PETROLOG

ONE INCH ROP- MD

COUNTY Washington County
FIELD Giddings
LOCATION Washington County
WELL Sabine D 4H ST01
COMPANY Magnolia Oil & Gas

COMPANY Magnolia Oil & Gas
CONTRACTOR Patterson-UTI
RIG 248
WELL Sabine D 4H ST01
FIELD Giddings
COUNTY Washington County
STATE Texas

LOCATION X= 3128508 Y= 191102

API SERIAL NO	SECTION	TOWNSHIP	RANGE
42-477-31146			

Other Services
Five Inch ROP-MD

SPUD DATE 1/16/2021
LOGGING STARTED 3/13/2021
LOGGING FINISHED 3/21/2020

TOTAL DEPTH 16,820'
@ 10,171'
@ 16,820'

Elev. KB 487'
D.F. 28'
G.L. 459'
S.F.

BORE HOLE RECORD

HOLE SIZE	FROM	TO
6.75"x6.8125"	10,148'	16,820'

CASING RECORD

SIZE	WGT	FROM	TO
7.625"	29.7#	Surface	10,148'

REMARKS: All depths correspond to drillers tally.

LOGGING PERSONNEL L.J. Dufrene, Josh Wilson, Cody Couch

FOLD HERE

THE WELL NAME AND BOREHOLE REFERENCE DATA WERE FURNISHED BY THE CUSTOMER

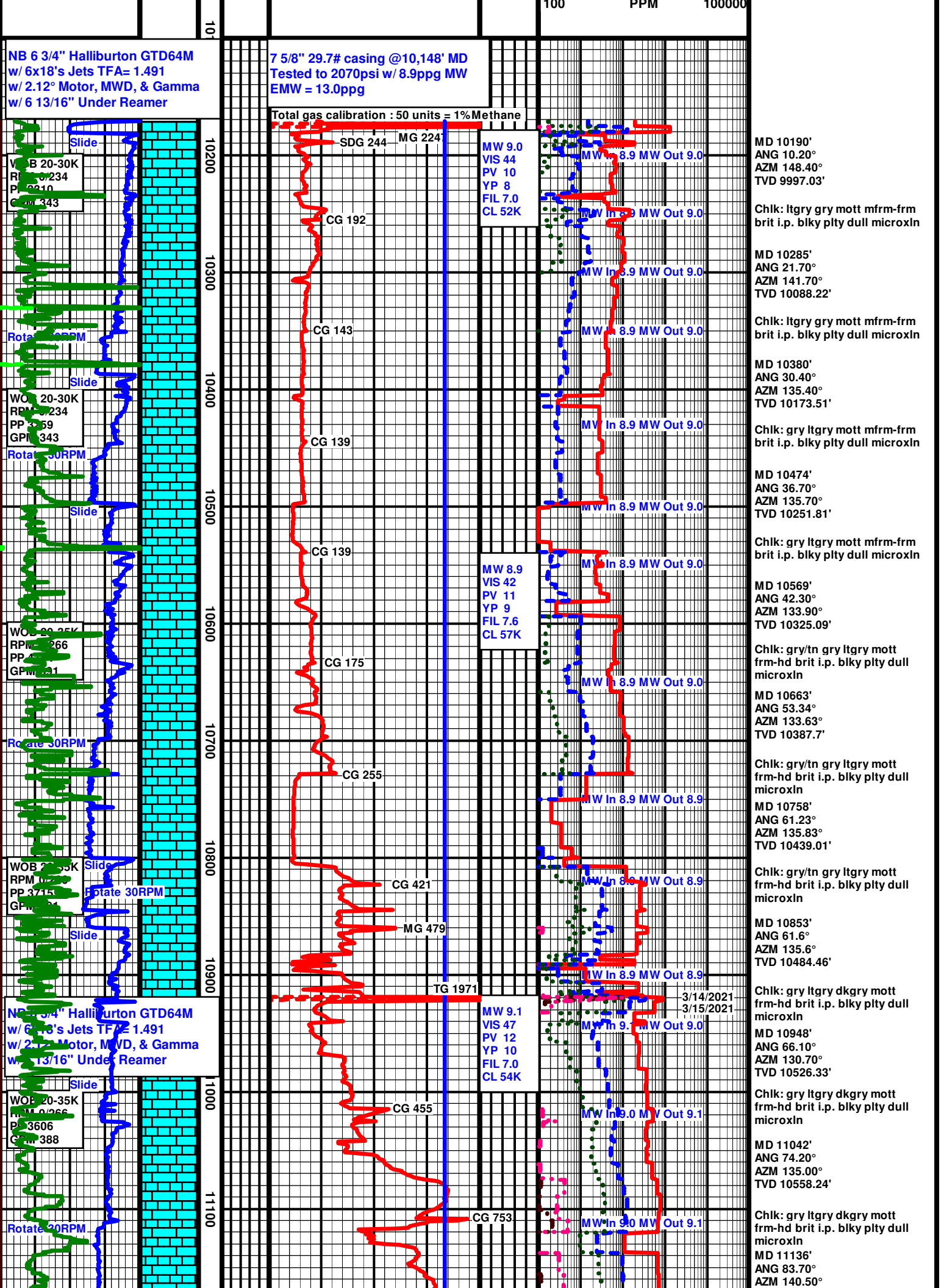
Company Magnolia Oil & Gas
Well Sabine D 4H ST01
Location Washington County
Supervisor LJ Dufrene
Unit LR05

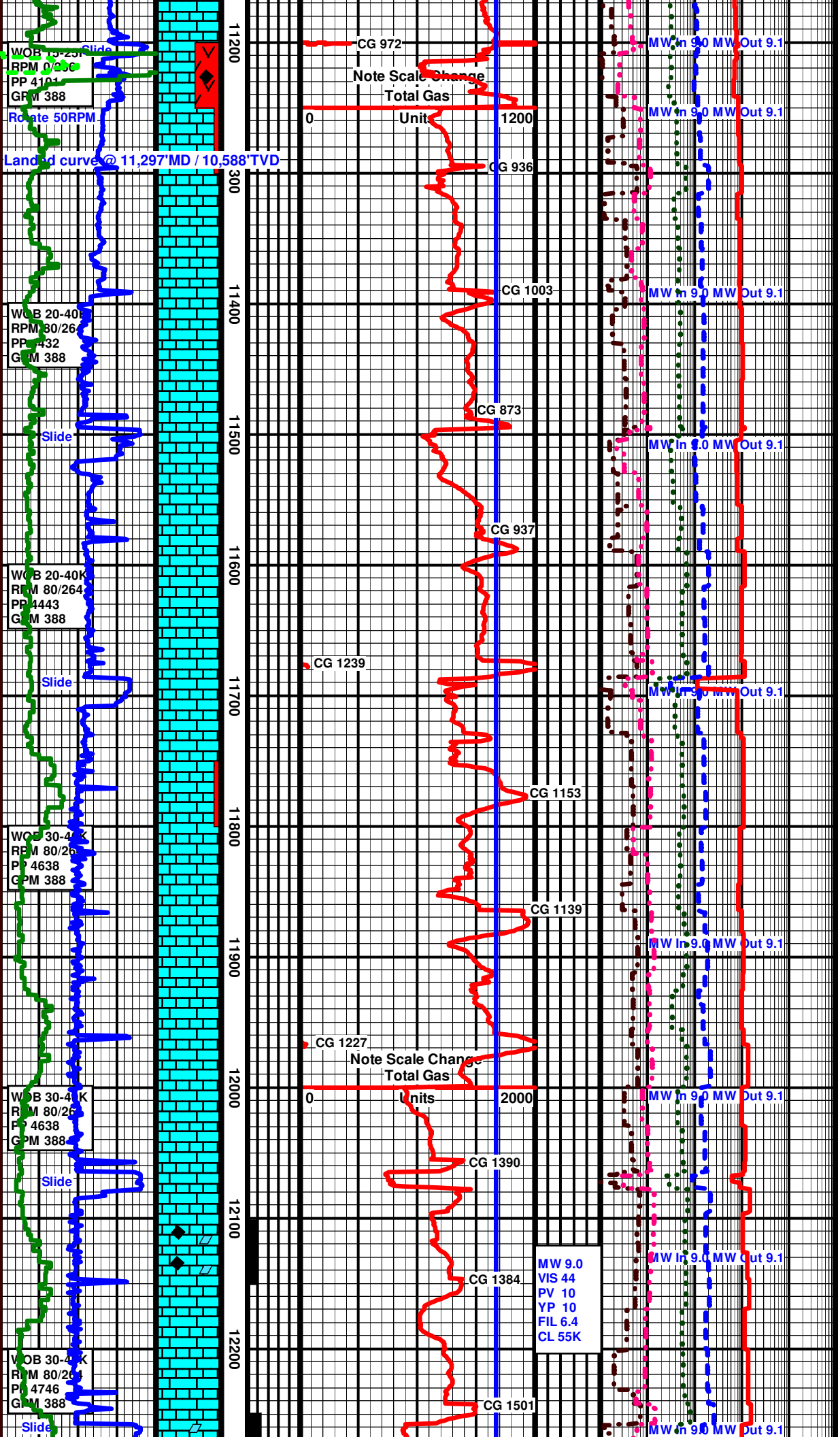
Shale, Limestone, Anhydrite, Dolomite, No Sample
Sandstone, Coal, Ash, Sandy Limestone, Salt - Na
Siltstone, Cement, Chalk, Marl, Salt - K

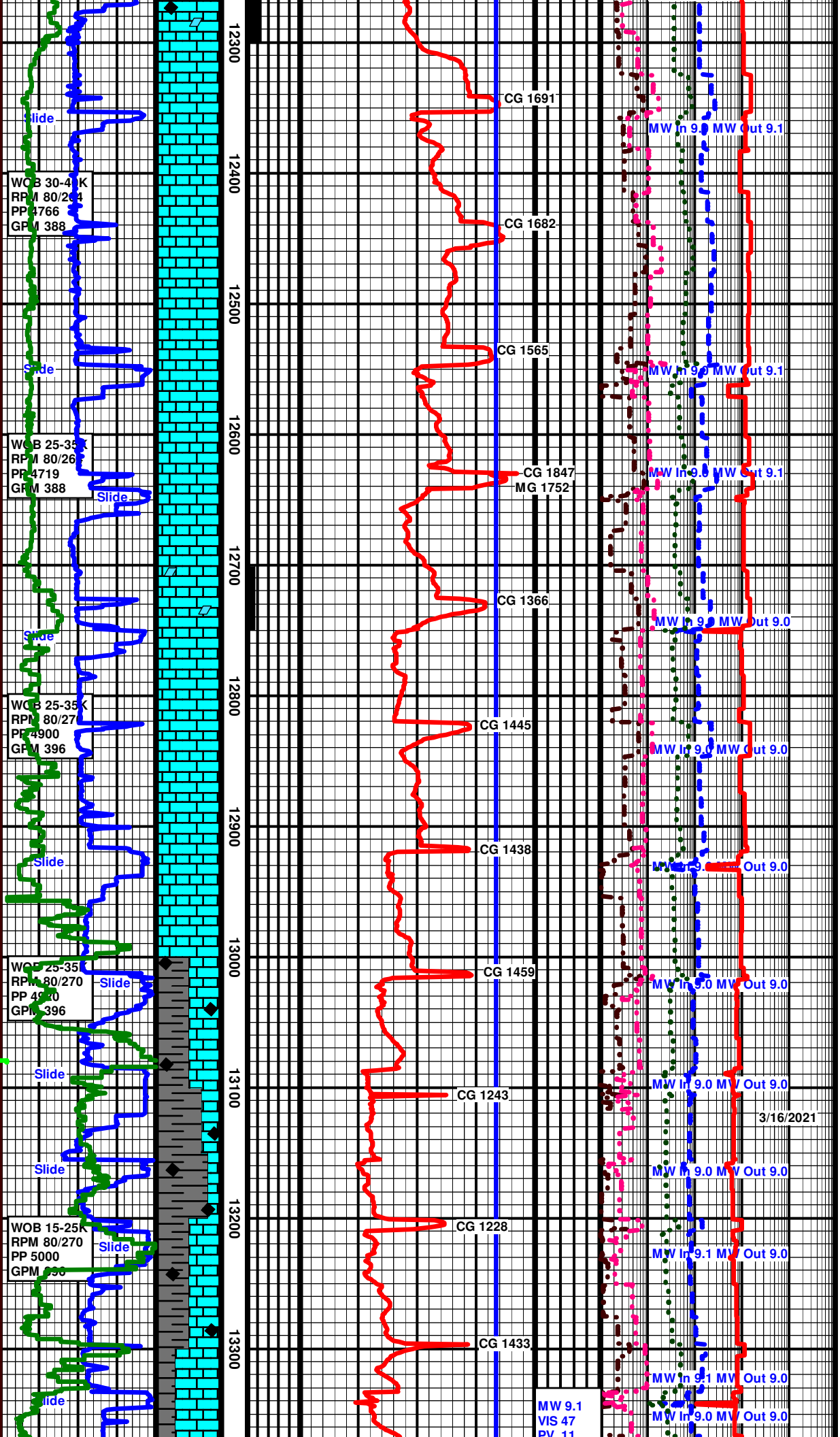
SHOWS HAVE THE FOLLOWING SIGNIFIGANCE
T - TRACE [ZONE OF INTEREST]
P - POOR SHOW PROBABLY NOT PRODUCTIVE
F - FAIR SHOW POSSIBLY PRODUCTIVE
G - GOOD SHOW PROBABLY PRODUCTIVE

NDB - NEW DIAMOND BIT
NB - NEW BIT
TG - TRIP GAS
UDB - USED DIAMOND BIT
CO - CIRCULATING OUT
LAT - LOGGED AFTER TRIP
CG - CONNECTION GAS
NR - NO RETURNS
DS - DIRECTIONAL SURVEY

ROP: ROP Ft/Hr 600–0; Casing Pressure PSI 0–1000; Gamma API 0–150
Lith
Frac.
Gas: Total Gas Units 0–800; Kick/Loss -5–1
Fluor
Chromatograph: Methane PPM 100–100000; Ethane PPM 100–100000; Propane PPM 100–100000; IButane PPM 100–100000; NButane
Remarks


100
PPM
100000
NB 6 3/4" Halliburton GTD64M
w/ 6x18's Jets TFA= 1.491
w/ 2.12° Motor, MWD, & Gamma
w/ 6 13/16" Under Reamer
7 5/8" 29.7# casing @10,148' MD
Tested to 2070psi w/ 8.9ppg MW
EMW = 13.0ppg
Total gas calibration : 50 units = 1%Methane
Slide
Rotate 30RPM
10200
10300
10400
10500
10600
10700
10800
10900
11000
11100
SDG 244
MG 224
CG 192
CG 143
CG 139
CG 139
CG 175
CG 255
CG 421
MG 479
TG 1971
CG 455
CG 753
MW 9.0
VIS 44
PV 10
YP 8
FIL 7.0
CL 52K
MW 8.9
VIS 42
PV 11
YP 9
FIL 7.6
CL 57K
MW 9.1
VIS 47
PV 12
YP 10
FIL 7.0
CL 54K
MW In 8.9 MW Out 9.0
MW In 8.9 MW Out 8.9
MW In 9.0 MW Out 9.1
3/14/2021
3/15/2021
MD 10190'
ANG 10.20°
AZM 148.40°
TVD 9997.03'
Chlk: ltgry gry mott mfrm-frm brit i.p. blky plty dull microxln
MD 10285'
ANG 21.70°
AZM 141.70°
TVD 10088.22'
Chlk: ltgry gry mott mfrm-frm brit i.p. blky plty dull microxln
MD 10380'
ANG 30.40°
AZM 135.40°
TVD 10173.51'
Chlk: gry ltgry mott mfrm-frm brit i.p. blky plty dull microxln
MD 10474'
ANG 36.70°
AZM 135.70°
TVD 10251.81'
Chlk: gry ltgry mott mfrm-frm brit i.p. blky plty dull microxln
MD 10569'
ANG 42.30°
AZM 133.90°
TVD 10325.09'
Chlk: gry/tn gry ltgry mott frm-hd brit i.p. blky plty dull microxln
MD 10663'
ANG 53.34°
AZM 133.63°
TVD 10387.7'
Chlk: gry/tn gry ltgry mott frm-hd brit i.p. blky plty dull microxln
MD 10758'
ANG 61.23°
AZM 135.83°
TVD 10439.01'
Chlk: gry/tn gry ltgry mott frm-hd brit i.p. blky plty dull microxln
MD 10853'
ANG 61.6°
AZM 135.6°
TVD 10484.46'
Chlk: gry ltgry dkgry mott frm-hd brit i.p. blky plty dull microxln
MD 10948'
ANG 66.10°
AZM 130.70°
TVD 10526.33'
Chlk: gry ltgry dkgry mott frm-hd brit i.p. blky plty dull microxln
MD 11042'
ANG 74.20°
AZM 135.00°
TVD 10558.24'
Chlk: gry ltgry dkgry mott frm-hd brit i.p. blky plty dull microxln
MD 11136'
ANG 83.70°
AZM 140.50°


WOB 15-25K
Slide
RPM 0/200
PP 4101
GPM 388
Rotate 50RPM
Landed curve @ 11,297'MD / 10,588'TVD
WOB 20-40K
RPM 80/264
PP 4432
GPM 388
Slide
WOB 20-40K
RPM 80/264
PP 4443
GPM 388
Slide
WOB 30-40K
RPM 80/264
PP 4638
GPM 388
WOB 30-40K
RPM 80/264
PP 4638
GPM 388
Slide
WOB 30-40K
RPM 80/264
PP 4746
GPM 388
Slide
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
CG 972
Note Scale Change
Total Gas
0
Units
1200
CG 936
CG 1003
CG 873
CG 937
CG 1239
CG 1153
CG 1139
CG 1227
Note Scale Change
Total Gas
0
Units
2000
CG 1390
CG 1384
CG 1501
MW 9.0
VIS 44
PV 10
YP 10
FIL 6.4
CL 55K
MW In 9.0 MW Out 9.1
TVD 10576.25'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln 40% Ash
MD 11230'
ANG 86.10°
AZM 137.00°
TVD 10584.61'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln 10% Ash
MD 11324'
ANG 86.20°
AZM 134.80°
TVD 10590.92'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln
MD 11419'
ANG 85.59°
AZM 135.57°
TVD 10597.77'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln tr Ash
MD 11514'
ANG 87.86°
AZM 135.10°
TVD 10603.20'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln tr Ash
MD 11609'
ANG 88.95°
AZM 135.23°
TVD 10605.85'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln
MD 11704'
ANG 87.62°
AZM 136.42°
TVD 10608.69'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln 10% Ash
MD 11798'
ANG 87.08°
AZM 136.55°
TVD 10613.03'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln
MD 11893'
ANG 87.17°
AZM 137.21°
TVD 10617.80'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln tr Calcite
MD 11987'
ANG 86.84°
AZM 137.31°
TVD 10622.71'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln
MD 12083'
ANG 89.03°
AZM 136.92°
TVD 10626.17'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln 1-2% Calcite tr Pyrite
MD 12180'
ANG 90.24°
AZM 136.82°
TVD 10626.79'
Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln 2-3% Calcite tr Pyrite



MD 12276'
ANG 89.06°
AZM 136.93°
TVD 10627.37'

Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln

MD 12373'
ANG 88.83°
AZM 136.06°
TVD 10630.01'

Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln

MD 12470'
ANG 89.04°
AZM 136.42°
TVD 10632.66'

Chlk: gry dkgry ltgry mott frm-hd brit i.p. blky plty dull microxln

MD 12565'
ANG 87.19°
AZM 137.23°
TVD 10635.78'

Chlk: gry dkgry mott frm-hd brit i.p. blky plty dull microxln

MD 12662'
ANG 86.03°
AZM 136.96°
TVD 10641.52'

Chlk: gry dkgry mott frm-hd brit i.p. blky plty dull microxln 1-2% Calcite

MD 12757'
ANG 84.32°
AZM 136.79°
TVD 10649.51'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 12852'
ANG 81.93°
AZM 136.45°
TVD 10660.88'

Chlk: dkgry gry occ ltgry mott frm-hd brit i.p. blky plty dull microxln

MD 12946'
ANG 81.8°
AZM 136.52°
TVD 10674.18'

SH: dkgry blk mfrm-frm hd i.p. blky plty tr Ash & Pyrite

MD 13041'
ANG 82.89°
AZM 136.77°
TVD 10686.83'

SH: dkgry blk mfrm-frm hd i.p. blky plty tr Ash & Pyrite

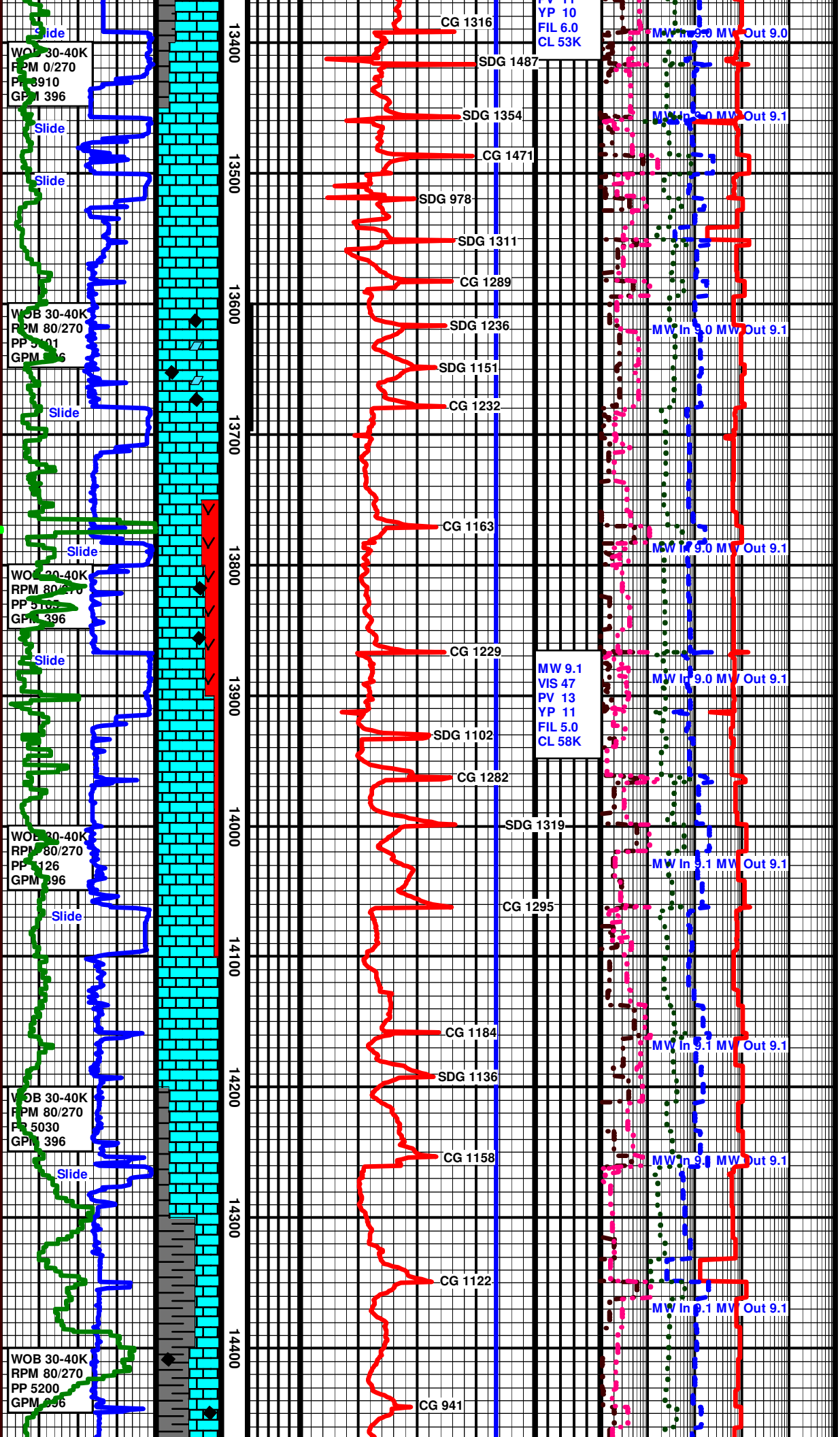
MD 13136'
ANG 87.9°
AZM 137.29°
TVD 10694.46'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln tr Ash & Pyrite

MD 13232'
ANG 92.34°
AZM 135.99°
TVD 10694.26'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 13327'
ANG 96.11°
AZM 135.46°
TVD 10687.26'



Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 13423'
ANG 92.78°
AZM 135.17°
TVD 10679.82'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 13517'
ANG 88.19°
AZM 136.38°
TVD 10679.03'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 13611'
ANG 89.77°
AZM 136.17°
TVD 10680.70'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln tr Pyrite abndt tr Calcite

MD 13706'
ANG 88.05°
AZM 135.52°
TVD 10682.51'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln 30% Ash

MD 13802'
ANG 88.63°
AZM 136.66°
TVD 10685.29'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln 25% Ash tr Imbed Pyrite

MD 13900'
ANG 86.84°
AZM 137.31°
TVD 10689.16'

Chlk: dkgry gry/brn mott frm-hd brit i.p. blky plty dull microxln

MD 13996'
ANG 87.06°
AZM 137.26°
TVD 10694.27'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 14092'
ANG 83.77°
AZM 136.79°
TVD 10701.94'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln tr Ash

MD 14187'
ANG 83.16°
AZM 136.38°
TVD 10712.75'

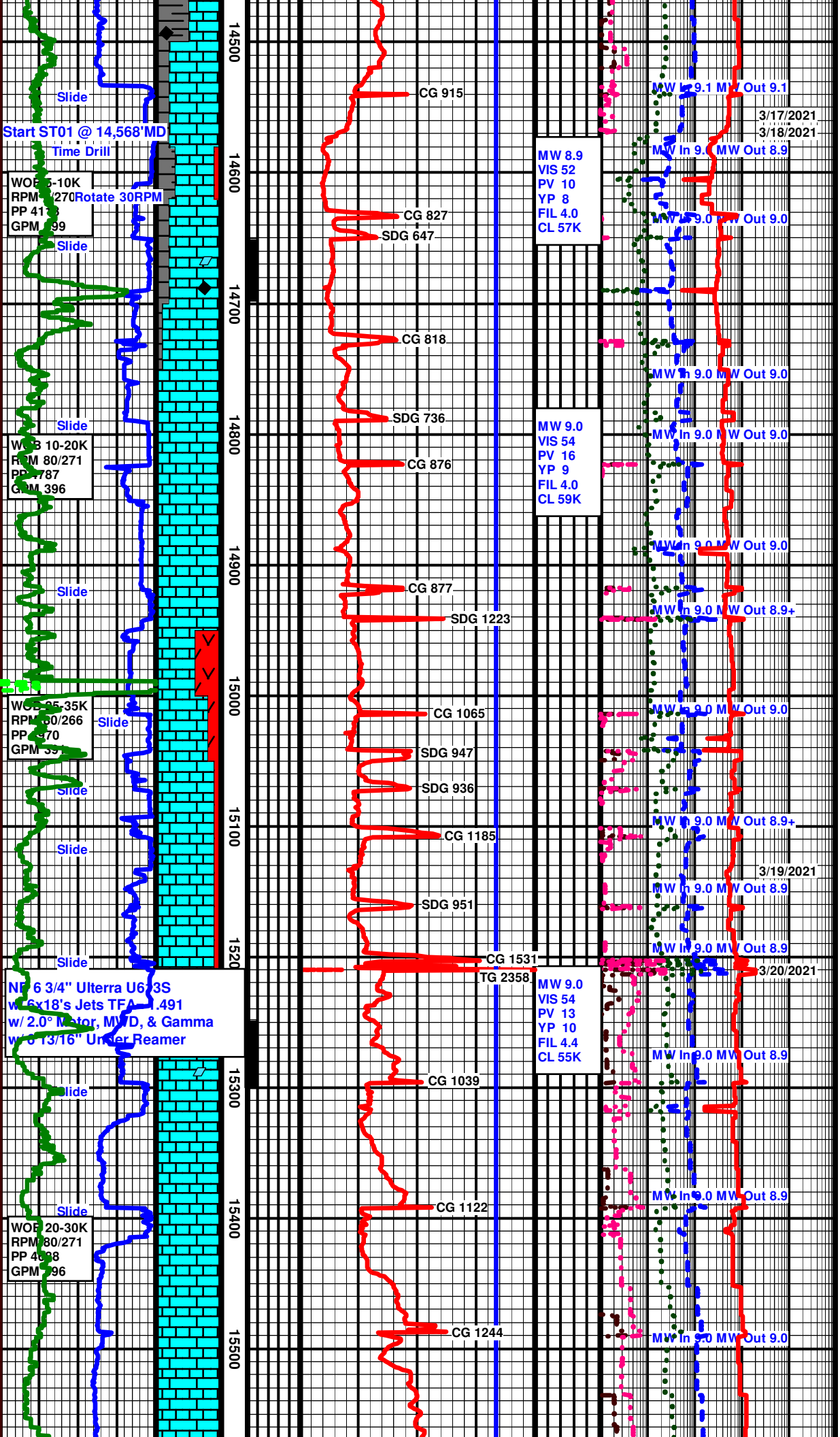
SH: dkgry mfrm-frm hd i.p. blky plty

MD 14282'
ANG 83.78°
AZM 136.06°
TVD 10723.56'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 14379'
ANG 83.56°
AZM 136.09°
TVD 10734.25'

SH: dkgry mfrm-frm hd i.p. blky plty tr Pyrite



MD 14474'
ANG 83.08°
AZM 136.58°
TVD 10745.3'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln

MD 14568'
ANG 88.69°
AZM 135.85°
TVD 10752.04'

SH: dkgry mfrm-frm hd i.p. blky plty tr Pyrite

MD 14663'
ANG 89.71°
AZM 141.73°
TVD 10753.37'

Chlk: dkgry gry mott frm-hd brit i.p. blky plty dull microxln tr Ash

MD 14758'
ANG 96.88°
AZM 141.67°
TVD 10747.92'

Chlk: dkgry gry/brn mott mfrm-hd brit i.p. blky plty dull microxln

MD 14852'
ANG 94.52°
AZM 142.13°
TVD 10738.58'

Chlk: dkgry gry/brn mott mfrm-hd brit i.p. blky plty dull microxln

MD 14947'
ANG 93.35°
AZM 141.46°
TVD 10732.06'

Ash: tn msft-mfrm blky plty

MD 15041'
ANG 93.23°
AZM 143.0°
TVD 10726.67'

Chlk: dkgry gry/brn gry mott mfrm-frm hd i.p. brit i.p. blky plty dull microxln

MD 15136'
ANG 88.48°
AZM 140.42°
TVD 10725.25'

Ash: tn msft-mfrm blky plty
Chlk: dkgry gry/brn gry mott mfrm-frm hd i.p. brit i.p. blky plty dull microxln

MD 15233'
ANG 88.70°
AZM 139.20°
TVD 10727.64'

Chlk: dkgry gry/brn gry mott mfrm-frm hd i.p. brit i.p. blky plty dull microxln 1-2% Calcite

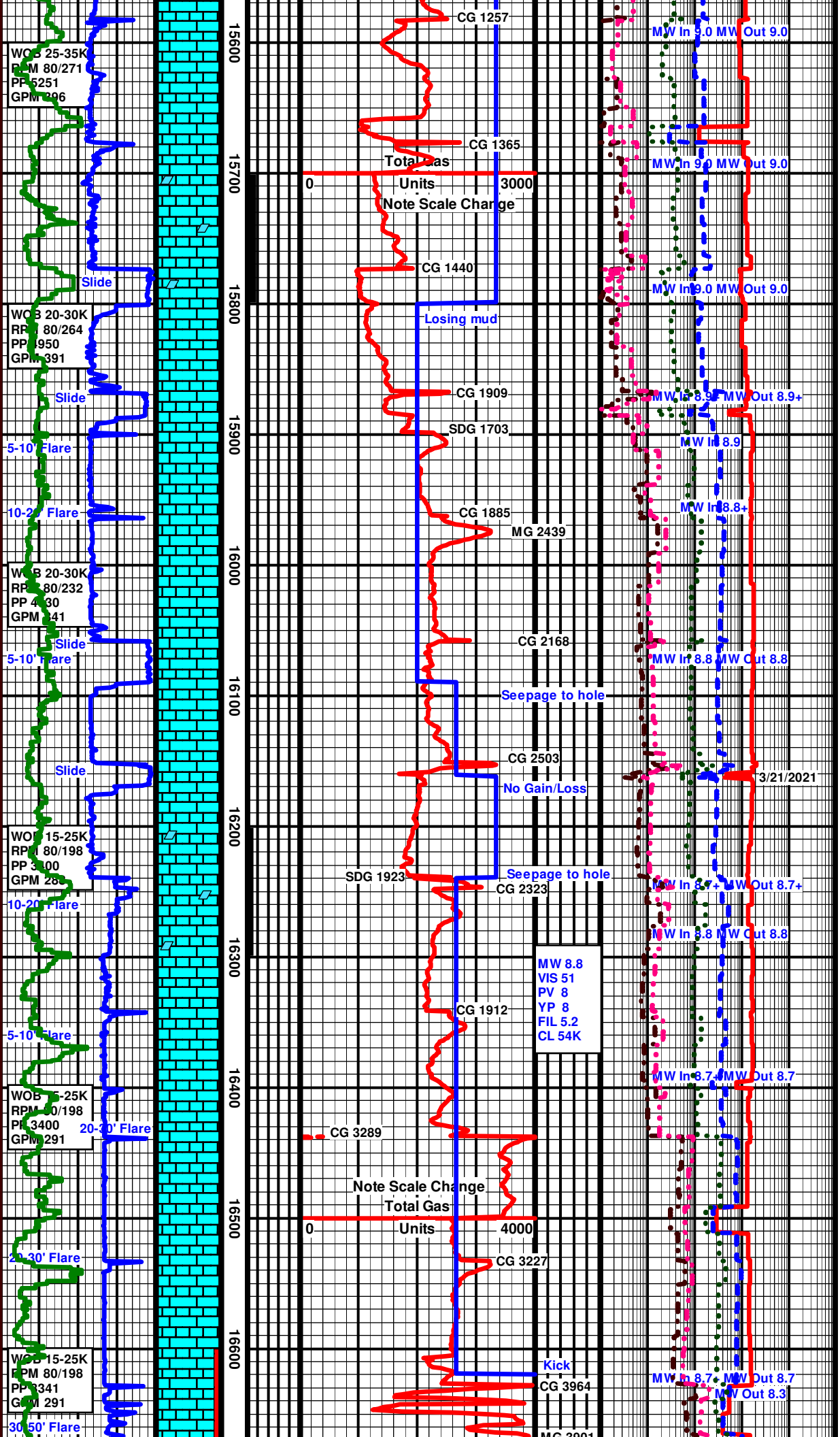
MD 15327'
ANG 86.50°
AZM 137.90°
TVD 10731.57'

Chlk: dkgry gry/brn gry mott mfrm-frm hd i.p. brit i.p. blky plty dull microxln tr Ash & Calcite

MD 15422'
ANG 85.90°
AZM 134.90°
TVD 10737.90'

Chlk: dkgry gry/brn gry mott mfrm-frm hd i.p. brit i.p. blky plty dull microxln

MD 15518'
ANG 85.70°
AZM 134.60°
TVD 10744.90'



Chlk: dkgry gry/brn gry mott mfrm-frm hd i.p. brit i.p. blky plty dull microxln

MD 15612'
ANG 86.12°
AZM 134.00°
TVD 10751.38'

Chlk: dkgry gry/brn gry mott mfrm-frm hd i.p. brit i.p. blky plty dull microxln tr Calcite

MD 15707'
ANG 87.90°
AZM 133.70°
TVD 10756.10'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln 1-2% Calcite

MD 15802'
ANG 86.23°
AZM 132.58°
TVD 10761.05'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln

MD 15898'
ANG 85.3°
AZM 134.33°
TVD 10768.14'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln

MD 15992'
ANG 85.77°
AZM 134.76°
TVD 10775.45'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln

MD 16087'
ANG 83.92°
AZM 133.94°
TVD 10783.99'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln

MD 16181'
ANG 82.32°
AZM 134.79°
TVD 10795.25'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln 1% Calcite

MD 16276'
ANG 82.32°
AZM 134.34°
TVD 10807.95'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln

MD 16371'
ANG 82.2°
AZM 133.37°
TVD 10820.74'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln tr Calcite

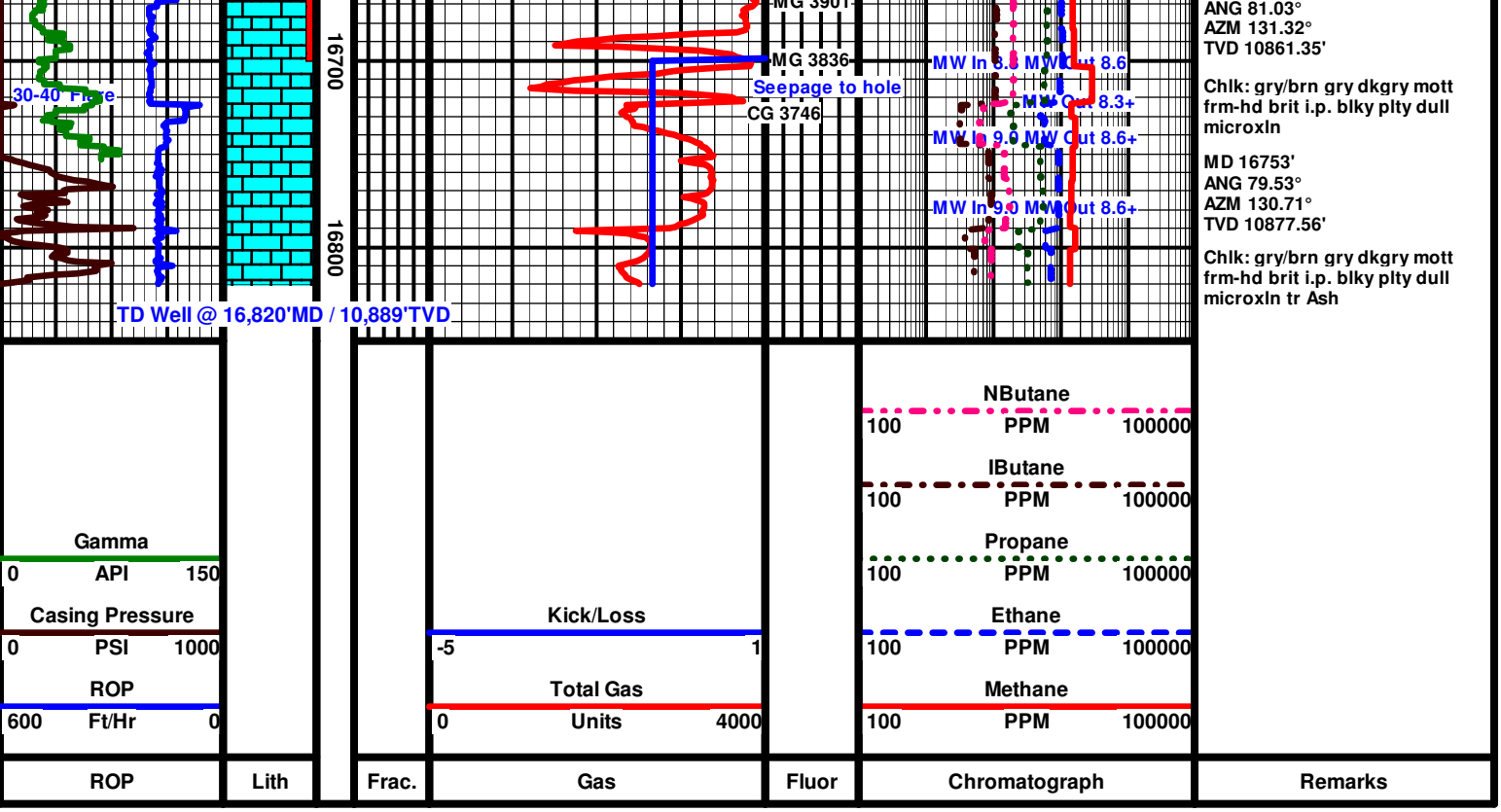
MD 16465'
ANG 82.27°
AZM 132.8°
TVD 10833.44'

Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln

MD 16563'
ANG 81.62°
AZM 132.11°
TVD 10847.17'

Chlk: gry/brn lt gry mott frm-hd brit i.p. blky plty dull microxln 10% Ash

MD 16657'


30-40' Flare
16700
16800
TD Well @ 16,820'MD / 10,889'TVD
MG 3901
MG 3836
Seepage to hole
CG 3746
MW In 8.8 MW Out 8.6
MW Out 8.3+
MW In 9.0 MW Out 8.6+
MW In 9.0 MW Out 8.6+
ANG 81.03°
AZM 131.32°
TVD 10861.35'
Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln
MD 16753'
ANG 79.53°
AZM 130.71°
TVD 10877.56'
Chlk: gry/brn gry dkgry mott frm-hd brit i.p. blky plty dull microxln tr Ash
Gamma
0 API 150
Casing Pressure
0 PSI 1000
ROP
600 Ft/Hr 0
Kick/Loss
-5 1
Total Gas
0 Units 4000
NButane
100 PPM 100000
IButane
100 PPM 100000
Propane
100 PPM 100000
Ethane
100 PPM 100000
Methane
100 PPM 100000
ROP
Lith
Frac.
Gas
Fluor
Chromatograph
Remarks