



Company : Beach Petroleum Ltd

Well : Fermat-1

Interval : 979.00 - 2405.93 meters

Created : 26/Dec/2008 3:52:53 AM



INTEQ

FORMATION EVALUATION LOG

DRILLING PARAM		MD meters	INTERPRETED LITHOLOGY	Oil Show P F G	LITHOLOGY %	CORE	TOTAL GAS					CHROMATOGRAPH					Calcimetry	Lithology Description
ROP (m/hr)							Total Gas (unit)					Methane ppm						
200	160	120	80	40			10	20	30	40	50	1	100000	1	100000			
WEIGHT ON BIT (klbf)		10	20	30	40	50	1	100000	1	100000	1	100000	1	100000	1	100000		
		1	100000	1	100000	1	100000	1	100000	1	100000	1	100000	1	100000			
Set 13-3/8" Casing at 987.0 m		980																
NB3: 311mm(12-1/4") Make: Hughes Type: GT-1 Jets: 3 x 16 Depth In: 999.0 m Depth Out: 1027.0 m Drilled 28.0m in 1.1 hrs Grade: O-O-NO-A-E-I-NO-BHA		990																
19/12/2008		1000																
NB4: 311mm(12-1/4") Make: Reed Type: RSR616M-A10 Jets: 3 x 13, 3 x 14 Depth In: 1027.0 m Depth Out: 2396.5 m Drilled 1369.5m in 83.3 hrs Grade: xxxxxx		1030																
20/12/2008		1040																
		1050																
		1060																
		1070																

MW: 9.3 ppg FV: 180
 PV: 17 Gel: 11/14/16
 YP: 26 pH: 10.5

MD: 990.90m Inc: 2.28°
 TVD: 990.8m Azi: 226.38°

444 mm (17-1/2") Section TD @ 999.0m

FIT @ 987.0 m with 9.3 ppg
 EMW: 15.0 ppg @ 960 psi

SILTSTONE: olv gry, brn-grysh brn, mod calc, com pyr, com lit frag, frm-hd, blkly-sbfis

SANDSTONE: clr-trnsl, lt smky gry, fros, w/ mnr yel-wh mky qtz & mnr musc, f-gran, sbang-sbrndd, p srt (binodal), nod & dissem pyr, disagg, n fluor

MW: 9.5 ppg FV: 153
 PV: 30 Gel: 10/15/17
 YP: 42 pH: 9.5

MD: 1023.76m Inc: 2.63°
 TVD: 1023.6m Azi: 224.84°

SILTSTONE: olv gry-brn -lt gy, mod calc, com pyr, com lit frag, sft-v hd, blkly-sbfis

CLAYSTONE: olv gy-mod olv brn, mod calc, sli slty, tr wh calc spar incl, tr carb mat, sft, mass-amor

MD: 1053.62m Inc: 2.63°
 TVD: 1053.4m Azi: 224.67°

SANDSTONE: clr-transl, lt smky gry, fros, w/ mod abd fspr, f-v crs, sbang-sbrndd, p srt (binodal), nod &

dissem pyr, tr musc, disagg w/ mnr py
cmt f-m sd agg, n fluor

MD: 1083.09m Inc: 2.60°
TVD: 1082.9m Azi: 225.86°

SANDSTONE: clr-transl, lt smky gry,
fros, w/ mod abd fspr, f-v crs,
sbang-sbrndd, p srt (binodal), nod &
dissem pyr, tr musc, disagg w/ mnr pyr
cmt f-m sd agg, n fluor

SILTSTONE: dk gry-olv gry, sli calc I.P.,
loc v arg grd stly Clst I.P., sli aren, micr
mic, tr carb spks, tr lit frag

MD: 1112.27m Inc: 2.75°
TVD: 1112.0m Azi: 224.69°

MD: 1141.27m Inc: 2.61°
TVD: 1141.4m Azi: 223.95°

CLAYSTONE: dk gry-brn blk, mod stly,
sli calc I.P. com carb/c frag, micr mic, tr
musc, sft-plas, mass-blky I.P.

MD: 1171.39m Inc: 2.66°
TVD: 1171.1m Azi: 223.80°

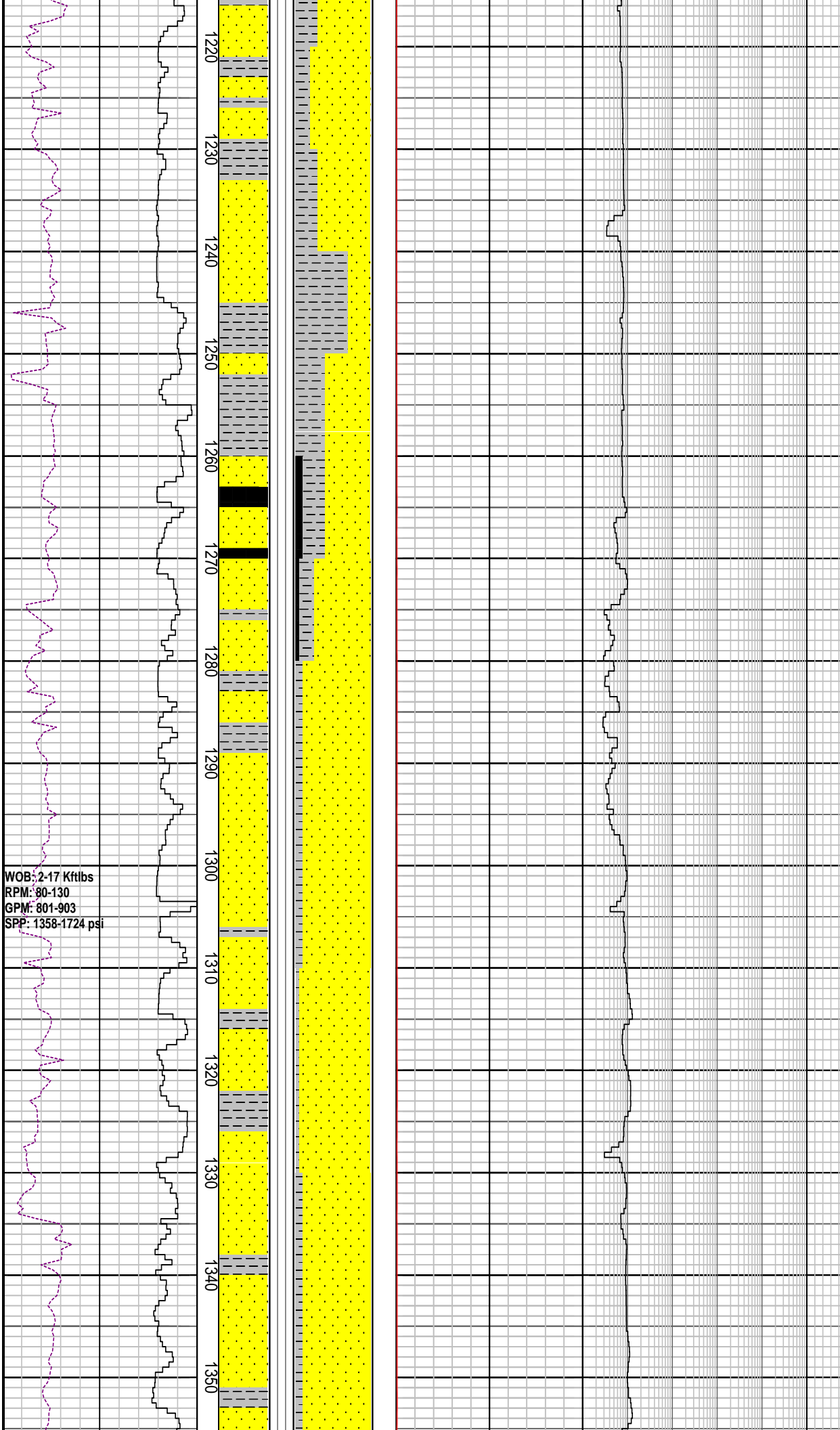
SANDSTONE: clr-trnsl, fros, smky gy,
f-m gr, mnr crs, tr v crs, sbang-sbrndd,
p-mod srt, arg mtrx I.P. dissem & nod
pyr, mnr carb mat, tr Fe stn qtz, fri-pred
disagg, p-fr por, n f

MD: 1200.78m Inc: 2.64°
TVD: 1200.4m Azi: 223.80°

WOB: 1-8 Kftlbs
RPM: 20-177
GPM: 290-1006
SPP: 915-2045 psi

WOB: 1-14 Kftlbs
RPM: 94-177
GPM: 801-961
SPP: 1249-1877 psi





WOB: 2-17 Kftlbs
 RPM: 80-130
 GPM: 801-903
 SPP: 1358-1724 psi

CLAYSTONE: m-dk gy, mod slty, sli calc I.P. com pyr, mnr carb spks, sft-plas, mass-blky I.P.

MD: 1230.79m	Inc: 2.72°
TVD: 1230.4m	Azi: 225.15°

SANDSTONE: clr-trnsl, fros, smky gy, f-m gr, mnr crs, tr v crs, sbang-sbrndd, p-mod srt, arg mtrx I.P. dissem & nod pyr, mnr carb mat, tr Fe stn qtz, fri-pred disagg, fr por, n flu

MW: 9.65 ppg	FV: 74
PV: 23	Gel: 9/14/15
YP: 27	pH: 8.5

COAL: blk, sbbit, dll-sbvit lstr, plty fract, brit, blk-pty I.P

CLAYSTONE: m-dk gy, mod slty, sli calc I.P. com pyr, mnr carb spks, sft-plas, mass-blky I.P

MD: 1288.88m	Inc: 2.77°
TVD: 1288.4m	Azi: 225.56°

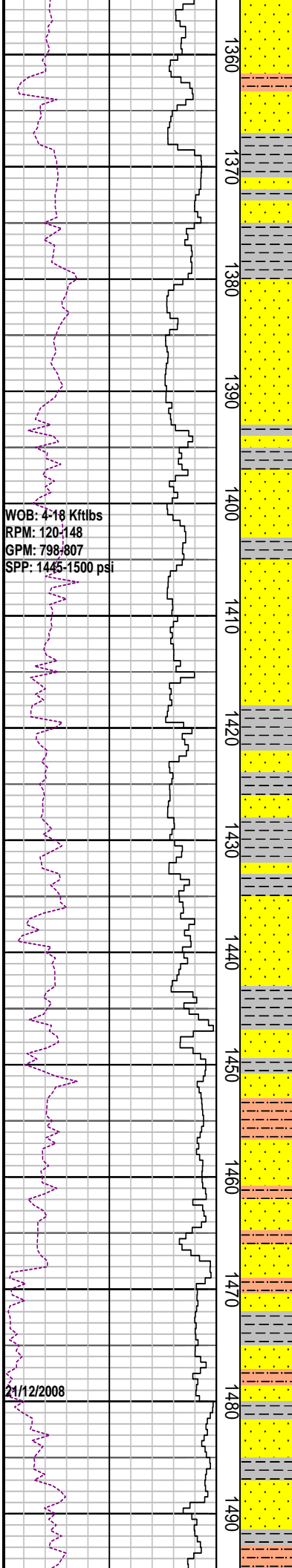
SANDSTONE: clr-trnsl, fros, smky gy, m-crs gr, sbang-sbrndd, mod srt, arg mtrx I.P. dissem pyr cmt & nod pyr, com carb mat, micr mic, tr Fe stn qtz, p por, n fluor

MD: 1318.86m	Inc: 2.69°
TVD: 1318.4m	Azi: 226.89°

CLAYSTONE: dk gy-brn blk, mod slty grd to Arg Siltst I.P, mnr carb mat & carb micr lam, sft-plas, mass-amor

SANDSTONE: qtz, clr-trnsl, fros, smky gy, m-crs gr, ang-sbrndd, mdd I.P. mod srt, slty arg mtrx I.P, dissem pyr cmt & nod pyr, tr carb mat, micr mic, tr fspr, p por, n fluor

CLAYSTONE: dk gy-brn blk, sli slty, mnr carb mat & carb micr lam, sft-plas, mass-amor



WOB: 4-18 Kftlbs
 RPM: 120-148
 GPM: 798-807
 SPP: 1445-1500 psi

21/12/2008

1360
1370
1380
1390
1400
1410
1420
1430
1440
1450
1460
1470
1480
1490

Carbide Run @ 1421.0 m
 Actual: 4825 stirks
 Theoretical: 4811 stirks
 Avg Hole Diameter: 12.29"
 Carbide Gas: 18 units

SILTSTONE: dk gy-brn gy, mod calc, loc v arg grd slty Clst I.P, micr mic, tr carb spks, tr lit frag, sft, blkly

SANDSTONE: qtz, clr-trnsl, fros, smky gy, m-crs gr, sbang-sbrndd, rndd I.P. mod srt, slty arg mtrx I.P, tr nod pyr, tr musc, tr carb mat, micr mic, tr fspr, p por, n fluor

CLAYSTONE: dk gy-brn gy, sli slty, gd to Slst, mnr carb mat & carb micr lam, sft-plas, mass-amor

MD: 1407.48m	Inc: 2.91°
TVD: 1406.9m	Azi: 229.04°

CLAYSTONE: dk gy-dk brn gy, mod-v slty arg mtrx, gd to Slst I.P. mnr carb mat & carb micr lam, sft-plas, mass-amor

MD: 1436.37m	Inc: 2.94°
TVD: 1435.7m	Azi: 228.54°

MW: 9.6 ppg	FV: 76
PV: 12	Gel: 9/14/17
YP: 49	pH: 9.5

SILTSTONE: dk gy-brn gy, mod calc, loc arg mtrx, grd slty Clst I.P, micr mic, tr carb spks, tr lit frag, sft, blkly

MD: 1465.90m	Inc: 3.02°
TVD: 1465.2m	Azi: 227.97°

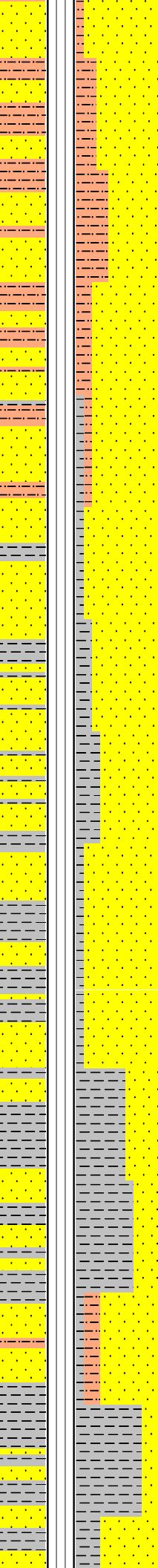
CLAYSTONE: dk gy- brn gy, mod calc, slty arg mtrx, gd to Slst I.P. mnr carb mat & carb micr lam, sft-plas, mass-amor

SANDSTONE: qtz, clr-trnsl, smky gy, f-crs gr, ang-sbrndd, rndd I.P. mod srt, slty arg mtrx I.P, tr musc, tr carb mat, micr mic, p por, n fluor

WOB: 1-18 Kftlbs
RPM: 98-148
GPM: 800-925
SPP: 1470-1950 psi

WOB: 9-26 Kftlbs
RPM: 117-170
GPM: 803-1008
SPP: 1437-2267 psi

1500
1510
1520
1530
1540
1550
1560
1570
1580
1590
1600
1610
1620
1630



MD: 1495.44m Inc: 3.02°
TVD: 1494.2m Azi: 227.27°

SILTSTONE: dk gy- lt brn gy, mod calc, loc arg mtrx, micr mic, tr carb spks, tr lit frag, sft, blk

SANDSTONE: qtz, clr-trnsl, lt gy, v f-f gr, ang-sbrnnd, mod srt, slty arg mtrx I.P, tr carb mat, micr mic, p por, n fluor

MD: 1525.13m Inc: 3.06°
TVD: 1524.4m Azi: 228.31°

SANDSTONE: qtz, clr-trnsl, fros, f-m gr, mnr v crs, sbang-sbrnnd, mod srt, wk calc cmt I.P, tr nod pyr, tr glau, com carb/c frag, occ crs mlky fit, occ rd lit frag, disagg, fr por,

MD: 1554.71m Inc: 3.12°
TVD: 1553.9m Azi: 227.55°

CLAYSTONE: brnsh gy-olv gry, yel gy I.P, loc v slty grd to Arg Sltst I.P, sli aren I.P, tr lit frag, com carb mat, micr mic, sft-plas, mass-blky

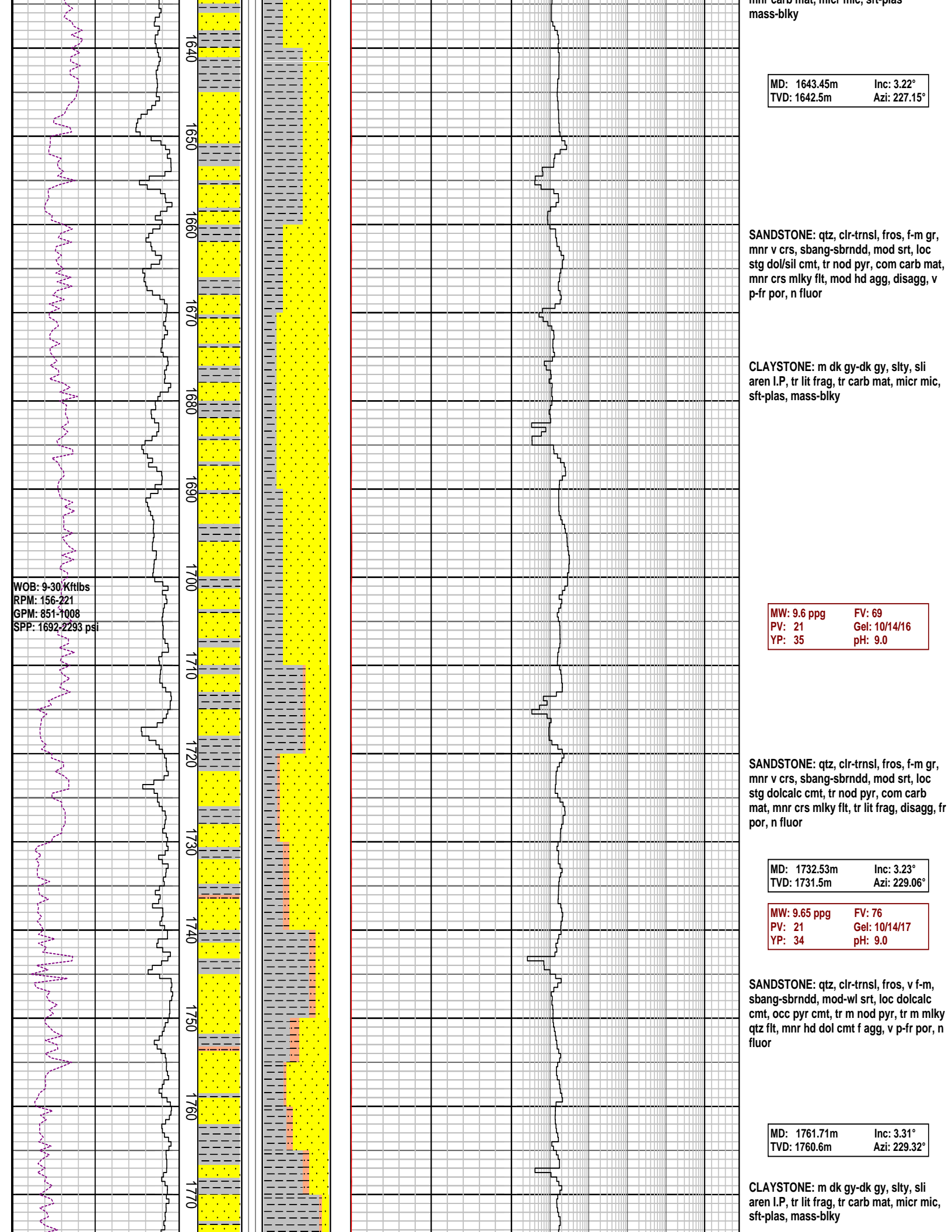
MD: 1584.40m Inc: 3.16°
TVD: 1583.6m Azi: 227.33°

SANDSTONE: qtz, clr-trnsl, fros, f-m gr, mnr v crs, sbang-sbrnnd, mod srt, loc mod stg dolcalc cmt, tr nod pyr, com carb mat, tr crs mlky fit, tr lit frag, disagg, fr por, n fluor

SILTSTONE: pl yel brn, mod sil, mod arg, tr carb frag, tr lit frag, tr musc, sli chlor, hd, blk

MD: 1614.18m Inc: 3.15°
TVD: 1613.3m Azi: 227.26°

CLAYSTONE: m dk gy-dk gy, v slty grd to Arg Sltst I.P, sli aren I.P, tr lit frag, mnr carb mat, micr mic, sft-plas



WOB: 9-30 Kftlbs
 RPM: 156-221
 GPM: 851-1008
 SPP: 1692-2293 psi

MD: 1643.45m Inc: 3.22°
 TVD: 1642.5m Azi: 227.15°

SANDSTONE: qtz, clr-trnsl, fros, f-m gr, mnr v crs, sbang-sbrndd, mod srt, loc stg dol/sil cmt, tr nod pyr, com carb mat, mnr crs mlky flt, mod hd agg, disagg, v p-fr por, n fluor

CLAYSTONE: m dk gy-dk gy, slty, sli aren I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

MW: 9.6 ppg FV: 69
 PV: 21 Gel: 10/14/16
 YP: 35 pH: 9.0

SANDSTONE: qtz, clr-trnsl, fros, f-m gr, mnr v crs, sbang-sbrndd, mod srt, loc stg dolcalc cmt, tr nod pyr, com carb mat, mnr crs mlky flt, tr lit frag, disagg, fr por, n fluor

MD: 1732.53m Inc: 3.23°
 TVD: 1731.5m Azi: 229.06°

MW: 9.65 ppg FV: 76
 PV: 21 Gel: 10/14/17
 YP: 34 pH: 9.0

SANDSTONE: qtz, clr-trnsl, fros, v f-m, sbang-sbrndd, mod-wl srt, loc dolcalc cmt, occ pyr cmt, tr m nod pyr, tr m mlky qtz flt, mnr hd dol cmt f agg, v p-fr por, n fluor

MD: 1761.71m Inc: 3.31°
 TVD: 1760.6m Azi: 229.32°

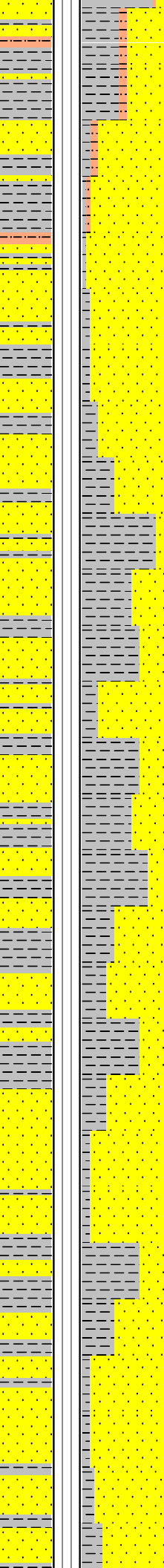
CLAYSTONE: m dk gy-dk gy, slty, sli aren I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

22/12/2008

WOB: 6-19 Kftlbs
RPM: 170-200
GPM: 990-1002
SPP: 2240-2280 psi

WOB: 6-19 Kftlbs
RPM: 193-221
GPM: 982-1070
SPP: 2257-2393 psi

1780
1790
1800
1810
1820
1830
1840
1850
1860
1870
1880
1890
1900
1910



MD: 1791.33m Inc: 3.27°
TVD: 1790.2m Azi: 229.40°

SANDSTONE: qtz, clr-trnsl, fros, v f-m, sbang-sbrnrd, mod-wl srt, loc dolcalc cmt, occ pyr cmt, tr m nod pyr, tr m mlky qtz fit, mnr hd dol cmt f agg, v p-fr por, n fluor

MD: 1820.98m Inc: 3.35°
TVD: 1819.8m Azi: 229.44°

CLAYSTONE: m dk gy-dk gy, slty, sli aren I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

CLAYSTONE: m dk gy-olv blk, slty grd to Arg Sltst I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

SANDSTONE: qtz, clr-trnsl, f-m gr, sbrnrd-rnrd, wl srt, loc dolcalc cmt, tr nod pyr, mnr kao, tr m mlky qtz fit, disagg p-fr por, n fluor

MD: 1880.19m Inc: 3.46°
TVD: 1878.9m Azi: 227.97°

CLAYSTONE: m dk gy-olv blk, slty grd to Arg Sltst I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

SANDSTONE: qtz, clr-trnsl, v f-f gr, com m gr, sbang-sbrnrd, wl srt, loc dolcalc cmt, tr sil cmt, tr nod pyr, tr carb mat, tr Fe stn, tr f mlky qtz fit, disagg, p por, n fluor

MW: 9.7 ppg	FV: 52
PV: 15	Gel: 11/16/19
YP: 34	pH: 8.8

MD: 1939.47m	Inc: 3.51°
TVD: 1938.0m	Azi: 227.37°

CLAYSTONE: m dk gy-olv blk, slty grd to Arg Sltst, sli calc, mnr carb spk, micr mic, sft-plas, mass-blky

SANDSTONE: qtz, clr-trnsl, v f-m gr, mnr crs gr, sbang-sbrndd, wl srt, loc dolcalc cmt, tr stg sil cmt, tr nod & dissem pyr, com carb mat, tr Fe stn, tr f mlky qtz flt, disagg, p-f

Carbide Run @ 1982.0 m
 Actual: 6500 strks
 Theoretical: 6445 strks
 Avg Hole Diameter: 12.35"
 Carbide Gas: 30 units

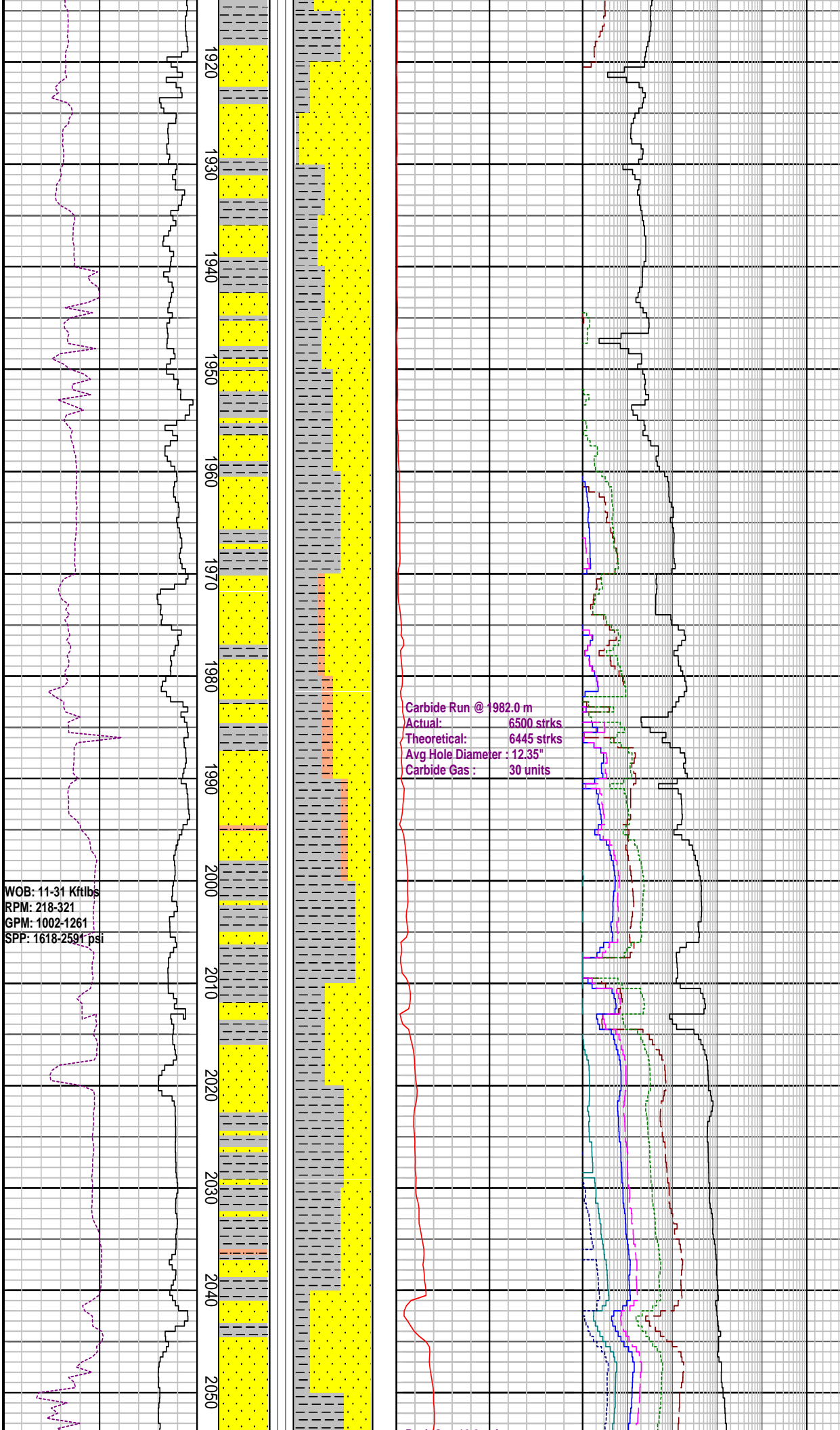
CLAYSTONE: m dk gy- brn gy, slty grd to Arg Sltst, sli calc, mnr carb spk, micr mic, sft-plas, mass-blky

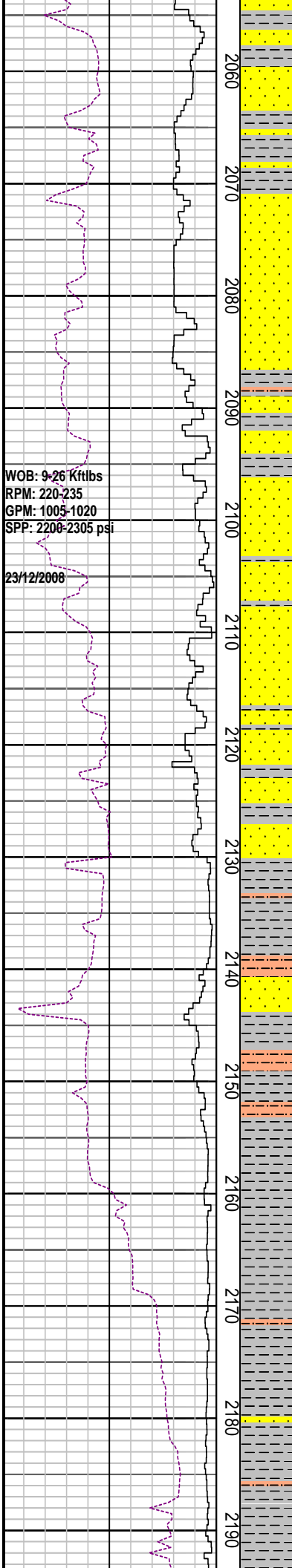
SANDSTONE: qtz, clr-trnsl, v f-m, ang-sbrndd f gr, mod-wl srt, loc dolcalc/sil cmt, tr stg sil cmt, tr nod & dissem pyr, com carb mat, p-f por, n fluor

MD: 2028.16m	Inc: 3.39°
TVD: 2026.6m	Azi: 229.51°

CLAYSTONE: m dk gy- brn gy, slty grd to Arg Sltst, sli calc, mnr carb spk, micr mic, sft-plas, mass-blky

WOB: 11-31 Kftlbs
 RPM: 218-321
 GPM: 1002-1261
 SPP: 1618-2591 psi





WOB: 9.26 Kftlbs
 RPM: 220-235
 GPM: 1005-1020
 SPP: 2200-2305 psi

23/12/2008

Peak/Gas: 10.2 unit
 88/7/3/2/Tr

MD: 2057.35m Inc: 3.37°
 TVD: 2055.7m Azi: 231.70°

SANDSTONE: qtz, clr-trnsl, v f-m, sbang-sbrndd, mod-wl srt, loc dolcalc/sil cmt, tr stg sil cmt, tr nod & dissem pyr, com carb mat, tr Fe stn, p-f por, n fluor

MD: 2086.92m Inc: 3.34°
 TVD: 2085.2m Azi: 227.82°

MW: 9.7 ppg FV: 53
 PV: 13 Gel: 11/17/20
 YP: 38 pH: 9.0

SANDSTONE: qtz, dull gy-lt yel brn, clr-trnsl, v f-m crs, sbang-sbrndd, v wl srt, loc dolcalc/sil cmt, tr stg sil cmt, tr nod & dissem pyr, com carb mat, tr Fe stn, p-f por, n fluo

MD: 2116.75m Inc: 3.44°
 TVD: 2115.0m Azi: 227.04°

SANDSTONE: qtz, trnsp-trnsl, v f-m, sbang-sbrndd, v wl srt, loc dolcalc/sil cmt, tr nod & dissem pyr, com carb mat, tr Fe stn, p-f por, n fluo

MD: 2146.4m Inc: 3.29°
 TVD: 2144.6m Azi: 227.47°

SILTSTONE: dk gy-blk, v hd, sbblky-blky, splin, occ elong, fis I.P. non calc

MD: 2175.52m Inc: 3.42°
 TVD: 2173.2m Azi: 228.06°

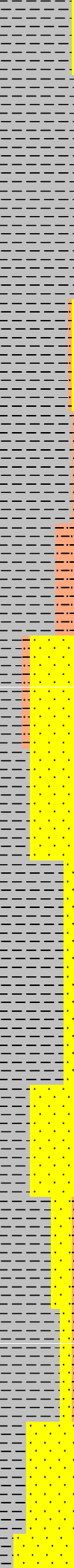
CLAYSTONE: m dk gy-lt gy, slty grd to Arq Slst. sli calc, mnr carb spk, mic

WOB: 3-41 Kftlbs
RPM: 121-247
GPM: 896-1028
SPP: 2202-2364psi

24/12/2008

WOB: 15-40 Kftlbs
RPM: 175-250
GPM: 1019-1021
SPP: 2210-2440 psi

2200
2210
2220
2230
2240
2250
2260
2270
2280
2290
2300
2310
2320
2330



Peak Gas: 11.7 unit
92 / 5 / 2 / Tr / Tr

Peak Gas: 13.8 unit
91 / 6 / 2 / Tr / Tr

Peak Gas: 31.5 unit
95 / 3 / 1 / Tr / Tr

mic, sft-plas, mass-blky

SILTSTONE: dk gy-blk, v hd,
sbbiky-blky, splin, occ elong, fis I.P. non
calc

MW: 9.7 ppg FV: 49
PV: 14 Gel: 12/10/21
YP: 31 pH: 9.0

MD: 2235.0m Inc: 3.46°
TVD: 2233.0m Azi: 227.38°

CLAYSTONE: dk gy- m dk gy, sft- m hd,
ang-sbrndd, wl srt, slty grd to Arg Sltst,
sli calc, mnr carb spk, micr mic,
mass-blky

MW: 9.7 ppg FV: 49
PV: 14 Gel: 11/17/20
YP: 34 pH: 9.0

SANDSTONE: smky qtz, trnspr-trnsl, v f
gr, ang-sbrndd, v wl srt, loc dolcalc/sil
cmt, tr nod & dissep pyr, com carb mat,
p-f por, n fluor

MD: 2264.44m Inc: 3.46°
TVD: 2262.0m Azi: 227.56°

SANDSTONE: smky qtz, trnspr-trnsl, v f
gr, sbang-sbrndd, p-wl srt, loc dolcalc/sil
cmt, tr nod & dissep pyr, com carb
spks, p-f por, n fluor

SILTSTONE: dk gy-blk, hd-v hd,
sbbiky-blky, splin, occ elong, fis (Shale),
non calc

MD: 2323.6m Inc: 3.26°
TVD: 2321.5m Azi: 226.76

SANDSTONE: smky qtz, trnspr-trnsl, v f
gr, occ m-crs gr, sbang-sbrndd, mod-w

