

Alum 25-29. 24" conductor pipe set at 90'. Spud well on 11/8/09 and drill ahead w/ 20" bit.

8.5 mud wt.  
 52 vis

Alluvium:brn-lt brn,unconsol grs,prly srt,v sft cly text, ang-sub ang,pr indrtd cly-snd sized clsts.matrix supp,~90% cly matrix,mixture of breccia and poss dolomite present.

Pason unable to properly track data due to variable weight on the bit, hole/bit depth not tracking properly.

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Alluvium:lt-dk grn,brn,lt-dk gry,snd-grvl size grs,mod-hrd,v prly srted,sub ang-rnnd, pred sub rnnd,pred crs grnd metased clsts in ~40-60% lt-dk gry cly matrix, poss matrix supp breccia,mixture of sndstn,limestone,meta seds, poss rhyolite,breccia decr w/ depth.

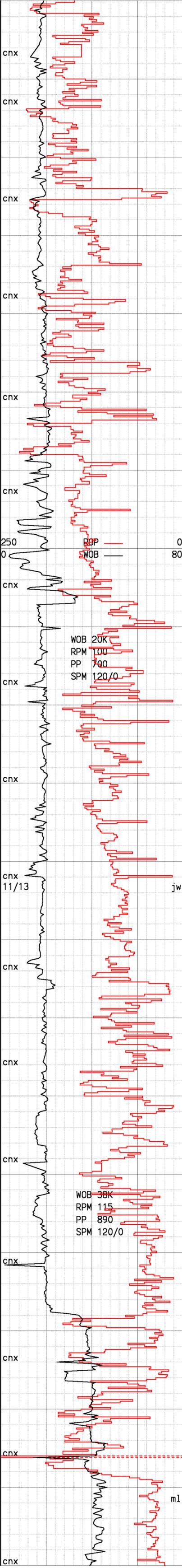
Drill 20" hole to 577',run 13 joints of 16", 84 ppf, J-55, JAPAN casing from surface to 570',drill ahead with 14 3/4" bit.

Alluvium:lt-dk grn,brn,lt-dk gry,snd-grvl size grs,mod-hrd,v prly srted,sub ang-rnnd, pred sub rnnd,pred crs grnd metased clsts in ~40-60% lt-dk gry cly matrix, poss matrix supp breccia,mixture of snd & sndstn,limestone, meta seds,loc tuff seds,poss rhyolite,breccia decr w/depth loc gypsum.

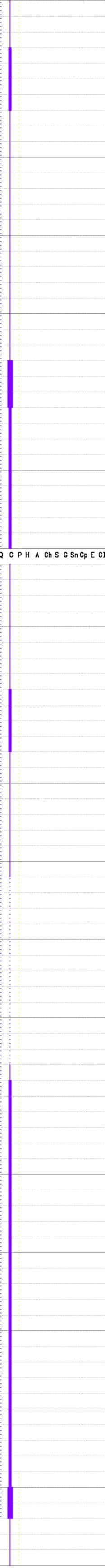
Tuff Seds:wht,grn,lt gry,sft-mod hd,med-v crs gr,pred crs gr,prly-mod srt,mnr pebble-grav sz ash fall tuff frags, tr clay altd ash fall tuff, mixed w/30% clay,lt gry,v sft,sticky,slty,r rhyolite,r sandstone,r qtzite,r qtz,tr-mnr calc,r disem & agg pyr,r gypsum.

Tuff Seds:wht,grn,lt gry,sft-mod hd,med-v crs gr,pred crs gr,prly-mod srt,mnr pebble-grav sz ash fall tuff frags, tr clay altd ash fall tuff, mixed w/10-30% clay,lt gry,v sft,sticky,slty,r rhyolite,r sandstone,r qtzite,r qtz,tr-mnr calc,r disem & agg pyr,r gypsum.

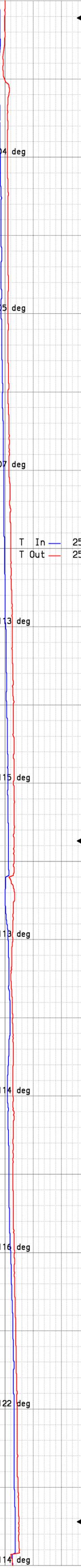
Tuff Seds:wht,grn,lt gry,



100  
1050  
1100  
1150  
1200  
1250  
1300  
1350  
1400  
1450  
1500  
1550  
1600  
1650  
1700  
1750  
1800  
1850  
1900  
1950  
2000



92/104 deg  
93/105 deg  
98/107 deg  
101/113 deg  
105/115 deg  
103/113 deg  
104/114 deg  
110/116 deg  
116/122 deg  
114/114 deg



no losses  
no losses

1011'  
3.00 deg  
N55W  
9.1 mud wt.  
44 vis  
1537'  
3.00 deg  
N69W  
9.2 mud wt.  
42 vis  
9.3 mud wt.  
40 vis  
9.3 mud wt.  
52 vis

crs gr, pred crs gr, prly-mod srt, mixed w/30-50% clay, lt gry, v sft, sticky, slty, incr Ash Fall Tuff: wht, lt gry, orng-yellow, sft-hd, pred mod hd, fn ashy mtx, r lithic frags, r rhyolite, r sandstone, r qtzite, r qtz, tr-mnr calc, r disem & agg pyr, r gypsum.

Tuff Seds: wht, grn, lt gry, blu, orng-yellow, sft-mod hd, med-v crs gr, pred crs gr, prly-mod srt, mnr pebble-grav sz ash fall tuff frags, tr clay altd ash fall tuff, mixed w/10-50% clay, lt gry, v sft, sticky, slty, r rhyolite, r tuffaceous sandstone, r qtzite, tr tuff brecc, r qtz, tr-com calc, r disem & agg pyr, r gypsum.

Tuff Seds: wht, grn, lt gry, orng-yellow, sft-mod hd, med-v crs gr, pred crs gr, prly-mod srt, mixed w/50-70% clay, lt gry, v sft, sticky, slty, incr Tuff: wht, lt gry, orng-yellow, sft-hd, pred mod hd, fn ashy mtx, r lithic frags, r rhyolite, r sandstone, r qtzite, r qtz, tr-mnr calc, r disem & agg pyr, r gypsum.

Tuff Seds: wht, grn, tan, lt gry, orng-yellow, sft-mod hd, med-v crs gr, pred crs gr, prly-mod srt, mixed w/10-60% clay, lt gry, v sft, sticky, slty, incr Tuff: wht, lt gry, orng-yellow, sft-hd, pred mod hd, fn ashy mtx, r lithic frags, r rhyolite, r sandstone, r qtzite, r qtz, tr-mnr calc, r disem & agg pyr, r gypsum.

Tuff: wht, lt-dk gry, lt brn sft-mod hd, well indrtd, pr-mod srt, sub ang-sub rnd, fn-med grn, clst supp, pred ash fall tuff, com-abun xtal tuff: wht, lt-dk gry, lt-dk grn, crs gr, pr-mod srt, ang-sub ang, mod indrtd in cly matrix, mixed in ~40-60% cly, lt gry, v sft, r qtz, r calc, r pyr, loc gypsum, loc biot.

Tuff: wht, lt-dk gry, lt grn, lt-dk blu, ang-sub ang, med-crs grn, mod-wl indrtd, mod-hrd, pr-mod srt, clast supp w/felsic matrix, predom xtal tuff, com-abun ash fall tuff: wht, lt-dk gry, fine-med grn, mod-wl srt, sub ang-sub rnd, sft-mod hrd, ~20-40% lt-dk cly matrix, r qtz, r-m calc, r pyr, loc-r rhyolite w/loc calc vning, loc biot, loc-r gypsum.

Tuff: wht, lt-dk gry, fine-med grn, mod-wl srt, sub ang-sub rnd, sft-mod hrd, pred ash fall tuff, com-abun xtal tuff: wht, lt-dk gry, lt grn, ang-sub ang, med-crs grn, mod-wl indrtd, mod-hrd, pr-mod srt, clast supp w/felsic matrix, Mylonite: lt-dk grn, lt-dk brn, v fn grn, app duct def, ~10-30% lt-dk cly matrix, r qtz, t-m calc, loc rhyolite, loc biot, loc-r gypsum.

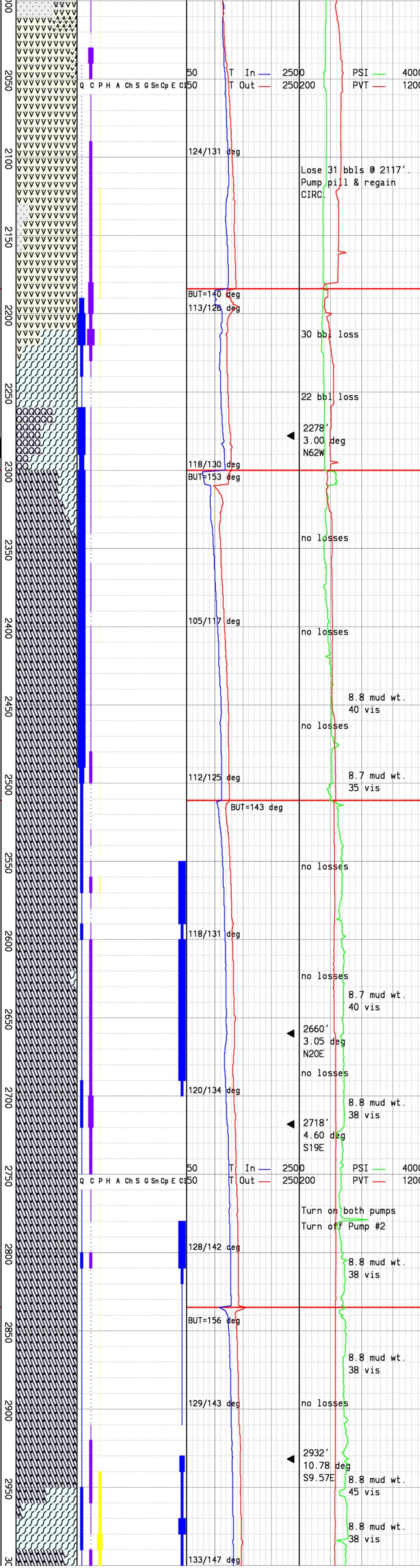
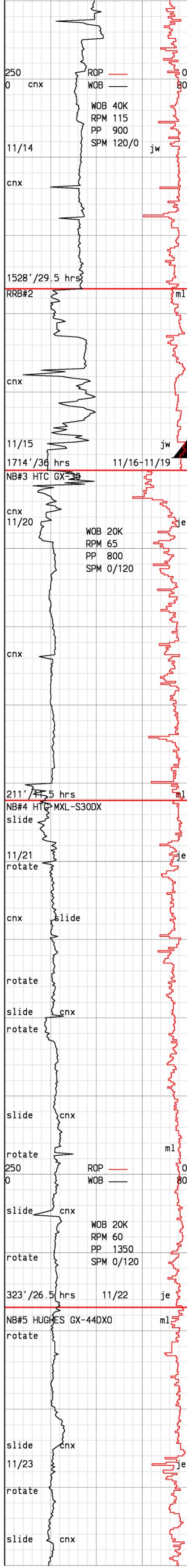
ROP  
WOB

WOB 20K  
RPM 100  
PP 700  
SPM 120/0

WOB 38K  
RPM 115  
PP 890  
SPM 120/0

ml

50 T In 2500 PSI 4000  
50 T Out 250200 PVT 1200



Tuff: wht, lt-dk gry, v fn-fn, ashy, mod hd-v hd, hardness incr w/depth, vit lust incr w/depth, britt, mod-str frac, frac incr w/depth, ang-sub ang, pred pebble sz grs, r qtz vng, lith pr, v r loc qtz & calc phenos, dist qtz vng, Sandstone: pale grn, gry, yell-orng, brn, sub rndd grs, mod hd, v fn-med gr, mod srtd, r bed, tuffaceous, Breccia: wht, brn, v hd, frac ang-sub ang clasts, r-com mafic vng, r qtz, r-com calc, r disem/ndle/agg/cubic pyr.

Decreased ROP, POOH for visual check of bit. Satisfactory condition, RIH for bit rerun and drill ahead.

Tuff: wht, lt-dk gry, v fn-fn, vit lust, hd-v hd, britt, frac, r qtz vng, com mica @ 2200', Schist: grn, brn, wht, gry, sft-mod hd, str phyll shn, fiss, folding, ductile def, v well fol, micaceous, Quartz Veining: wht, mlky, transl, hd, abund frac, r-abund calc, r-tr disem/vng/agg pyr.

Drill 14 3/4" hole to 2300', run 51 joints 10 3/4", 40 1/2 ppf, J-55 casing from surface to 2292', drill ahead with 9 7/8" bit.

Quartzite: wht, transl, loc lt pink, dom blchd appr, fn gr-crs gr, mod hd-v hd, britt, silicic cmt, hypocrySTALLINE, ang grs, mod srtd, abun qtz, tr-mnr mica, r-com calc, r-tr chlor, r loc pyr, r loc brn siltstone frags.

Possible drilling break of 54' /hr @ 2471'.

Quartzite: wht, transl, dom blchd appr, v fn gr, hd-v hd, fract, silicic cmt, tr-mnr qtz, r-com mica, r-tr calc, r-tr chlor, r-tr agg pyr, mnr-abun cly altd zone f/2560' t/2700'.

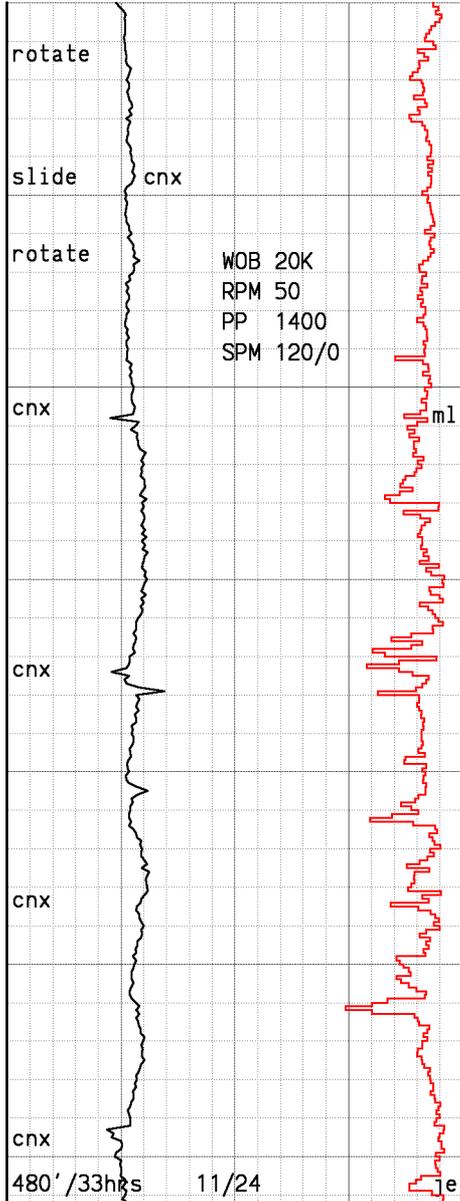
Quartzite: wht, transl, dom blchd appr, v fn gr, hd-v hd, fract, silicic cmt, tr-mnr qtz, r-com mica, tr-com calc, r-tr chlor, r agg pyr, mnr-abun cly altn, r-com dk gry schist frags.

Quartzite: wht, mlky, transl, dom blchd appr, v fn-crs gr, prly-mod dist grs, interlock hex qtz grs, hd-v hd, fract, silicic cmt, tr-mnr qtz & qtz vng, mnr-abund mica, r-mnr calc, r disem/vng/agg pyr, r-30% silty wht clay.

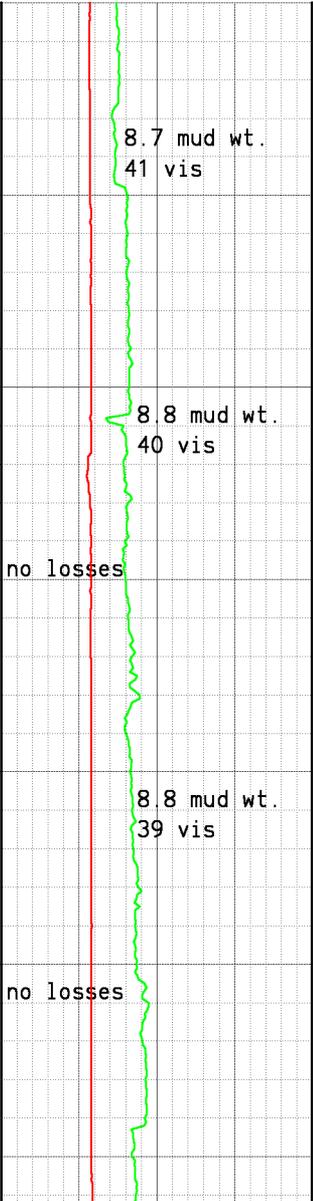
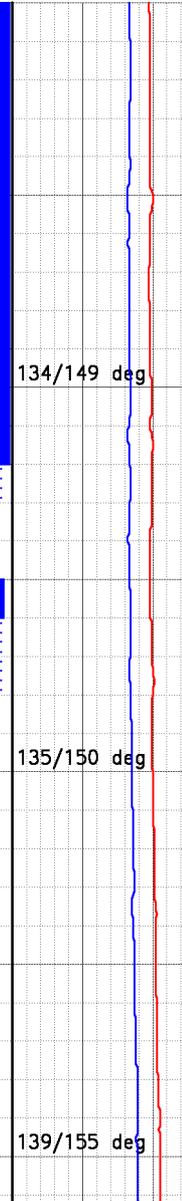
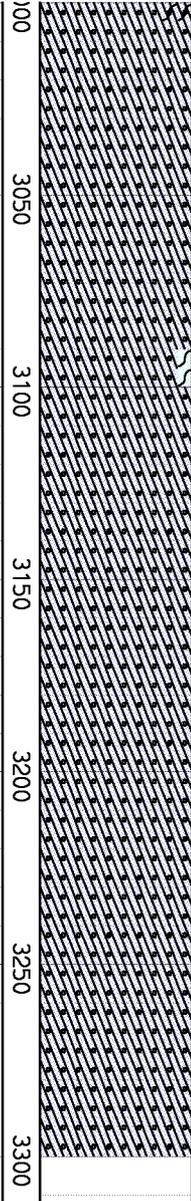
Quartzite: wht, mlky, transl, dom blchd appr, v fn-crs gr, prly-mod dist grs, interlock hex qtz grs, hd-v hd, fract, silicic cmt, tr qtz & qtz vng, mnr-abund mica, r calc, r disem/vng/agg pyr, tr silty wht clay.

Possible drilling break of 49' /hr @ 2936'.

Schist: gry-dk gry, blk, brn, orang, sft-mod hd, str phyll shn, fiss, foliatd, micaceous, scaly-fibrous text, tr-mnr qtz vng, mnr-com vng/agg pyr, mnr-50% cly altn; intrbddd w/



WOB 20K  
RPM 50  
PP 1400  
SPM 120/0



100  
3050  
3100  
3150  
3200  
3250  
3300  
3350  
3400

134/149 deg

135/150 deg

139/155 deg

8.7 mud wt.  
41 vis

8.8 mud wt.  
40 vis

no losses

8.8 mud wt.  
39 vis

no losses

QUARTZITE:wht,mlky,transl,  
dom blchd appr,mod dist grs,  
interlock hex qtz grs,hd-v  
hd,fract,silicic cmt.

Quartzite:wht,brn,pale grn,  
translu,hd-v hd,fn-crs gr,  
prly-mod dist grs,fract,  
silicic cmt,tr qtz & qtz vng,  
tr-abund calc & calc vng,  
pred tr-mnr schistose,mod str  
schistose text @ 3170',r-com  
mica,pred r disem/agg/vng  
pyr,mnr pyr @ 3150',r-50%  
slyt wht-salmon colored slyt  
clay,r-tr schist grs.

Possible drilling breaks of  
49'/hr @ 3269', 52'/hr @  
3173', 46'/hr @ 3180'.

Quartzite:wht,brn,translu,  
hd-v hd,fn-crs gr,prly-mod  
dist grs,fract,silicic cmt,  
tr qtz,r qtz vng,r-abund  
calc & calc vng,r disem/agg/  
vng pyr,r graphite,pred r-  
tr schistose,v str schistose  
text @ 3240',r-com mica,r-  
abund wht-salmon colored  
slyt clay,r-tr schist grs.

Possible drilling break of  
64'/hr @ 3262'.