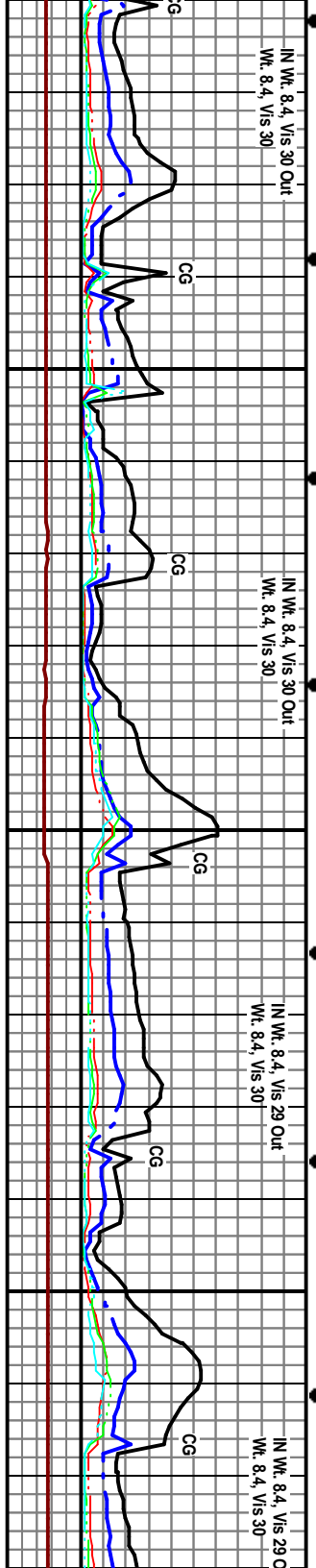
Carbonaceous chalk - dark gray brownish gray and medium gray (N5) inclusions, subblocky to subplaty, earthy, very carbonaceous, very calcareous, - loose calcite fragments - calcite filled microfractures, soft to brittle, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, and thick ring when dry.

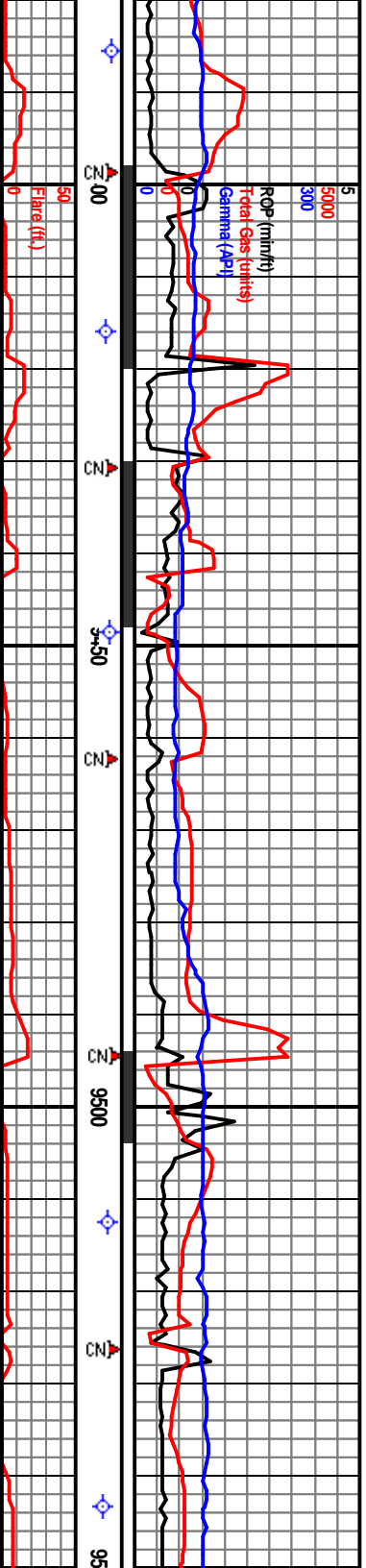
IN Wt. 8.4, Vis 30 Out
Wt. 8.4, Vis 30

IN Wt. 8.4, Vis 30 Out
Wt. 8.4, Vis 30

IN Wt. 8.4, Vis 29 Out
Wt. 8.4, Vis 30

IN Wt. 8.4, Vis 29 Out
Wt. 8.4, Vis 30



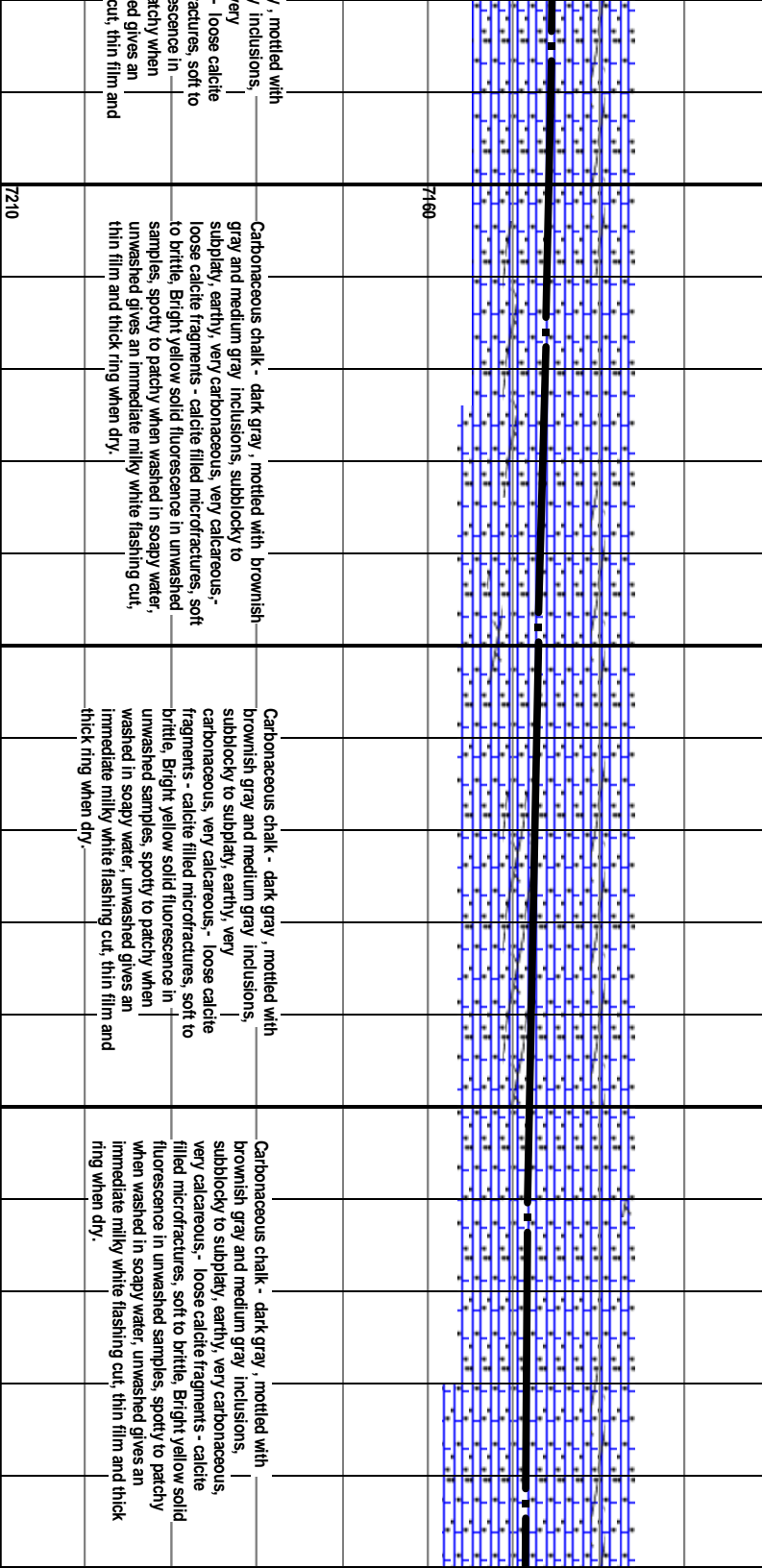


885' Incl. 89.0°,
145.9°, TVD 7145.62',
24.57'

7110 TVD

DS 9448', Incl. 88.2°
Azim. 150.8°, TVD 7147.00',
VS 3686.84'

DS 9512', Incl. 89.2°
Azim. 149.8°, TVD 7148.45',
VS 3749.78'

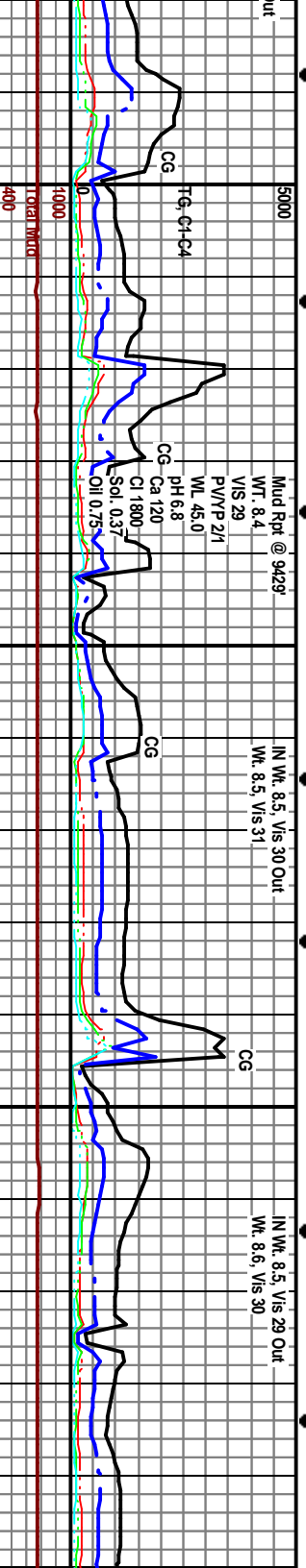


very mottled with
inclusions,
very
- loose calcite
acres, soft to
fluorescence in
washed when
cut, thin film and

Carbonaceous chalk - dark gray, mottled with brownish
gray and medium gray inclusions, subblocky to
subplaty, earthy, very carbonaceous, very calcareous,
- loose calcite fragments - calcite filled microfractures, soft
to brittle, Bright yellow solid fluorescence in unwashed
samples, spotty to patchy when washed in soapy water,
unwashed gives an immediate milky white flashing cut,
thin film and thick ring when dry.

Carbonaceous chalk - dark gray, mottled with
brownish gray and medium gray inclusions,
subblocky to subplaty, earthy, very
carbonaceous, very calcareous - loose calcite
fragments - calcite filled microfractures, soft to
brittle, Bright yellow solid fluorescence in
unwashed samples, spotty to patchy when
washed in soapy water, unwashed gives an
immediate milky white flashing cut, thin film and
thick ring when dry.

Carbonaceous chalk - dark gray, mottled with
brownish gray and medium gray inclusions,
subblocky to subplaty, earthy, very carbonaceous,
very calcareous - loose calcite fragments - calcite
filled microfractures, soft to brittle, Bright yellow solid
fluorescence in unwashed samples, spotty to patchy
when washed in soapy water, unwashed gives an
immediate milky white flashing cut, thin film and thick
ring when dry.



Mud Rpt @ 9429'
WT. 8.4
VIS 29
PV/P 2/1
WL 45.01
CG - Ca 120
CI 1800
Sol. 0.37
Oil 0.73

IN Wt. 8.5, Vis 30 Out
Wt. 8.5, Vis 31

IN Wt. 8.5, Vis 29 Out
Wt. 8.6, Vis 30

CG
FG-C1-C4

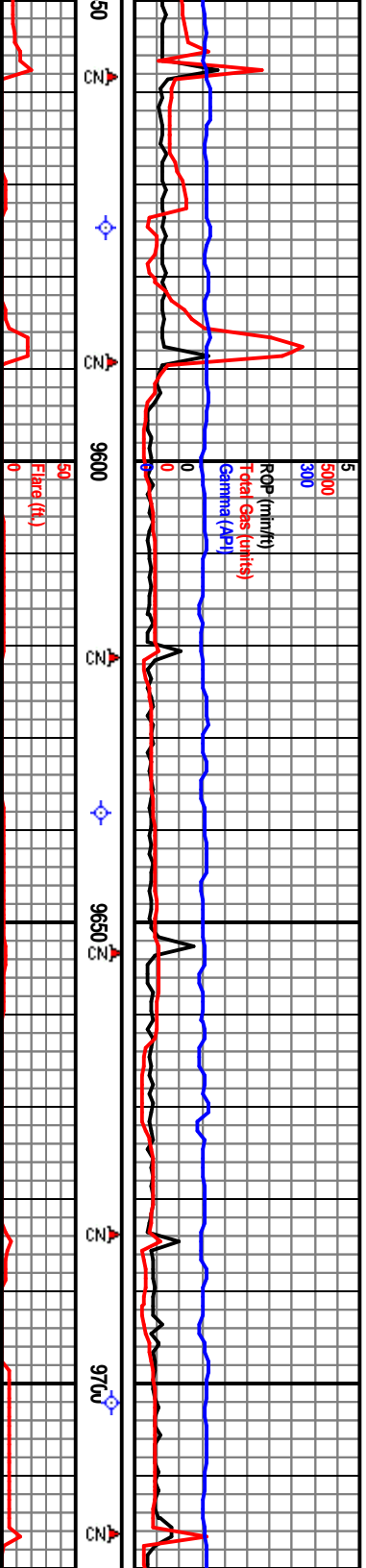
CG
CG
CG

CG

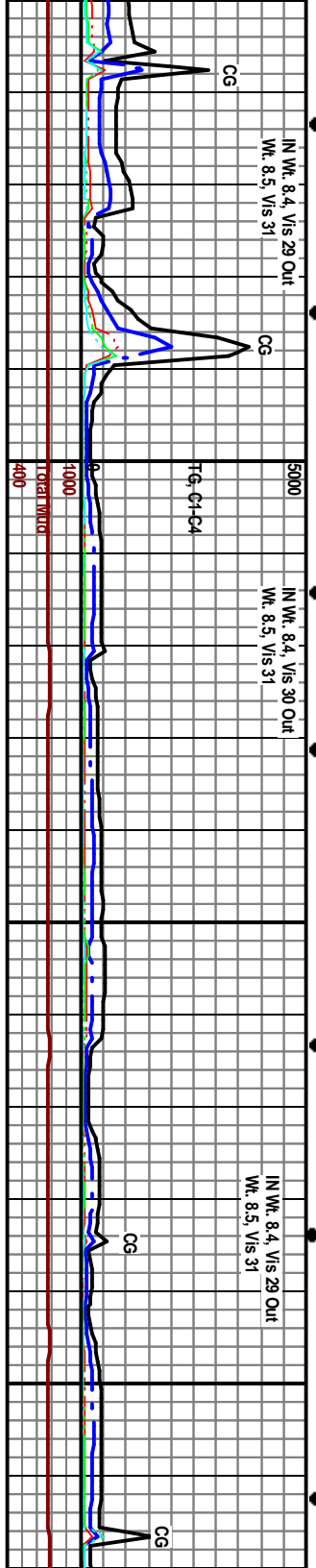
CG

5000
10000
4000

TOTAL TMDT



<p>DS 9575', Incl. 89.7°, Azm. 150.6°, TVD 7148.70', VS 3811.63'</p>	<p>7110 TVD</p>	<p>DS 9638', Incl. 90.1°, Azm. 150.8°, TVD 7148.81', VS 3873.51'</p>	<p>DS 9702', Incl. 90.1°, Azm. 151.7°, TVD 7148.70', VS 3936.26'</p>
<p>Carbonaceous chalk - dark gray, mottled with brownish gray and medium gray inclusions, subblocky to subplaty, earthy, very carbonaceous, very calcareous, - loose calcite fragments - calcite filled microfractures, soft to brittle. Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.</p>	<p>Carbonaceous chalk - Samples primarily dark gray (N3) very little mottling, mostly subblocky to subplaty, earthy, carbonaceous, very calcareous, few calcite filled microfractures, soft to brittle, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.</p>	<p>Carbonaceous chalk - Samples primarily dark gray (N3) very little mottling, mostly subblocky to subplaty, earthy, carbonaceous, very calcareous, few calcite filled microfractures, soft to brittle, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.</p>	<p>Carbonaceous chalk - Samples primarily dark gray (N3) very little mottling, mostly subblocky to subplaty, earthy, carbonaceous, very calcareous, few calcite filled microfractures, soft to brittle, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.</p>



IN Wt. 8.4, Vis 29 Out Wt. 8.5, Vis 31

IN Wt. 8.4, Vis 30 Out Wt. 8.5, Vis 31

IN Wt. 8.4, Vis 29 Out Wt. 8.5, Vis 31

CG

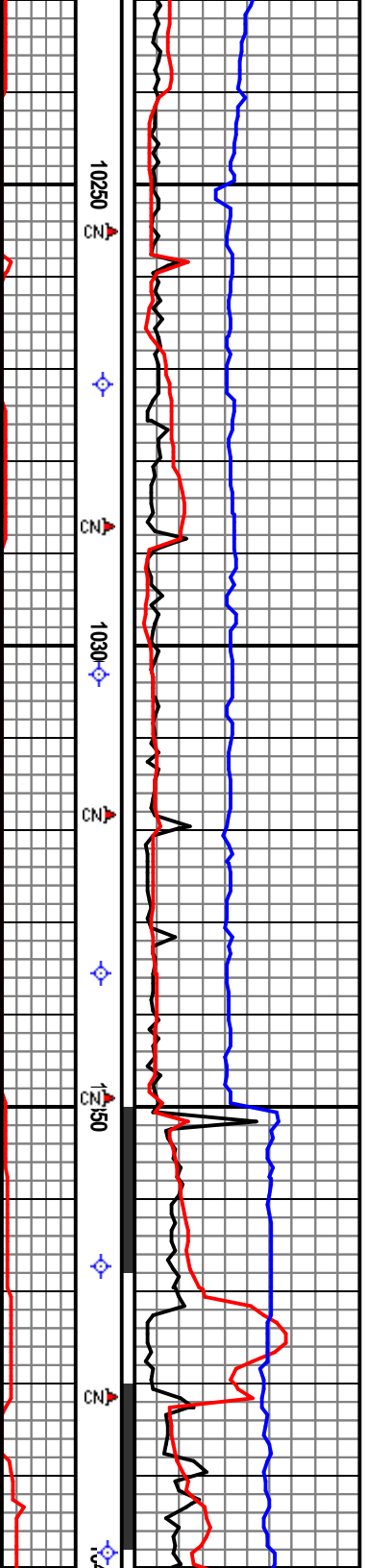
CG

FG-C1-C4

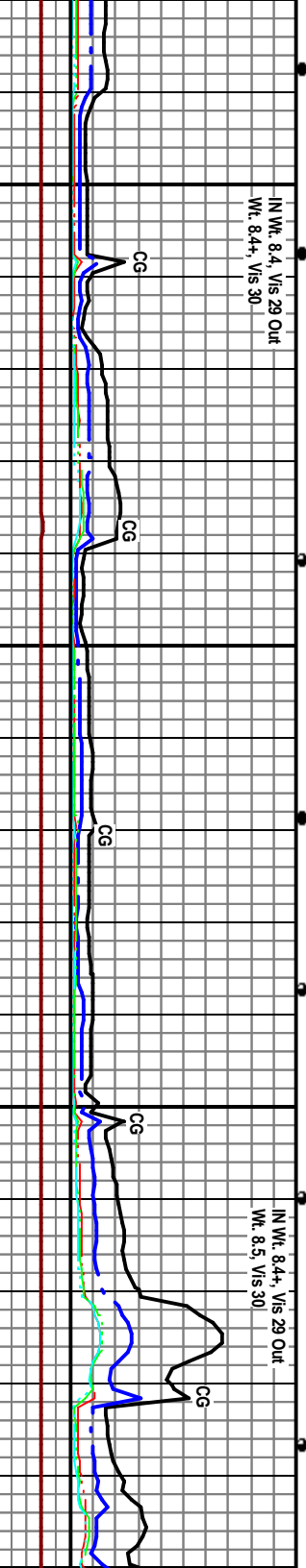
CG

CG

TOTAL TVD

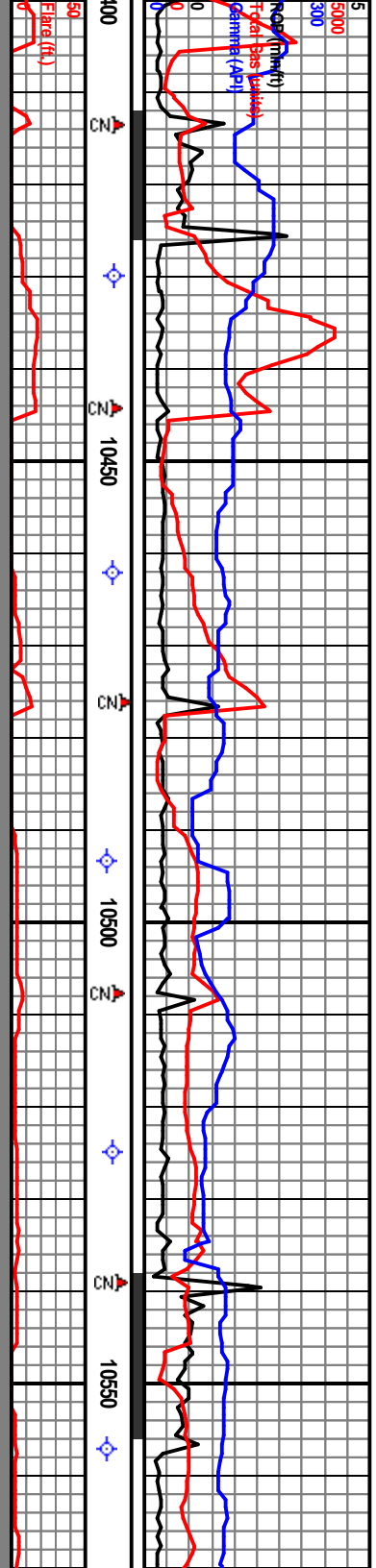


<p>DS 10272, Incl. 90.0°, Azm. 148.2°, TVD 7143.64', VS 4497.81'</p>	<p>DS 10335, Incl. 92.0°, Azm. 148.4°, TVD 7142.64', VS 4560.06'</p>	<p>DS 10398, Incl. Azm. 147.5°, T VS 4622.33'</p>
<p>Carbonaceous chalk - predominantly gray black (N2), very little to no mottling, brittle to soft., very carbonaceous, very calcareous - marly - limy, platy to sub-platy, fissile to splintery, few calcite filled microfractures. Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.</p>	<p>Carbonaceous chalk - predominantly gray black (N2), little to no mottling, brittle to soft., very carbonaceous, very calcareous sub-platy to mostly subblocky, fissile to splintery, few calcite filled microfractures, Bright yellow solid fluorescence in unwashed samples, spotty to patchy when washed in soapy water, unwashed gives an immediate milky white flashing cut, thin film and thick ring when dry.</p>	<p>Carbonaceous chalk, predominantly grayish black (N2) with no mottling, dark gray (N3) with some mottling of grayish black, earthy, mostly subblocky, occasionally subplaty, very carbonaceous, very carbonaceous, very few calcite filled microfractures, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.</p>
<p>ish gray (5TR 4/1), very carbonaceous, to sub-platy, fissile fractures, Bright samples, spotty cut, thin film and</p>		



IN Wt. 8.4, Vis 29 Out Wt. 8.4+, Vis 30

IN Wt. 8.4+, Vis 29 Out Wt. 8.5, Vis 30



7710 TVD
1.89, 1°
VD 7142.10'

DS 10462', Incl. 88.5°
Azim. 146.9°, TVD 7143.61',
VS 4685.65'

DS 10525', Incl. 89.8°
Azim. 148.7°, TVD 7144.57',
VS 4747.96'

Carbonaceous chalk, predominately grayish black (N2) with little dark gray (N3) mottling, earthy, mostly subblocky, occasionally subplaty, very carbonaceous, very carbonaceous, very few calcite filled microfractures, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

Carbonaceous chalk, predominately grayish black (N2) with little dark gray (N3) mottling, dark gray (N3) with some mottling of grayish black, earthy, mostly subblocky, occasionally subplaty, very carbonaceous, very carbonaceous, very few calcite filled microfractures, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

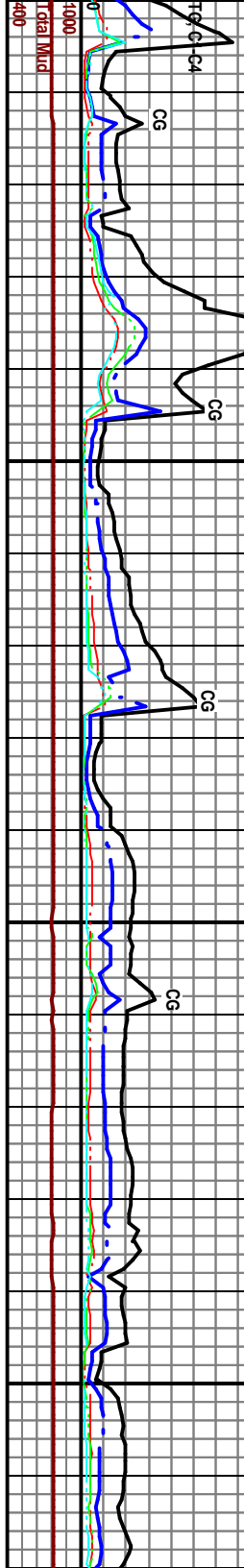
Carbonaceous chalk, predominately grayish black (N2) with little dark gray (N3) mottling, dark gray (N3) with some mottling of grayish black, earthy, mostly subblocky, occasionally subplaty, very carbonaceous, very carbonaceous, very few calcite filled microfractures, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

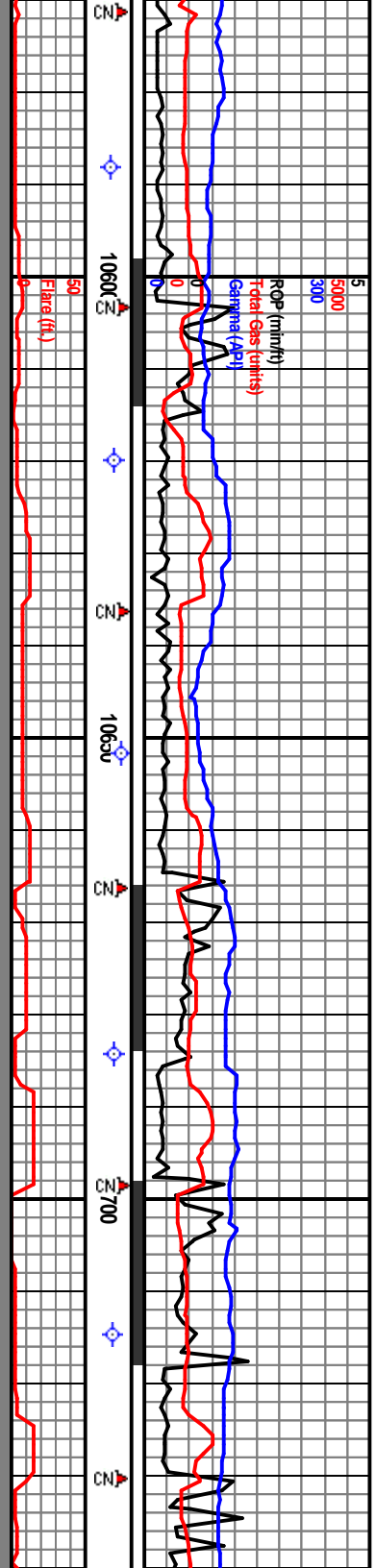
Carbonaceous chalk dark gray (N3) with little grayish black (N2) mottling, very calcareous, mainly subblocky, rarely splinty, filled microfractures, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

IN Wt. 8.4, Vis 28 Out
Wt. 8.4+, Vis 30

IN Wt. 8.4+, Vis 28 Out
Wt. 8.5, Vis 29

IN Wt. 8.5,
Vis 29



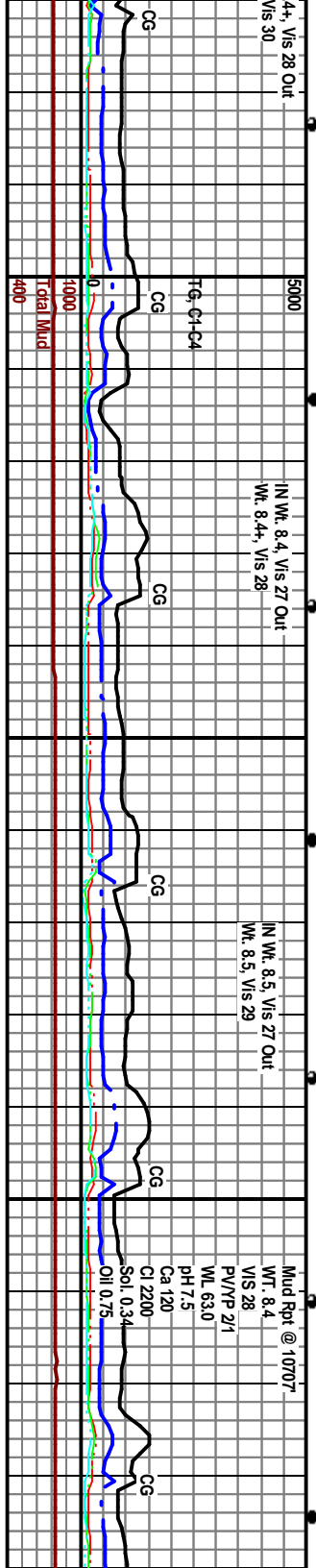


DS 10588', Incl. 87.8°, Azm. 145.4°, TVD 7146.26', VS 4810.53'

DS 10652', Incl. 86.1°, Azm. 145.6°, TVD 7150.09', VS 4874.01'

DS 10715', Incl. 88.9°, Azm. 145.4°, TVD 7152.74', VS 4936.65'

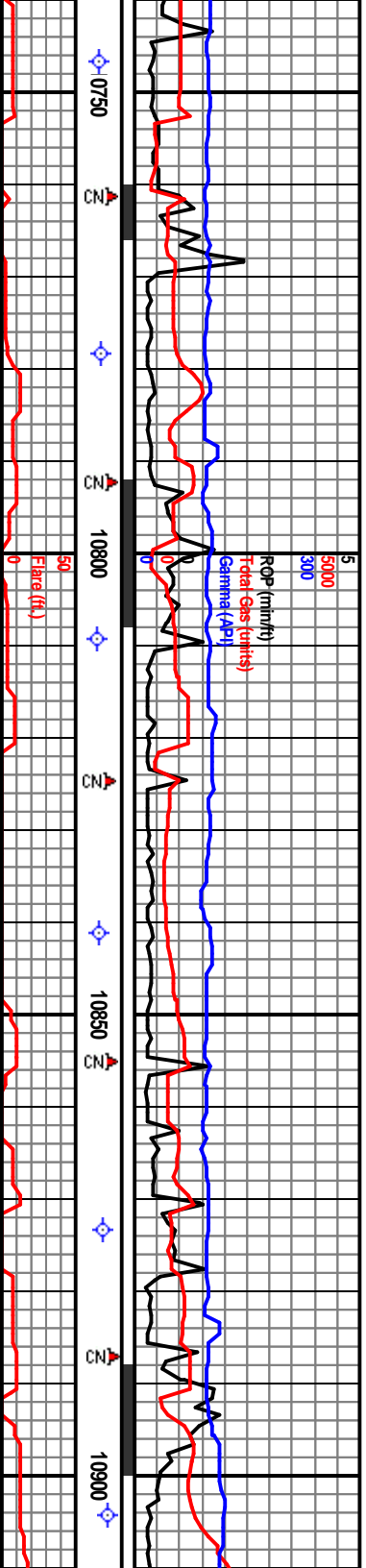
7110 TVD	Carbonaceous chalk - medium dark gray (N4) to dark brownish gray (5YR 4/1) to bluish gray (5YR 4/1) to bluing, very carbonaceous, very calcareous, mainly in part, subplaty to earthy, occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.
7160	Carbonaceous chalk - medium dark gray (N4) to dark gray (N3) with brownish gray (5YR 4/1) to grayish black (N2) mottling, very carbonaceous, very calcareous, mainly in part, subplaty to subblocky, rarely splintery, occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.
7210	Carbonaceous chalk, mostly medium gray (N5) with dark gray (N3) to medium dark gray (N4) mottling, very carbonaceous, very calcareous, mainly in part, subplaty to subblocky, rarely splintery, earthy, occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.
	Carbonaceous chalk, mostly dark gray (N3) to medium gray (N5) mottling, very carbonaceous, very calcareous, mainly in part, subplaty to subblocky, earthy to subswaxy, occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.



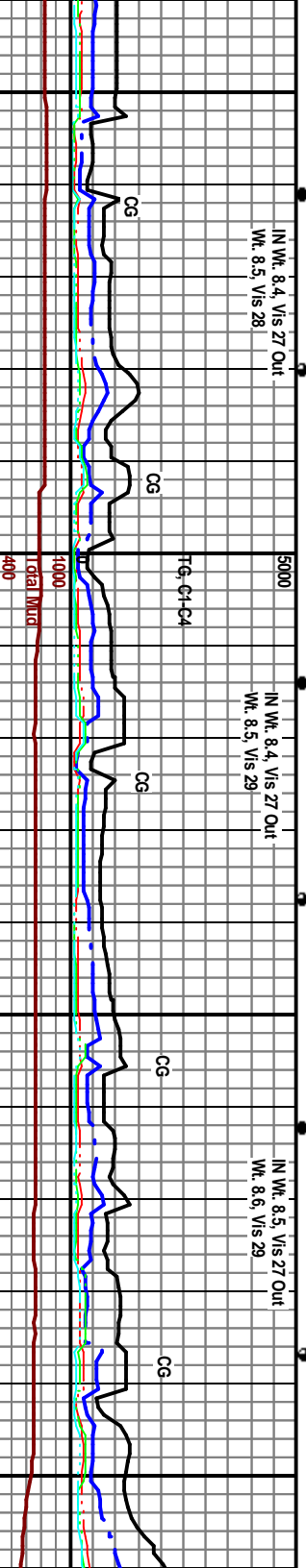
IN Wt. 8.4, Vis 28 Out Wt. 8.4+, Vis 28

IN Wt. 8.5, Vis 27 Out Wt. 8.5, Vis 29

Mud Rpt. @ 10707
 WT. 8.4
 VIS 28
 PVI/PI 2/1
 WL 63.0
 pH 7.5
 Ca 120
 Cl 2200
 Sol. 0.34
 Oil 0.75



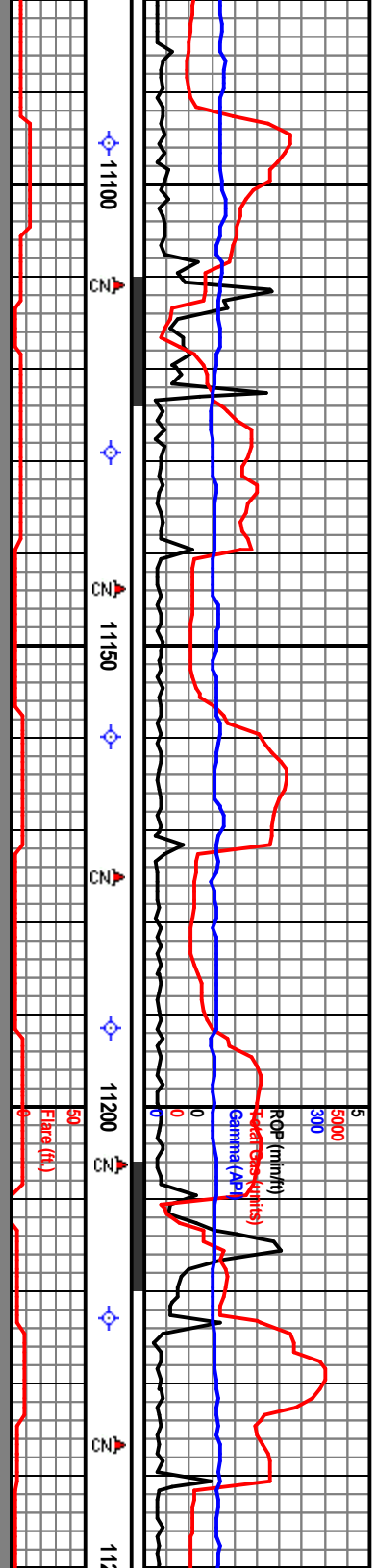
<p>DS 10778', Incl. 88.9° Azim. 144.1°, TVD 7154.22', VS 4999.37'</p>	<p>7110 TVD</p>	<p>DS 10841', Incl. 88.7° Azim. 143.3°, TVD 7154.77', VS 5062.16'</p>	<p>DS 10904', Incl. 9 Azim. 143.1°, TVD VS 5125.07'</p>
<p>Carbonaceous chalk, mostly dark gray (N3) with medium gray (N5) to medium dark gray (N4) mottling, very carbonaceous, very calcareous, marly in part, subplaty to subblocky, earthy to subwaxy occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.</p>	<p>Carbonaceous chalk, mostly dark gray (N3) with medium gray (N5) to medium dark gray (N4) mottling, very carbonaceous, very calcareous, marly in part, subplaty to subblocky, earthy to subwaxy occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.</p>	<p>Carbonaceous chalk, mostly dark gray with medium gray to medium dark gray mottling, very carbonaceous, very calcareous, marly in part, subplaty to subblocky, earthy to subwaxy occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.</p>	<p>Carbonaceous chalk, mostly dark gray with medium gray (N5) carbonaceous, very carbonaceous, marly in part, subplaty to subblocky, earthy to subwaxy occasional calcite filled microfractures, occasional loose calcite, soft to brittle. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.</p>



IN Wt. 8.4, Vis 27 Out
Wt. 8.5, Vis 28

IN Wt. 8.4, Vis 27 Out
Wt. 8.5, Vis 29

IN Wt. 8.5, Vis 27 Out
Wt. 8.6, Vis 29



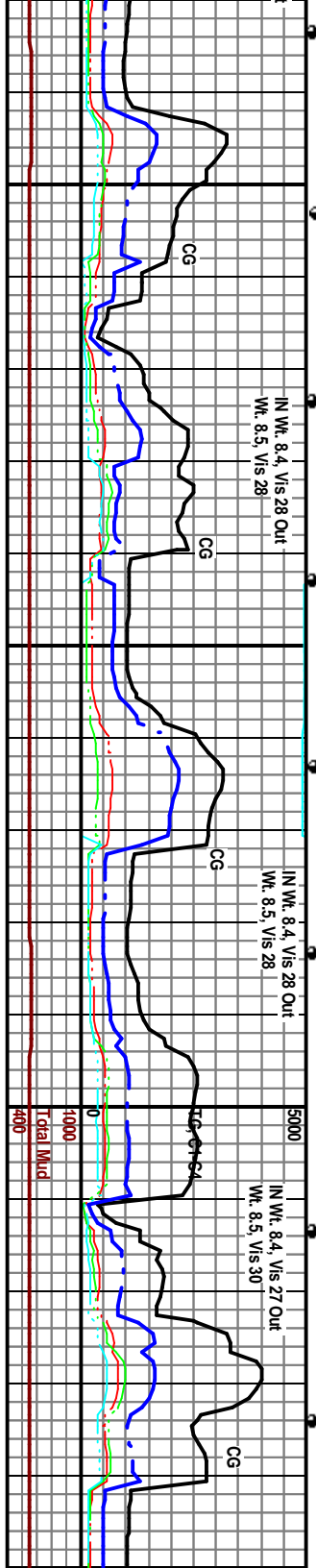
DS 11096', Incl. 90.0°, Azm. 143.4°, TVD 7155.65', VS 5316.66'

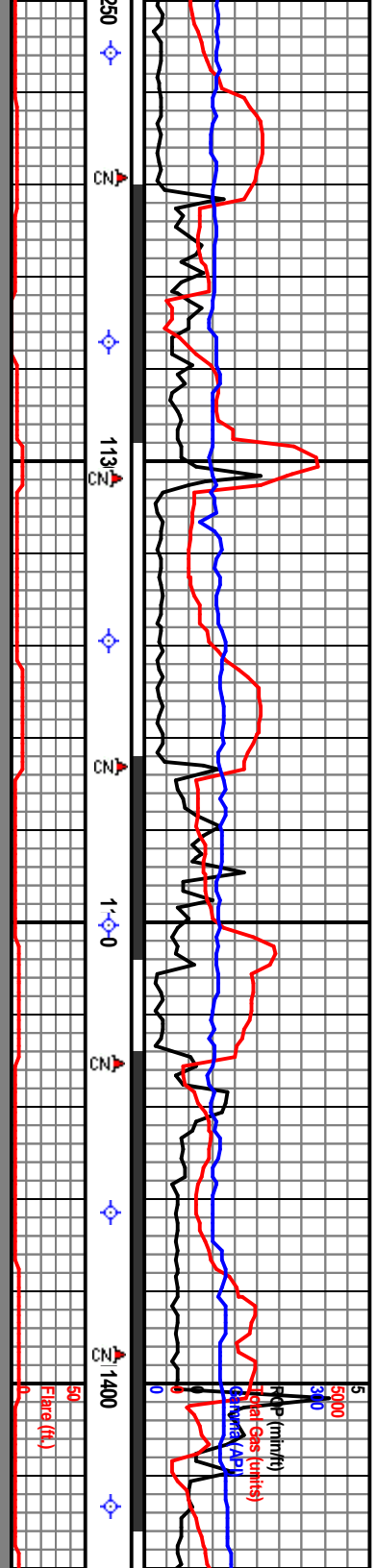
DS 11160', Incl. 90.0°, Azm. 142.0°, TVD 7155.59', VS 5380.54'

DS 11223', Incl. 89.9°, Azm. 140.3°, TVD 7155.46', VS 5443.52'

WPT#6 @ 11700' MID (~5950' VS) 7150-7158 TVD

with medium gray to some brownish calcareous, very fine to sub-platey, some microfractures light yellow to faint yellow, sample.	Carbonaceous chalk - dark gray with medium gray to medium dark gray, mottling, some brownish gray, soft to brittle, very carbonaceous, very calcareous, mainly in part, platy to sub-platey, some splintery to fissile, calcite filled microfractures with abundant loose calcite, Bright yellow fluorescence in unwashed samples, Faint yellow, patchy fluorescence in washed sample.	Carbonaceous chalk - dark gray with medium gray to medium dark gray, mottling, some brownish gray, soft to brittle, very carbonaceous, very calcareous, mainly in part, platy to sub-platey, some splintery to fissile, calcite filled microfractures with abundant loose calcite, Bright yellow fluorescence in unwashed samples, Faint yellow, patchy fluorescence in washed sample.	Carbonaceous chalk - dark gray with medium gray to medium dark gray, mottling, some brownish gray, soft to brittle, very carbonaceous, very calcareous, mainly in part, platy to sub-platey, some splintery to fissile, calcite filled microfractures with abundant loose calcite, Bright yellow fluorescence in unwashed samples, Faint yellow, patchy fluorescence in washed sample.
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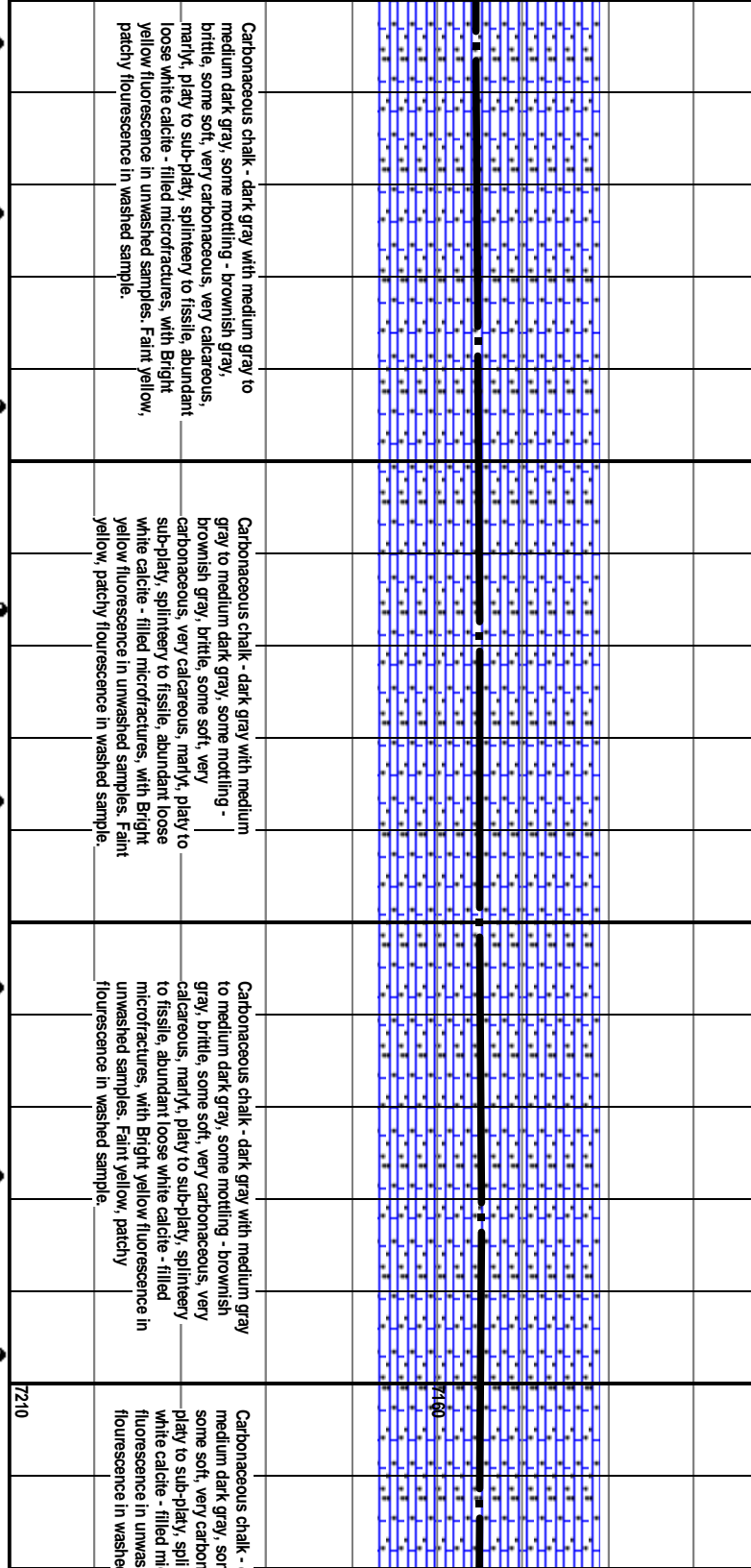




DS 11287', Incl: 90.2°,
 Azm: 139.8°, TVD 7155.20',
 VS 5507.52'

DS 11350', Incl: 90.6°,
 Azm: 142.6°, TVD 7154.99',
 VS 5570.50'

7110 TVD
 DS 11413', Incl: 89.5°
 Azm: 145.7°, TVD 7110
 VS 5633.31'

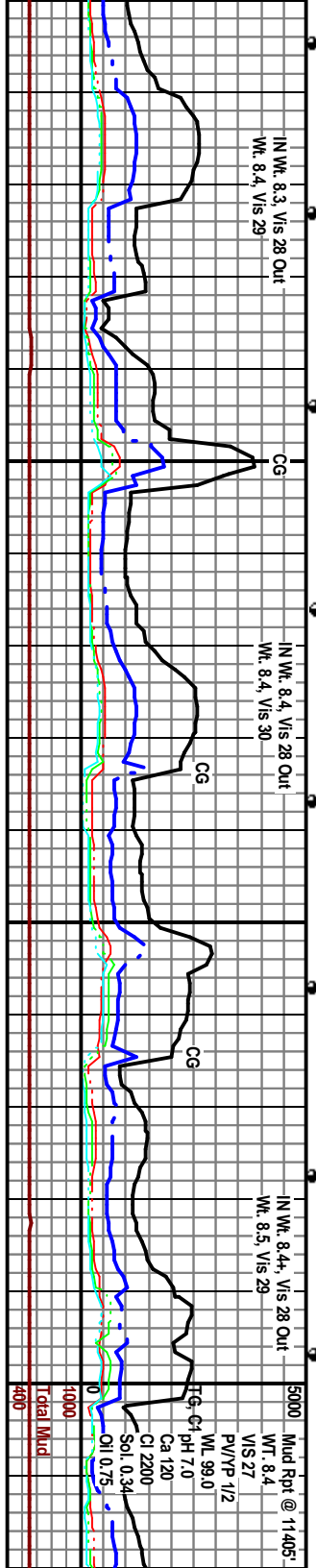


Carbonaceous chalk - dark gray with medium gray to medium dark gray, some mottling - brownish gray, brittle, some soft, very carbonaceous, very calcareous, marly, platy to sub-platy, splintery to fissile, abundant loose white calcite - filled microfractures, with Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

Carbonaceous chalk - dark gray with medium gray to medium dark gray, some mottling - brownish gray, brittle, some soft, very carbonaceous, very calcareous, marly, platy to sub-platy, splintery to fissile, abundant loose white calcite - filled microfractures, with Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

Carbonaceous chalk - dark gray with medium gray to medium dark gray, some mottling - brownish gray, brittle, some soft, very carbonaceous, very calcareous, marly, platy to sub-platy, splintery to fissile, abundant loose white calcite - filled microfractures, with Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

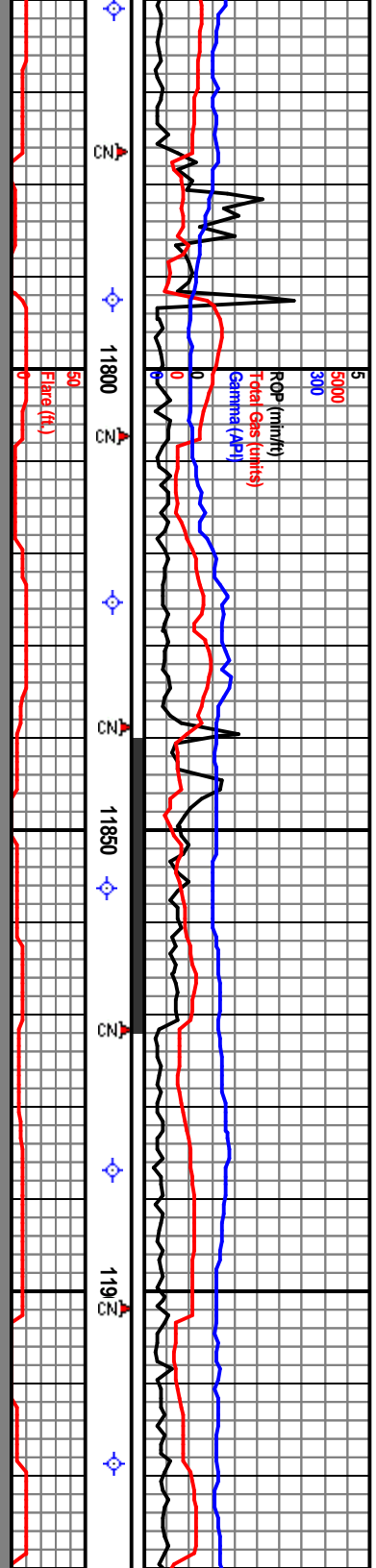
Carbonaceous chalk - medium dark gray, some soft, very carbonaceous, platy to sub-platy, splintery white calcite - filled microfractures in unwashed fluorescence in washed



IN Wt. 8.3, Vis 28 Out
 Wt. 8.4, Vis 29

IN Wt. 8.4, Vis 28 Out
 Wt. 8.4, Vis 30

IN Wt. 8.4+, Vis 28 Out
 Wt. 8.5, Vis 29



Incl. 90.0°, Azim. 145.2°, TVD 7153.77', VS 6042.60'

7110 TVD
DS 11825', Incl. 87.8°, Azim. 145.2°, TVD 7153.28', VS 6042.60'

DS 11887', Incl. 88.6°, Azim. 147.1°, TVD 7156.95', VS 6104.19'

WPT7@12400' MD-6720' VS 7150-7158 TVD Dip ~ 90

Carbonaceous chalk, mostly dark gray (N3) with medium gray (N5) to medium dark gray (N4) mottling, very calcareous, earthy to subwaxy, rare to subblocky, calcite filled microfractures, abundant loose calcite, brittle to soft. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

Carbonaceous chalk, mostly dark gray (N3) with medium gray (N5) to medium dark gray (N4) mottling and medium gray with dark gray mottling, very calcareous, earthy to subwaxy, rare to subblocky, calcite filled microfractures, abundant loose calcite, brittle to soft. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

Carbonaceous chalk, mostly dark gray (N3) with medium gray (N5) to medium dark gray (N4) mottling and medium gray with dark gray mottling, very calcareous, earthy to subwaxy, rare to subblocky, calcite filled microfractures, abundant loose calcite, brittle to soft. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

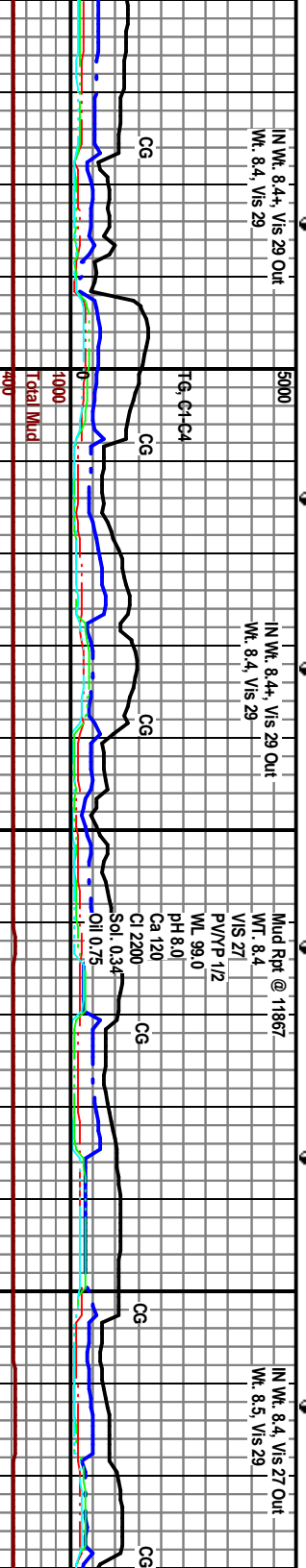
Carbonaceous chalk, mostly dark gray (N3) with medium gray (N5) to medium dark gray (N4) mottling and medium gray with dark gray mottling, very calcareous, earthy to subwaxy, rare to subblocky, calcite filled microfractures, abundant loose calcite, brittle to soft. Bright yellow fluorescence in unwashed samples. Faint yellow, patchy fluorescence in washed sample.

IN Wt. 8.4, Vis 29 Out Wt. 8.4, Vis 29

IN Wt. 8.4, Vis 29 Out Wt. 8.4, Vis 29

Mud Rpt @ 11867
WT. 8.4
VIS 27
P/V/P 1/2
WL 99.0
Ca 120
Cl 2200
Sol. 0.34
Oil 0.75

IN Wt. 8.4, Vis 27 Out Wt. 8.5, Vis 29



12300

PROJECTED TO THE BIT:
TD 12,282' MD, INCL. 91.4°
AZM. 146.1°, TVD 7154.91',
VS 6496.71'

TD 12,282' MD, 7,156' TVD
reached @ 2335 hrs on
November 19, 2010

k - dark gray with medium gray
y, some mottling - brownish
y, brittle, some soft, very
y to fissile, abundant loose
microfractures. Bright yellow
washed samples. Faint yellow,
e in washed sample.

Bit #3, 6 in., HTC, QD
405 cut 4,612 ft. in
77.5 hrs.

