



# Empirica

Scale: 5" / 100'  
Measured Depth Log

**Well Name** Trout 3

**Location** S 32 T2N R67W

**State** Colorado

**Country** USA

**API Number** 05-123-41437

**Region** DJ Basin

**Spud Date** 8/28/2015

**County** Weld

**Rig Number** Savanna 802

**Field** Wattenberg

**Drilling Completed** 9/2/2015

**Surface Coordinates** Lat: 40° 5' 20.634"N

Long: 104° 54' 32.094"W

**Bottom Hole Coordinates**

Lat: 40° 6' 54.402"N  
Long: 104° 54' 26.473"W

**Ground Elevation** 5,079'

**K.B. Elevation** 5,094'

**Logged Interval** 7,000' **To** 17,376'

**Total Depth** 17,376'

**Formation** Niobrara

**Type of Drilling Fluid** Invert

## Operator

**Company** Extraction Oil & Gas

**Address** 1888 Sherman St., Suite 200  
Denver, CO 80203

## Geologist

**Name** Jared Rouse

**Company** Extraction Oil & Gas

**Address** 1888 Sherman St., Suite 200  
Denver, CO 80203



## Other

**Equipment** ML 461

**Comments** Start: 8-29-15  
TD: 9-2-15

**Services Provided** 2-man Logging

**Logger Names**


Brian Ferwerda / Mark G


**Address**


Empirica, LLC.


6360 W Sam Houston Pk  
Suite 100  
Houston, TX 77041


Zone Color Coding


 Oil


 Note


 Error


 Condensate

 Core


 Water


 Gas


 Pressure


 Seal


Rock Types


 UNKNOWN


 ANHYDRITE

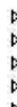
 GYPSUM


 SALT


 CHALK


 LIMESTONE


 DOLOMITE


 CHERT


 COAL


 MARLSTONE


 CLAYSTONE


 SHALE


 SHALE GRAY


 SHALE COLORED


 SILTSTONE


 SANDSTONE


 CONGLOMERATE


 BRECCIA


 TILL

 BENTONITE


 TUFF


 IGNEOUS


 METAMORPHIC


 CEMENT


Accessories


 F FOSSIL


 GASTROPOD


 ALGAE


 AMPHIPORA


 BELEMNITE


 BIOCLASTIC


 BRACHIOPOD


 BRYOZOA


 CEPHALOPOD


 CORAL


 CRINOID


 ECHINOID


 FISH


 FORAMINIFERA


 ARGILLACEOUS


 ARGILLITE GRAIN


 BENTONITE


 BITUMENOUS SUBSTANCE


 BRECCIA FRAGMENTS


 CALCAREOUS


 CARBONACEOUS FLAKES


 CHERT


 COAL - THIN BEDS


 DOLOMITIC


 FELDSPAR


 FERRUGINOUS PELLET


 FERRUGINOUS


 GLAUCONITE


 GYPSIFEROUS


 HEAVY MINERAL


 KAOLIN


 MARLSTONE


 MINERAL CRYSTALS


 NODULES


 PHOSPHATE PELLET


 PYRITE


 SALT CAST


 SANDY


 SILICEOUS


 SILTY


 TUFFACEOUS


 ANHYDRITE STRINGER


 BENTONITE STRINGER


 COAL STRINGER


 DOLOMITE STRINGER


 GYPSUM STRINGER


 LIMESTONE STRINGER

 MARLSTONE (CALC) STRG


 MARLSTONE (DOL) STRG


 SANDSTONE STRINGER


 SHALE STRINGER


 SILTSTONE STRINGER


Other Syn


 ORGANIC


 PINPOINT


 DEAD


 EVEN


 QUESTIONABLE


 SPOTTED STAINING


 FORM

 GAS SHOW

 VUGGY

 NORMAL F


 OIL SHOW


 OVERTURN

Oil Show


Engineering

Porosity


 E EARTHY


 F FENESTRAL


 F FRACTURE


 X INTERCRYSTALLINE

 Ø INTEROOLITIC


 M MOLDIC


 CONNECTION (RIGHT)


 CONNECTION (LEFT)


 CASING


 CORE - LOST


 CORE - RECOVERED


 DST INTERVAL


 FAULT

 SLIDE

 SURVEY

 TRIP GAS

 WIRELINE

 WIRELINE

CONNECTION (RIGHT)

CONNECTION (LEFT)

CASING

CORE - LOST

CORE - RECOVERED

DST INTERVAL

FAULT

SLIDE

SURVEY

TRIP GAS

WIRELINE

WIRELINE

# mbols

L LITHOGRAPHIC

## Rounding

**MX** MICROXLN

**A** ANGULAR **MS** MUDSTONE

**R** ROUNDED **PS** PACKSTONE

**S** SUBANG **WS** WACKESTONE

**F** SUBRND

## Sorting

## Textures

**M** MODERATE

**B** BOUNDSTONE **P** POOR

**C** CHALKY **W** WELL

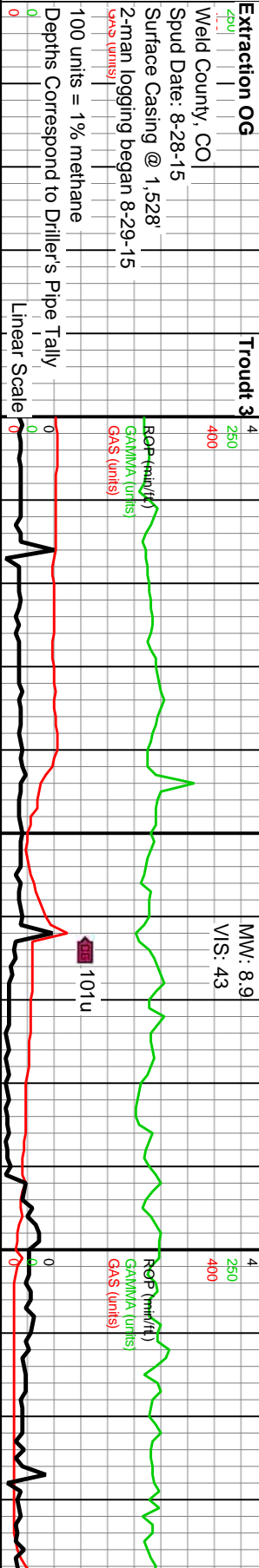
**CX** CRYPTOXLN

**E** EARTHY

**FX** FINELYXLN

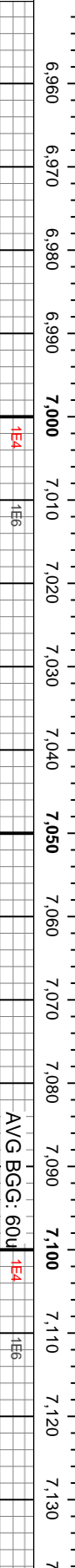
**GS** GRAINSTONE

ROP  
GAMMA  
GAS



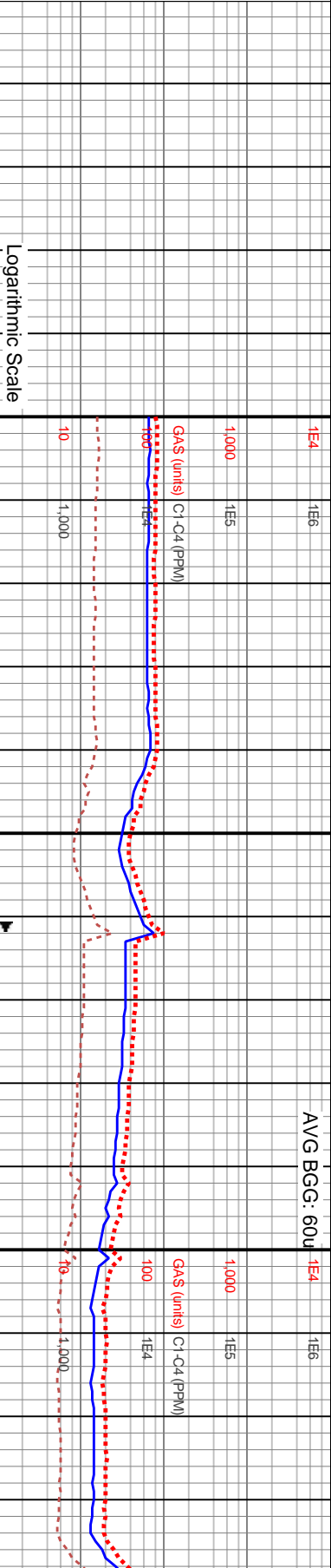
Slide/Rotate

Depth Labels



Total Gas & Chromatograph

GAS  
C1  
C2  
C3  
C4



Well Bore  
TVD

Bit #: 1

Type: E516-B27

Size: 7.88

Depth In: 1,541'

Depth Out: 12,744'

Hours: 27.8 hrs

Avg Ft/Hr: 403 'hr

Jets: 7x10

S/N: A196175

MD: 7,005'

TVD: 6,949.88'

Inclination: 17.57°

Azimuth: 34.79°

VS: -591.57'

TVD (ft)

MD: 7,099'

TVD: 7,039.37'

Inclination: 18.33°

Azimuth: 16.51°

VS: -565.19'vd (ft)

7040-7100 SH (75%): med gy-dk gy, frm-sl hrd, pily-biky, sl silty-rgh tex, non calc; SLTST (25%) med gy-dk gy, frm-sl hrd, silty tex, micmica, non-sl calc

7100-7160 SLTST (65%): med gy-dk gy, gysbnd, frm-sl hrd, sb biky-sb pily, non-sl calc, silty-rgh tex, mnr f lamm; SH (35%): med gy-dk gy, frm, sb tab, sl abrsv tex, non calc

7160-7220 SH (80%): dk gy pily-tab, frm-sl hrd, sl silty-rgh SLTST (20%) med gy-lt gy micmica, non calc, grdg to

Oil Show

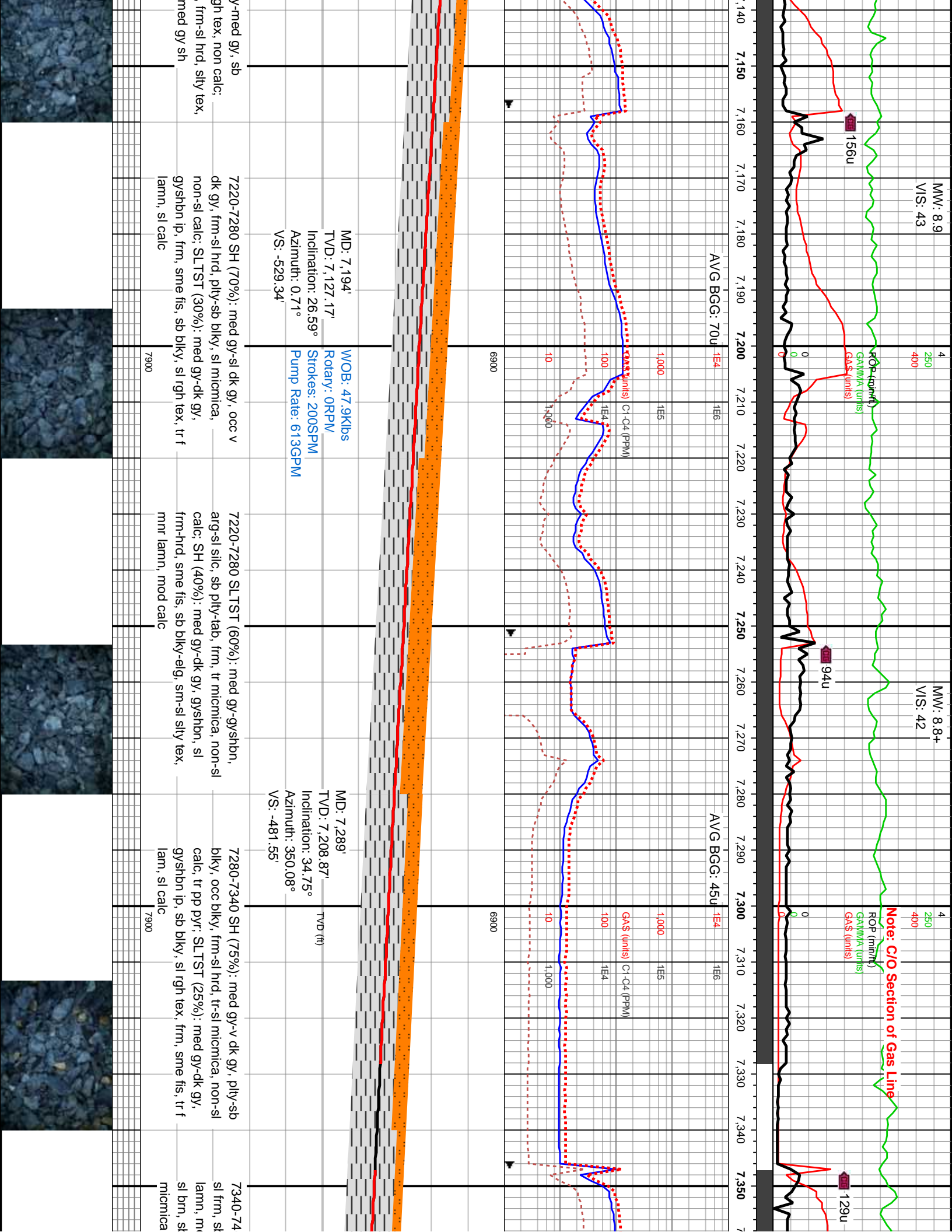
100

7900

7900

Images

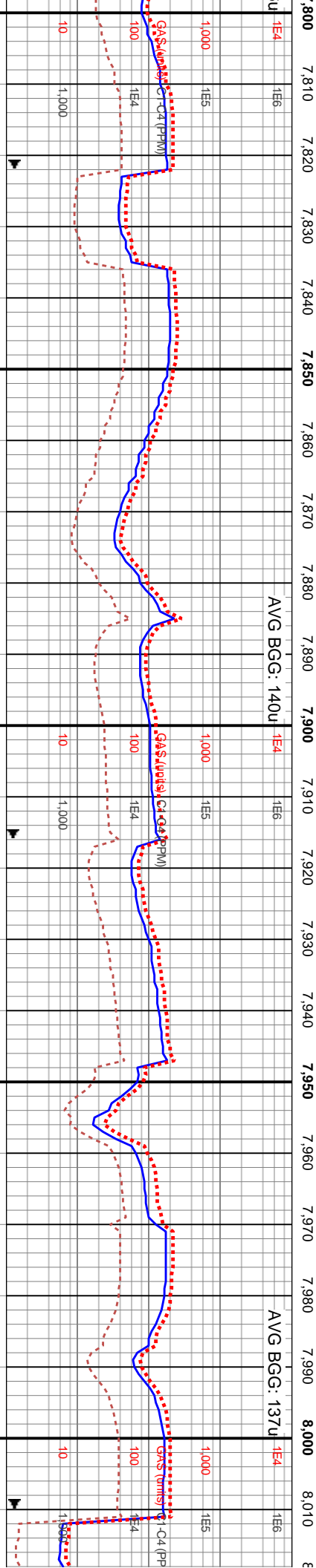






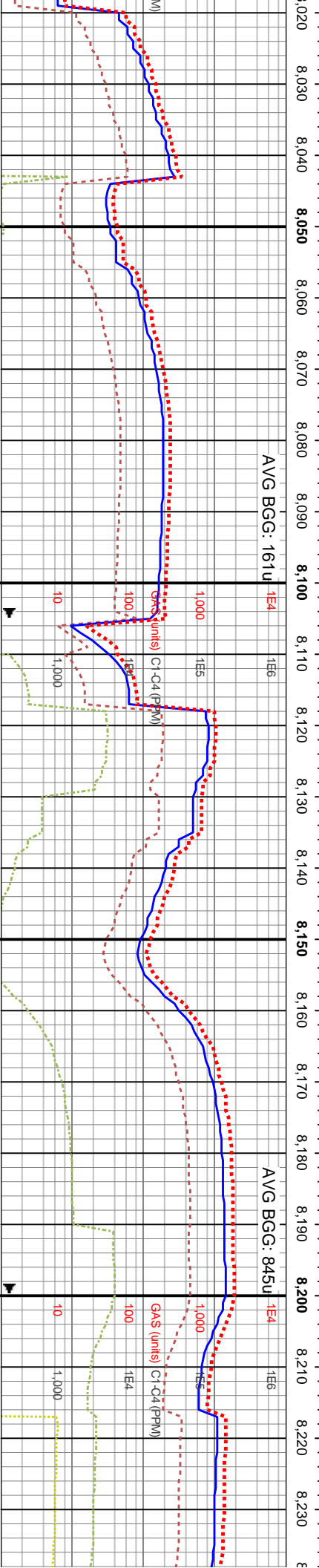


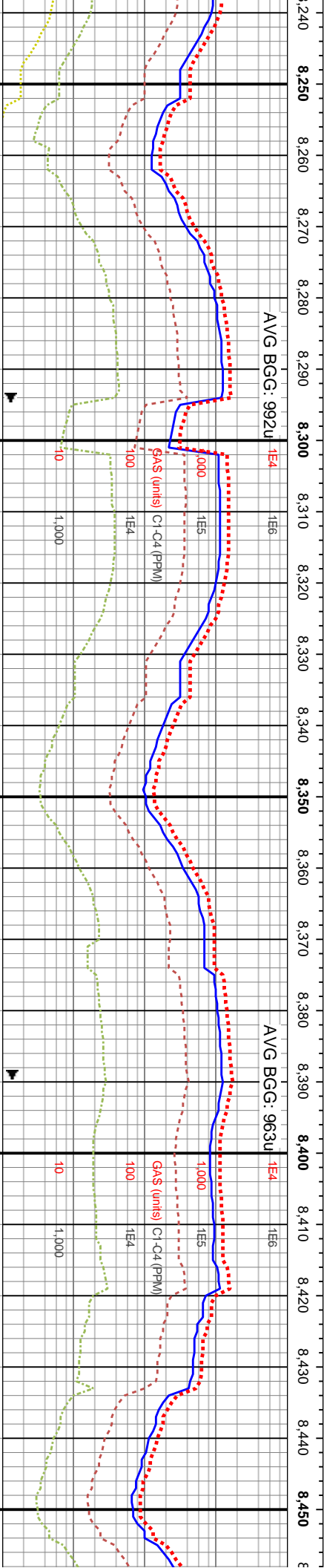
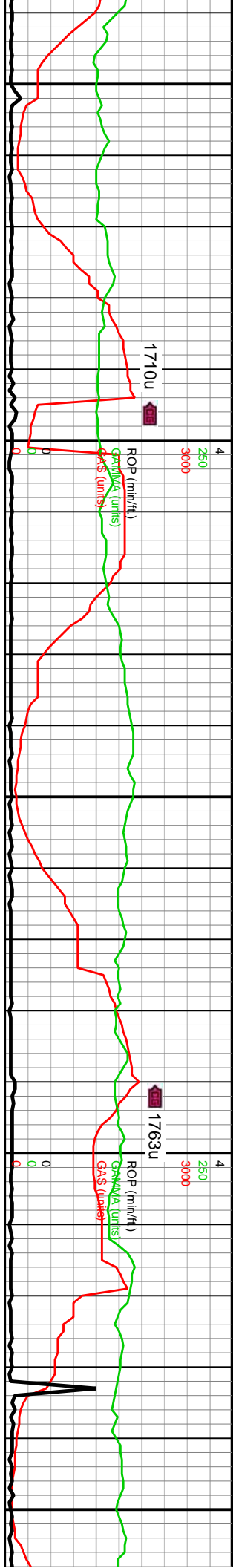




	TVD (ft)		TVD (ft)		TVD (ft)
dk gy-v dk gy,	7820-7880 MRLST (90%): mot dk gy-med gy, occ gysbhn, sm-sl silty tex, frm-v frm, blk-y-tab, v calc, tr f lamn, pp imbd pyr; CHK (10%): mot lt gysbhn-ofwrt, crm-tn, calc, tab-plty, chky tex, mlst, sft, calc, chky	7880-7940 MRLST (85%): mot dk gy-med gy, gysbhn, blk-y-tab, plty, frm-v frm, sm-sl silty tex, v calc, tr f lamn, scat pp pyr; CHK (15%): mot lt gysbhn-crm, tn, chky tex, calc, tab-plty, dul yelgn flr, mod mky cut, dul blshwn resd ring	7940-8000 MRLST (65%): mot dk gy-med gy, mot gysbhn, frm-sl hrd, blk-y-plty, sl silty tex, v calc, scat mic pyr; CHK (35%): gysbhn-lt gy, chky tex, calc, sb blk-y, blshwn to dul yelgn flr, dul mky cut, mod blshwn resd ring	8000-80 blk-y-sb lamn, sc chky tex yelgn flc	
7900	7900	7900	7900	7900	







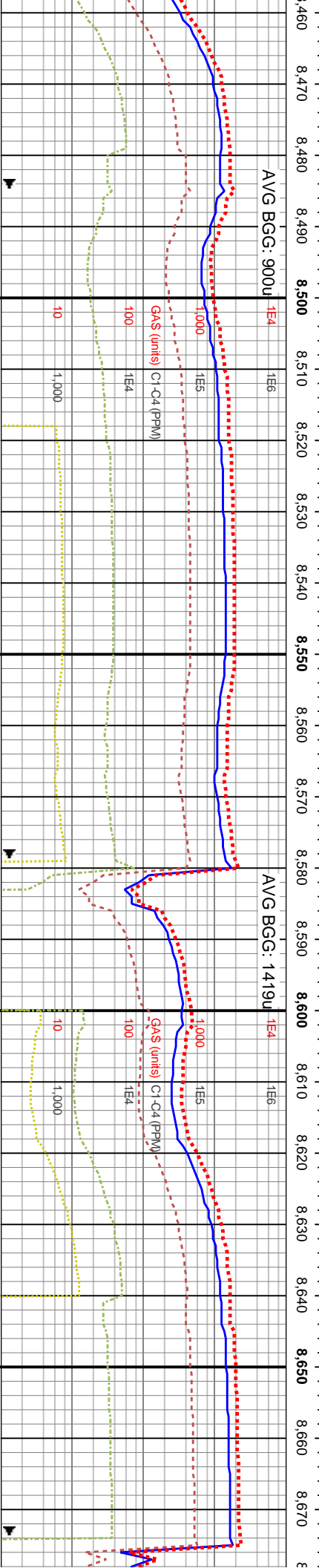
MD: 8.331'  
TVD: 7,521.08'  
Inclination: 89.1°  
Azimuth: 1.48°  
VS: 459.89'

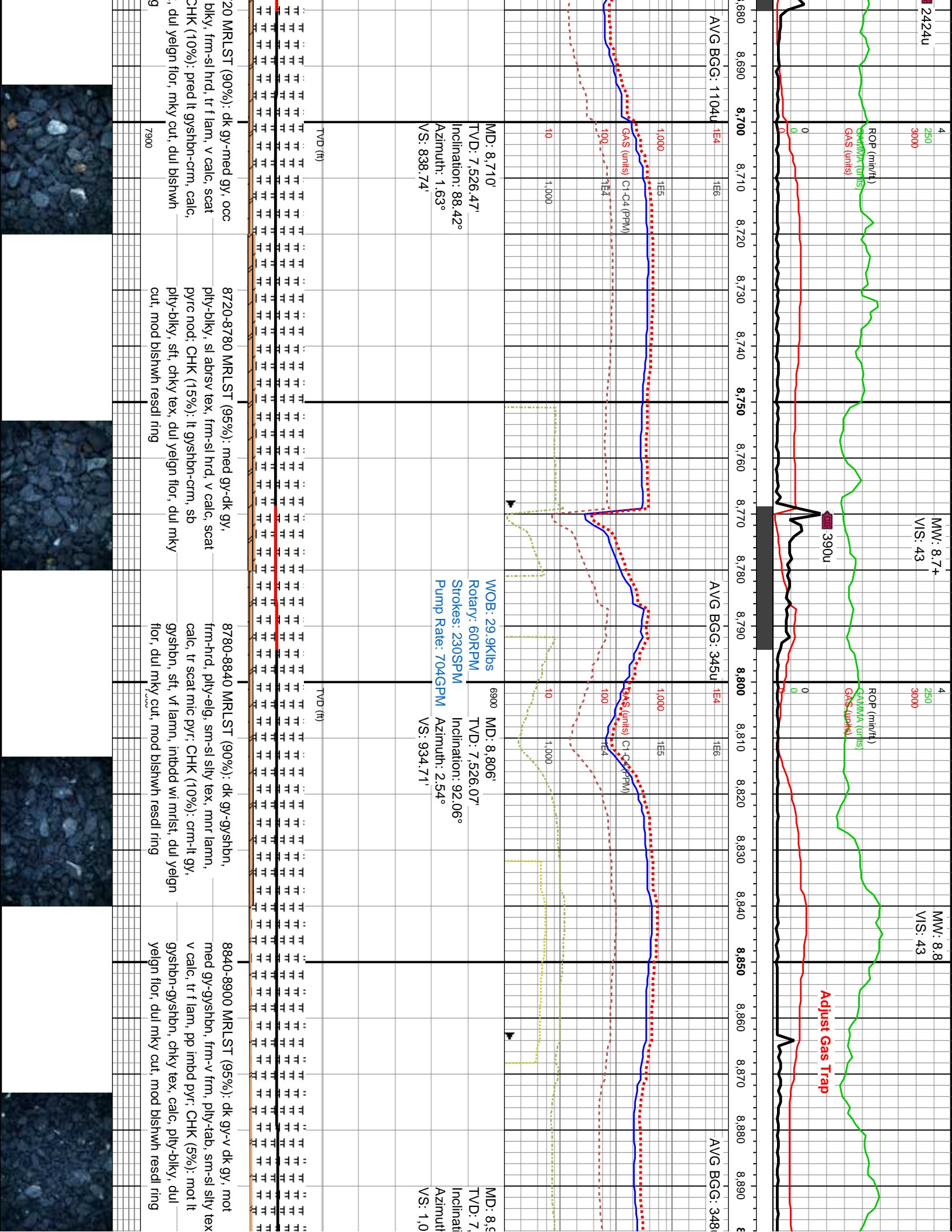
WOB: 33.1klbs  
Rotary: 55RPM  
Strokes: 230SPM  
Pump Rate: 704GPM

MD: 8.426'  
TVD: 7,522.29'  
Inclination: 89.44°  
Azimuth: 0.74°  
VS: 554.85'

8240-8300 MRLST (55%): dk gy-med gy, gyshbn, sl stly tex, frm-sl hrd, blkly-plty, v calc, tr f lamn, pp mic pyr; CHK (45%): gyshbn-crm, chky tex, blkly, calc, dul yeign flor, dul mky cut, mod bishwh resdl ring	8300-8360 MRLST (75%): dk gy-med gy, tab, frm-sl hrd, sl abrsv tex, v calc, tr f lamn, scat pyrc nod; CHK (25%): gyshbn-crm, calc, blkly, chky tex, intbdd wi mrlst, dul yeign flor, dul mky cut, bishwh resdl ring	8360-8420 MRLST (80%): med gy-dk gy, frm-v frm, blkly-plty, sl abrsv tex, v calc, tr f lamn, scat pyrc nod; CHK (20%): gyshbn-crm, calc, tab, chky tex, intbdd wi mrlst, dul yeign flor, dul mky cut, bishwh resdl ring	8420-8480 MRLST (85%): plty-blky, frm-sl hrd, sl abrs (15%): mot lt gyshbn-offwh plty-blky, intbdd wi mrlst, dt mky cut, mod bishwh resdl
7900	7900	7900	











Note: Repair Mud Pump

MW: 8.8  
V/S: 44

4  
250  
3000

ROP (min/ft)

RAMMA (units)

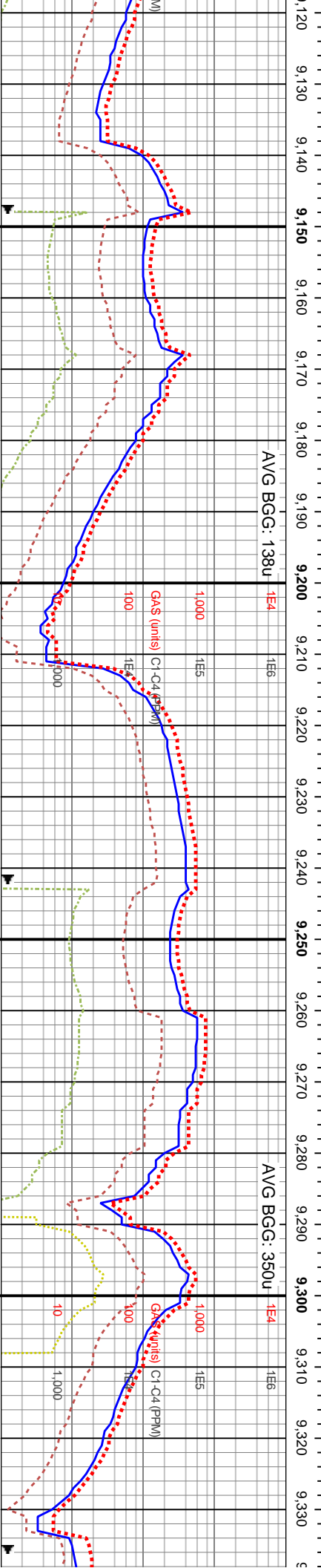
Gas (units)

479u

571u

AVG BGC: 138u

AVG BGC: 350u



MD: 9,183'  
TVD: 7,520.64'  
Inclination: 88.67°  
Azimuth: 1.29°  
VS: 1,311.49'

WOB: 39.9klbs  
Rotary: 40RPM  
Strokes: 230SPM  
Pump Rate: 703GPM

MD: 9,277'  
TVD: 7,522.9'  
Inclination: 88.58°  
Azimuth: 0.45°  
VS: 1,405.42'

6900



dk gy-med gy,  
sily tex, v calc, tr  
K (25%): lt  
blky, dul yelgn flr,  
resdl ring

9140-9200 MRLST (80%): mot dk gy, med gy,  
frm-hrd, tab-blky, sm-sl sily tex, v calc, scat  
imbd pyr; CHK (20%): mot lt gysbhn-lt gy, stri,  
chky tex, calc, pily, dul yelgn flr, dul mky cut,  
mod blshwh resdl ring

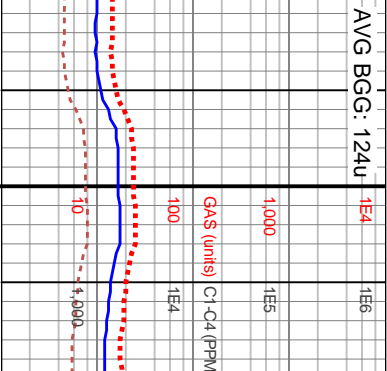
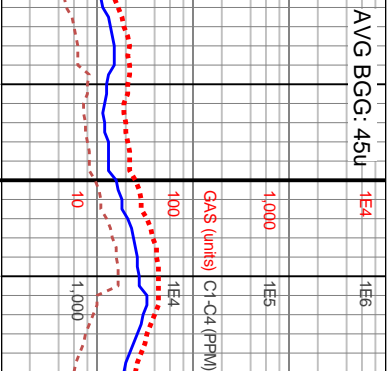
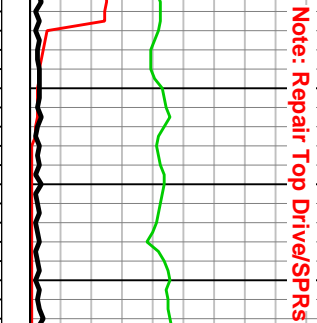
9200-9260 MRLST (80%): mot dk gy, med  
gy-gysbhn, frm-sl hrd, blky, sm-sl sily tex, v  
calc, scat imbd pyr; CHK (20%): mot lt  
gysbhn, chky tex, calc, pily, dul yelgn flr, dul  
mky cut, mod blshwh resdl ring

9260-9320 MRLST (70%): pred dk gy-gysbhn,  
blk gy, frm-sl hrd, pily-sb blky, sm tex, occ sl  
sily, v calc, scat imbd pp pyr; CHK (30%): mot  
gysbhn-oftrwht, chky tex, sft, dul yelgn flr, dul  
mky cut, mod blshwh resdl ring.

9320-9380  
gy-gysbhn,  
tr intbd chk  
gysbhn, mo  
flr, dul mky







WOB: 39.2Klbs	
Rotary: 40RPM	
Strokes: 230SPM	
Pump Rate: 703GPM	

MD: 9,  
TVD: 7  
Inclina  
Azimu:  
VS: 1, (

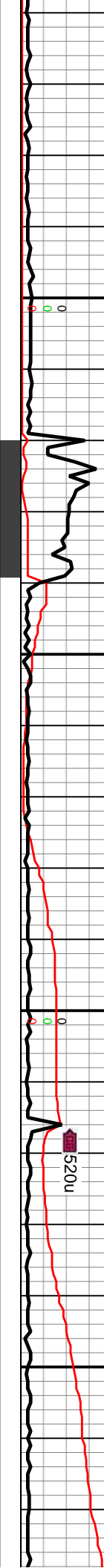
	TVD (ft)		TVD (ft)	
MRLST (85%): dk gy, mot med frm-sl hrd, ply-tab, sm-sfty tex, v calc, lamm, pp imbd pyr; CHK (15%): lt it, chky tex, calc, tab-blky, dul yelgn v cut, mod blshwh resdl ring	9380-9440	MRLST (85%): mot med gy-dk gy, gysbhn, frm-sl hrd, blk-y-sl elg, sm-sl sfty tex, v calc, scat frac fil cal; CHK (15%): mot lt gysbhn-gy, chky tex, calc, ply, blshwh-dul yelgn flor, mky cut, dul blshwh resdl ring	9440-9500	MRLST (75%): dk gy-blk gy, gysbhn, frm-hrd, ply-blky, sm-sl abrsv tex, v calc, tr chk lamm, scat pyrc nod; CHK (25%): gysbhn-crm, chky tex, calc, blk-y, sft, dul yelgn flor, dul mky cut, blshwh resdl ring
				9500-9560 MRLST (80%): mot dk gy-med gy, mot gysbhn, frm-sl hrd, blk-y-ply, sl sfty tex, v calc; CHK (20%): mot lt gysbhn-lt gy, stri ip, chky tex, calc, ply-blky, dul yelgn flor, dul mky cut, blshwh resdl ring

MW: 9.0  
V/S: 45  
3000

ROP (m/hr)  
GAMMA (units)  
GAS (units)

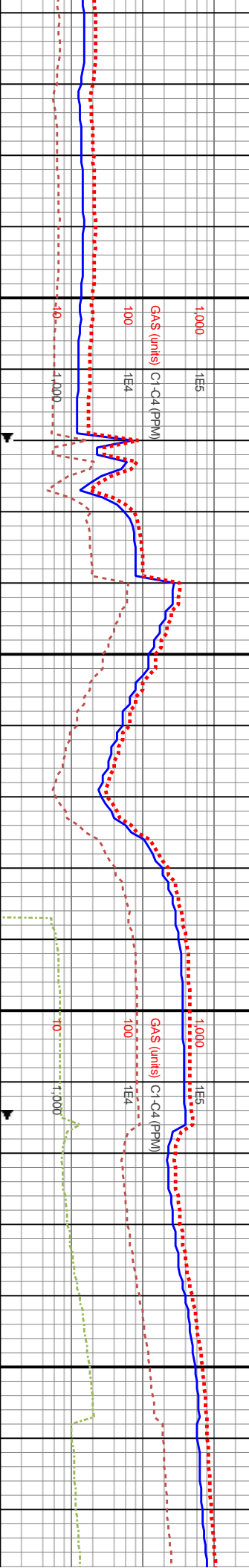
ROP (m/hr)  
GAMMA (units)  
GAS (units)

520u



AVG BGG: 22u

AVG BGG: 147u



56.1'  
WOB: 32.7Klbs  
Rotary: 60RPM  
Strokes: 224SPM  
Pump Rate: 684GPM  
Inclination: 91.41°  
Azimuth: 0.96°  
VS: 1,783.76'

MD: 9,656'  
TVD: 7,526.13'  
Inclination: 91.41°  
Azimuth: 0.96°  
VS: 1,783.76'

MD: 9,751'  
TVD: 7,523.76'  
Inclination: 91.45°  
Azimuth: 0.6°  
VS: 1,878.68'

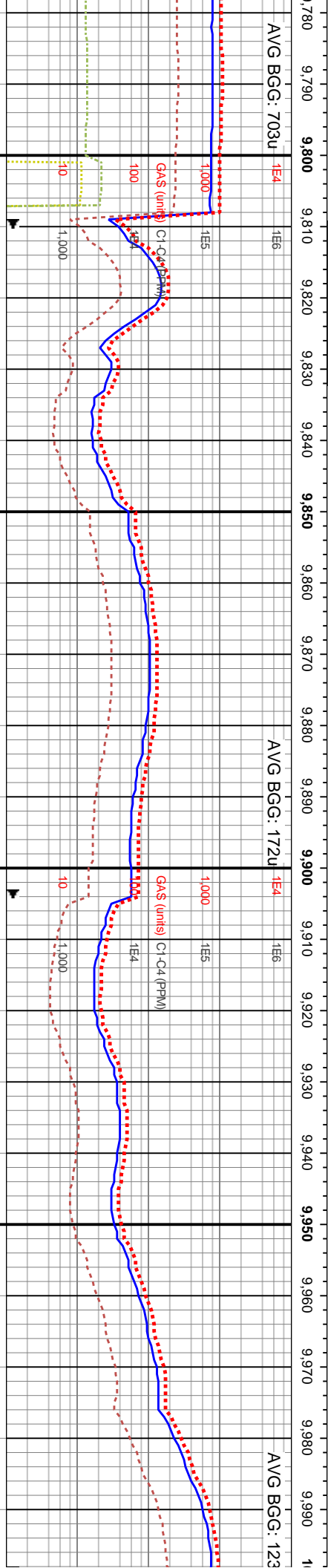
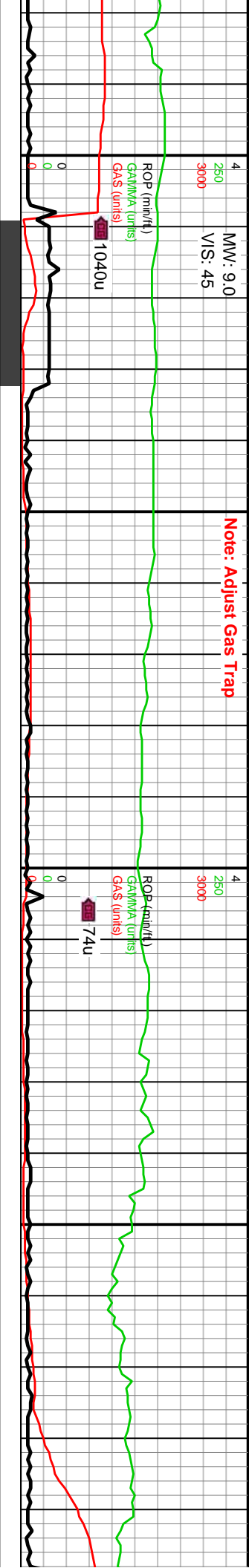
9560-9620 MRLST (95%): med gy-dk gy, frm-sl hrd, ply, sl abrsv tex, v calc, tr f chk lam, scat pyrc nod; CHK (5%): mot gysbhn-offwht, chky tex, calc, dul yel gn flor, fni dul yel string cut, mod blshwh resdl ring

9620-9680 MRLST (90%): mot dk gy, med gy-gysbhn, frm-sl hrd, blk, sm-sl sily tex, v calc, scat imbd pyr; CHK (10%): mot lt gysbhn-crm, chky tex, calc, ply, dul yelgn flor, dul mky cut, mod blshwh resdl ring

9680-9740 MRLST (85%): dk gy, mot med gy-gysbhn, frm-sl hrd, ply-tab, sm-sily tex, v calc, tr imbd chk lamm, pp imbd pyr; CHK (15%): lt gysbhn-gysbhn, chky tex, calc, tab-blky, dul yelgn flor, dul mky cut, mod blshwh resdl ring

9740-9800 MRLST (95%): frm-v frm, ply-blky, sl abrsv lamm; CHK (5%): mot lt gysbhn, chky tex, calc, ply-blky, sft, mky cut, mod blshwh resdl





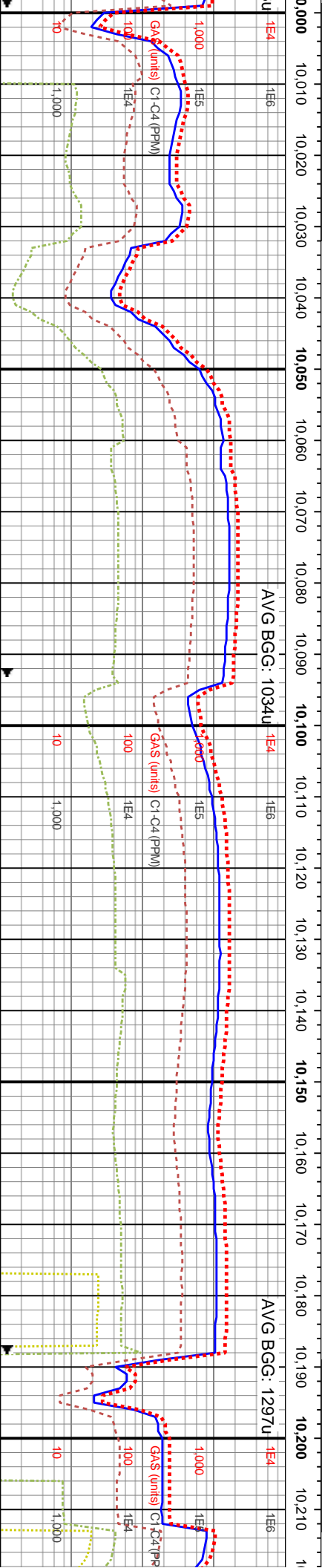
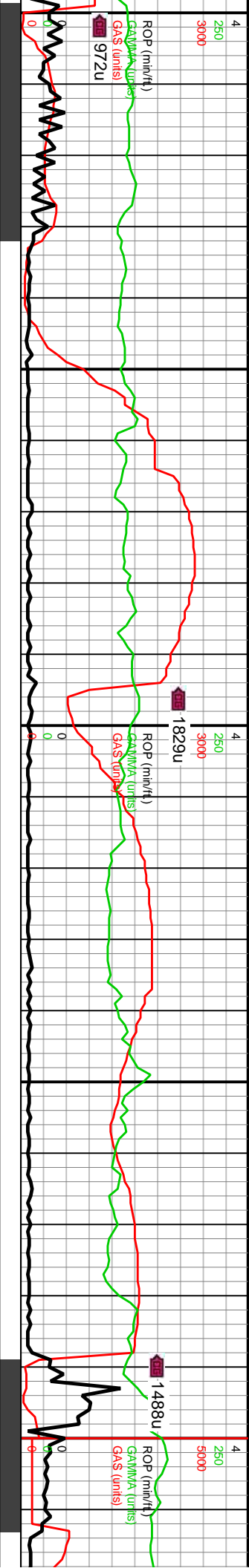
WOB: 38.8klbs  
Rotary: 60RPM  
Strokes: 220SPM  
Pump Rate: 672GPM

MD: 9.845'  
TVD: 7,521.21'  
Inclination: 91.66°  
Azimuth: 2.84°  
VS: 1,972.62'

MD: 9.940'  
TVD: 7,517.21'  
Inclination: 93.17°  
Azimuth: 1.94°  
VS: 2,067.53'

WOB: 66  
Rotary: 0  
Strokes:  
Pump Re

not dk gy-med gy, tex, v calc, tr f chk	9800-9860 MRLST (75%): dk gy-med gy, frm-hrd, pily-eig, sm-sl stly tex, mnr lamm, v calc, tr scat mic pyr; CHK (25%): lt gy-gyshbn, sft, v lamm, intbdd wi mrlst, dul yelgn flor, dul mky cut, mod bishwh resdl ring	9860-9920 MRLST (90%): mot dk gy-med gy, blkly, frm-sl hrd, sl stly tex, v calc, scat pp pyr; CHK (10%): lt gysbhn-crm, calc, sb tab, intbdd wi mrlst, sft, dul yelgn flor, dul mky cut, mod bishwh resdl ring	9920-9980 MRLST (85%): med gy-dk gy, gysbhn, sl stly tex, frm-sl hrd, sb pily, tr chk lamm, v calc; CHK (15%): lt gysbhn, calc, sb blkly, mnr mltos, dul yelgn flor, dul mky cut, mod bishwh resdl ring	9980-10000 MRLST (80%): med gy-dk gy, gysbhn, sl stly tex, frm-sl hrd, sb pily, tr chk lamm, v calc; CHK (15%): lt gysbhn, calc, sb blkly, mnr mltos, dul yelgn flor, dul mky cut, mod bishwh resdl ring
7900	7900	7900	7900	7900

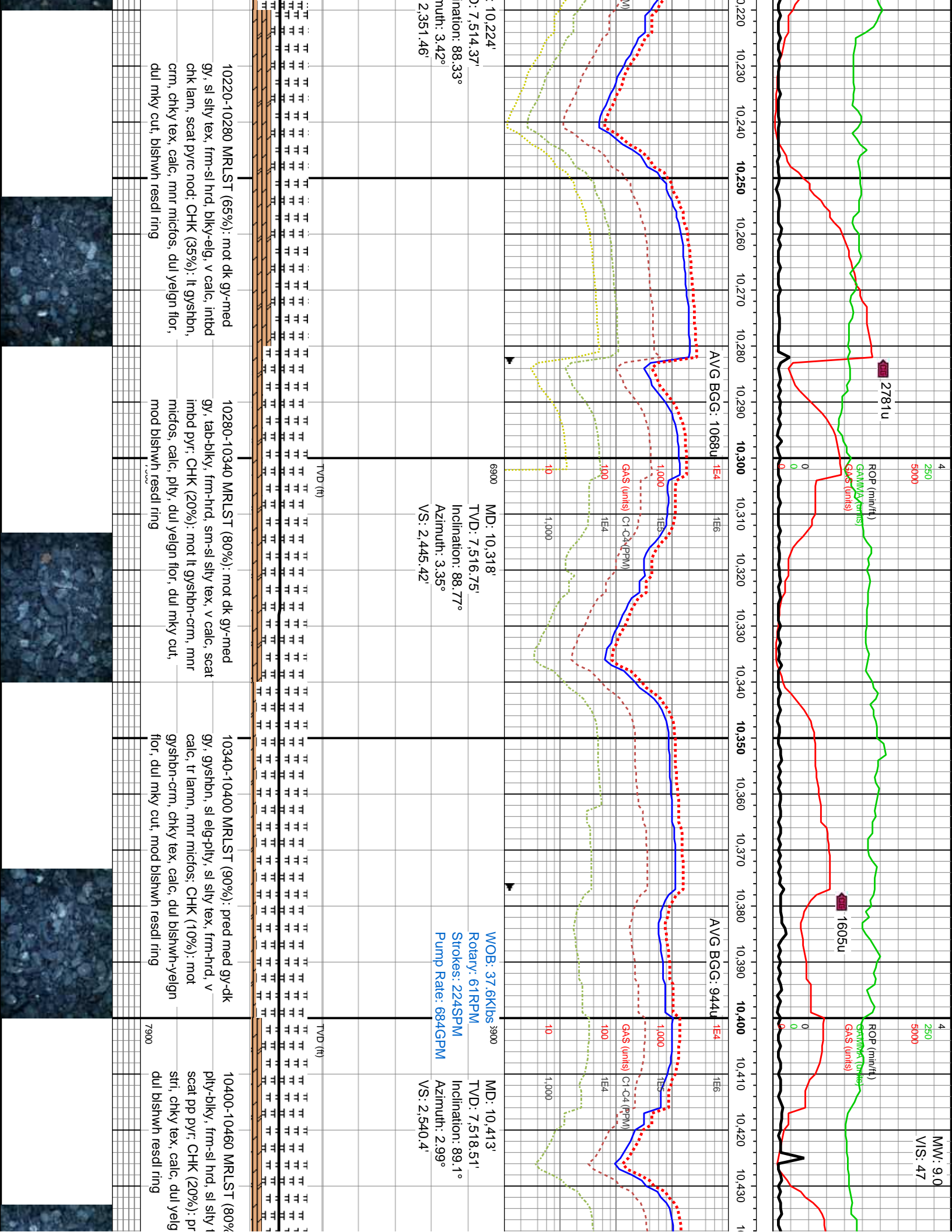


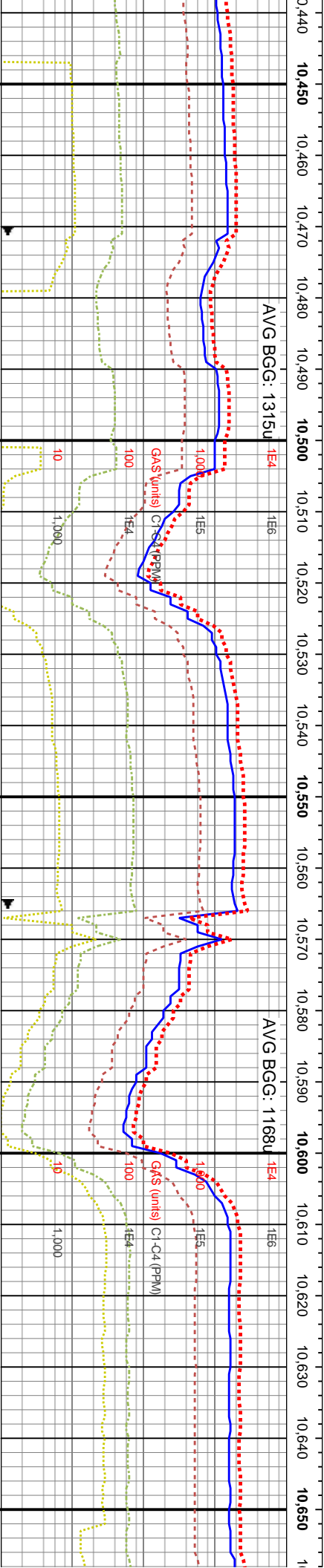
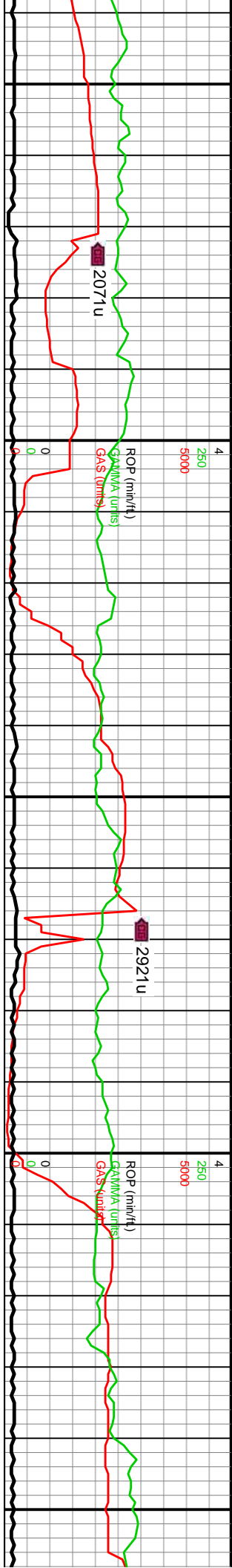
4kbs RPM 2220SPM ite: 673GPM	MD: 10,034' TVD: 7,514.41' Inclination: 90.24° Azimuth: 2.97° VS: 2,161.48'	6900 MD: 10,129' TVD: 7,513.6' Inclination: 90.74° Azimuth: 2.81° VS: 2,256.48'	WOB: 55klbs Rotary: 0RPM Strokes: 220SPM Pump Rate: 673GPM VS:	MD TVD Incl Azi
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10040-MRLST (75%): pred dk on, med gy, ply-sb blk, frm-sl hrd, v -sl silty tex, scat imbd pp pyr; CHK not gysbhn-offwht, sft, chky tex, dul r, dul mky cut, mod blshwh resd ring	10040-10100 MRLST (80%): mot med gy-dk gy, gysbhn, frm-sl hrd, sm tex, sb tab, v calc, scat pp pyr; CHK (20%): lt gysbhn-offwht, crm-tn, chky tex, calc, tr micfos, ply-blky, dul yelgn flor, dul mky cut, mod blshwh resd ring	10100-10160 MRLST (65%): mot dk gy-med gy, frm-sl hrd, sl silty tex, v calc, blk-elig, tr imbd chk lam, scat pyrc nod; CHK (35%): lt gysbhn-crm, chky tex, calc, blk, dul yelgn flor, dul mky cut, blshwh resd ring	10160-10220 MRLST (90%): dk gy-mot med gy, frm-sl hrd, blk-elig, sl silty tex, tr f lam, v calc, pp imbd pyr; CHK (10%): lt gysbhn, crm-offwht, blk, chky tex, sft, calc, dul yelgn flor, dul mky cut, blshwh resd ring
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MD: 10,507'  
TVD: 7,519.43'  
Inclination: 89.78°  
Azimuth: 2.56°  
VS: 2,634.4'

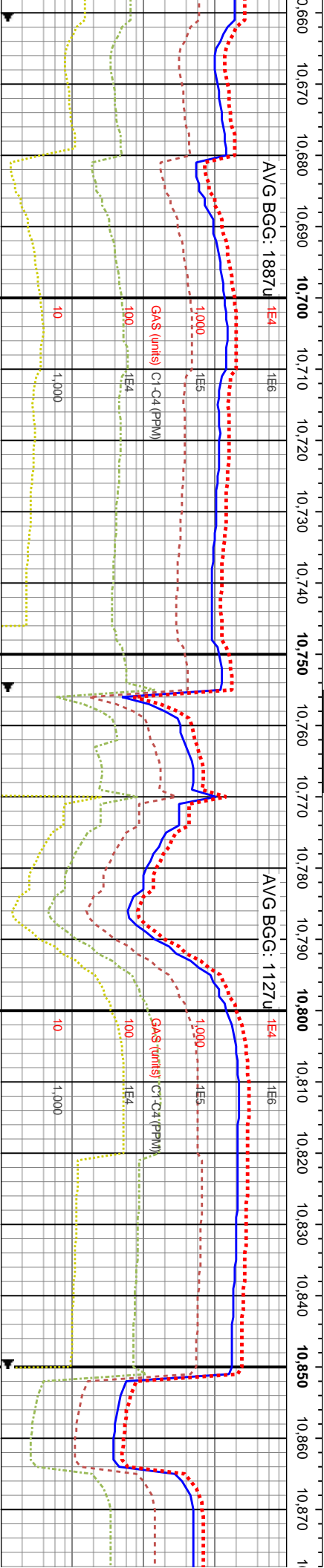
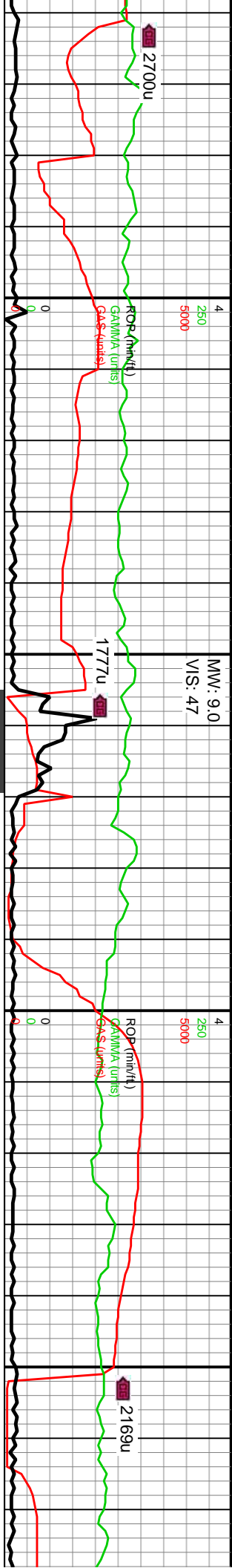
WOB: 39.9klbs  
Rotary: 61RPM  
Strokes: 224SPM  
Pump Rate: 684GPM

MD: 10,602'  
TVD: 7,519.11'  
Inclination: 90.61°  
Azimuth: 2.29°  
VS: 2,729.4'

10460-10520 MRLST (75%): mot dk gy-med gy, tab-biky, sl silty tex, frm-hrd, v calc, scat imbd pyr; CHK (25%): mot lt gysbhn-lt gy, stri, chky tex, calc, mnr mictos, dul yelgn flor, dul mky cut, mod blshwh resdl ring	10520-10580 MRLST (65%): mot med gy-dk gy, gysbhn, frm-sl hrd, biky-sl elg, sm silty tex, v calc, scat pyrc nod; CHK (35%): mot lt gysbhn, chky tex, calc, sft, blshwh-dul yelgn flor, mky cut, dul blshwh resdl ring	10580-10640 MRLST (60%): mot dk gy, med gy-gysbhn, frm-sl hrd, biky, sm-sl silty tex, v calc, scat imbd pyr; CHK (40%): mot crm-lt gysbhn, chky tex, calc, mnr mictos, dul yelgn flor, dul mky cut, mod blshwh resdl ring	10640-10680 MRLST (55%): mot dk gy-med gy, tab-biky, sl silty tex, frm-hrd, v calc, scat imbd pyr; CHK (25%): mot lt gysbhn-lt gy, stri, chky tex, calc, mnr mictos, dul yelgn flor, dul mky cut, mod blshwh resdl ring
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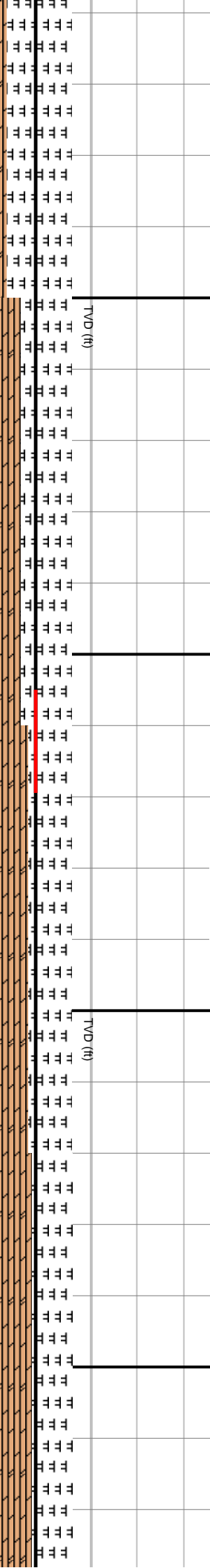




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MD: 10,791'  
TVD: 7,518.88'  
Inclination: 89.53°  
Azimuth: 2.6°  
VS: 2,918.39'

WOB: 37.5Klbs  
Rotary: 61RPM  
Strokes: 220SPM  
Pump Rate: 672GPM

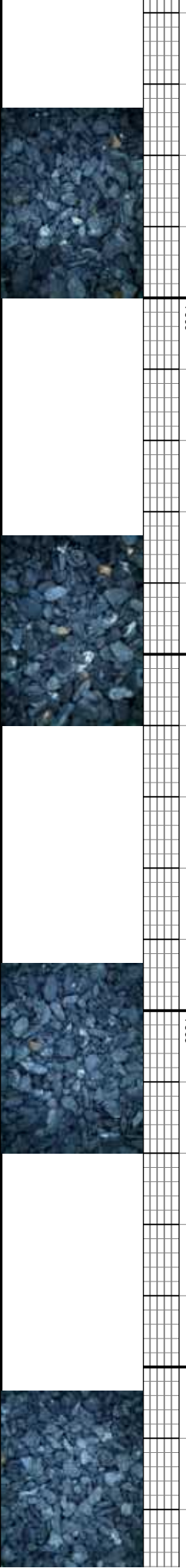


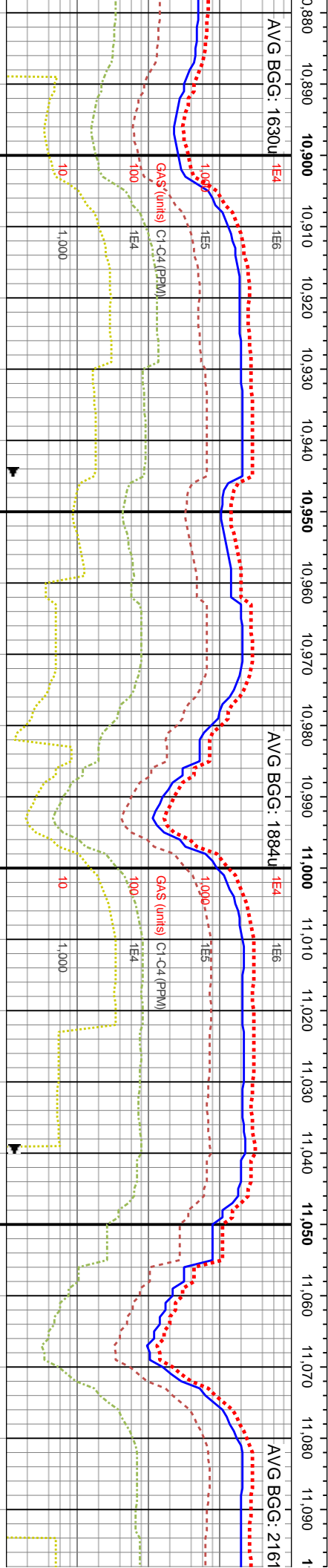
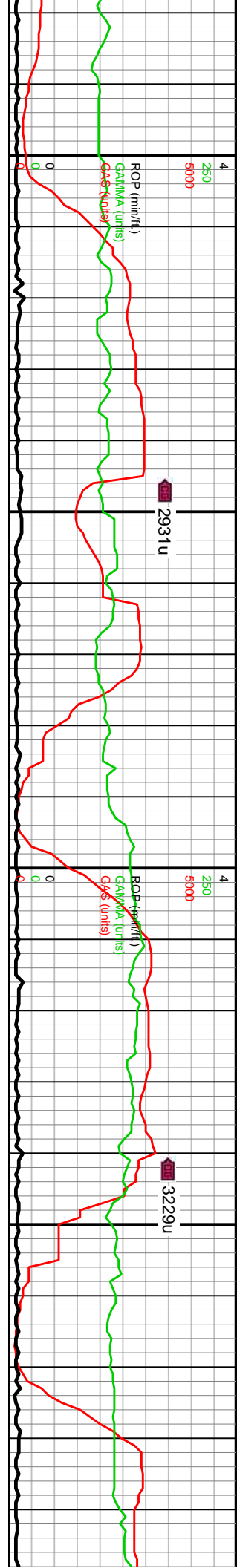
10700 MRLST (90%): pred dk gy-med  
on, sm tex, occ sl silty, frm-sl hrd,  
bly, v calc, scat imbd pp pyr; CHK  
not gysbn-offwht, chky tex, sb tab, dul  
, dul mky cut, mod bishwh resdl ring

10700-10760 MRLST (70%): mot med gy-dk  
gy, gysbn, bly-sl eig, frm-sl hrd, sm-sl silty  
tex, v calc, scat mifos; CHK (30%): mot lt  
gysbn-gy, chky tex, calc, pily, bishwh-dul  
yelgn flr, mky cut, dul bishwh resdl ring

10760-10820 MRLST (60%): mot dk gy-med  
gy, gysbn, frm-sl hrd, bly, v calc, sm-sl silty  
tex, scat imbd pyr; CHK (40%): mot lt  
gysbn-crm, chky tex, pily, calc, dul yelgn flr,  
dul mky cut, mod bishwh resdl ring

10820-10880 MRLST (55%): med gy-dk gy,  
frm-sl hrd, bly-sl eig, sl silty tex, v calc, mtr  
mifos, scat pyrc nod; CHK (45%): lt gysbn,  
crm-lt gy, chky tex, calc, bly, dul yelgn flr, d  
mky cut, mod bishwh resdl ring





D: 10.886'  
VD: 7.519.5  
Inclination: 89.72°  
Azimuth: 1.69°  
S: 3,013.38'

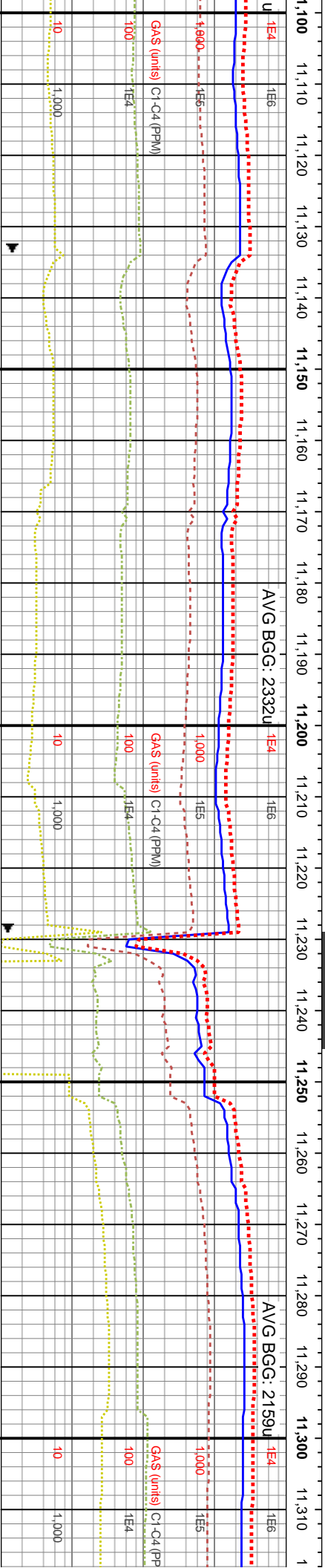
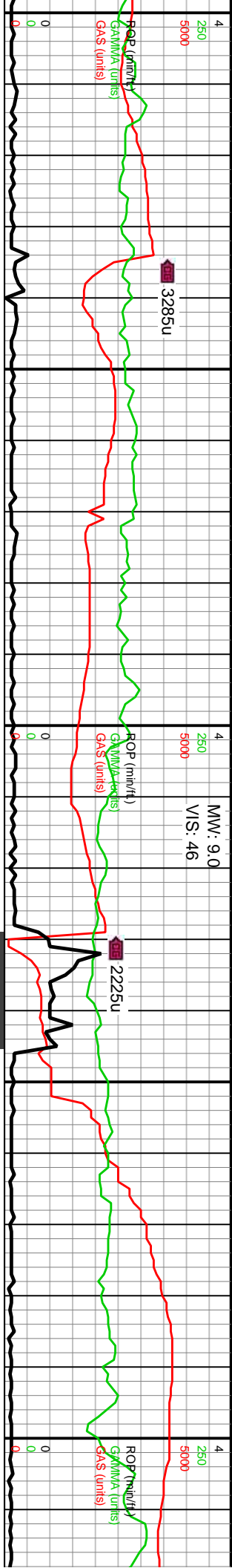
MD: 10.981'  
TVD: 7.519.66'  
Inclination: 90.09°  
Azimuth: 1.34°  
VS: 3,108.37'

WOB: 37.1Klbs  
Rotary: 61RPM  
Strokes: 220SPM  
Pump Rate: 672GPM

MD: 11.075'  
TVD: 7.518.83'  
Inclination: 90.92°  
Azimuth: 1°  
VS: 3,202.33'

10880-10940 MRLST (60%): mot med gy-dk gy, gyshbn, blyk-si tab, frm-si hrd, sm-si silty tex, v calc, mnr mficos; CHK (40%): mot lt gyshbn-gy, ply, chky tex, calc, blyshwh-dul yelgn flor, mky cut, dul blyshwh resdl ring	10940-11000 MRLST (80%): dk gy-med gy, ply-blyk, frm-si hrd, v calc, sm-si silty tex, tr f lam, scat mic pyr; CHK (20%): pred lt gyshbn, crm-lt gy, chky tex, intbdd wi mlst, calc, dul yelgn flor, mod mky cut, dul blyshwh resdl ring	11000-11060 MRLST (70%): mot dk gy, med gy, tab-sb blyk, frm-hrd, sm-si silty tex, v calc, scat imbd pyr; CHK (30%): mot lt gyshbn-lt gy, stri, calc, ply, chky tex, dul yelgn flor, dul mky cut, mod blyshwh resdl ring	11060-11120 MRLST (75%): gyshbn, frm-hrd, ply-blyk, tex, tr chk lamm; CHK (25%): chky tex, blyk, calc, sft, dul cut, blyshwh resdl ring
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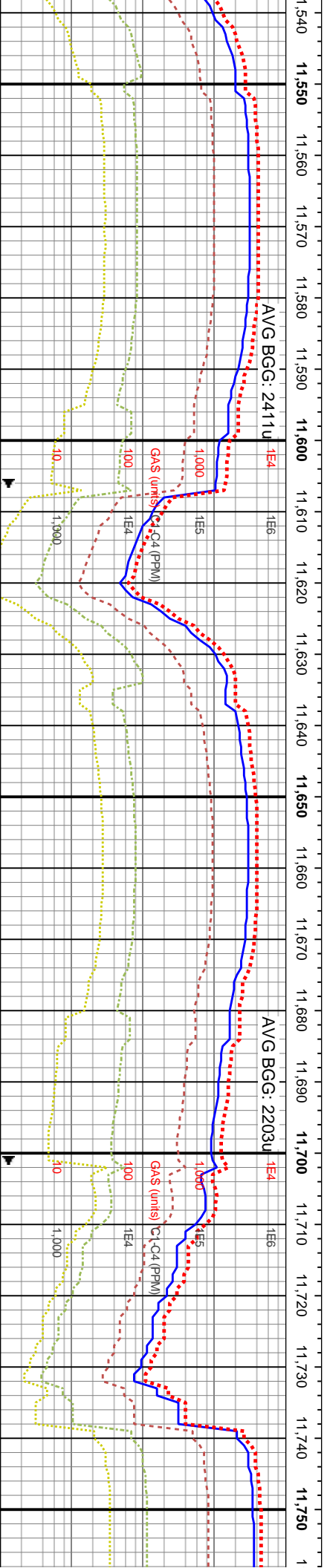


6900	MD: 11,170' TVD: 7,516.79' Inclination: 91.54° Azimuth: 0.76° VS: 3,297.26'	WOB: 39.7Klbs Rotary: 61RPM Strokes: 220SPM Pump Rate: 672GPM	11120-11180 MRLST (80%): mot dk gy-med gy, gyshbn, pty-tab, frm, sl silty tex, v calc, tr lamn; CHK (20%): mot lt gyshbn, crm-lt gy, chky tex, calc, pty, intbdd wi mlst, dul yeign flor, dul mky cut, mod blshwh resdl ring	11180-11240 MRLST (55%): mot dk gy-med gy, mot gyshbn, blkly-pty, sl silty tex, frm-sl hrd, v calc; CHK (45%): mot lt gyshbn, ofwht-lt gy, chky tex, calc, pty-blky, dul yeign flor, dul mky cut, blshwh resdl ring	11240-11300 MRLST (50%): mot dk gy-med gyshbn, pty-blky, frm-sl hrd, sl silty tex, v calc; CHK (50%): mot lt gyshbn-gyshbn, sft-sl frm, chky tex, blkly-sl pty, scat mic fos, v calc, dul yeign flor, dul mky cut, blshwh resdl ring	11300-11310 MRLST (50%): mot dk gy-med gy, frm-sl hrd, sl silty tex, v calc; CHK (50%): mot lt gyshbn-gyshbn, sft-sl frm, chky tex, blkly-sl pty, scat mic fos, v calc, dul yeign flor, dul mky cut, blshwh resdl ring
7900						









MD: 11,548'  
TVD: 7,514.89'  
Inclination: 89.9°  
Azimuth: 1.67°  
VS: 3,675.18'

WOB: 33.3klbs  
Rotary: 71RPM  
Strokes: 219SPM  
Pump Rate: 672GPM

MD: 11,643'  
TVD: 7,514.72'  
Inclination: 90.3°  
Azimuth: 1.25°  
VS: 3,770.16'

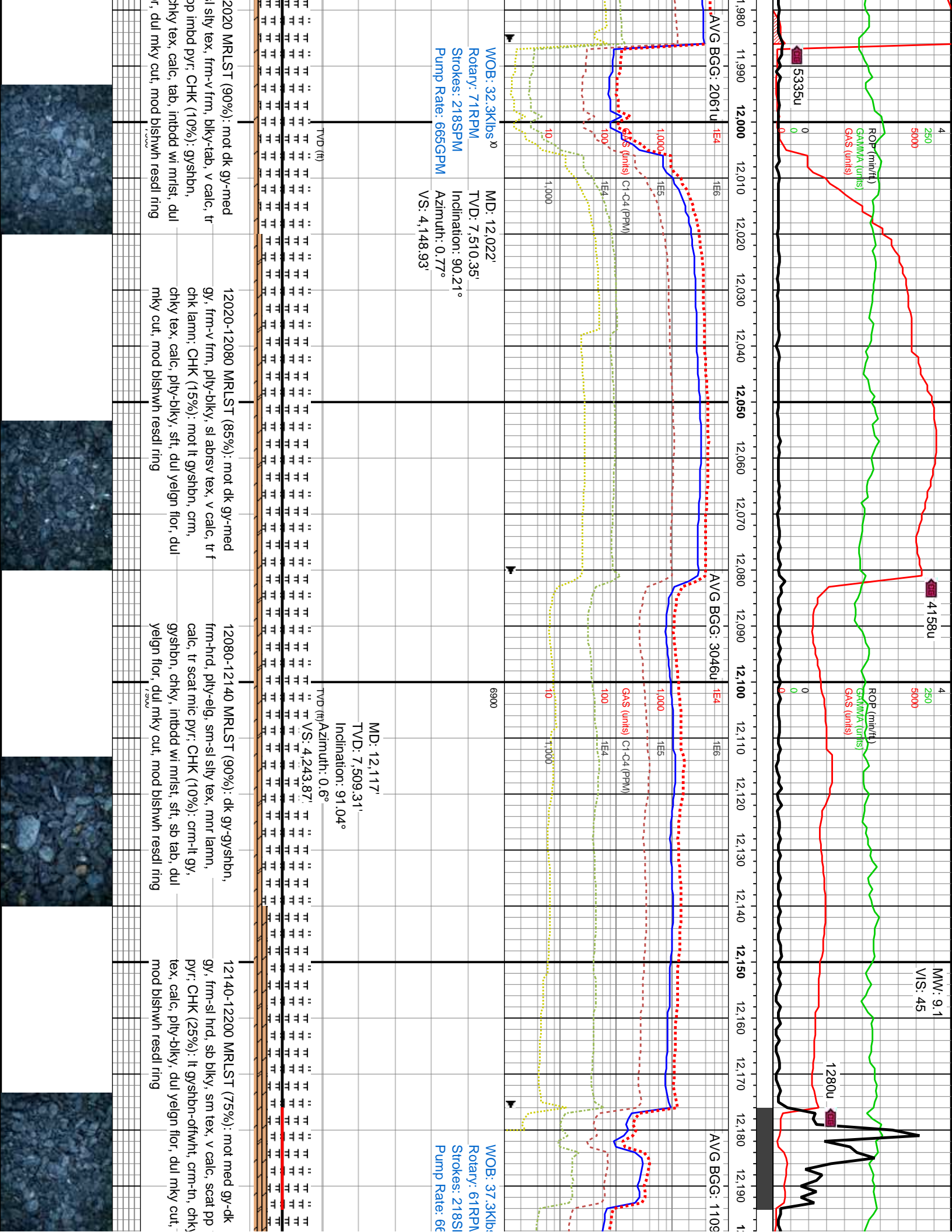
MD: 11,738'  
TVD: 7,513.55'  
Inclination: 91.11°  
Azimuth: 0.82°  
VS: 3,865.12'

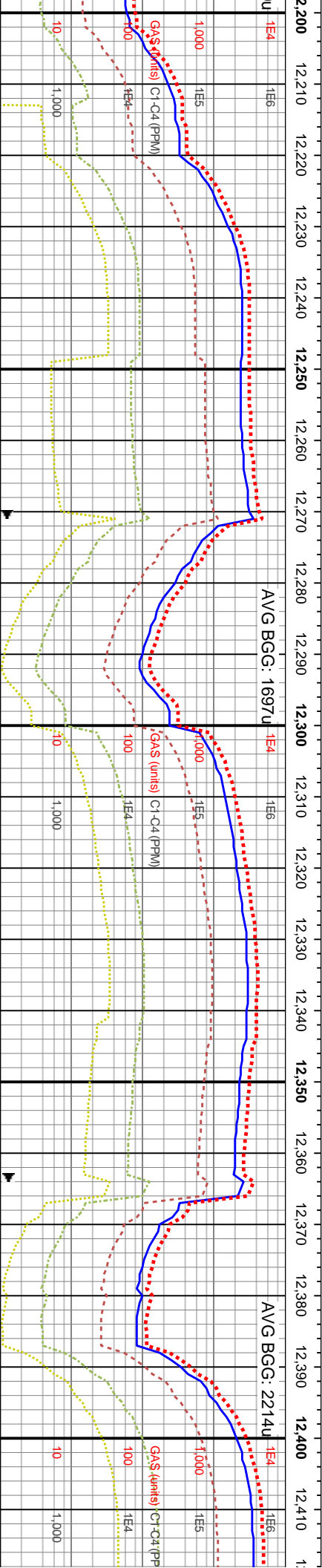
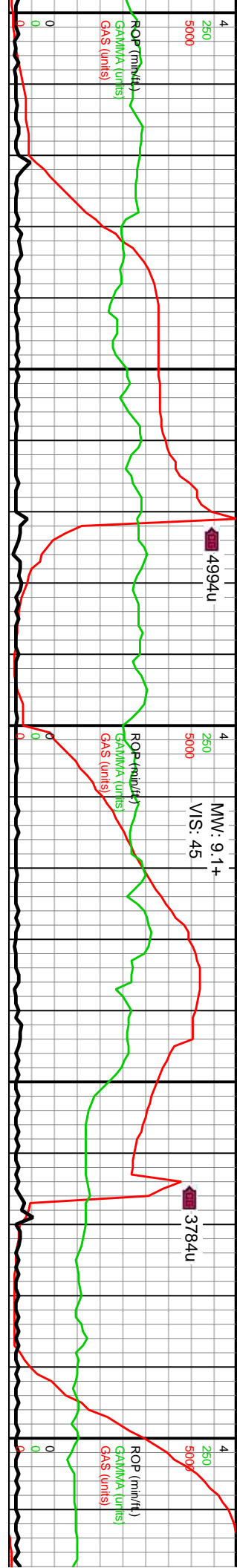
11540-11600 MRLST (90%): med gy-dk gy, gyshbn, frm-sl hrd, pty, sl abrsv tex, tr f chk lam, v calc, scat pyrc nod; CHK (10%): mot gyshbn, crm-offwht, chky tex, calc, dul yelgn flor, dul mky cut, mod blshwh resdl ring	11600-11660 MRLST (80%): dk gy-med gy, gyshbn, sm-sl abrsv tex, pty-blky, frm-hrd, v calc, tr chk lamm, scat pyrc nod; CHK (20%): gyshbn-crm, chky tex, blky, sft, calc, dul yelgn flor, dul mky cut, blshwh resdl ring	11660-11720 MRLST (60%): med gy-dk gy, frm-sl hrd, pty-sl elg, v calc, mnr midfos, scat pp pyr; CHK (40%): pred lt gyshbn-crm, offwht, calc, chky tex, blshwh-dul yelgn flor, mky cut, dul blshwh resdl ring	11720-11780 MRLST (75%): gyshbn, frm-sl hrd, sl abrsv tr chk lamm, scat pyrc nod; gyshbn-crm, chky tex, calc, dul yelgn flor, dul mky cut, l
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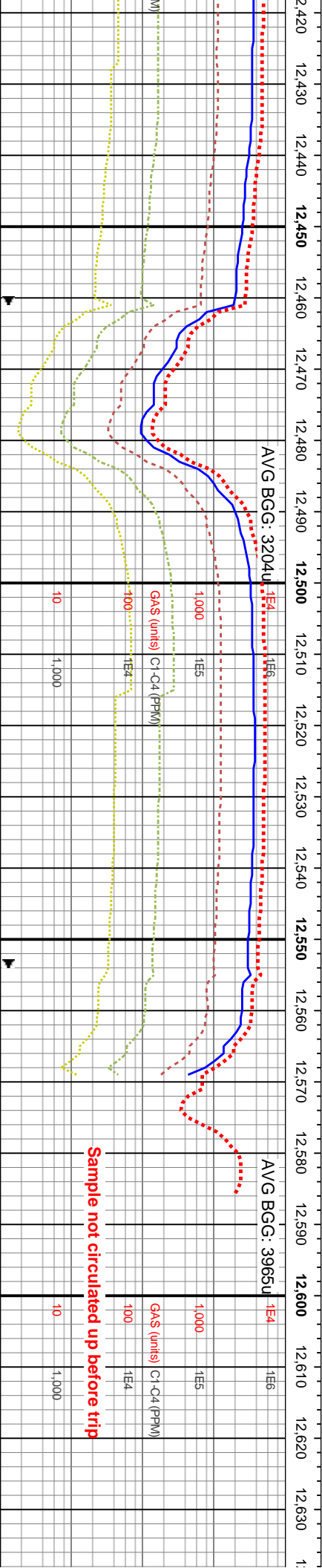
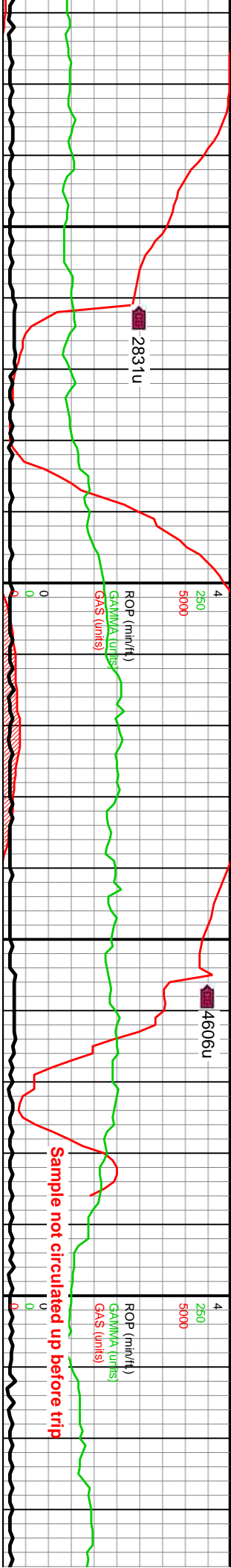


MD: 12.212'  
TVD: 7,509.04'  
Inclination: 89.29°  
Azimuth: 0.66°  
VS: 4,338.81'

MD: 12.307'  
TVD: 7,510.09'  
Inclination: 89.44°  
Azimuth: 0.07°  
VS: 4,433.72'

MD: 12.402'  
TVD: 7,511.04'  
Inclination: 89.4  
Azimuth: 359.37  
VS: 4,528.6'

12200-12260 MRLST (70%): dk gy-med gy, gysbhn, sb pty-biky, frm-sl hrd, v calc, tr micos, scat pp pyr; CHK (30%): pred lt gyshbn, calc, chky tex, bishwh-du yelgn flor, mky cut, dul bishwh resd ring	12260-12320 MRLST (85%): dk gy-med gy, pty-biky, frm-sl hrd, v calc, sm-sl silty tex, tr f lam, scat pp pyr; CHK (15%): lt gyshbn, cmn-lt gy, chky tex, calc, inbdc wi mlst, dul yelgn flor, mod mky cut, dul bishwh resd ring	12320-12380 MRLST (55%): med gy-dk gy, frm-sl hrd, sl silty tex, biky-sl eig, v calc, scat pyrc nod, tr f lam; CHK (45%): lt gyshbn, cmn-lt gy, chky tex, calc, biky, dul yelgn flor, dul mky cut, mod bishwh resd ring	12380-12440 CHK (50%): mot sft-sl frm, chky tex, biky-sl pty, dul yelgn flor, dul mky cut, bishwh MRLST (50%): mot dk gy-med frm-sl hrd, sl silty tex, v calc
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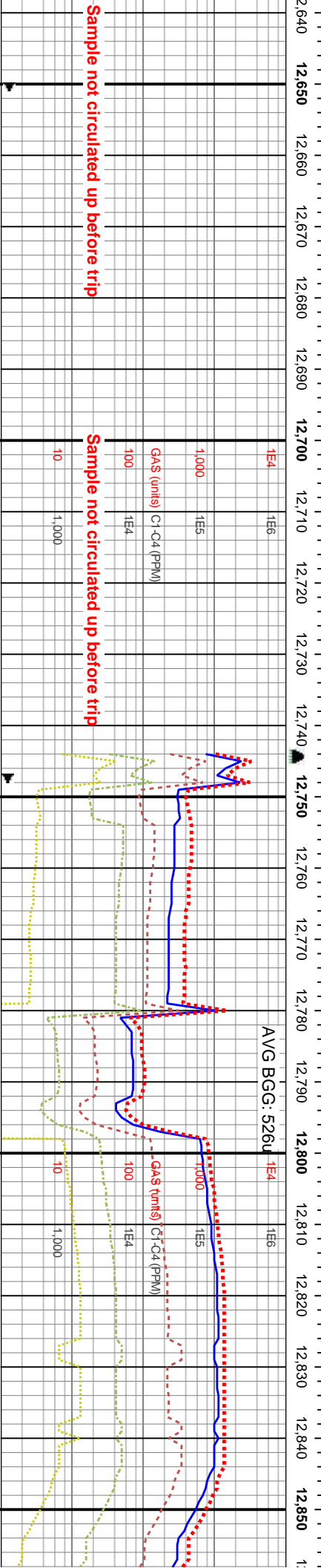
MD: 12,497' 6900  
TVD: 7,511.41'  
Inclination: 90.15°  
Azimuth: 0.01°  
VS: 4,623.47'

MD: 12,592'  
TVD: 7,510.63'  
Inclination: 90.79°  
Azimuth: 359.58°  
VS: 4,718.35'

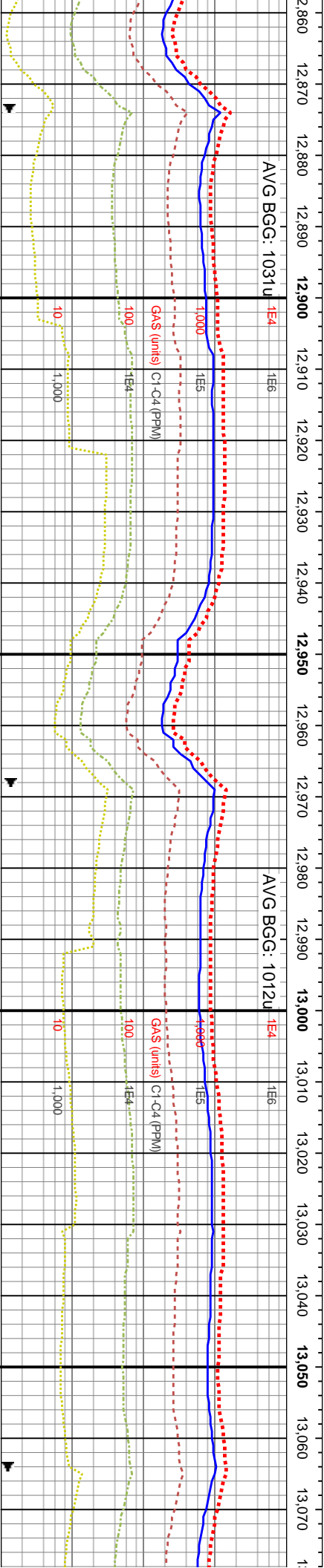
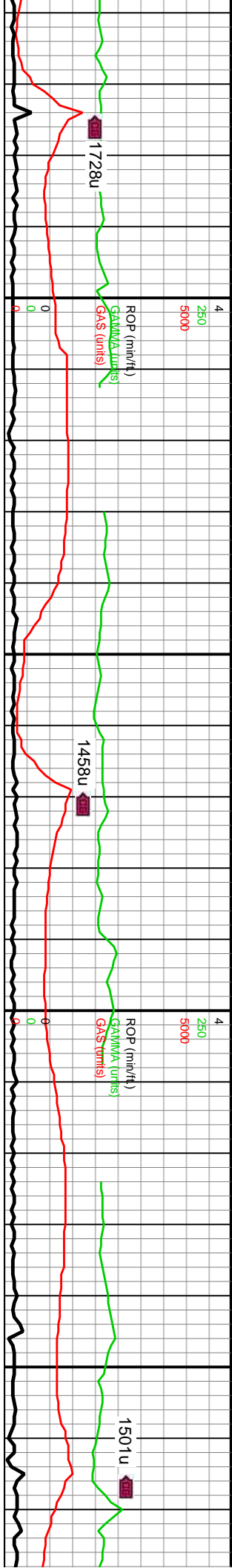
Sample not circulated up before trip

TVD (ft)		TVD (ft)	
12440-12500 MRLST (60%): mot med gy-dk		12500-12560 MRLST (85%): mot dk gy, med	
gy, gysbhn, frm-sl hrd, blkyl-sl elg, sm-sl silty		gy, frm-hrd, tab-blky, sm-sl silty tex, v calc, scat	
tex, v calc, scat frac fil cal: CHK (40%): mot lt		imbd pyr: CHK (15%): mot lt gysbhn-lt gy, strl,	
gysbhn-gy, chky tex, calc, pily, bishwh-dul		chky tex, calc, pily, dul yeign flor, dul mky cut,	
yeign flor, mky cut, dul bishwh resdl ring		mod bishwh resdl ring	
7900		7900	



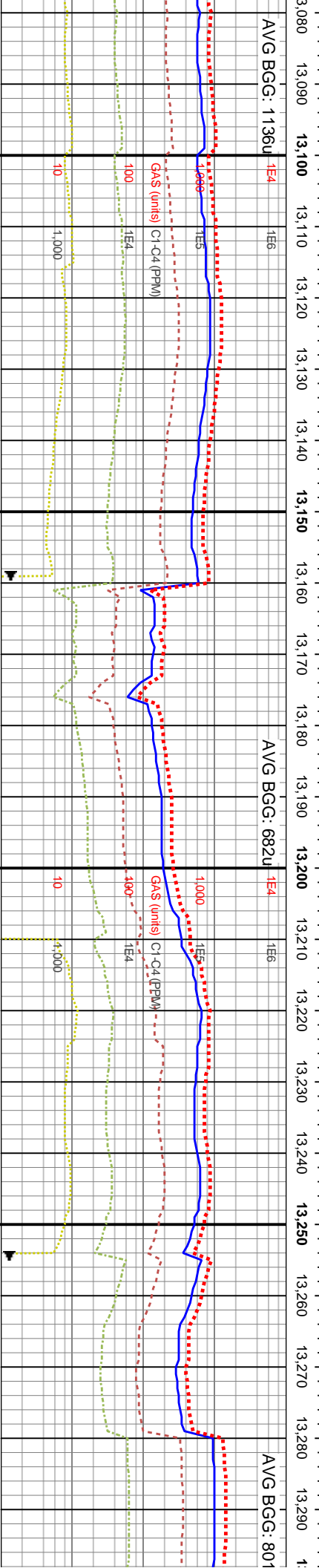
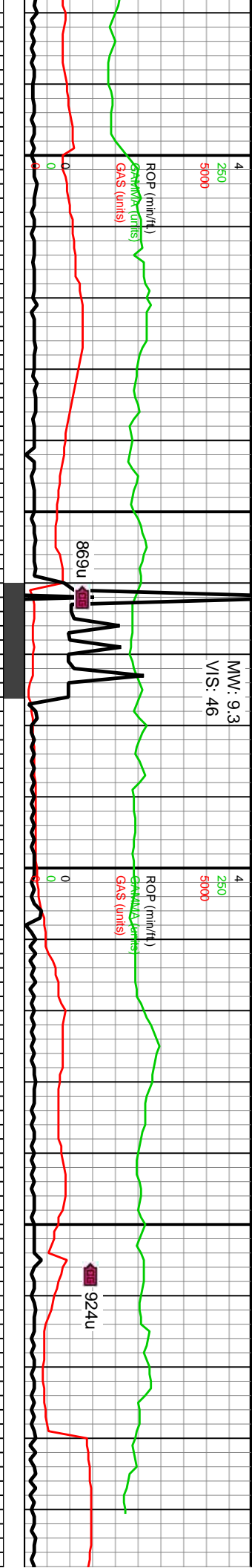






MD: 12,911'		WOB: 39Klbs		MD: 13,006'		MD: 13,006'	
TVDD: 7,506.88'		Rotary: 61RPM		TVDD: 7,506.99'		TVDD: 7,506.99'	
Inclination: 90.06°		Strokes: 180SPM		Inclination: 89.81°		Inclination: 89.81°	
Azimuth: 358.69°		Pump Rate: 548GPM		Azimuth: 358.45°		Azimuth: 358.45°	
VS: 5,036.76'				VS: 5,131.52'			
12860-12920 MRLST (70%): dk gy-med gy, gyshbn, sb blk, frm-sl hrd, v calc, tr chk lam, tr mictos; CHK (30%): mot lt gyshbn-crm, chky tex, calc, sb ply, dul yelgn flr, dul mky cut, mod blshwh resdl ring		12920-12980 MRLST (70%): mot dk gy-med gy, tab-blky, frm-hrd, sm-sl silty tex, v calc, scat mic pyr; CHK (30%): mot lt gyshbn-lt gy, strl ip, calc, chky tex, ply, dul yelgn flr, dul mky cut, mod blshwh resdl ring		12980-13040 MRLST (80%): pred dk gy-med gy, gyshbn, frm-sl hrd, sm tex, occ sl silty, ply-sb blk, v calc, scat imbd pp pyr; CHK (20%): mot gyshbn-lt gy, sft, chky tex, dul yelgn flr, dul mky cut, mod blshwh resdl ring		13040-13100 MRLST (65%): gy, frm-hrd, blk-sb tab, sl i i; inbd chk lam, scat pp mic p gyshbn-crm, chky tex, calc, dul mky cut, blshwh resdl ri	
7900							





MD: 13,101'  
TVD: 7,507.77'  
Inclination: 89.25°  
Azimuth: 357.76°  
VS: 5,226.22'

MD: 13,196'  
TVD: 7,507.42'  
Inclination: 91.17°  
Azimuth: 358.88°  
VS: 5,320.94'

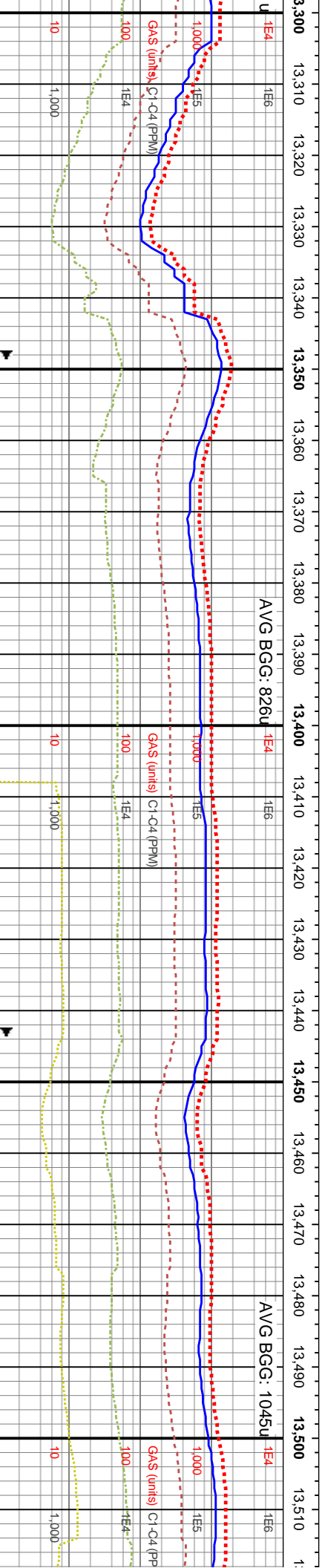
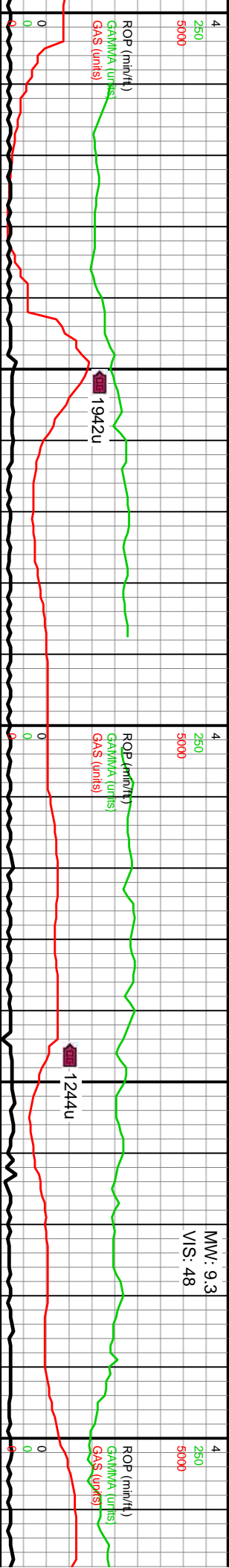
WOB: 38.4Klbs  
Rotary: 61RPM  
Strokes: 180SPM  
Pump Rate: 549GPM

MD: 13,291'  
TVD: 7,505.02'  
Inclination: 91.7°  
Azimuth: 358.11°  
VS: 5,415.66'

13100-13160 MRLST (80%): mot dk gy-med gy, frm-hrd, tab-sb blk, v calc, sm-sl sily tex, scat imbd pyr; CHK (20%): mot lt gyshbn-crm, chky tex, sb ply, calc, dul yelgn flr, dul mky cut, mod blshwh resd ring	13160-13220 MRLST (90%): mot dk gy-med gy, sm-sl sily tex, blk, tab, frm-v frm, v calc, tr f lamn, scat mic pyr; CHK (10%): mot gyshbn, crm-th, chky tex, blk, intbdd wi mrlst, calc, dul yelgn flr, dul mky cut, mod blshwh resd ring	13220-13280 MRLST (80%): dk gy-med gy, ply-tab, frm-sl hrd, sl sm tex, v calc, scat pyrc nod; CHK (20%): lt gyshbn, crm-lt gy, chky tex, ply-blky, calc, intbdd wi mrlst, dul yelgn flr, dul mky cut, blshwh resd ring	13280-13340 MRLST (80%): dk gy-med gy, frm-hrd, tab-sb blk, v calc, sm-sl sily tex, scat imbd pyr; CHK (20%): mot lt gyshbn-crm, chky tex, sb ply, calc, dul yelgn flr, dul mky cut, mod blshwh resd ring
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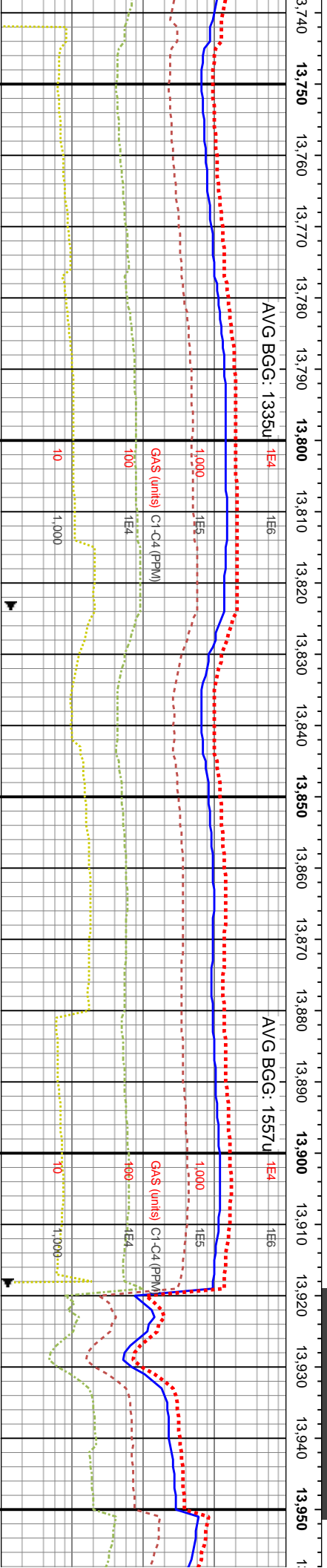
MD: 13.385'  
TVD: 7,501.92'  
Inclination: 92.06°  
Azimuth: 357.64°  
VS: 5,509.29'

WOB: 39.7Klbs  
Rotary: 61RPM  
Strokes: 180SPM  
Pump Rate: 550GPM

MD: 13.480'  
TVD: 7,498.23'  
Inclination: 92.4°  
Azimuth: 357.46°  
VS: 5,603.84'

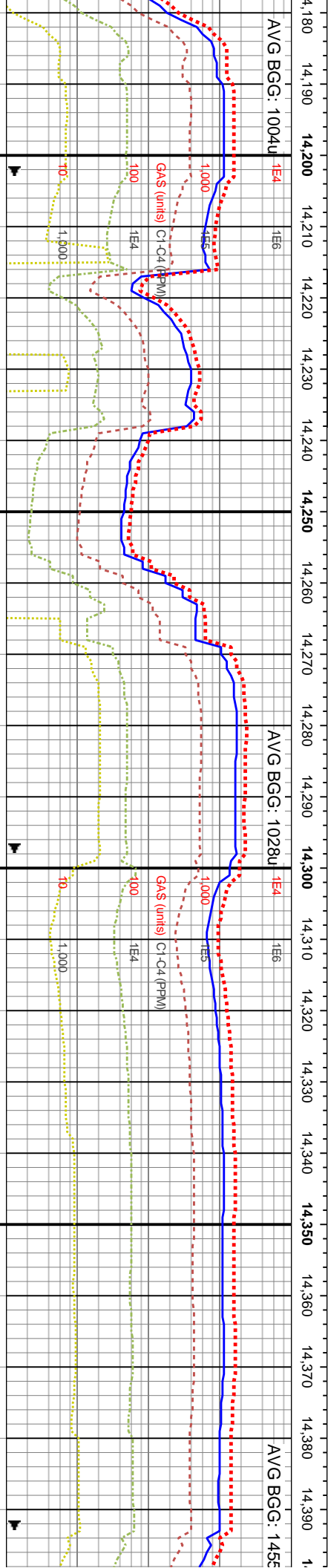
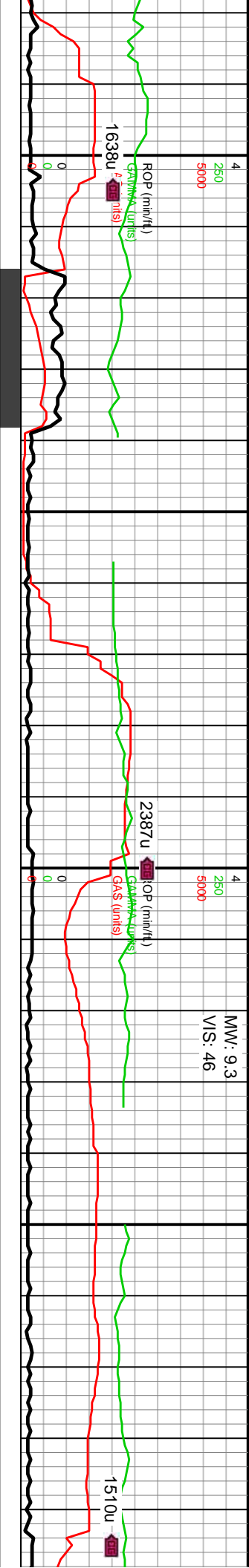
TVD (ft)	TVD (ft)	TVD (ft)
13340 MRLST (65%): mot dk gy-med sl hrd, sl stly tex, blk-y-elig, v calc, tr k lam, scat imbd pyr; CHK (35%): lt crm, calc, blk-y, chky tex, dul yelgn flr, cut, blshwh resd ring	13340-13400 MRLST (90%): dk gy-med gy, ply-tab, frm-sl hrd, sl sm tex, scat pyrc nod, v calc; CHK (10%): lt gysbhn-offwht, crm, chky tex, ply-blky, calc, imbd wi mrtst, dul yelgn flr, dul mky cut, blshwh resd ring	13400-13460 MRLST (90%): dk gy-med gy, ply-sb tab, frm-sl hrd, sm tex, occ sl stly, v calc, scat pyrc nod; CHK (10%): mot gysbhn-offwht, stf, chky tex, sb tab, dul yelgn flr, dul mky cut, mod blshwh resd ring
7900		





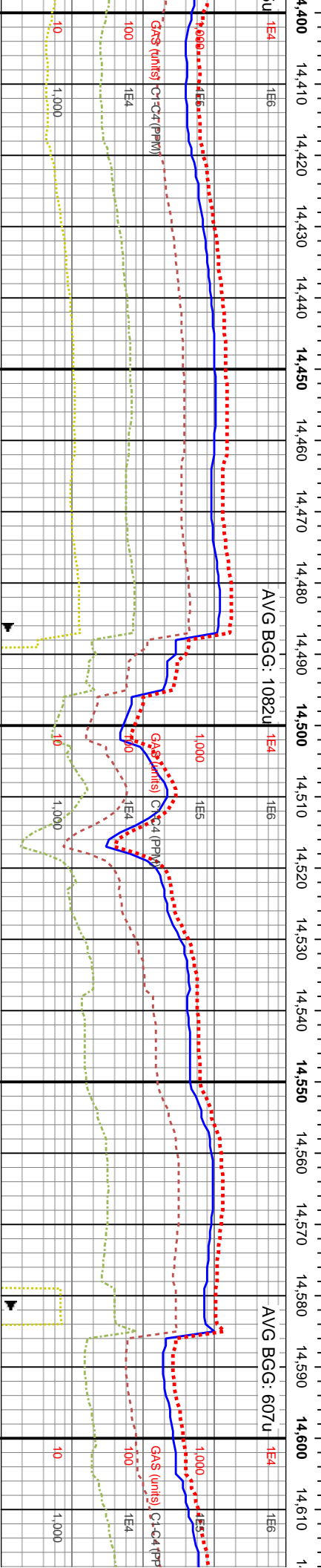


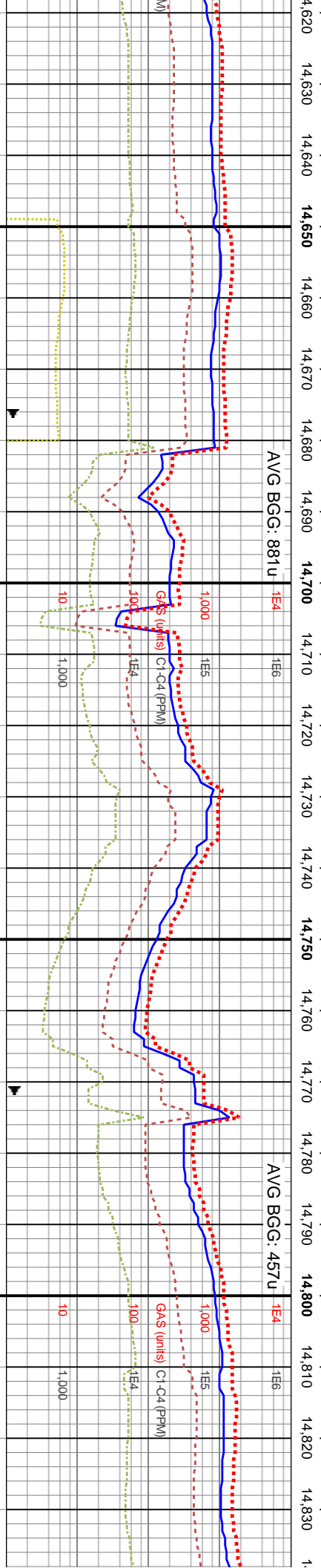
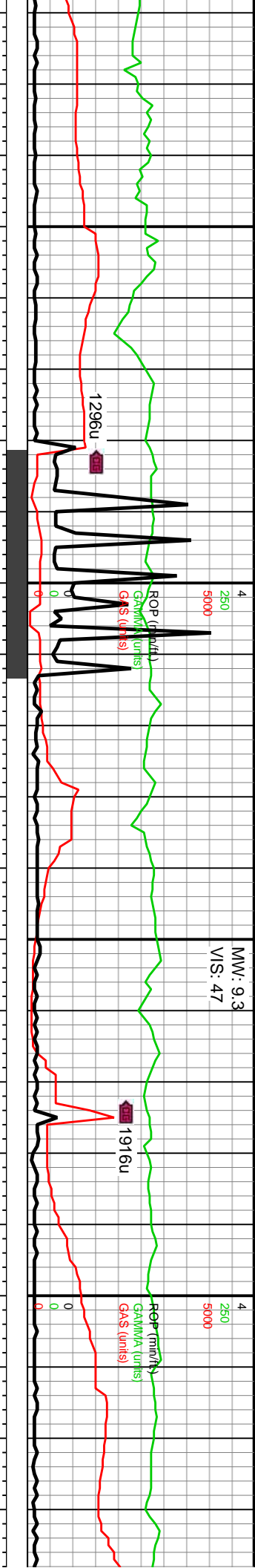




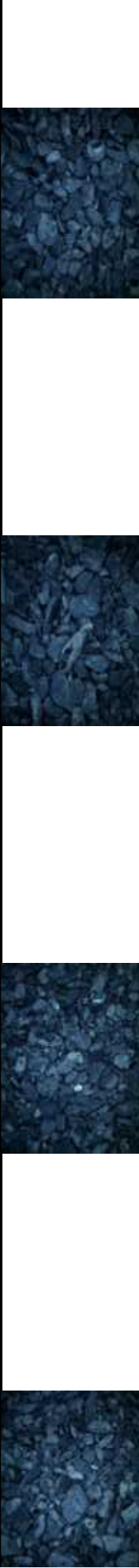
WOB: 38.6Klbs Rotary: 35RPM Strokes: 180SPM Pump Rate: 550GPM		MD: 14,239' TVD: 7,491.45' Inclination: 89.5° Azimuth: 0.57° VS: 6,361.16'		WOB: 38 Rotary: 7 Strokes: Pump Rate:	
14180-14240 MRLST (70%): mot dk gy-med gysbhn, pty-biky, frm-sl hrd, tr micmica, sl silty tex, v calc; CHK (30%): mot-str lt gysbhn, sl frm, biky-sl pty, tr mic fos, v calc, tr frac fil cal, dul yelgn flr, dul mky cut, bishwh resd ring		14240-14300 MRLST (85%): mot dk gy-med gy, frm-hrd, pty-sb tab, sl silty tex, v calc, pp mic pyr; CHK (15%): lt gysbhn-lt gy, chky tex, calc, pty-sb biky, dul yelgn flr, dul mky cut, mod bishwh resd ring		14300-14360 MRLST (85%): dk gy-med gy, frm-sl hrd, sb pty-biky, sl silty tex, tr mic fos, v calc; CHK (15%): lt gysbhn-orm, calc, sb biky, intbnd wi mrlst, dul yelgn flr, dul mky cut, mod bishwh resd ring	
14360-14420 MRLST (85%): n					

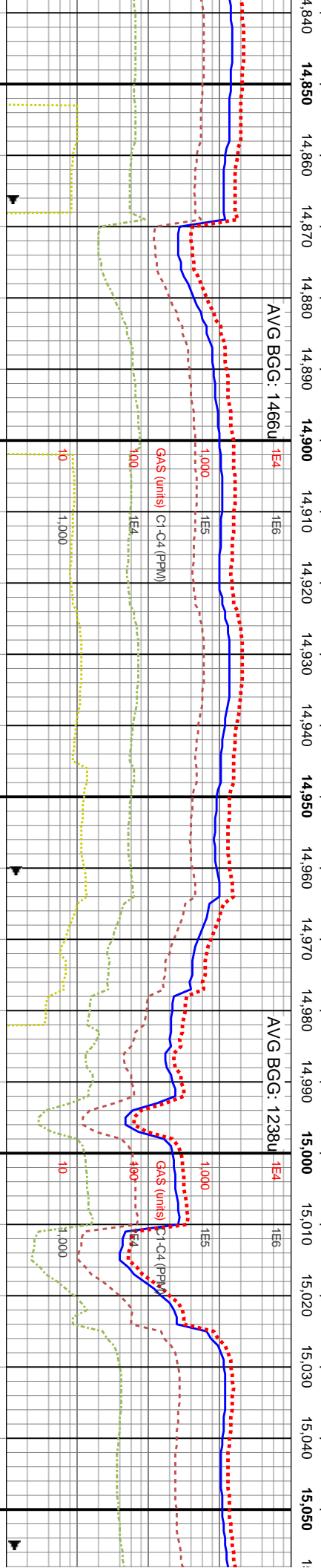
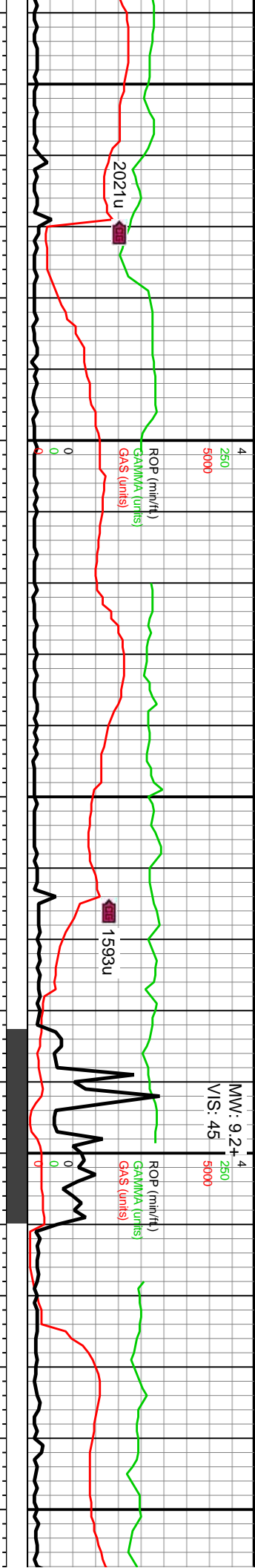






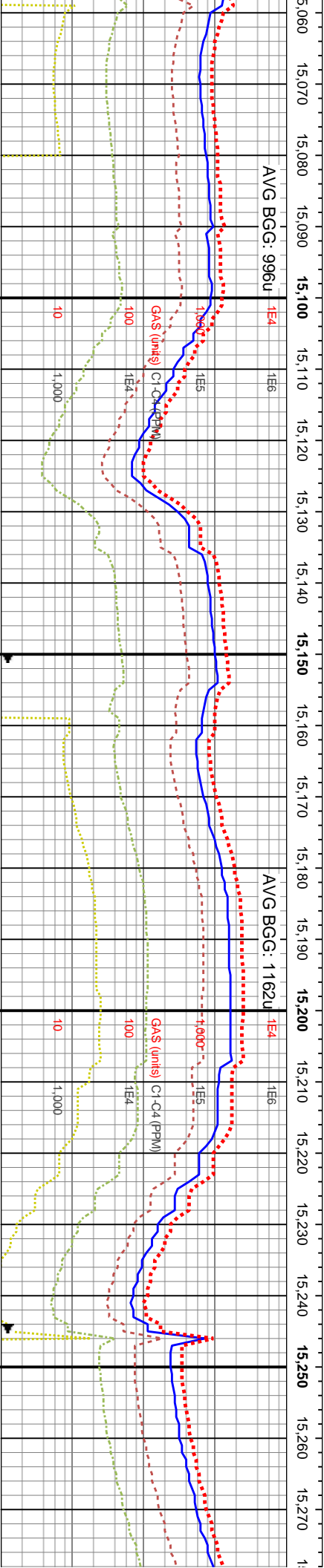
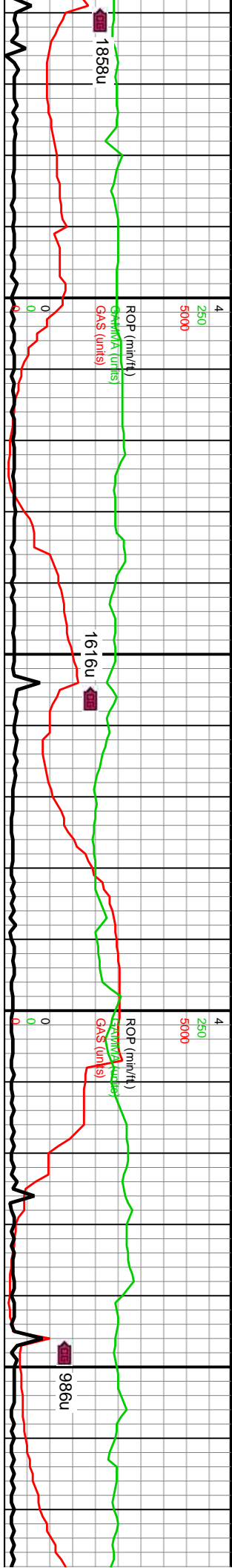
14660 MRLST (85%): mot med gy-dk sl hrd, tab-sl eig, sm-sl sily tex, v calc, m; CHK (15%): mot lt gysbhn-gy, , calc, pily, bishwh-dui yeign flor, mky bishwh resdl ring	14660-14720 MRLST (90%): pred med gy-gysbhn, frm-hrd, blk, sl sily tex, v calc, tr f lam, scat pyrc nod; CHK (10%): mot gysbhn-offwht, chky tex, sft, du yeign flor, du mky cut, mod bishwh resdl ring	14720-14780 MRLST (95%): dk gy-med gy, frm-v frm, blk, sb pily, sl sily tex, v calc, intbdd chk, pp imbd pyr; CHK (5%): lt gysbhn, chky tex, sft, calc, du yeign flor, du mky cut, mod bishwh resdl ring	14780-14840 MRLST (95%): med gy-dk gy, frm-v frm, pily-sl eig, sl abrv tex, v calc, intboc chk lam, tr pyrc nod; CHK (5%): lt gysbhn-gy, chky tex, blk, calc, du yeign flor, du mky cut mod bishwh resdl ring
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14840-14900 MRLST (90%): mot dk gy-med gy, frm, sb blkly-pty, sl silty tex, v calc, tr chk lamn, pp mic pyr; CHK (10%): gysbhn, chky tex, blkly, calc; dul yeign flor, dul mky cut, mod bishwh resdl ring	14900-14960 MRLST (90%): dk gy-med gy, frm-sil hrd, sm-sil silty tex, pty-blky, tr chk lam, v calc, scat pyrc nod; CHK (10%): gysbhn-lt gy, chky tex, blkly, calc; dul yeign flor, dul mky cut, mod bishwh resdl ring	14960-15020 MRLST (95%): mot dk gy-med gy, frm-sil hrd, pty-sb tab, sl silty tex, v calc, scat mic pyr; CHK (5%): gysbhn-crm, chky tex, calc, pty-sb blkly, dul yeign flor, dul mky cut, mod bishwh resdl ring	15020-15080 MRLST (90%): gy-gysbhn, frm-sil hrd, blkly calc, scat imbd pyr; CHK (10%): gysbhn, stri, chky tex, calc; dul mky cut, mod bishwh resdl ring
7900	7900	7900	7900





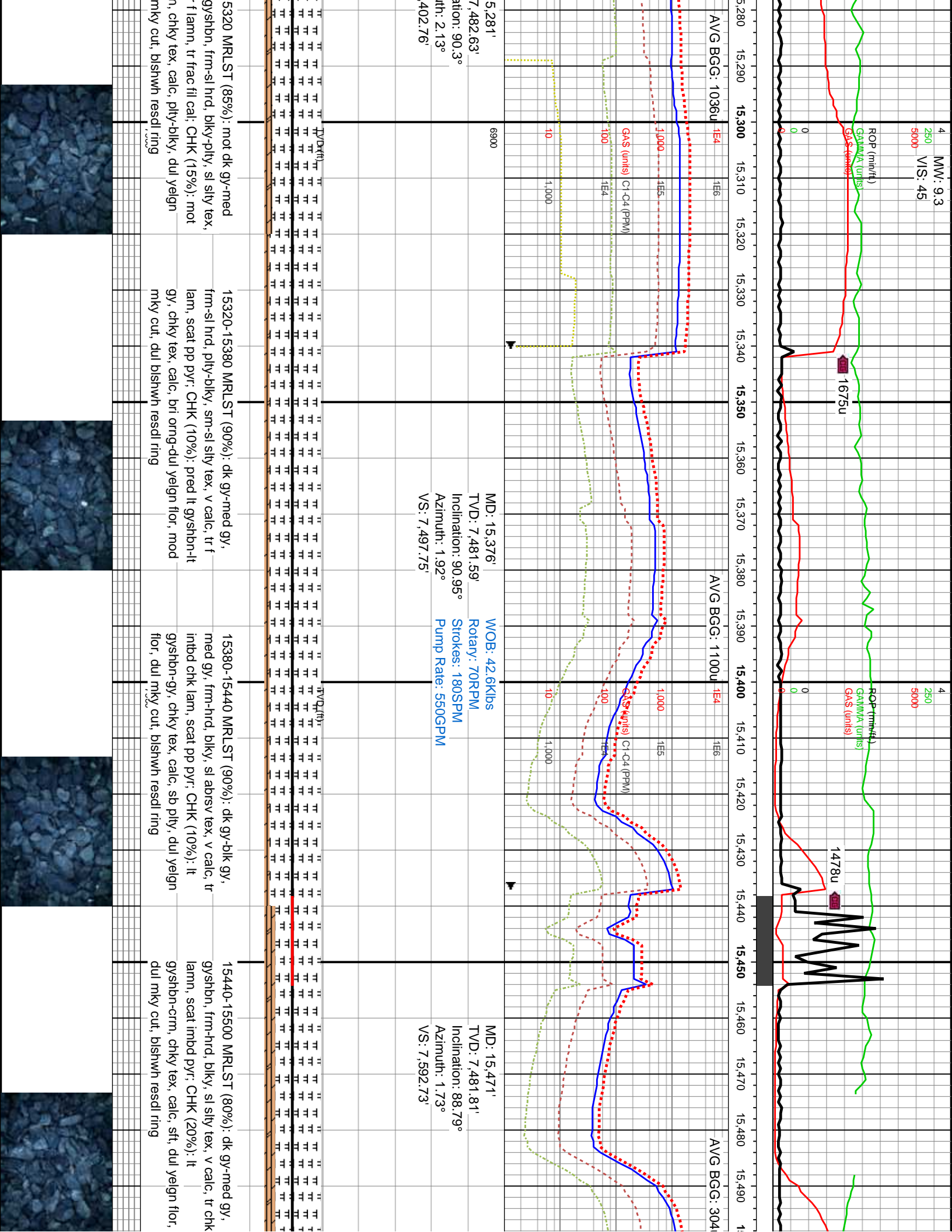
MD: 15,092'  
TVD: 7,483.41'  
Inclination: 89.84°  
Azimuth: 3.66°  
VS: 7.213.77'

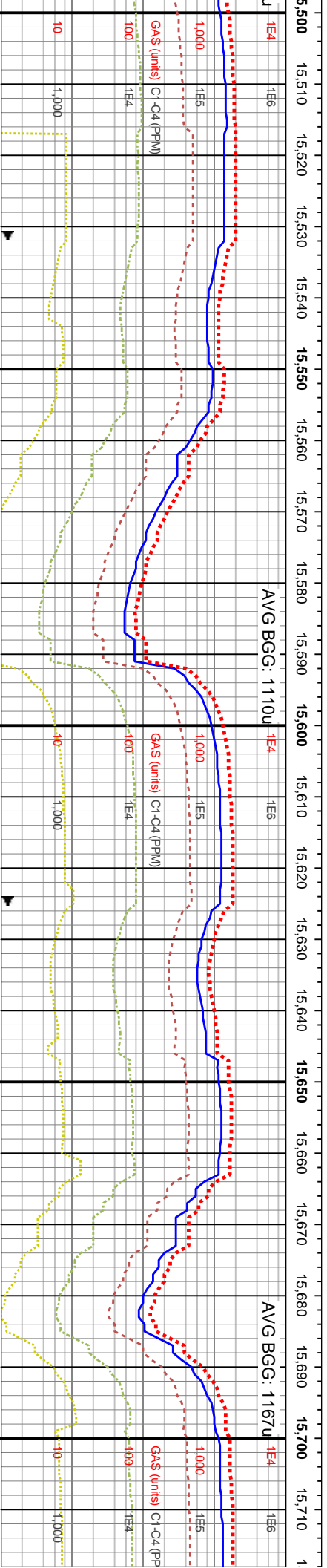
MD: 15,186'  
TVD: 7,483.21'  
Inclination: 90.4°  
Azimuth: 2.53°  
VS: 7.307.76'

MD: 15,186'  
TVD: 7,483.21'  
Inclination: 90.4°  
Azimuth: 2.53°  
VS: 7.307.76'

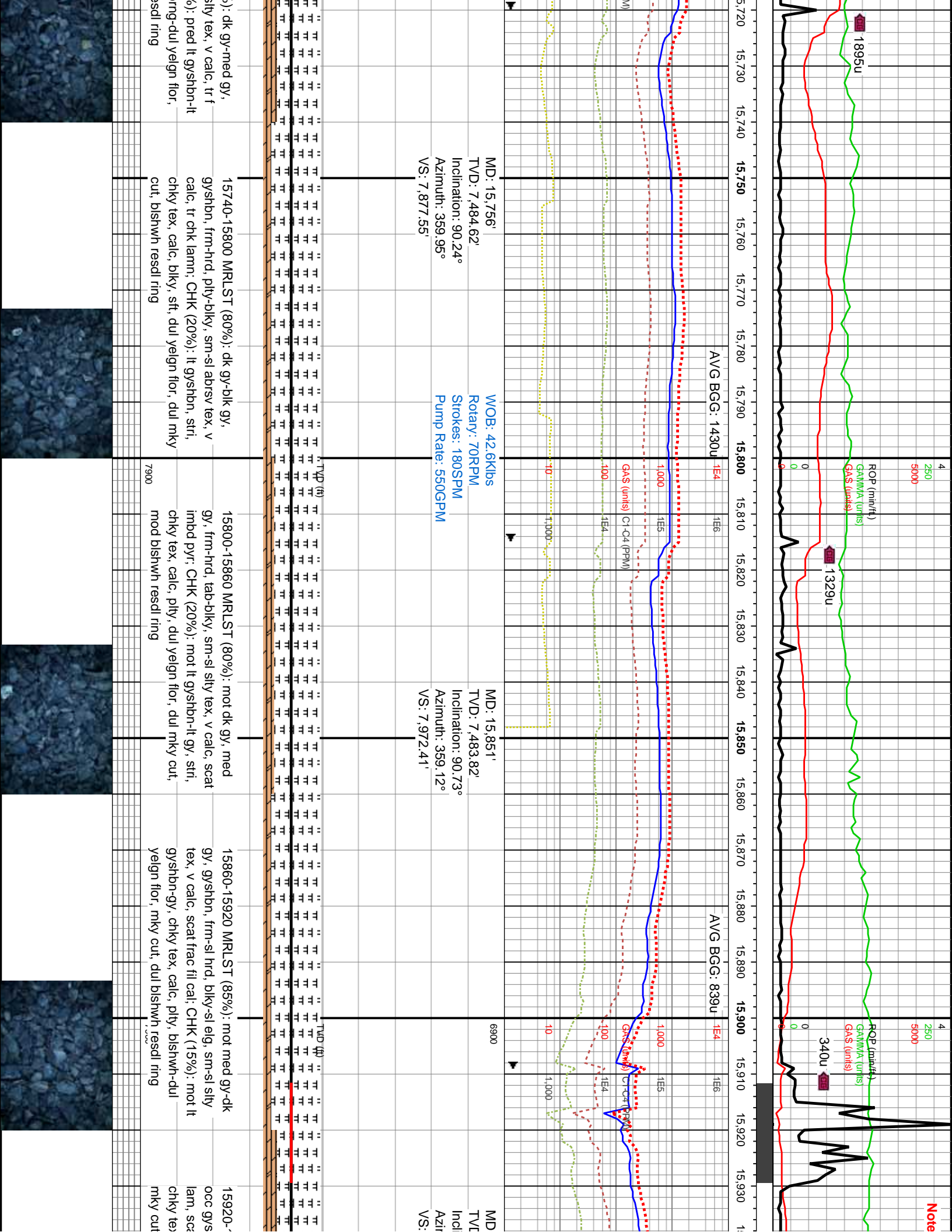
15080-15140 MRLST (90%): dk gy-med gy, frm-sl hrd, pily-biky, sm-sl sily tex, v calc, tr f lam, scat pp pyr; CHK (10%): pred lt gyshbn-lt gy, chky tex, calc, bri org-dul yelgn flor, mod mky cut, dul bishwh resdl ring	15140-15200 MRLST (80%): mot dk gy-med gy, frm-sl hrd, biky-elg, sl sily tex, v calc, tr imbd chk lam, scat imbd pyr; CHK (20%): lt gyshbn, stri, chky tex, calc, biky, dul yelgn flor, dul mky cut, bishwh resdl ring	15200-15260 MRLST (90%): mot dk gy, med gy, frm-hrd, tab-biky, sm-sl sily tex, v calc, scat imbd pyr; CHK (10%): mot lt gyshbn-lt gy, stri, chky tex, calc, pily, dul yelgn flor, dul mky cut, mod bishwh resdl ring
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15500-15560 MRLST (75%): mot dk gy, med gy-gyshbn, frm-sl hrd, blk, sm-sl silty tex, v calc, scat imbd pyr; CHK (25%): mot lt gyshbn, chky tex, calc, pily, dul yelgn flr, dul mky cut, mod blshwh resdl ring	15560-15620 MRLST (85%): mot dk gy-med gy, mot gyshbn, frm-sl hrd, blk-pily, sl silty tex, v calc; CHK (15%): mot lt gyshbn, occ lt gy, chky tex, calc, pily-blky, dul yelgn flr, dul mky cut, blshwh resdl ring	15620-15680 MRLST (75%): mot med gy-dk gy, gyshbn, frm-sl hrd, blk-si elg, sm-sl silty tex, v calc, scat frac fil cal; CHK (25%): mot lt gyshbn-gy, chky tex, calc, pily, blshwh-dul yelgn flr, mky cut, dul blshwh resdl ring	15680-15740 MRLST (75%): frm-sl hrd, pily-blky, sm-sl silty tex, scat pp pyr; CHK (25%): lam, stri, chky tex, calc, bri c mod mky cut, dul blshwh resdl ring
7900	7900	7900	7900

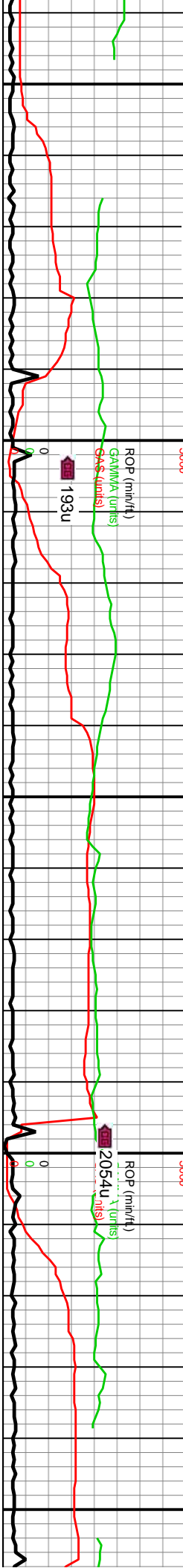




C/O Polyflow

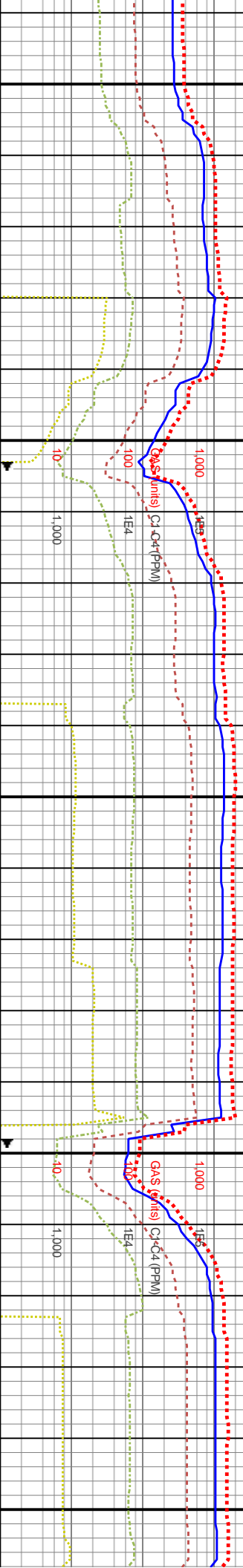
MW: 9.3+  
VIS: 44

Note: C/O Polyflow



AVG BGC: 605u

AVG BGC: 1463u



15,944'  
Inclination: 7.484.78°  
Azimuth: 358.97°  
V/S: 8,065.21'

WOB: 36.3klbs  
Rotary: 35RPM  
Strokes: 180SPM  
Pump Rate: 550GPM

MD: 16,039'  
TVD: 7,488.09'  
Inclination: 87.93°  
Azimuth: 358.73°  
V/S: 8,159.95'

6900

MD: 16,134'  
TVD: 7,490.91'  
Inclination: 88.67°  
Azimuth: 357.99°  
V/S: 8,254.64'

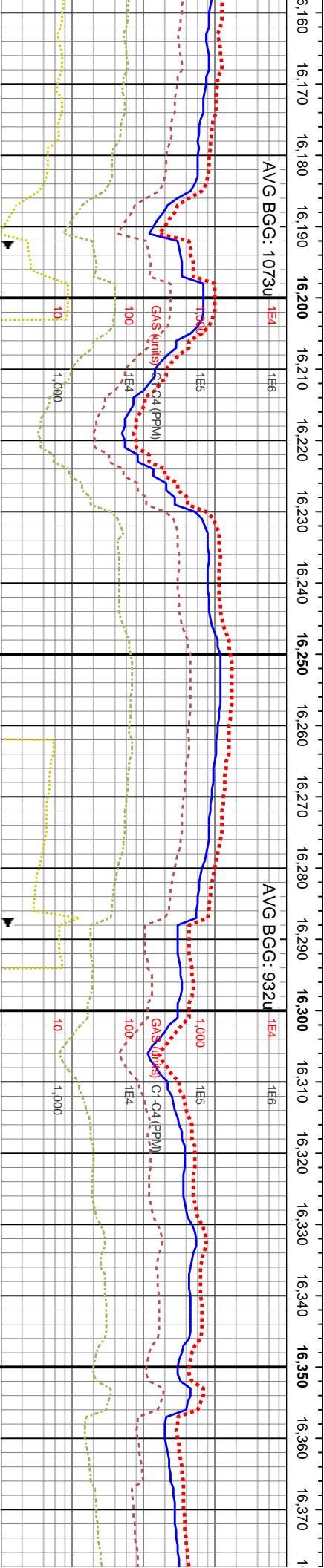
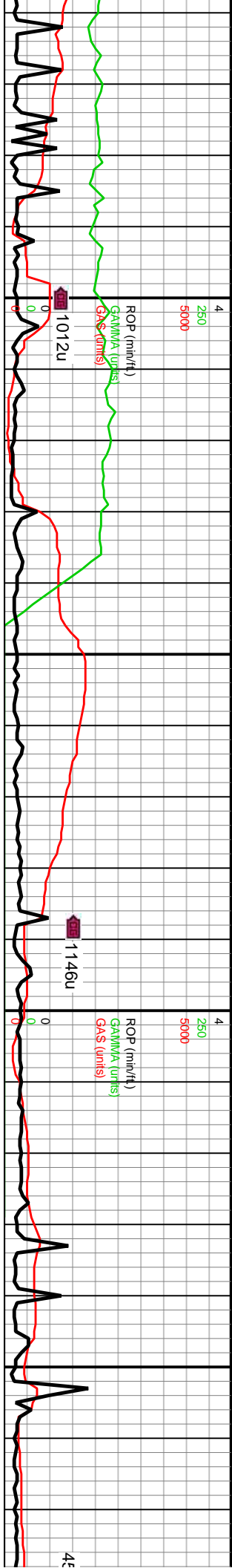
15980 MRLST (75%): dk gy-med gy, frm-hrd, ply-sb blk, v calc, tr chk at pp pyr; CHK (15%): lt gysbhn, stri lp, mnr mic fos, bishwh-dui yeign flr, dul bishwh resdl ring

15980-16040 MRLST (80%): dk gy-med gy, frm-v frm, blk-sb ply, sl stly tex, v calc, intbodd chk, pp imbd pyr; CHK (20%): lt gysbhn, chky tex, sti, calc, dul yeign flr, dul mky cut, mod bishwh resdl ring

16040-16100 MRLST (80%): mot dk gy-med gy, frm-hrd, ply-sb tab, sl stly tex, v calc, pp mic pyr; CHK (20%): lt gysbhn-lt gy, chky tex, calc, ply-sb blk, dul yeign flr, dul mky cut, mod bishwh resdl ring

16100-16160 MRLST (85%): dk gy-med gy, frm-hrd, ply-eig, sm-si stly tex, mnr chk lamn, calc, tr scat mic pyr; CHK (15%): crm-lt gy, gysbhn, sti, chky, dul yeign flr, dul mky cut, mod bishwh resdl ring



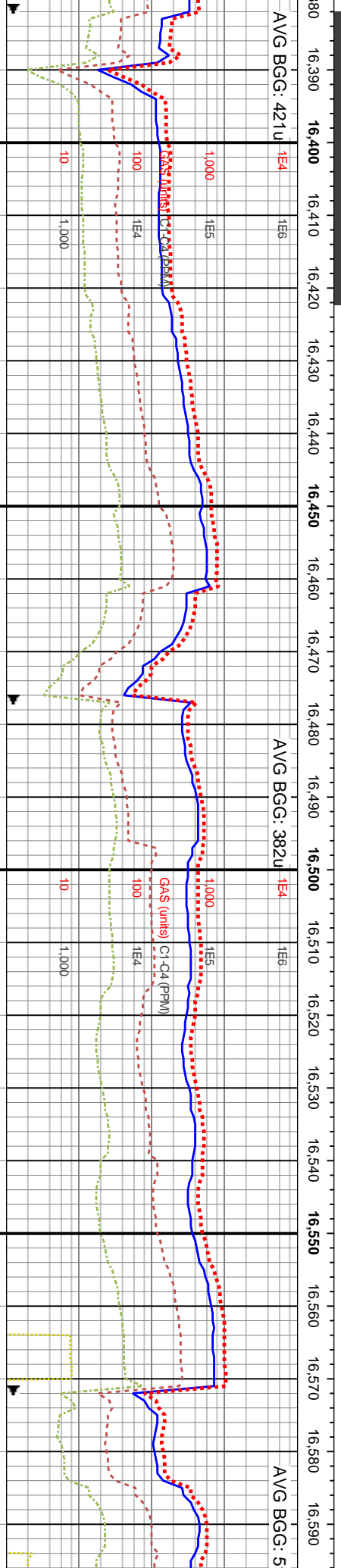
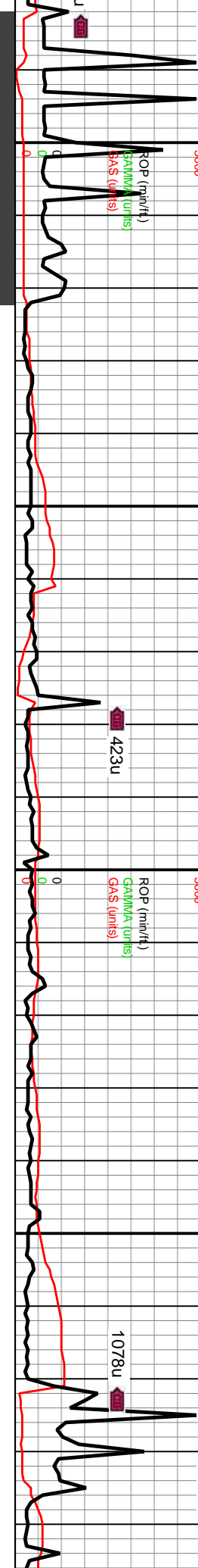


WOB: 42.6klbs  
Rotary: 35RPM  
Strokes: 174SPM  
Pump Rate: 531GPM

MD: 16,229'  
TVD: 7,492.76'  
Inclination: 89.1°  
Azimuth: 357.68°  
VS: 8,349.29'

MD: 16,323'  
TVD: 7,494.43'  
Inclination: 88.86°  
Azimuth: 357.74°  
VS: 8,442.92'

16160-16220 MRLST (85%): mot dk gy-med gy, frm-sl hrd, blk-si elg, sm-sl silty tex, v calc, scat cal frac fil: CHK (15%): mot lt gyshbn-crm, chky tex, calc, pily, bishwh-dul yelgn flor, mky cut, dul bishwh resd ring	16220-16280 MRLST (80%): mot dk gy-med gy, frm-hrd, pily-sb tab, sl silty tex, v calc, pp mic pyr: CHK (20%): lt gyshbn-lt gy, chky tex, calc, pily-sb blk, du yelgn flor, dul mky cut, mod bishwh resd ring	16280-16340 MRLST (90%): med gy-dk gy, frm-sl hrd, pily-si elg, sl silty tex, v calc, tr mic fos, scat pyrc nod: CHK (10%): lt gyshbn-crm, chky tex, calc, blk, du yelgn flor, dul mky cut, mod bishwh resd ring	16340-16400 MRLST (95%): gyshbn, frm, pily, pred sm calc, scat imbd pp pyr: CHK (5%): gyshbn-gy, offwht, chky tex, mky cut, mod bishwh resd ring
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WOB: 75.7Klbs  
Rotary: 0RPM  
Strokes: 174SPM  
Pump Rate: 530GPM

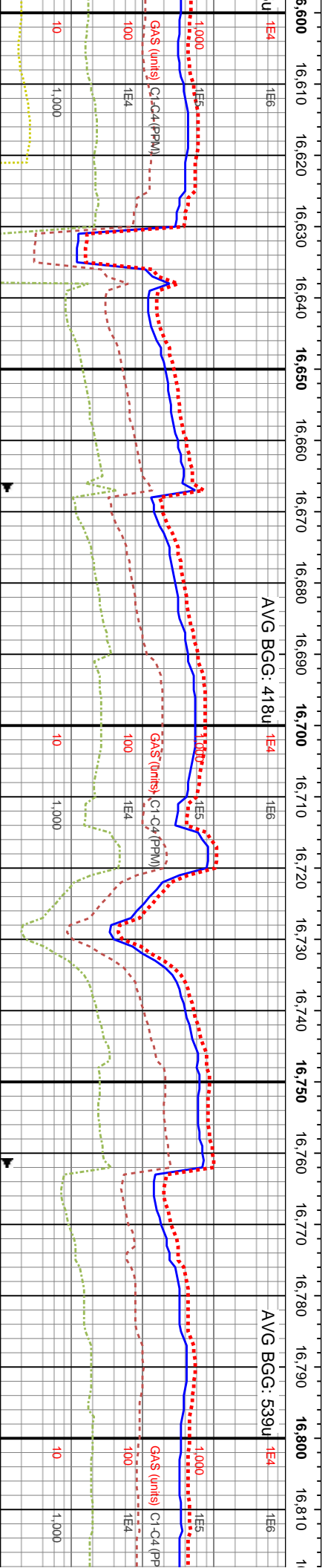
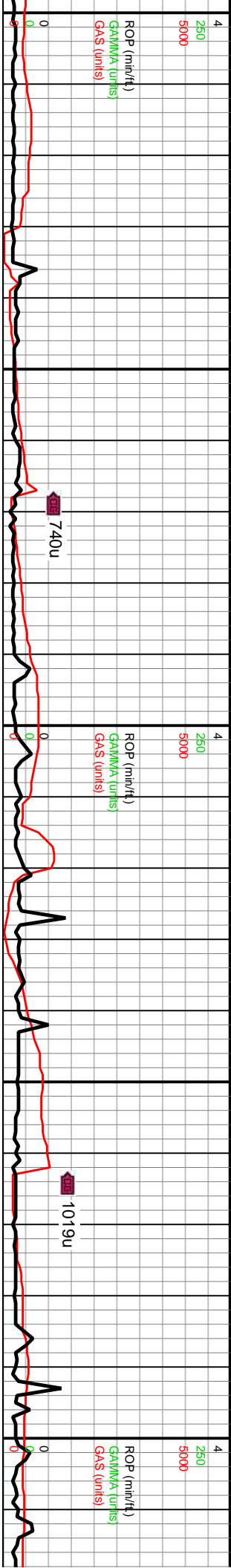
MD: 16,418'  
TVD: 7,495.76'  
Inclination: 89.53°  
Azimuth: 1.55°  
VS: 8,537.77'

WOB: 35Klbs  
Rotary: 55RPM  
Strokes: 174SPM  
Pump Rate: 531GPM

69MD: 16,513'  
TVD: 7,496.77'  
Inclination: 89.26°  
Azimuth: 1.52°  
VS: 8,632.74'

16400-16460 MRLST (90%): pred med gy-gyshbn, frm-hrd, blk, sl silty tex, v calc, tr f lam, scat pyrc nod; CHK (10%): mot gysghn, chky tex, sft, dul yeign flor, dul mky cut, mod bshwh resdl ring	16460-16520 MRLST (90%): mot dk gy, med gy, sb tab-biky, frm-hrd, sm-sl silty tex, v calc, scat imbd pyr; CHK (10%): mot lt gysghn-lt gy, chky tex, calc, pily, dul yeign flor, dul mky cut, mod bshwh resdl ring	16520-16580 MRLST (95%): mot dk gy-med gy, frm-hrd, sl silty tex, pily-sb tab, v calc, pp mic pyr; CHK (5%): lt gysghn-lt gy, chky tex, pily-sb biky, calc, dul yeign flor, dul mky cut, mod bshwh resdl ring	16580-16640 MRLST (95%): mot dk gy-med gy, frm-hrd, sl silty tex, pily-sb tab, v calc, pp mic pyr; CHK (5%): lt gysghn-lt gy, chky tex, pily-sb biky, calc, dul yeign flor, dul mky cut, mod bshwh resdl ring
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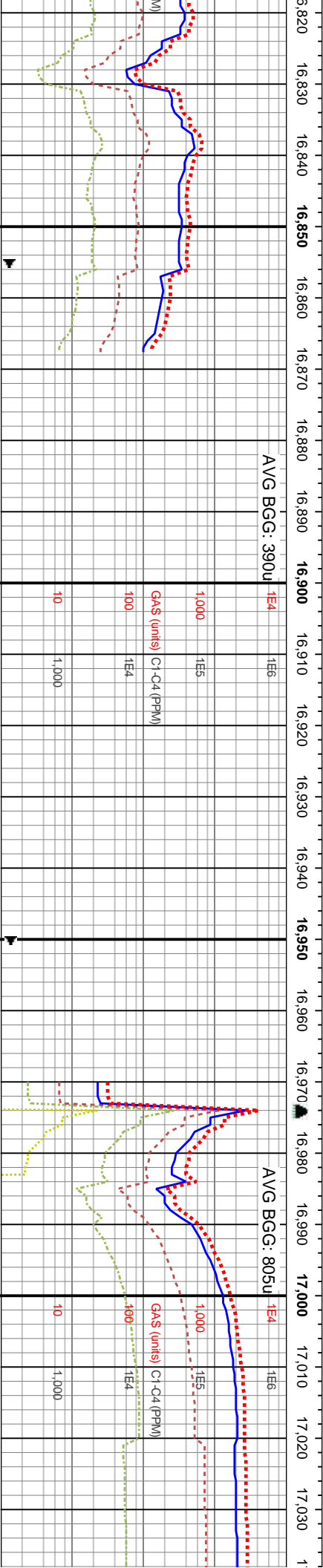
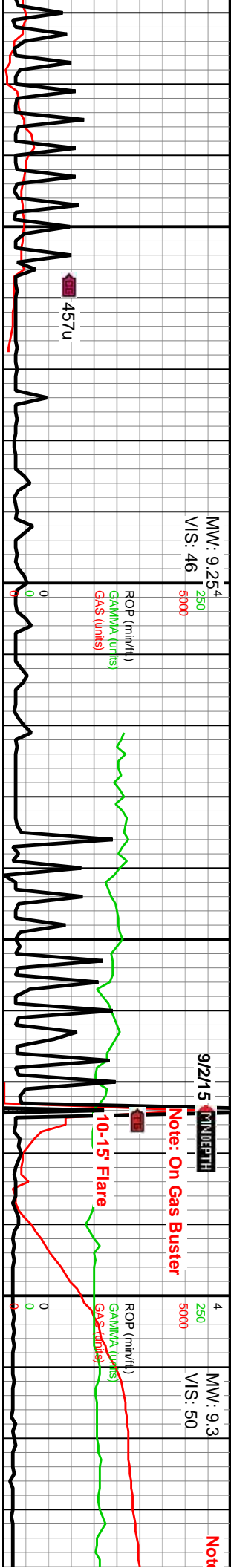
69MD: 16,608'  
TVD: 7,496.59'  
Inclination: 90.95°  
Azimuth: 1.81°  
VS: 8,727.73'

MD: 16,702'  
TVD: 7,494.78'  
Inclination: 91.26°  
Azimuth: 1.64°  
VS: 8,821.7'

MD: 16,797'  
TVD: 7,492.95'  
Inclination: 90.95°  
Azimuth: 1.41°  
VS: 8,916.66'

16640 MRLST (90%): mot dk gy-med	16640-16700 MRLST (75%): med gy-dk gy, gyshbn, frm-v frm, sm-sl slty tex, v lam, v calc, pp imbd pyr; CHK (25%): mot lt gyshbn, chky tex, pily-blky, calc, dul yelgn flor, dul mky cut, mod bishwh resdl ring	16700-16760 MRLST (80%): med gy-dk gy, mot gyshbn, pily-blky, frm-sl hrd, sm-slty tex, tr chk lamm, v calc, pp imbd pyr; CHK (20%): lt gyshbn-crm, calc, blky, chky tex, dul yelgn flor, dul mky cut, mod bishwh resdl ring	16760-16820 MRLST (90%): mot dk gy-med gy, frm, sl slty tex, sb blky-pily, v calc, pp mic pyr, tr chk lamm; CHK (10%): gyshbn, chky tex, sb tab, calc, sl frm, dul yelgn flor, dul mky cut, mod bishwh resdl ring
TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)





MD: 16,891'  
TVD: 7,491.77'  
Inclination: 90.49°  
Azimuth: 1.45°  
VS: 9,010.63'

Sample not circulated up before trip

Sample not circulated up before trip

TVD (ft)

Note: TOO HIGH for motor/bit MD: 16,987'  
Bit #: 3  
Type: E516-B27  
Size: 7.88  
Depth In: 16,973'  
Depth Out: 17,376'  
Hours: 1.3 hrs  
Avg Ft/Hr: 310 ' /h  
Jets: 7x10  
S/N: A196170

WOB: 37.5klbs  
Rotary: 40RPM  
Strokes: 170SPM  
Pump Rate: 519GPM

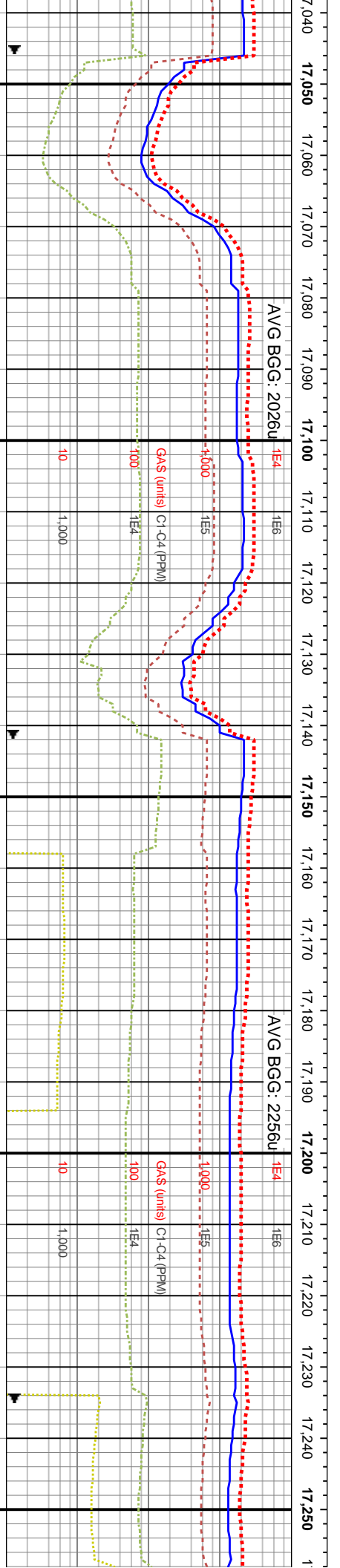
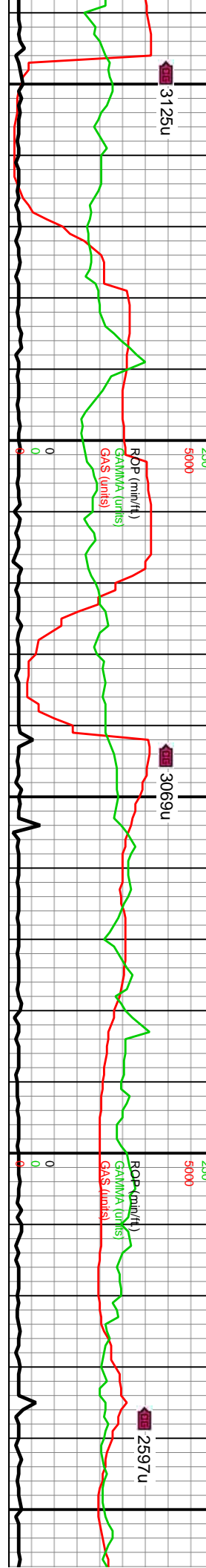
16940-17000 MRLST (85%): mot dk gy-med  
gy, gysbhn, frm-sl hrd, biky-plty, sl silty tex, tr f  
lamn, v calc, pp mic pyr, CHK (15%): mot  
gysbhn, calc, biky, chky tex, dul yelgn flor, dul  
mky cut, mod blshwh resd ring

17000-17060 MRLST (80%)  
gy, gysbhn, biky, frm-hrd, s  
inbnd chk lam, scat mic pyr  
gysbhn-crm, chky tex, calc  
dul mky cut, blshwh resd r

7900

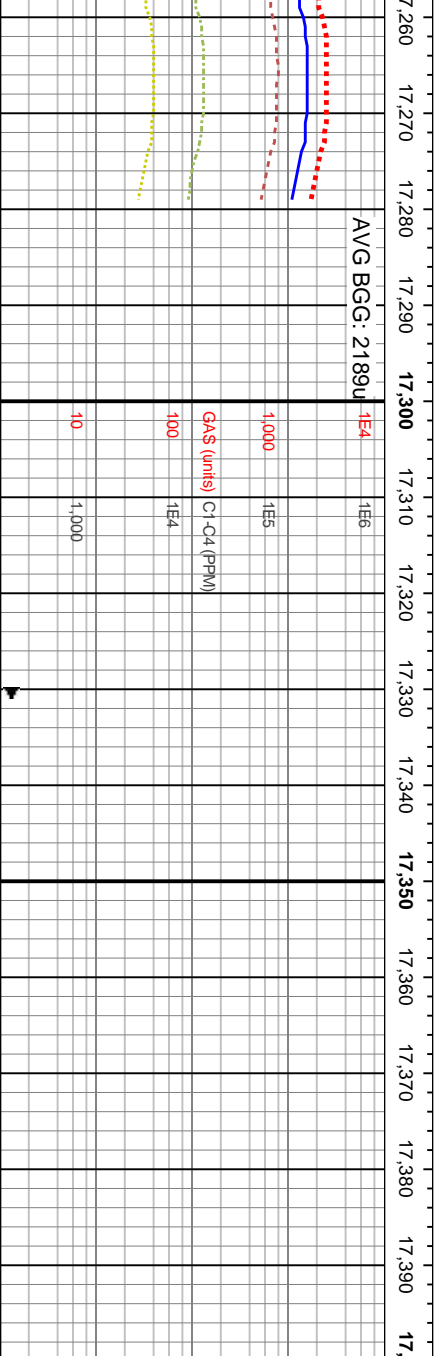
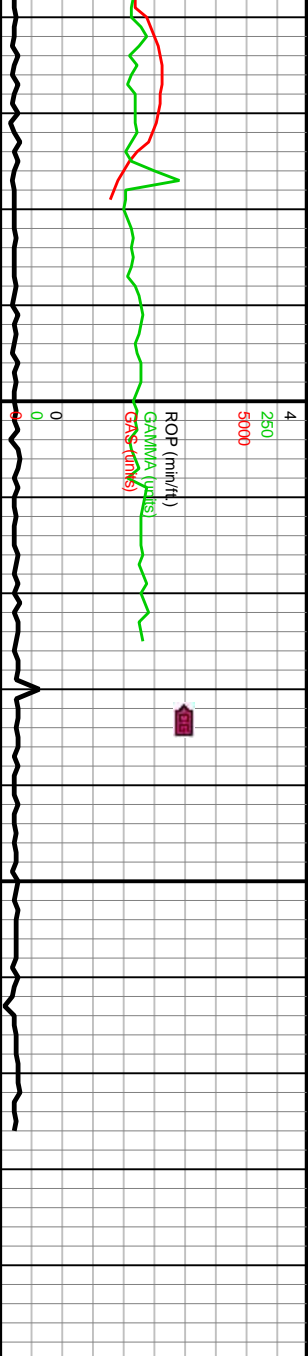
7900

Off Gas Buster



WOB: 38.2Klbs Rotary: 70RPM Strokes: 170SPM Pump Rate: 520GPM		AVG BGG: 2026u		AVG BGG: 2256u	
17060-17120 MRLST (65%): .mot dk gy-med l abrv tex, v calc, tr CHK (20%): lt sft, dul yelgn flor, ring		17120-17180 MRLST (75%): .dk gy-med gy, frm-hrd, plty-eig, sm-sl stly tex, mnr lamn, v calc, tr scat mic pyr: CHK (25%): lt gy-gyshbn, sft, intbdd wi mrlst, v lamn, dul yelgn flor, dul mky cut, mod bishwh resdl ring		17180-17240 MRLST (70%): .med gy-dk gy, gyshbn, frm-sl hrd, sl stly tex, plty-tab, tr chk lamn, v calc, scat pyrc nod: CHK (30%): gyshbn-crm, chky tex, blkly, sft, calc, dul yelgn flor, dul mky cut, bishwh resdl ring	





6900	MD: 17,318' TVD: 7,482.38' Inclination: 92.36° Azimuth: 358.68° VS: 9,437.11'	MD: 17,376' TVD: 7,479.99' Inclination: 92.36° Azimuth: 358.68° VS: 9,494.92'
<p>not circulated up before trip</p> <p>Sample not circulated up before trip</p>		<p>Note: TD Well @ 17,736' MD</p> <p>Projection</p>
TVD (ft)		
7900		