

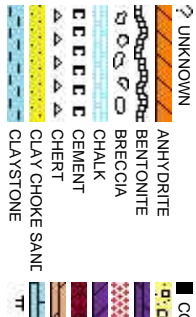


Scale: 5" / 100'  
Measured Depth Log

<b>Well Name</b>	Waste Management 2T-241		
<b>Location</b>	SWSE SEC 2, 2N, 64W, 6TH		
<b>State</b>	Colorado	<b>County</b>	Weld
<b>Country</b>	USA	<b>Rig Number</b>	Ensign 119
<b>API Number</b>	05-123-36967-0000	<b>Field</b>	Wattenberg
<b>Region</b>	DJ Basin		
<b>Spud Date</b>	7/3/2013	<b>Drilling Completed</b>	7/13/2013
<b>Surface Coordinates</b>	230' FSL x 1356' FEL		
<b>Bottom Hole Coordinates</b>	501' FNL x 1829' FEL		
<b>Ground Elevation</b>	4895'	<b>K.B. Elevation</b>	4918'
<b>Logged Interval</b>	6003'	<b>To</b>	11213'
<b>Formation</b>	Shannon, Sharon Springs , Niobrara		
<b>Type of Drilling Fluid</b>	LSND	<b>Total Depth</b>	11213'

**Company** PDC Energy  
**Address** 1775 Sherman  
Denver , CO 80

**Name** Brian Hoffman  
**Company** PDC Energy  
**Address** 1775 Sherman  
Denver , CO 80



# Operator

Street, Ste 3000

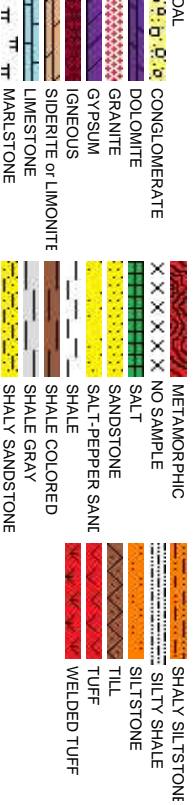
203

# Geologist

Street, Ste 3000

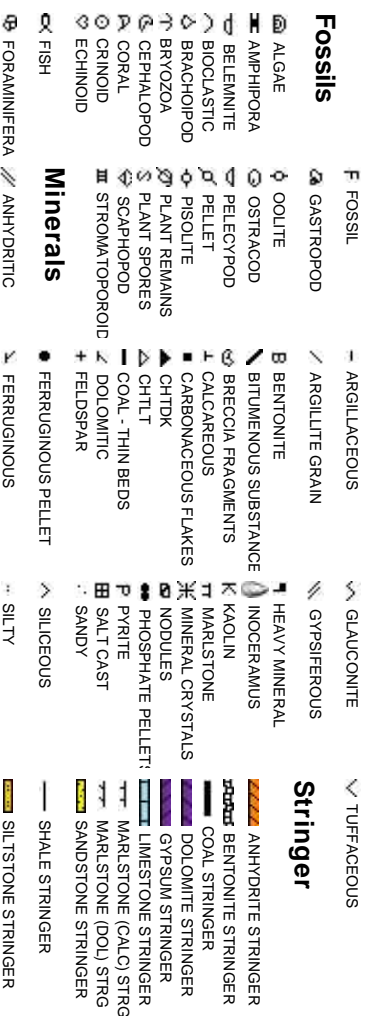
20

## Rock Types



## Accessories

## Fossils

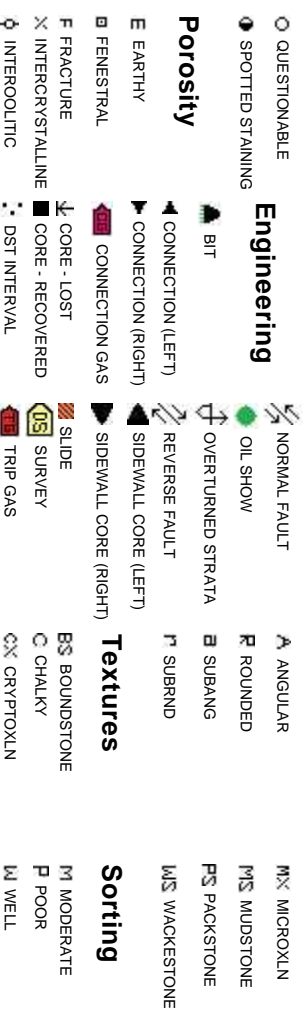


## Other Symbols

# Oil Show



# Engineering



## Textures

## Sorting

Slide/Rotate

ROP  
ROF  
GAMMA

Columbine Logging  
2-Manned Geosteering  
Operational 7/07/2013  
Bloodhound # 312

In 42/9.9+ Out 42/10+

104api

127api

Total Gas & Chromatograph

GAS  
C1  
C2  
C3  
C4  
CO2

Bit Data  
Bit #: 2  
Type: SD611  
Size: 8.75  
Depth In: 948'  
Jets: 6X18  
S/N: JH0415

2107u  
73% C1  
10% C2  
11% C3  
6% C4

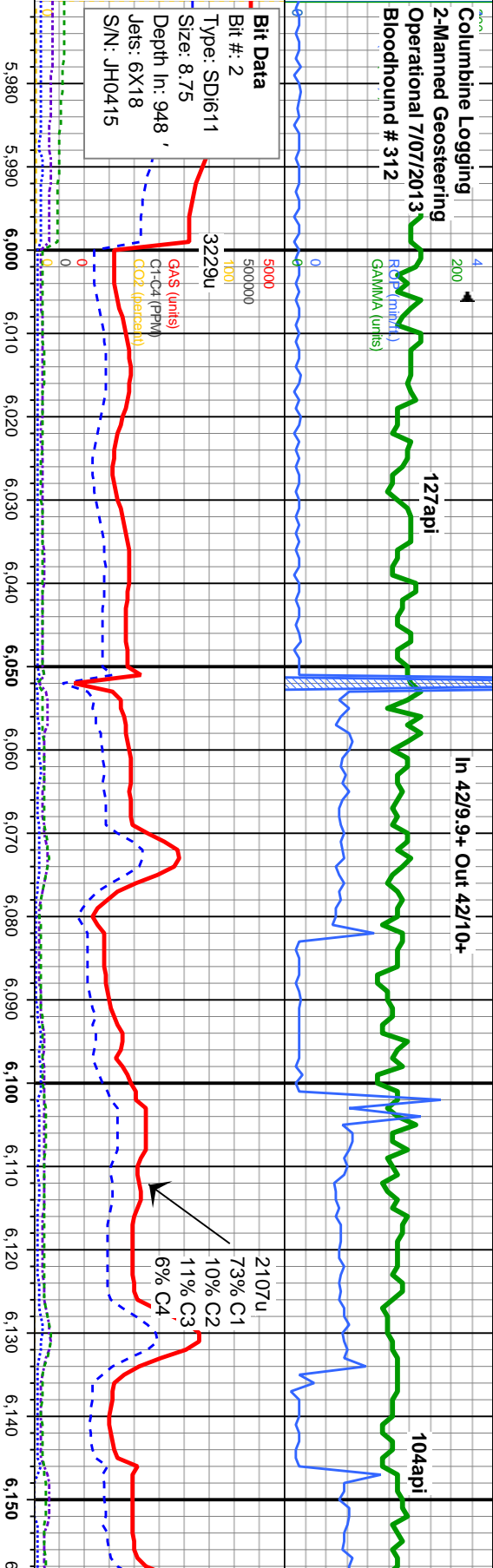
Depth Labels

% Lith

Well Bore  
TVD

Oil Show

Images



SLTY SH: lt-m gy, sft, sb pty, rthy-grty tex, sl calc, w/ occ carb lams, grdg to SHLY SLTST: lt gy, sft, sb pty, rthy, silty sl calc, SS: ltgy, s&p, vfgr, ang-sb rd, w strd, m consol, sl calc cnt, n vis por n flor, fnt tr lt yel cut, n stn

SLTY SH: lt-m gy, sft, sb pty, rthy-grty tex, sl calc, w/ occ carb lams, grdg to SHLY SLTST: lt gy, sft, sb pty, rthy, silty sl calc, SS: ltgy, s&p, vfgr, ang-sb rd, w strd, m consol, sl calc cnt, n vis por n flor, fnt tr lt yel cut, n stn

SLTY S calc, w/ lt gy, sft, s&p, vfgr, m consol, cnt, n

MD: 6,003'  
TVD: 5,970.36'  
Inclination: 0.45°  
Azimuth: 135.7°  
VS: -142.21°

MD: 6,051'  
TVD: 6,018.36'  
Inclination: 0.5°  
Azimuth: 48°  
VS: -142.22°

MD: 6,098'  
TVD: 6,065.32'  
Inclination: 3.8°  
Azimuth: 9.7°  
VS: -140.61°

MD: 6,146'  
TVD: 6,113.01'  
Inclination: 8.5°  
Azimuth: 0.21°  
VS: -135.44°

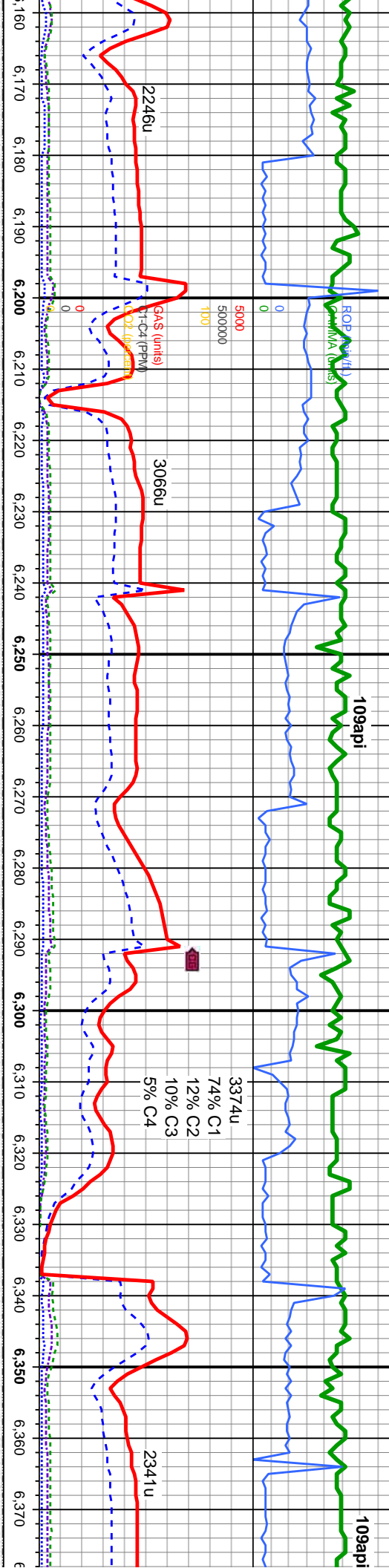
TR  
P  
FR  
G  
E



In 42/10.0 Out 45/10.0

In 40/10.0 Out 42/10.0

In 50/10.0 Out 45



SLTY SH: lt-m gy, sft, sb ply, rthy-grty tex, sl calc, w/ occ carb lams, grdg to SHLY SLTST: lt gy, sft, sb ply, rthy, silty sl calc, SS: ltgy, s&p, vfg, ang-sb rd, w srt, m consol, sl calc cnt, n vis por n flor, fnt tr lt yel cut, n stn

MD: 6,193'  
TVD: 6,159.15'  
Inclination: 12.4°  
Azimuth: 0.5°  
VS: -126.7°

MD: 6,241'  
TVD: 6,205.57'  
Inclination: 17.1°  
Azimuth: 1.8°  
VS: -114.6°

MD: 6,289'  
TVD: 6,250.95'  
Inclination: 20.5°  
Azimuth: 1.8°  
VS: -99.15°

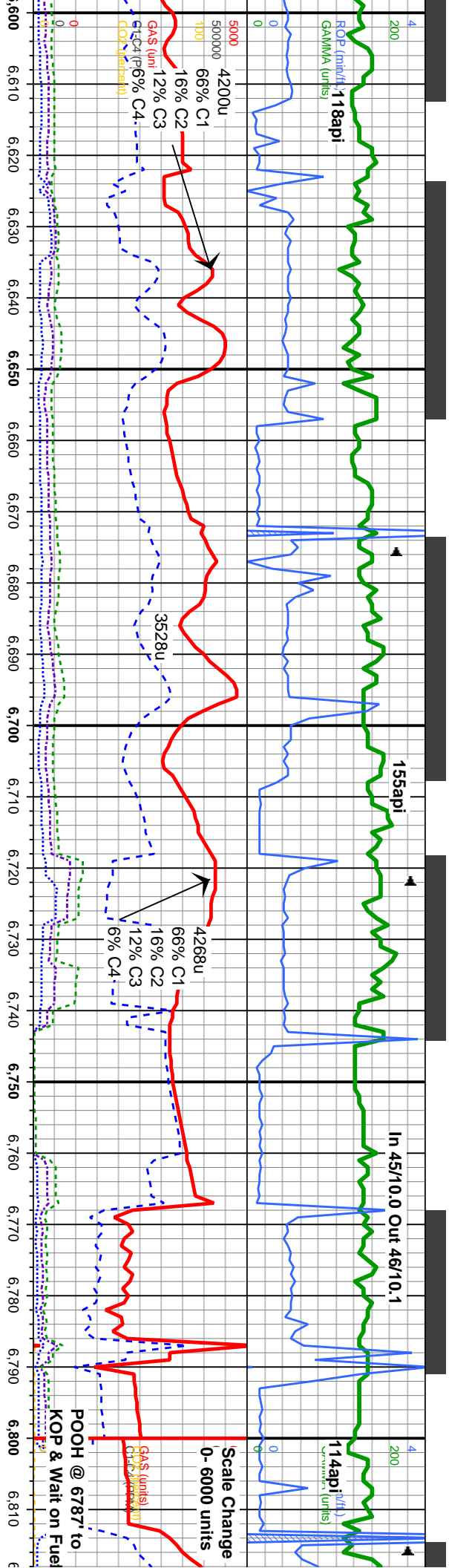
MD: 6,337'  
TVD: 6,295.24'  
Inclination: 24.5°  
Azimuth: 359.1°  
VS: -80.81°











SLTY SH: lt-m gy, sft, sb pily & blk, sb fis in part, rthy lstr, silty tex, w/ occ carb lams, inbd w/ grdg from SHLY SLTST: lt gy, sft, sb blk, m sl calc occ, tr pyr, tr bent, tr ss

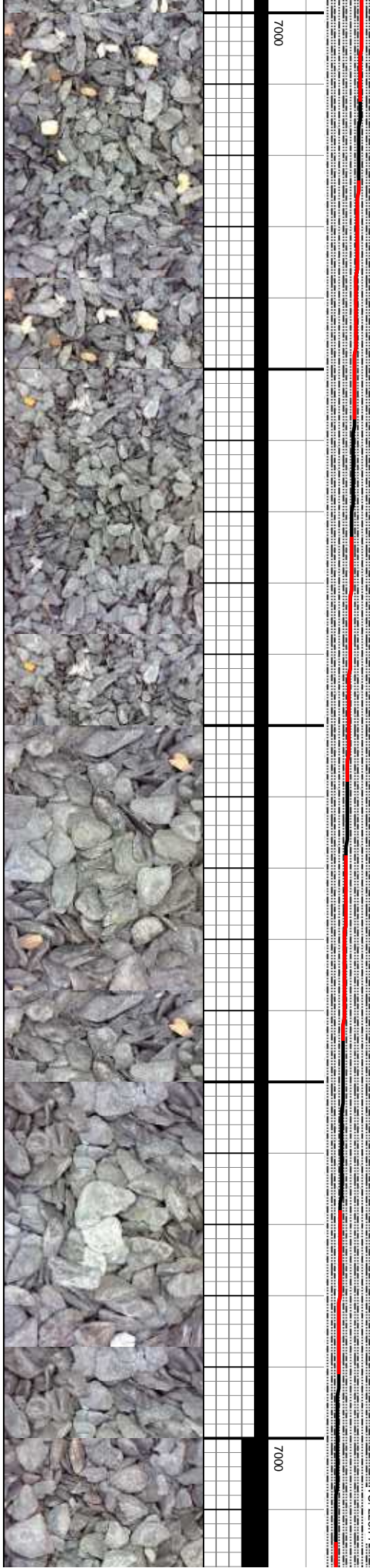
SLTY SH: lt-m gy, sft, sb pily & blk, sb fis in part, rthy lstr, silty tex, w/ occ carb lams, inbd w/ grdg from SHLY SLTST: lt gy, sft, sb blk, m sl calc occ, tr pyr, tr bent, tr ss

SLTY SH: lt-m gy, gy rbn sft, sb blk& pily, rthy lstr, silty tex, v sl calc cnt, dissim pyr, n flor, stmg m yel cut, lt yel brn str.

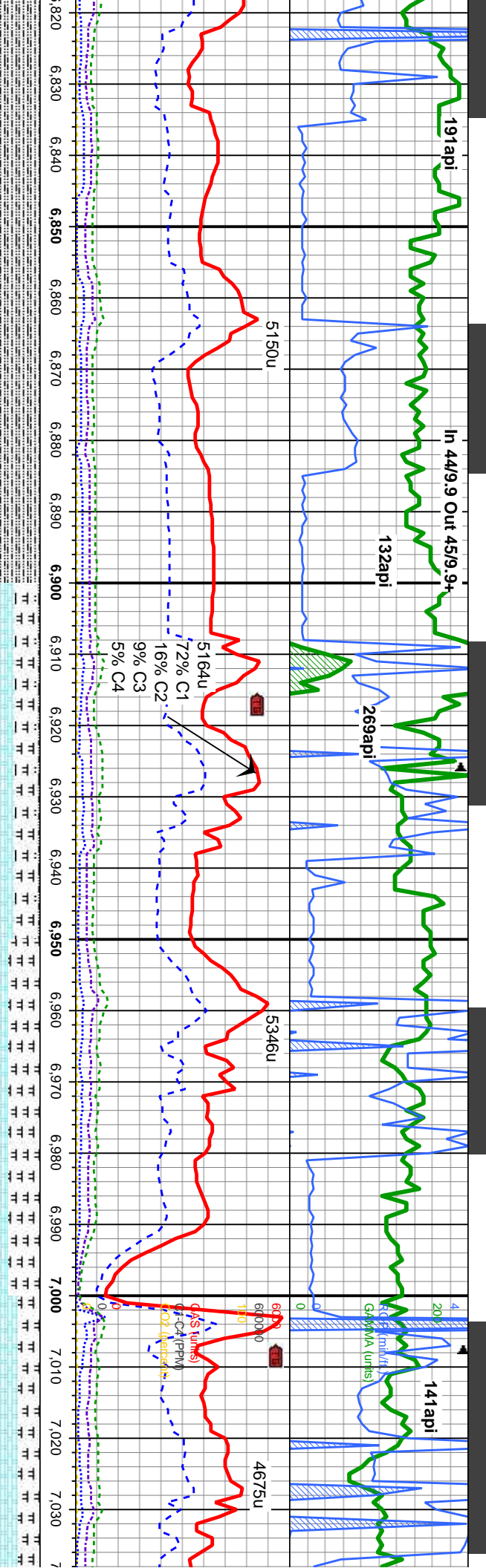
SLTY SH: lt-m gy, gy rbn sft, sb blk& pily, rthy lstr, silty tex, v sl calc cnt, dissim pyr, n flor, stmg m yel cut, lt yel brn str.

SLTY SH: lt-m rthy lstr, silty te n flor, stmg m y

TVD (ft)	MD: 6.622' TVD: 6.530.6' Inclination: 44.4° Azimuth: 358.8° VS: 76.07'	MD: 6.669' TVD: 6.562.7' Inclination: 49.2° Azimuth: 358.2° VS: 110.2'	MD: 6.717' TVD: 6.593.1° Inclination: 52.2° Azimuth: 0° VS: 147.24'	MD: 6.765' TVD: 6.621.4° Inclination: 55.1° Azimuth: 0° VS: 185.72'	TVD (ft)	MD: 6.813 TVD: 6.647.52 Inclination: 58.7° Azimuth: 359.5° VS: 225.77'
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gy, gy rdn sft, sb blk& pty,  
rthy lstr, silty tex, v sl calc cnt, dissim pyr,  
tr oolitic tex, n flor, stmg m yel cut, lt yel  
brn stn.

SLTY SH: lt-m gy, gy rdn sft, sb blk& pty,  
rthy lstr, silty tex, v sl calc cnt, dissim pyr,  
tr oolitic tex, n flor, stmg m yel cut, lt yel  
brn stn.

CHK: lt-m gy, off wh, sft, sb blk, rthy-sb wxy  
lstr, mot & fos tex, v calc, wi tr fos, tr lt gn flor,  
fast stmg bri yel cut lt yel brn stn. MRLST:  
m-dk gy & blk, sft, sb blk, rthy-sb wxy, mot  
tex, v calc, wi org mat, n flor, stmg bri yel cut  
lt yel brn stn

CHK: lt-m gy, off wh, sft, sb blk, rthy-sb wxy  
lstr, mot & fos tex, v calc, wi tr fos, tr lt gn flor,  
fast stmg bri yel cut lt yel brn stn. MRLST:  
m-dk gy & blk, sft, sb blk, rthy-sb wxy, mot  
tex, v calc, wi org mat, n flor, stmg bri yel cut  
lt yel brn stn

Niobrara @  
MD 6903' / TVD 6690'

MD: 6,860'  
TVD: 6,671.12'  
Inclination: 61°  
Azimuth: 359.8°  
VS: 266.17'

Niobrara A @  
MD 6916' / TVD 6696'

MD: 6,908'  
TVD: 6,693.13'  
Inclination: 64.4°  
Azimuth: 359.6°  
VS: 308.54'

Niobrara B @  
MD 6965' / TVD 6715'

MD: 6,955'  
TVD: 6,712.47'  
Inclination: 67°  
Azimuth: 0°  
VS: 351.1'

MD: 7,003'  
TVD: 6,730.3°  
Inclination: 69.4°  
Azimuth: 0.5°  
VS: 395.3'

7000

6800



Scale Change  
1 Block on TVD scale

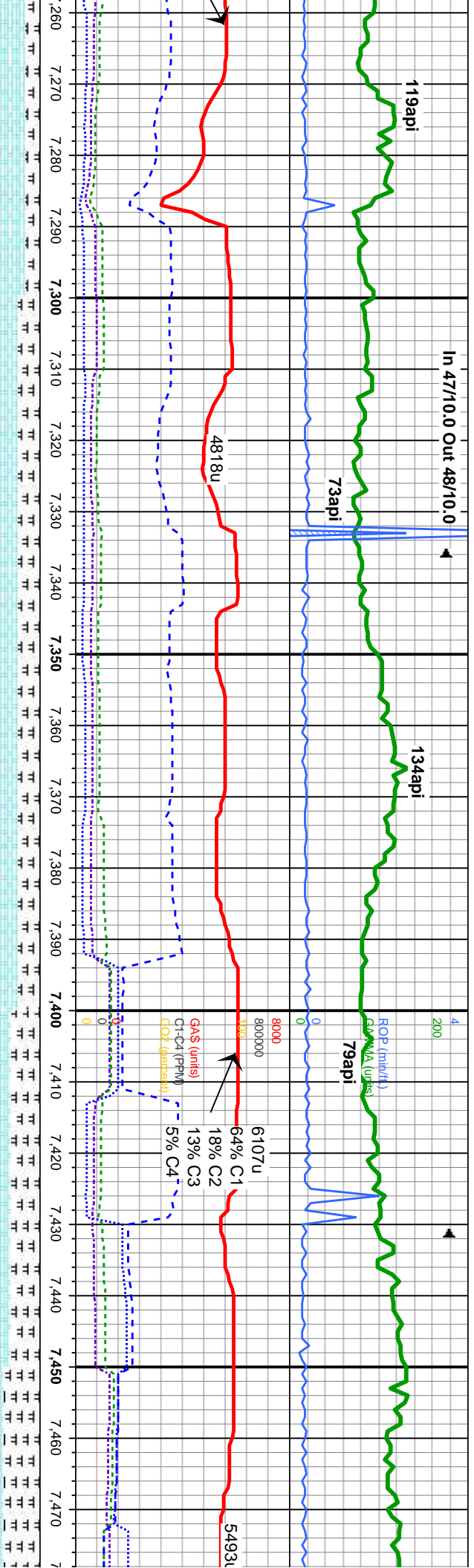
TVD (ft)

Enter  
MD









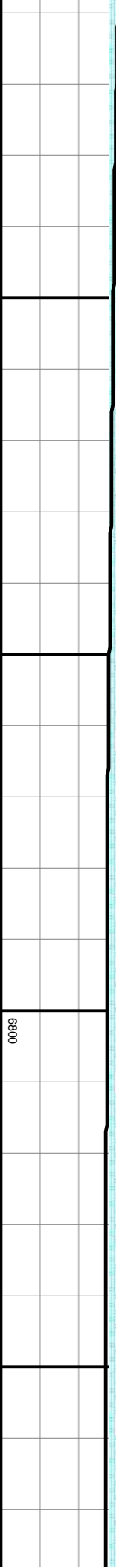
It-m gy brn in part, sft, sb blkly, sb fis, wxy lstr, mot tex w/ occ fos, v	CHK: It-m gy brn in part, sft, sb blkly, sb fis, lam, rthy-sb wxy lstr, mot tex wi occ fos, v calc, MRL: m gy, sft, sb blkly, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flor, fst stmg, lt-m yel cut, lt yel stn.	CHK: It-m gy brn in part, sft, sb blkly, sb fis, lam, rthy-sb wxy lstr, mot tex wi occ fos, v calc, MRL: m gy, sft, sb blkly, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flor, fst stmg, lt-m yel cut, lt yel stn.	6700	MRLST: m-dk gy, blk, sft, sb blkly, rthy-sb wxy lstr, mot & fos tex, v calc, scat fos, occ sec calcite, inmtd wi, CHK:lt-m gy, sft, sb blkly, rthy, mot, fos, v calc, n flor, stmg brt yel cut, lt brn stn	MRLST: m-dk gy, blk, sft, wxy lstr, mot & fos tex, v c sec calcite, inmtd wi, CH blkly, rthy, mot, fos, v calc, yel cut, lt brn stn
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MD: 7.276  
TVD: 6.770.61'  
Inclination: 88.2°  
Azimuth: 358.6°  
VS: 662.1°

MD: 7.371  
TVD: 6.772.66'  
Inclination: 89.3°  
Azimuth: 358.4°  
VS: 756.72°

TVD (ft)

MD: 7.466  
TVD: 6.773.27'  
Inclination: 90°  
Azimuth: 358.4°  
VS: 851.33°

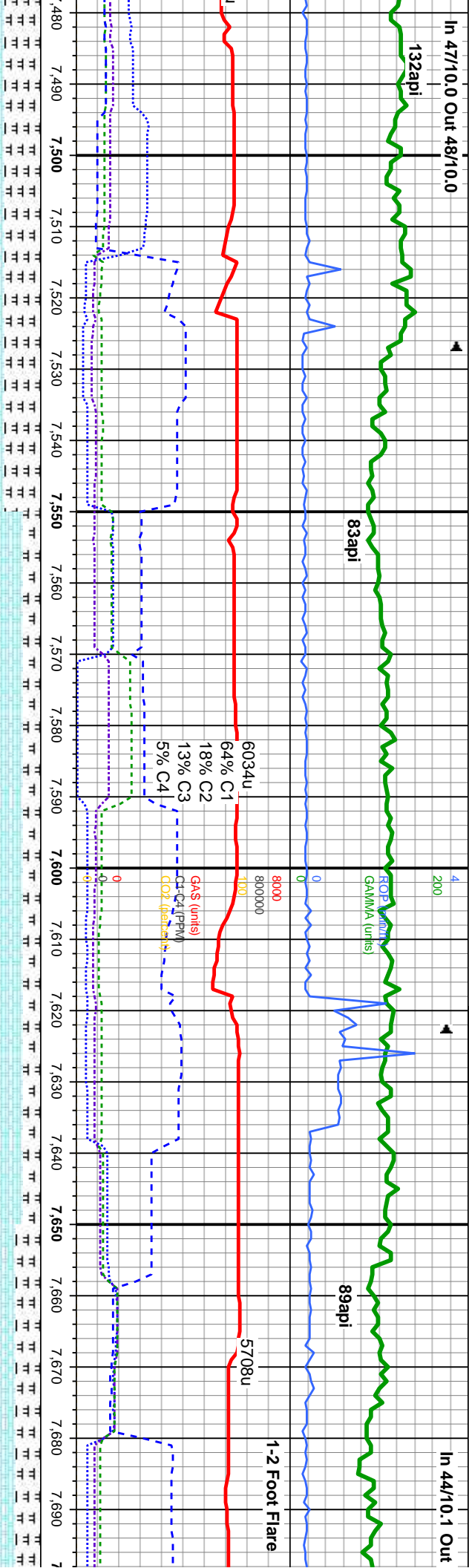


6800



**In 47/10.0 Out 48/10.0**

**In 44/10.1 Out**



sb blky, rthy-sb  
alc, scat fos, occ  
K:lt-m gy, sft, sb  
n flor, strng bri

MR.LST: m-dk gy, blk, sft, sb blkly, rthy-sb wxy lstr, mot & fos tex, v calc, scat fos, occ sec calcite, inmtbd wi, CHK:lt-m gy, sft, sb blkly, rthy, mot, fos, v calc, n flor, string bri yel cut, lt brn sltn

lham, rthy-sb wxy lstr, mot tex wi occ fos, v  
 CHN: il-m gy bhm in part, str, sb bky, sb iis-  
 calc, mRE: m gy, sft, sb bky, rthy-sb wxy  
 lstr, mot & lam tex, v calc wi org mat & m  
 fos, int, il yel /gn flor, fst stmg, il-m yel cut, il  
 yel stn.

CHK: lt-m gy bñ in part, sft, sb blkly, sb fls, lam, rthy-sb wxy lstr, mot tex wi occ fos, v calc, MRL: m gy, sft, sb blkly, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel ðgn flñr, fst stmg, lt-m yel cut, lt yel slñ.

CHK: It-m gy bɪn in pɑ:ʔ, sɪt, sb bɪkɪ, sb tɪs,  
lɑ:n, rɪθy-sb wxy lɪst, mɔt tɛk wɪ ɔcc fɔs, v  
cɛlc, mɪRL: m gy, sɪt, sb bɪkɪ, rɪθy-sb wxy  
lɪst, mɔt & lɑ:n tɛx, v cɛlc wɪ ɔrg mɛt & m  
fɔs, fɪnt, It yel /ɪn flɔr, fɪst sɪmɪ, It-m yel cut, It  
yel sɪn.

MD: 7.562'  
TVD: 6,772.6'  
Inclination: 90.3°  
Azimuth: 357.7°  
VS: 947'

TVD (ft)

MD: 7,657'  
TVD: 6,770.86'  
Inclination: 91.3°  
Azimuth: 358.1°  
VS: 1,041.67'

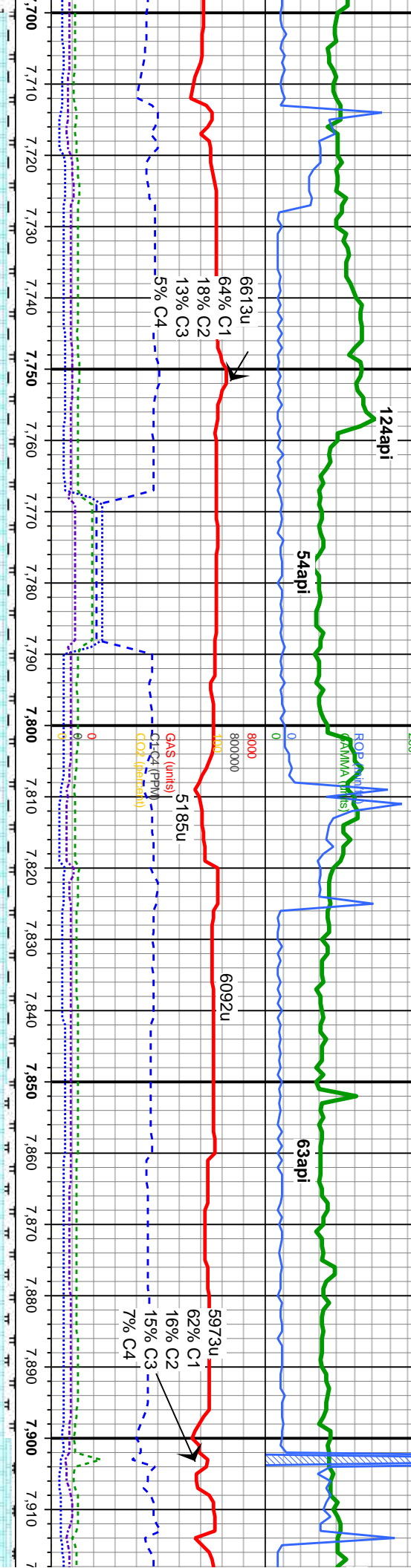
6800





4/1/10.0

In 42/10.3 Out 43/10.3



CHK: lt-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.

CHK: lt-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.

CHK: lt-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.

CHK: lt-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.

CHK: lt-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.

MD: 7.752'  
TVD: 6,768.53'  
Inclination: 91.4°  
Azimuth: 359.1°  
VS: 1.136.2°

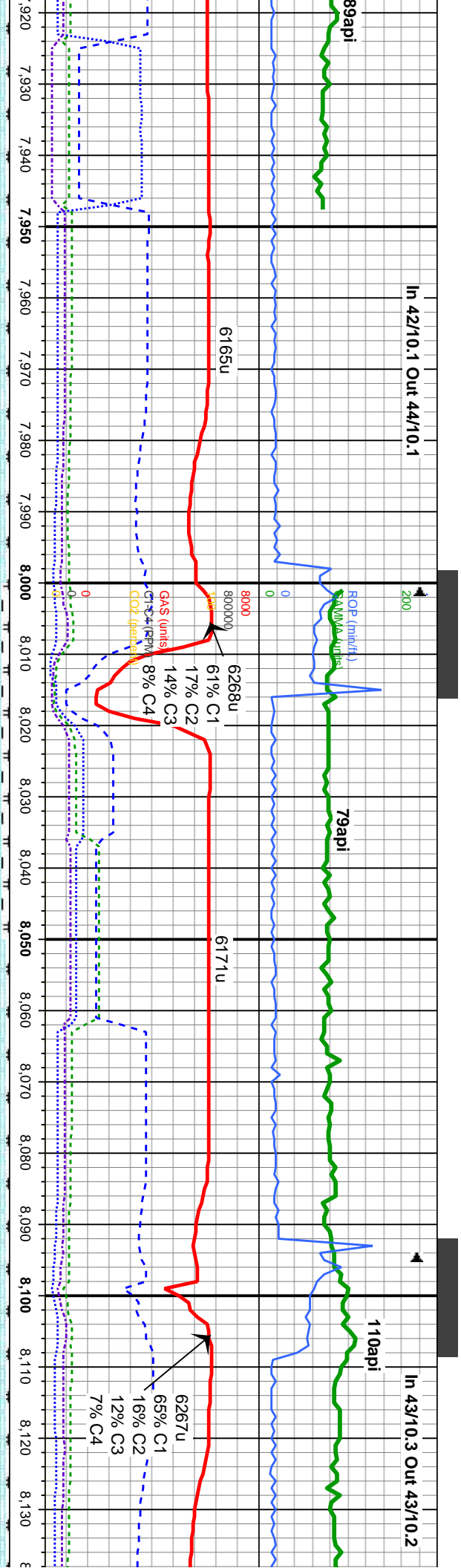
MD: 7.847'  
TVD: 6,766.46'  
Inclination: 91.4°  
Azimuth: 358.5°  
VS: 1.230.7°

6800





In 42/10.1 Out 44/10.1



In 43/10.3 Out 43/10.2

MD: 7,943  
TVD: 6,764.9ft  
Inclination: 90.1°  
Azimuth: 358.6°  
VS: 1,326.2ft

TVD (ft)

MD: 8,038  
TVD: 6,763.5ft  
Inclination: 90.1°  
Azimuth: 359.3°  
VS: 1,420.3ft

MD: 8,133  
TVD: 6,762.2ft  
Inclination: 90.1°  
Azimuth: 359.3°  
VS: 1,515.2ft

CHK: It-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel sin.

CHK: It-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel sin.

CHK: It-m gy brn in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc, MRL: m gy, sft, sb blk, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel sin.

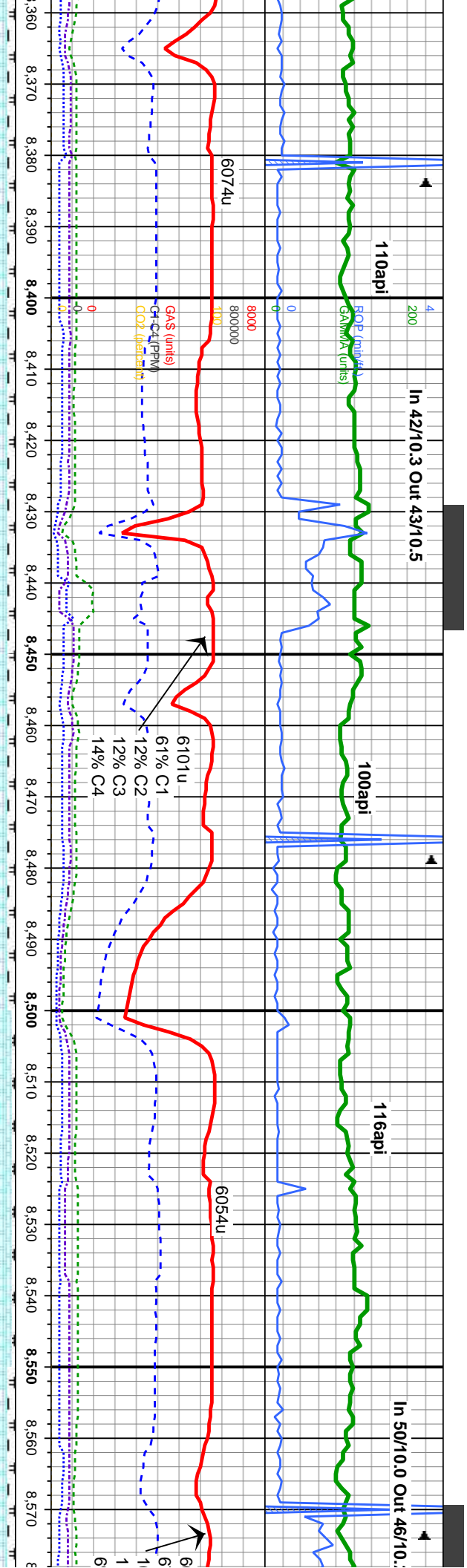
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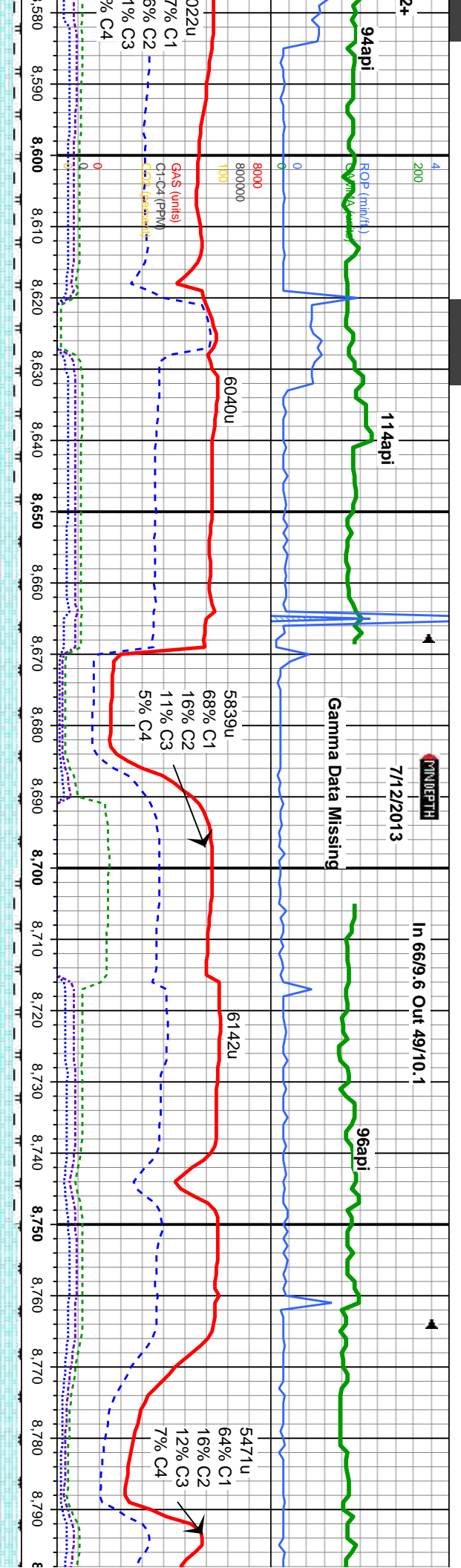


lt-m gy bm in part, sft, sb blk, sb fis, n gy, sft, sb blk, rthy -sb wxy lstr, mot tex w tr fos, v calc, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.	CHK: lt-m gy bm in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex w tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.	CHK: lt-m gy bm in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex w tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.	CHK: lt-m gy bm in part, sft, sb blk, sb fis, lam, rthy-sb wxy lstr, mot tex w tr fos, v calc, MRL: m gy, sft, sb blk, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.
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TVD (ft)			
MD: 8.419'			
TVD: 6.762.65'			
Inclination: 90°			
Azimuth: 0.5°			
VS: 1.79936'			
6800			





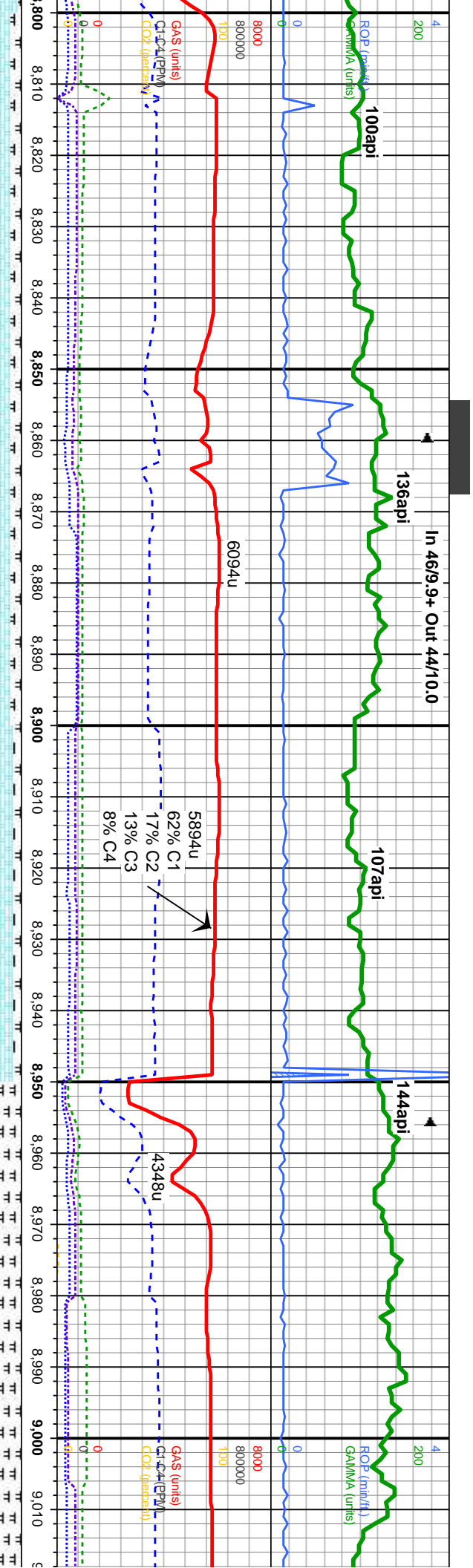


Depth (ft)	Description
6700	CHK: It-m gy brn in part, sft, sb blkly, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc. MRL: m gy, sft, sb blkly, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.
6700	CHK: It-m gy brn in part, sft, sb blkly, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc. MRL: m gy, sft, sb blkly, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.
6700	CHK: It-m gy brn in part, sft, sb blkly, sb fis, lam, rthy-sb wxy lstr, mot tex wi tr fos, v calc. MRL: m gy, sft, sb blkly, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel /gn flr, fst stmg, lt-m yel cut, lt yel stn.

MD: 8.609'	MD: 8.704'	MD: 8.704'
TVD: 6,762.7'	TVD: 6,764.3'	TVD: 6,764.3'
Inclination: 88.6°	Inclination: 89.2°	Inclination: 89.2°
Azimuth: 359.6°	Azimuth: 0.5°	Azimuth: 0.5°
VS: 1,987.8'	VS: 2,082.1'	VS: 2,082.1'





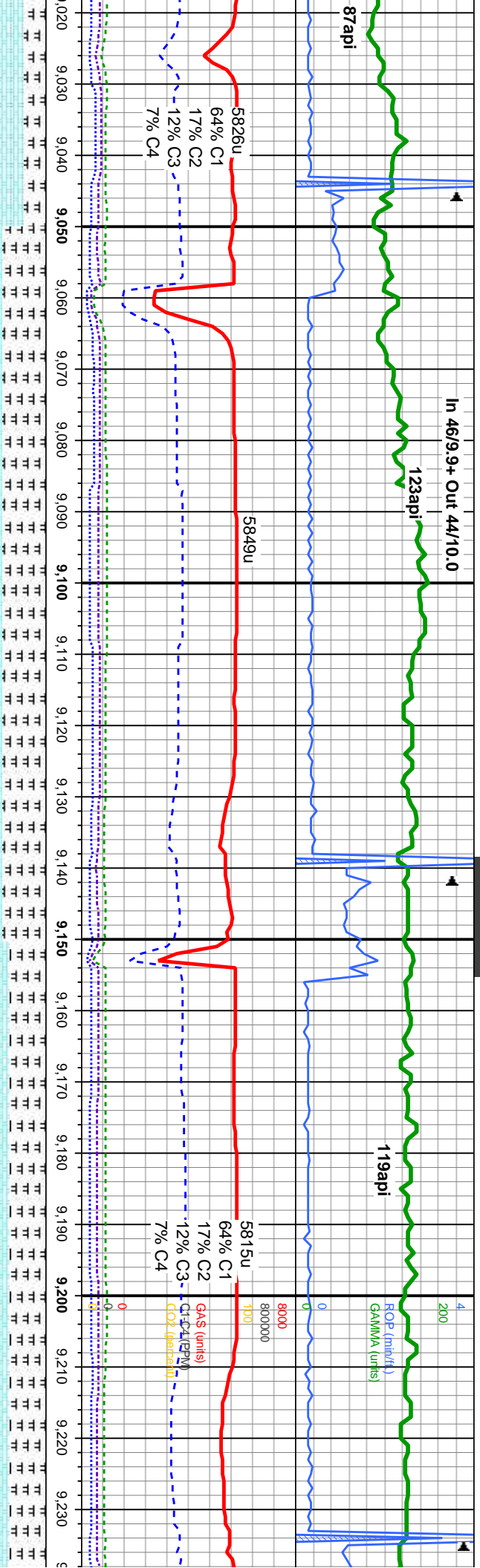


6700	CHK: lt-m gy, occ gy-brn in part, sft, sb blkly - sb ply, occ lam, rthy-sb wxy lstr, mot tex, wi tr fos, v calc, MRL: m gy, sft, sb blkly, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel/gn flor, fst stmg, lt-m yel cut, lt yel stn.	CHK: lt-m gy, occ gy-brn in part, sft, sb blkly - sb ply, occ lam, rthy-sb wxy lstr, mot tex, wi tr fos, v calc, MRL: m gy, sft, sb blkly, rthy-sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, lt yel/gn flor, fst stmg, lt-m yel cut, lt yel stn.	CHK: lt-m gy, occ gy-brn in part, sft, sb blkly - sb ply, occ lam, rthy-sb wxy lstr, mot sb gt tex, wi tr fos, v calc, MRL: m-dk gy, sft, sb blkly, rthy-sb wxy lstr, mot & aren tex, v calc wi org mat & m fos, fnt, lt yel/gn flor, fst stmg, lt-m yel cut, lt yel stn.	CHK: m-lt gy, sft, sb blkly, rthy-sb wxy lstr, mot tex, v calc, r fos, dirtier chalk, intbd wi, MRLST: m-dk gy, blk in part, sft, sb blkly, rthy-sb wxy lstr, mot tex, v calc wi org mat, n flor, stmg bri yel cut, lt brn stn	6700
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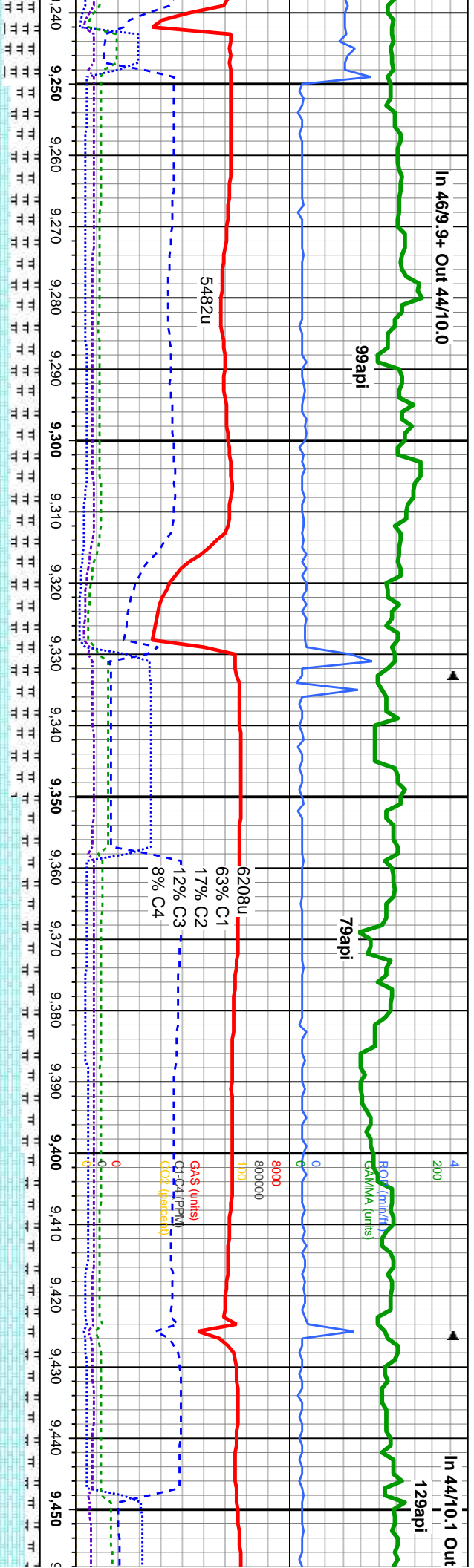
TVD (ft)				TVD (ft)
799'	MD: 8.894'	MD: 8.990'		
6,764.97'	TVD: 6,764.97'	TVD: 6,764.13'		
ation: 90°	Inclination: 90°	Inclination: 91°		
th: 0.5°	Azimuth: 359.5°	Azimuth: 359.5°		
176.34'	VS: 2,270.74'	VS: 2,366.17'		
6800				6800



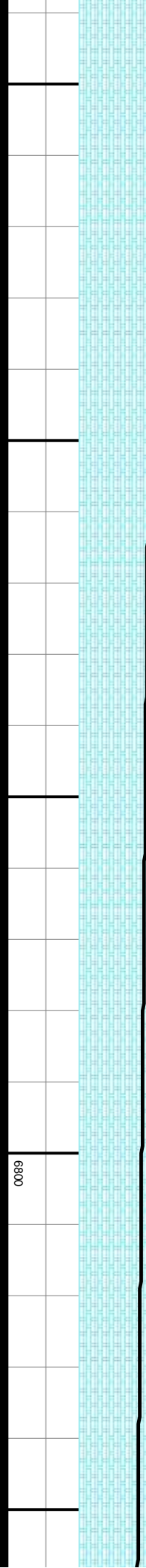


[illegible]

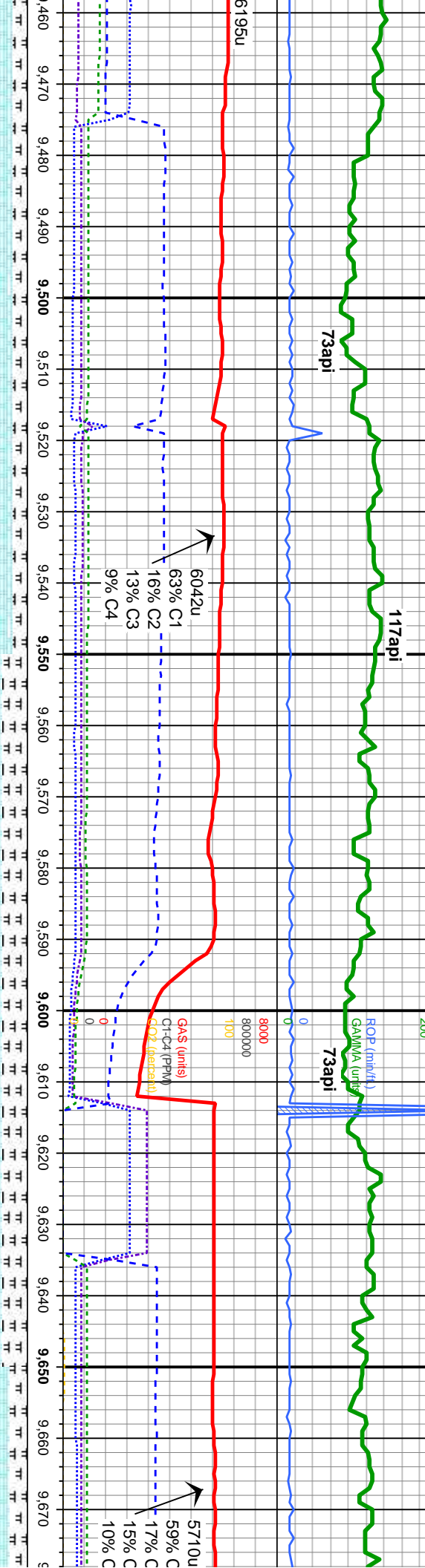




sb blkly - tex, wi , rthy -sb mat & yel cut,	CHK: It-m gy, occ gy-brn in part, sft, sb blkly - sb plty, occ lam, rthy-sb wxy lstr, mot tex, wi tr fos, v calc, MRL: m gy, sft, sb blkly, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, It yel /gn flor, fst string, It-m yel cut, It yel str.	MD: 9.275' TVD: 6.763.06' Inclination: 88.4° Azimuth: 359.5° VS: 2.649.11'	CHK: It-m gy, occ gy-brn in part, sft, sb blkly - sb plty, occ lam, rthy-sb wxy lstr, mot tex, wi tr fos, v calc, MRL: m gy, sft, sb blkly, rthy -sb wxy lstr, mot & lam tex, v calc wi org mat & m fos, fnt, It yel /gn flor, fst string, It-m yel cut, It yel str.	MD: 9.371' TVD: 6.764.64' Inclination: 89.4° Azimuth: 359.4° VS: 2.744.55'	6700 CHK: It gy -m gy, off wh, sft, sb blkly, sb fis, rthy lstr, mot & lam tex, r fos, v calc intbd wi, MRLST: m-dk gy, sft, sb blkly, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flor, string bri yel cut, It brn str	CHK: fis, rt intbd rthy-s n flor
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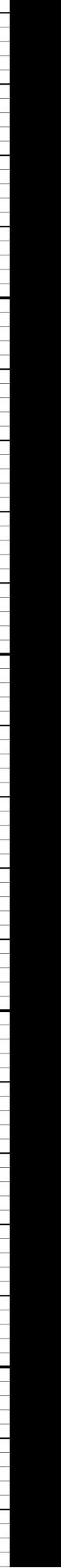
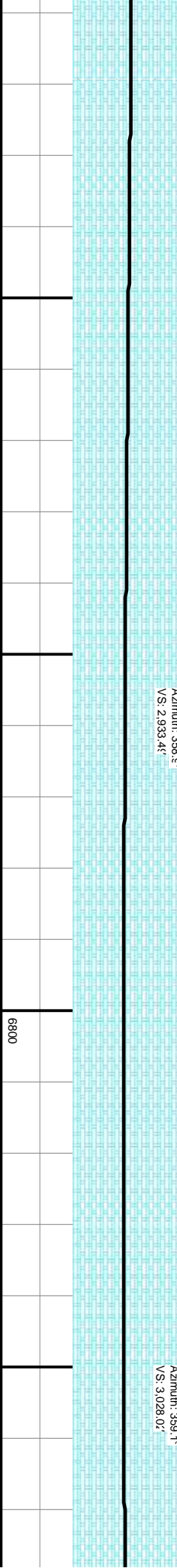






It gy -m gy, off wh, sft, sb blk, sb fys, rthy lstr, mot & lam tex, rr fos, v calc w, MRLST: m-dk gy, sft, sb blk, b wxy lstr, mot tex v calc, wi org mat, stmg bri yel cut, lt brn stn	CHK: It gy -m gy, off wh, sft, sb blk, sb fys, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flr, stmg bri yel cut, lt brn stn	CHK: It gy -m gy, off wh, sft, sb blk, sb fys, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flr, stmg bri yel cut, lt brn stn	6700 CHK: It gy -m gy, off wh, sft, sb blk, sb fys, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flr, stmg bri yel cut, lt brn stn	CHK: It gy -m gy, off wh, sft, sb blk, sb fys, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flr, stmg bri yel cut, lt brn stn
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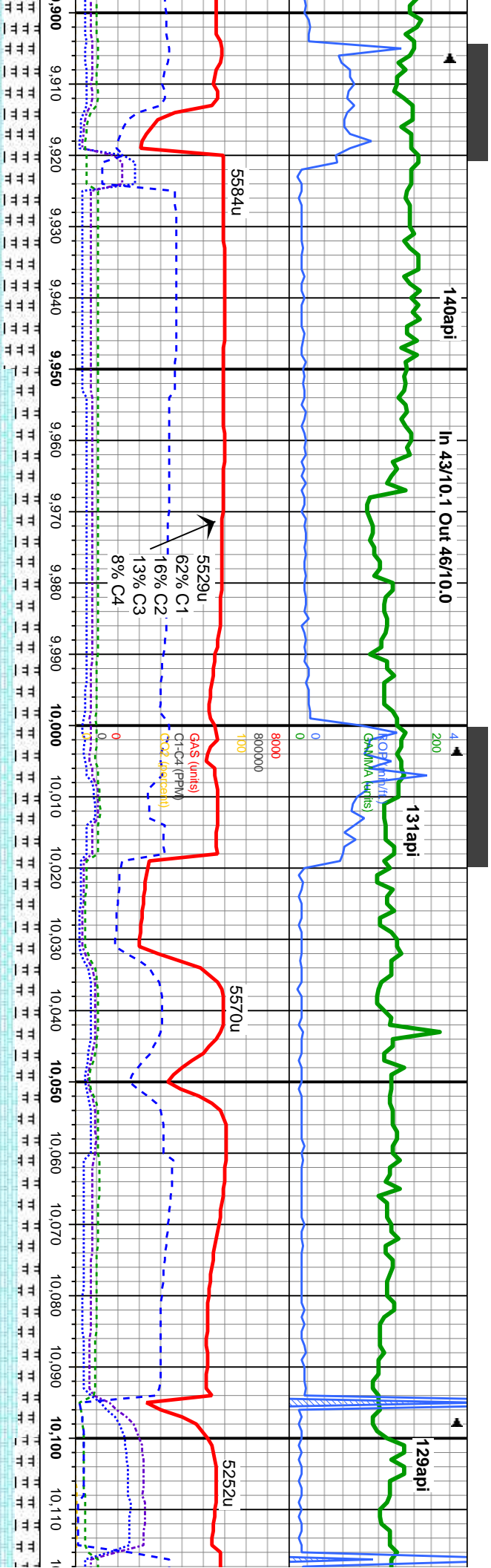
MD: 9.466' TVD: 6,766.47' Inclination: 88.6° Azimuth: 359.1° VS: 2.836.9°	MD: 9.561' TVD: 6,768.13' Inclination: 89.4° Azimuth: 358.6° VS: 2.933.4°	MD: 9.656' TVD: 6,768.26' Inclination: 90.4° Azimuth: 359.1° VS: 3.028.0°
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MRLST: m-dk gy & blk, sft, sb blk, rthy-sb wxy lstr, mot & semi lam tex, v calc, wi org mat, occ CHK: lt gy, sft, v calc n flor, stmg bri yel cut, lt brn stn.

MRLST: m-dk gy & blk, sft, sb blk, rthy-sb wxy lstr, mot & semi lam tex, v calc, wi org mat, occ CHK: lt gy, sft, v calc n flor, stmg bri yel cut, lt brn stn.

6700  
MRLST: m-dk gy & blk, sft, sb blk, rthy-sb wxy lstr, mot & semi lam tex, v calc, wi org mat, occ CHK: lt gy, sft, v calc n flor, stmg bri yel cut, lt brn stn.

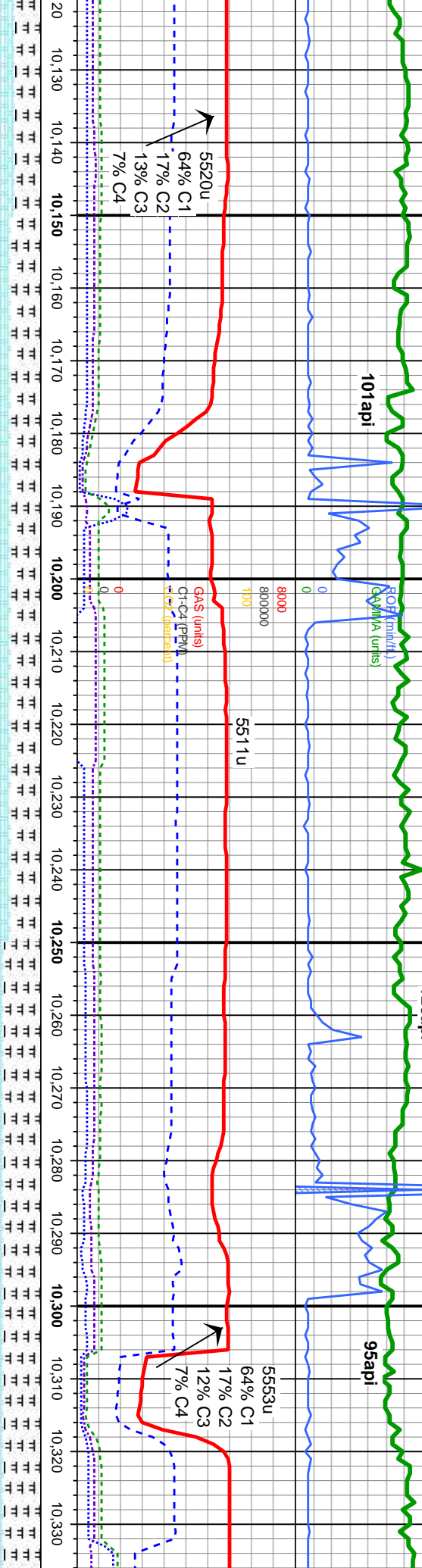
MRLST: m-dk gy & blk, sft, sb blk, rthy-sb wxy lstr, mot & semi lam tex, v calc, wi org mat, occ CHK: lt gy, sft, v calc n flor, stmg bri yel cut, lt brn stn.

MRLST: m-dk gy & blk, sft, sb blk, rthy-sb wxy lstr, mot & semi lam tex, v calc, wi org mat, occ CHK: lt gy, sft, v calc n flor, stmg bri yel cut, lt brn stn.

MD: 10,097'  
TVD: 6,761.32'  
Inclination: 90.4°  
Azimuth: 359.1°  
VS: 3,407.2'



In 43/10.1 Out 43/10.0



In 45/10.1 Out 43/10.0+

y & blk, sft, sb blk, rthy-sb  
semi lam tex, v calc, wi org  
t gy, sft, v calc n flor, string bri

MRLST: m-dk gy & blk, sft, sb blk, rthy-sb  
wxy lstr, mot & semi lam tex, v calc, wi org  
mat, occ CHK: lt gy, sft, v calc n flor, string bri  
yel cut, lt brn str.

MRLST: m-dk gy & blk, sft, sb blk, rthy-sb  
wxy lstr, mot & semi lam tex, v calc, wi org  
mat, occ CHK: lt gy, sft, v calc n flor, string bri  
yel cut, lt brn sin.

MRLST: m-dk gy & blk, sft, sb blk, rthy-sb  
wxy lstr, mot & semi lam tex, v calc, wi org  
mat, occ CHK: lt gy, sft, v calc n flor, string bri  
yel cut, lt brn sin.

MRLST: m-dk gy & blk, sft, sb blk  
wxy lstr, mot & semi lam tex, v calc  
mat, occ CHK: lt gy, sft, v calc n flc  
yel cut, lt brn str.

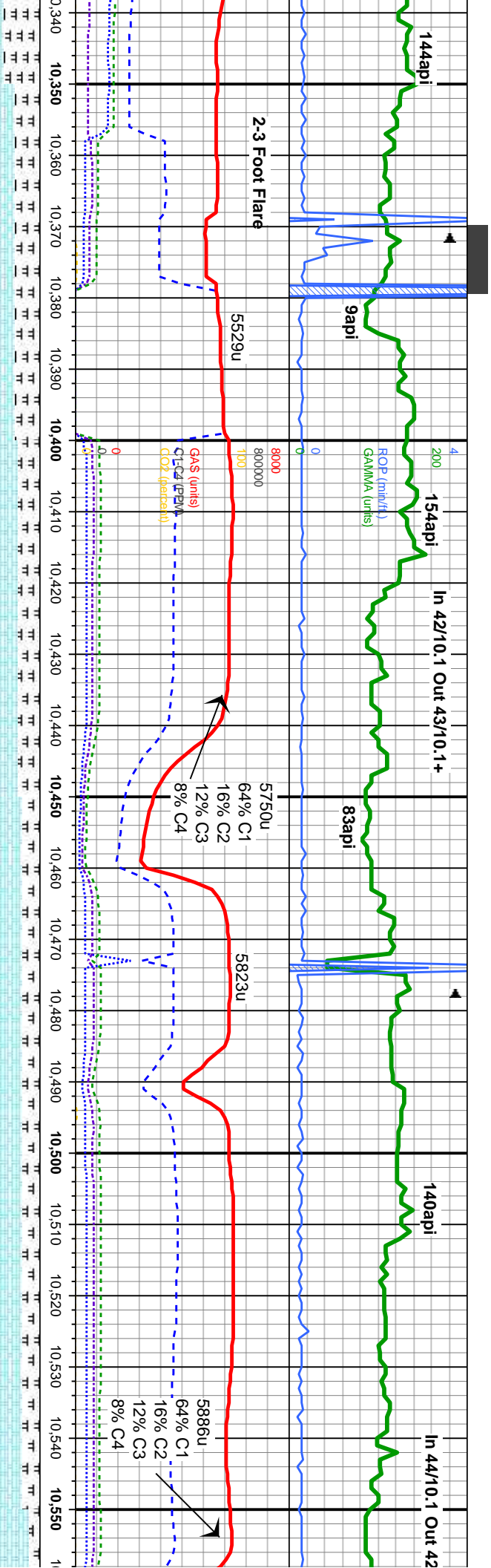
MD: 10.132'  
TVD: 6,759.87'  
Inclination: 90.7°  
Azimuth: 359.1°  
VS: 3.501.7°

MD: 10.228'  
TVD: 6,758.87'  
Inclination: 90.4°  
Azimuth: 359.3°  
VS: 3.597.2°

MD: 10.323'  
TVD: 6,759.03'  
Inclination: 89.3°  
Azimuth: 358.5°  
VS: 3.691.7°





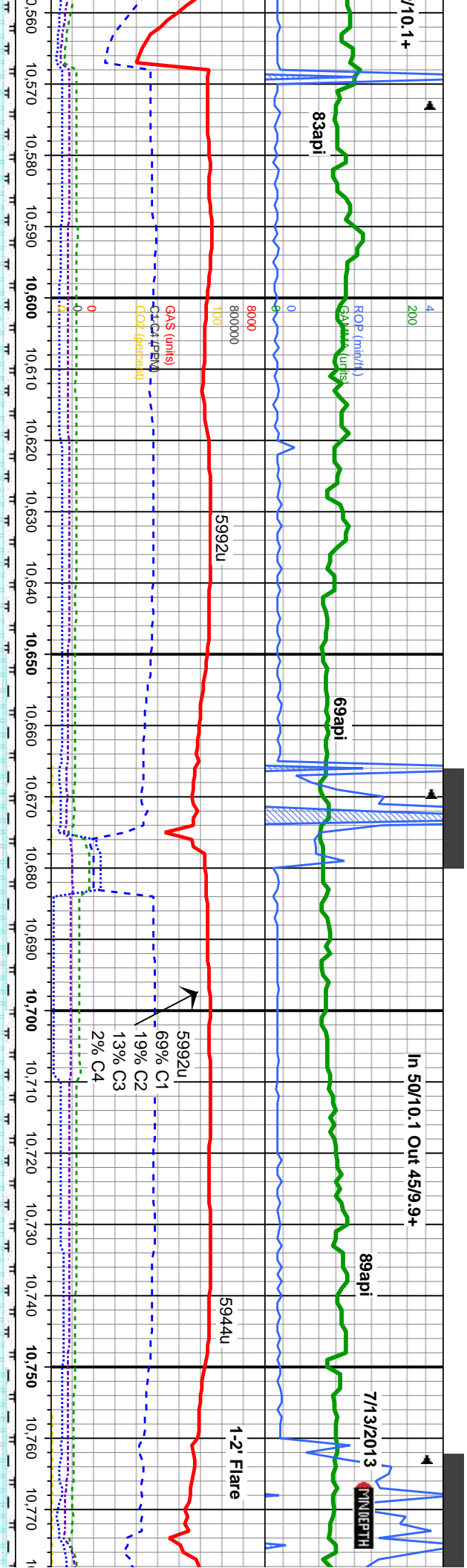


rthy-sb wxy lstr, mot & semi lam tex, v calc, wi org mat, occ CHK: lt gy, sft, v calc n flor, stmg bri yel cut, lt brn stn.	MRLST: m-dk gy & blk, sft, sb blk, rthy-sb rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn	CHK: lt gy -m gy, off wh, sft, sb blk, sb fis, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn	CHK: lt gy -m gy, off wh, sft, sb blk, sb fis, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn	CHK: lt gy -m gy, off wh, sft, sb blk, sb fis, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lstr, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn
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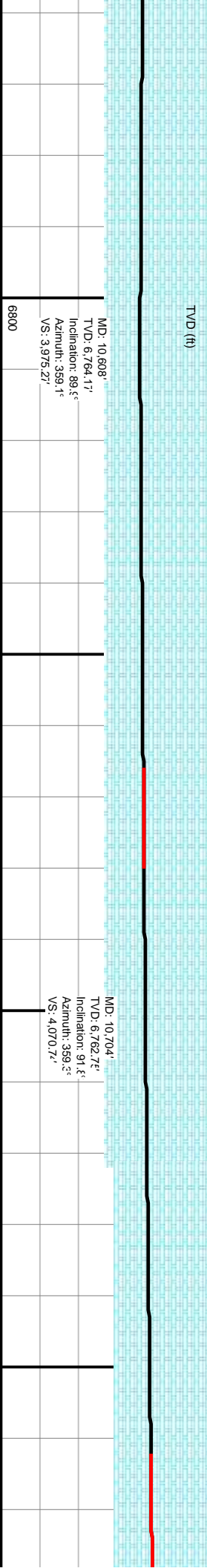
TVD (ft)				
6700				
MD: 10,418'				
TVD: 6,760.77'				
Inclination: 88.4°				
Azimuth: 358.5°				
VS: 3.78627°				
6800				
MD: 10,513'				
TVD: 6,763.01'				
Inclination: 88.7°				
Azimuth: 359.1°				
VS: 3.88077°				



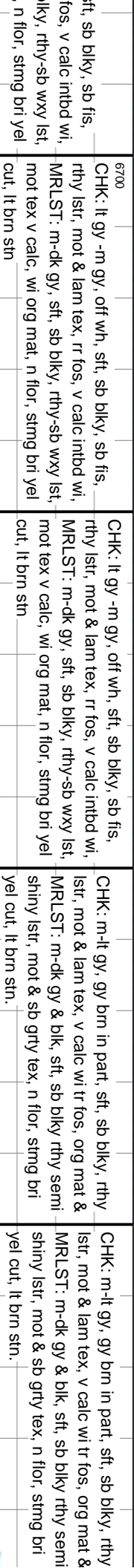




6700	CHK: It gy -m gy, off wh, sft, sb blk, sb fis, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lst, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn	CHK: It gy -m gy, off wh, sft, sb blk, sb fis, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lst, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn	CHK: It gy -m gy, off wh, sft, sb blk, sb fis, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lst, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn	CHK: It gy -m gy, off wh, sft, sb blk, sb fis, rthy lstr, mot & lam tex, rr fos, v calc inbnd wi, MRLST: m-dk gy, sft, sb blk, rthy-sb wxy lst, mot tex v calc, wi org mat, n flor, stmg bri yel cut, lt brn stn
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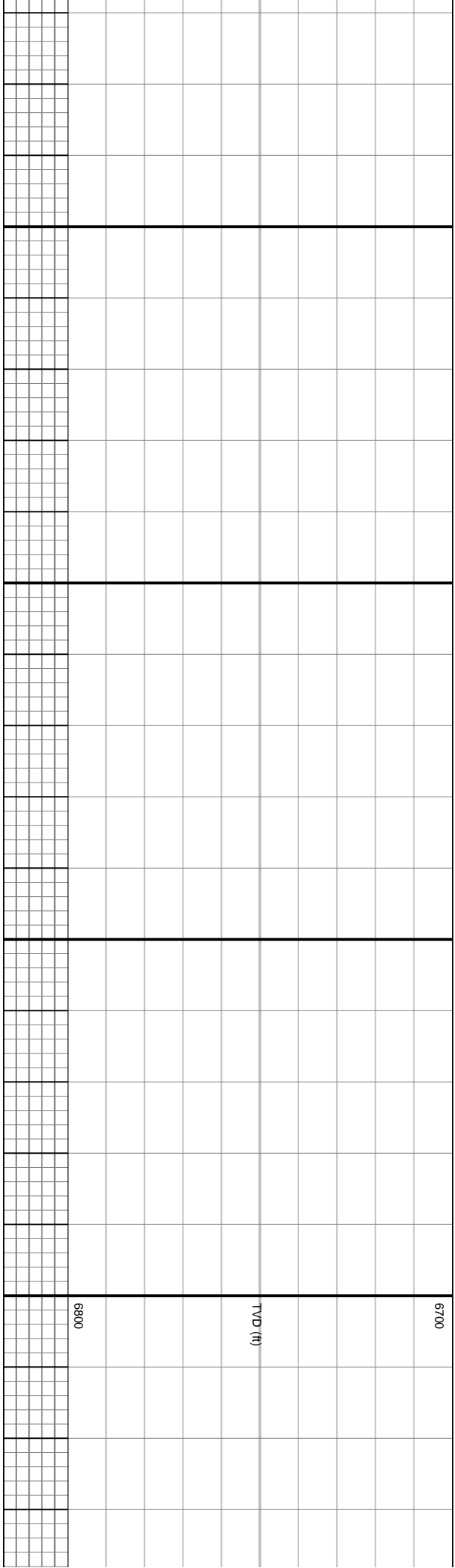
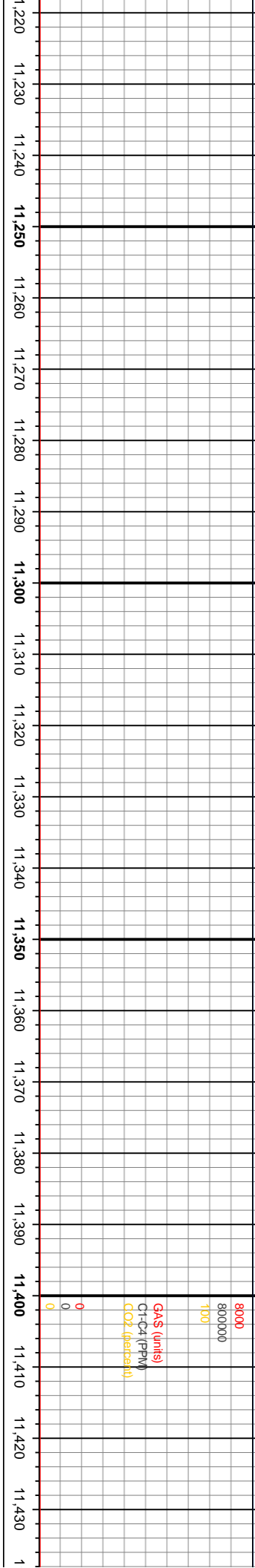


213'

0 hrs MST

Using

DOGGING



TVD (ft)

ROP (min/hr)

GAMMA (units)

GAS (units)

C1-C4 (PPM)

CO2 (percent)











