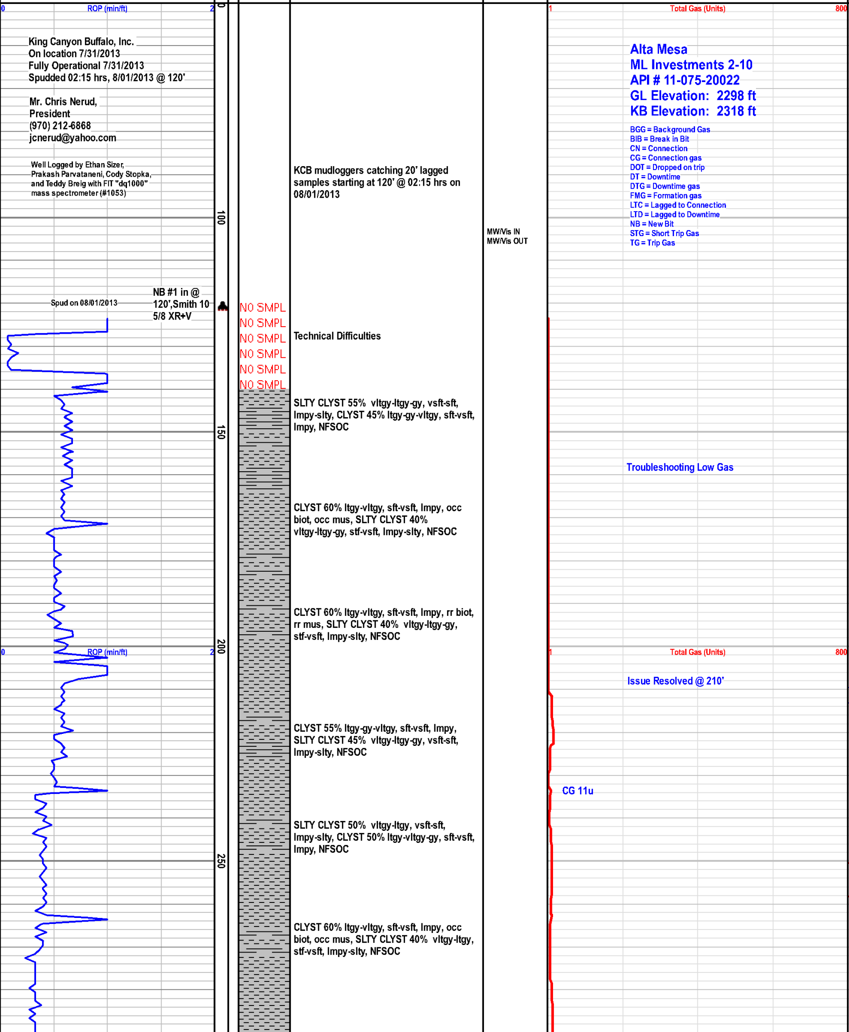
ROP (min/ft)	DEPTH	Lithology	Geo Descriptions	Mud Weight	Total Gas
ROP (min/ft)					Total Gas (Units)

CONFIDENTIAL



King Canyon Buffalo, Inc.
On location 7/31/2013
Fully Operational 7/31/2013
Spudded 02:15 hrs, 8/01/2013 @ 120'

Mr. Chris Nerud,
President
(970) 212-6868
jcnerud@yahoo.com

Well Logged by Ethan Sizer, Prakash Parvataneni, Cody Stopka, and Teddy Breig with FIT "dq1000" mass spectrometer (#1053)

Alta Mesa
ML Investments 2-10
API # 11-075-20022
GL Elevation: 2298 ft
KB Elevation: 2318 ft

BGG = Background Gas
BIB = Break in Bit
CN = Connection
CG = Connection gas
DOT = Dropped on trip
DT = Downtime
DTG = Downtime gas
FMG = Formation gas
LTC = Lagged to Connection
LTD = Lagged to Downtime
NB = New Bit
STG = Short Trip Gas
TG = Trip Gas

KCB mudloggers catching 20' lagged samples starting at 120' @ 02:15 hrs on 08/01/2013

Technical Difficulties

SLTY CLYST 55% vltgy-ltgy-gy, vsft-sft, Impy-slty, CLYST 45% ltgy-gy-vltgy, sft-vsft, Impy, NFSOC

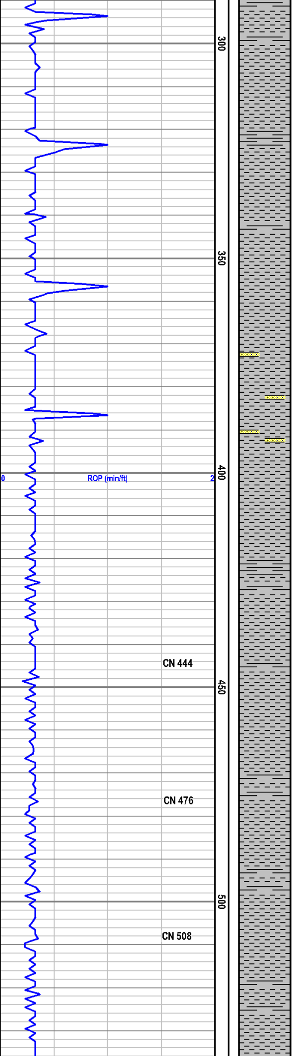
CLYST 60% ltgy-vltgy, sft-vsft, Impy, occ biot, occ mus, SLTY CLYST 40% vltgy-ltgy-gy, stf-vsft, Impy-slty, NFSOC

CLYST 60% ltgy-vltgy, sft-vsft, Impy, rr biot, rr mus, SLTY CLYST 40% vltgy-ltgy-gy, stf-vsft, Impy-slty, NFSOC

CLYST 55% ltgy-gy-vltgy, sft-vsft, Impy, SLTY CLYST 45% vltgy-ltgy-gy, vsft-sft, Impy-slty, NFSOC

SLTY CLYST 50% vltgy-ltgy, vsft-sft, Impy-slty, CLYST 50% ltgy-vltgy-gy, sft-vsft, Impy, NFSOC

CLYST 60% ltgy-vltgy, sft-vsft, Impy, occ biot, occ mus, SLTY CLYST 40% vltgy-ltgy, stf-vsft, Impy-slty, NFSOC



CLYST 60% ltgy-vltgy, sft-vsft, lmpy, rr biot, rr mus, SLTY CLYST 40% vltgy-ltgy-gy, stf-vsft, lmpy-slty, NFSOC

CLYST 70% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 30% vltgy-ltgy, stf-vsft, lmpy-slty, NFSOC

CLYST 70% vltgy-ltgy, sft-vsft, lmpy, tr biot, tr mus, rr Fe nod, SLTY CLYST 30% vltgy-ltgy-gy, vsft, lmpy, slty, NFSOC

CLYST 65% vltgy-ltgy, sft-vsft, lmpy, SLTY CLYST 32% vltgy-ltgy-gy, vsft, lmpy, slty, SS 3% wh-clr-ltgy, uf gr, rnd-sbrnd, lse qtz grns, mod-w srt, tr thn slty lam, NFSOC

CLYST 65% vltgy-ltgy, sft-vsft, lmpy, SLTY CLYST 30% vltgy-ltgy-gy, vsft, lmpy, slty, SS 5% wh-clr, uf gr, rnd-sbrnd, lse qtz grns, mod-w srt, NFSOC

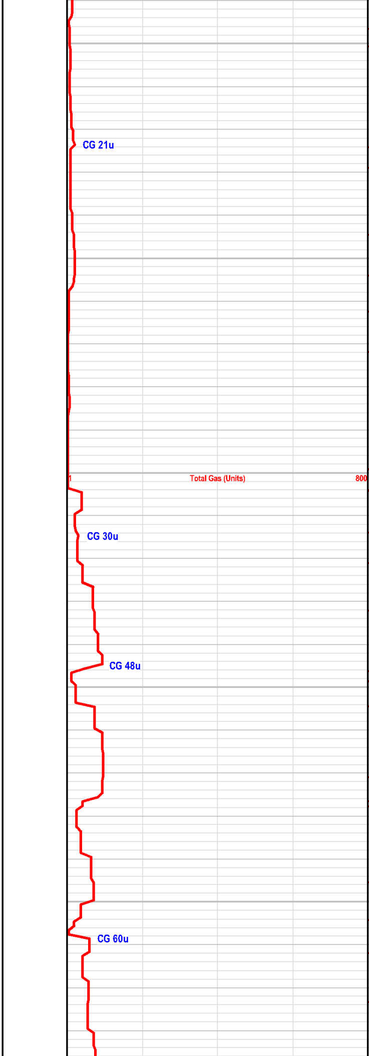
CLYST 70% vltgy, vsft, lmpy, SLTY CLYST 30% vltgy-ltgy, vsft, lmpy, slty, tr qtz grns in cly mtx, NFSOC

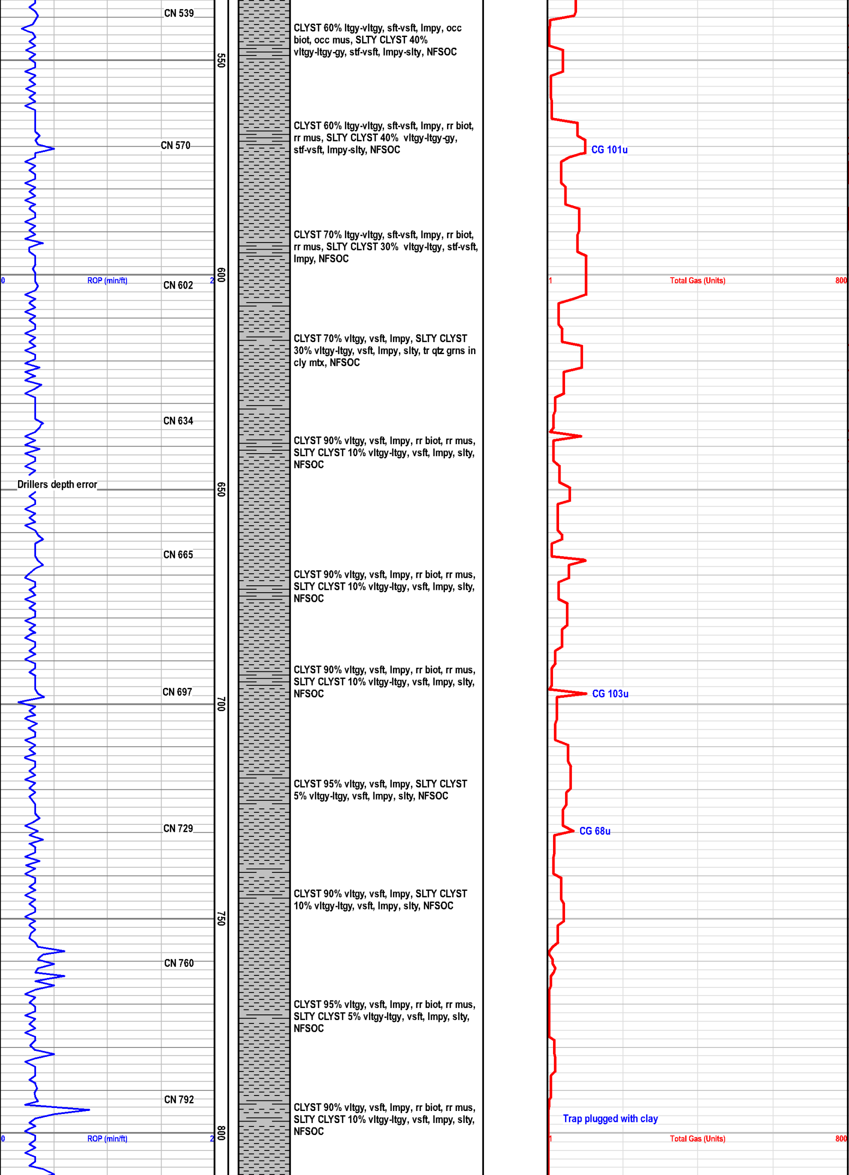
CLYST 65% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 35% vltgy-ltgy, vsft, lmpy, slty, tr qtz grns in cly mtx, NFSOC

CLYST 70% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 30% vltgy-ltgy, vsft, lmpy, slty, tr qtz grns in cly mtx, NFSOC

CLYST 70% vltgy, vsft, lmpy, SLTY CLYST 30% vltgy-ltgy, vsft, lmpy, slty, tr qtz grns in cly mtx, NFSOC

CLYST 80% ltgy-vltgy, sft-vsft, lmpy, occ biot, occ mus, SLTY CLYST 20% vltgy-ltgy, stf-vsft, lmpy-slty, NFSOC





CLYST 60% ltgy-vltgy, sft-vsft, lmpy, occ biot, occ mus, SLTY CLYST 40% vltgy-ltgy-gy, stf-vsft, lmpy-slty, NFSOC

CLYST 60% ltgy-vltgy, sft-vsft, lmpy, rr biot, rr mus, SLTY CLYST 40% vltgy-ltgy-gy, stf-vsft, lmpy-slty, NFSOC

CLYST 70% ltgy-vltgy, sft-vsft, lmpy, rr biot, rr mus, SLTY CLYST 30% vltgy-ltgy, stf-vsft, lmpy, NFSOC

CLYST 70% vltgy, vsft, lmpy, SLTY CLYST 30% vltgy-ltgy, vsft, lmpy, slty, tr qtz grns in cly mtx, NFSOC

CLYST 90% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 10% vltgy-ltgy, vsft, lmpy, slty, NFSOC

CLYST 90% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 10% vltgy-ltgy, vsft, lmpy, slty, NFSOC

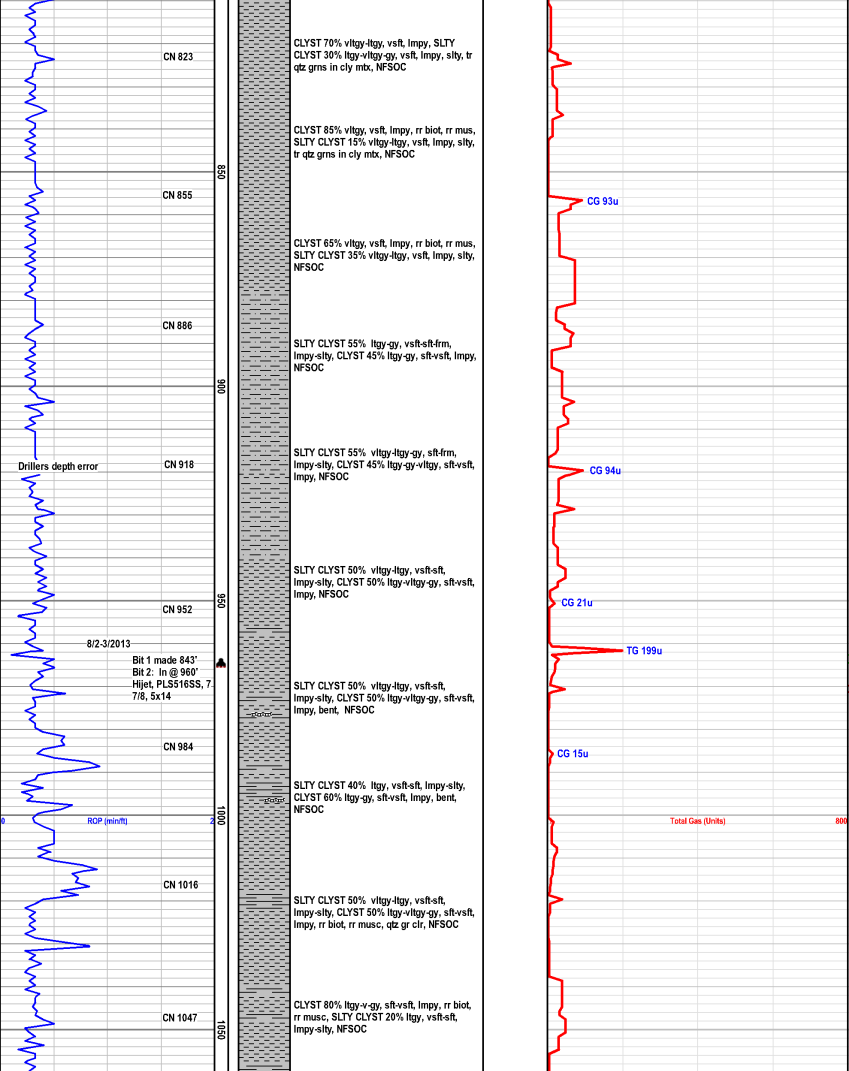
CLYST 90% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 10% vltgy-ltgy, vsft, lmpy, slty, NFSOC

CLYST 95% vltgy, vsft, lmpy, SLTY CLYST 5% vltgy-ltgy, vsft, lmpy, slty, NFSOC

CLYST 90% vltgy, vsft, lmpy, SLTY CLYST 10% vltgy-ltgy, vsft, lmpy, slty, NFSOC

CLYST 95% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 5% vltgy-ltgy, vsft, lmpy, slty, NFSOC

CLYST 90% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 10% vltgy-ltgy, vsft, lmpy, slty, NFSOC



CLYST 70% vltgy-ltgy, vsft, lmpy, SLTY CLYST 30% ltgy-vltgy-gy, vsft, lmpy, slty, tr qtz grns in cly mtx, NFSOC

CLYST 85% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 15% vltgy-ltgy, vsft, lmpy, slty, tr qtz grns in cly mtx, NFSOC

CLYST 65% vltgy, vsft, lmpy, rr biot, rr mus, SLTY CLYST 35% vltgy-ltgy, vsft, lmpy, slty, NFSOC

SLTY CLYST 55% ltgy-gy, vsft-sft-frm, lmpy-slty, CLYST 45% ltgy-gy, sft-vsft, lmpy, NFSOC

SLTY CLYST 55% vltgy-ltgy-gy, sft-frm, lmpy-slty, CLYST 45% ltgy-gy-vltgy, sft-vsft, lmpy, NFSOC

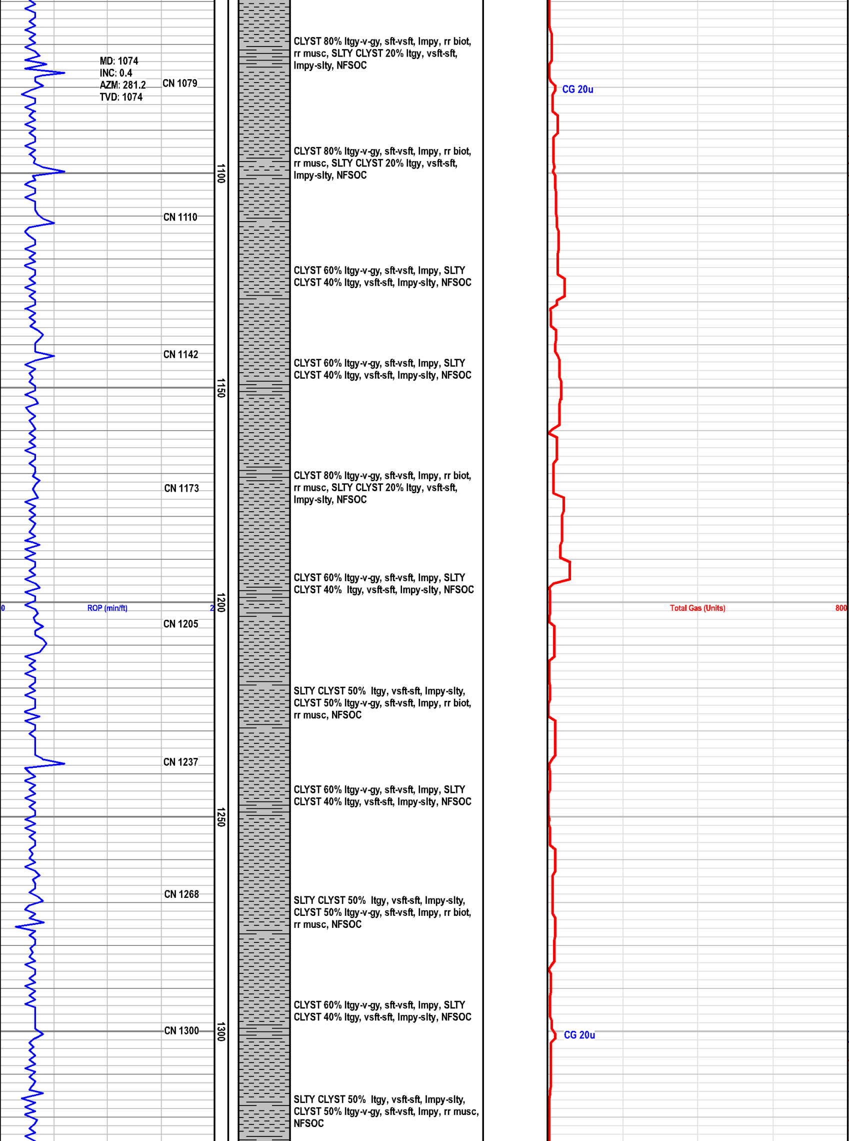
SLTY CLYST 50% vltgy-ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-vltgy-gy, sft-vsft, lmpy, NFSOC

SLTY CLYST 50% vltgy-ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-vltgy-gy, sft-vsft, lmpy, bent, NFSOC

SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, CLYST 60% ltgy-gy, sft-vsft, lmpy, bent, NFSOC

SLTY CLYST 50% vltgy-ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-vltgy-gy, sft-vsft, lmpy, rr biot, rr musc, qtz gr clr, NFSOC

CLYST 80% ltgy-v-gy, sft-vsft, lmpy, rr biot, rr musc, SLTY CLYST 20% ltgy, vsft-sft, lmpy-slty, NFSOC



CLYST 80% ltgy-v-gy, sft-vsft, lmpy, rr biot, rr musc, SLTY CLYST 20% ltgy, vsft-sft, lmpy-slty, NFSOC

CLYST 80% ltgy-v-gy, sft-vsft, lmpy, rr biot, rr musc, SLTY CLYST 20% ltgy, vsft-sft, lmpy-slty, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

CLYST 80% ltgy-v-gy, sft-vsft, lmpy, rr biot, rr musc, SLTY CLYST 20% ltgy, vsft-sft, lmpy-slty, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

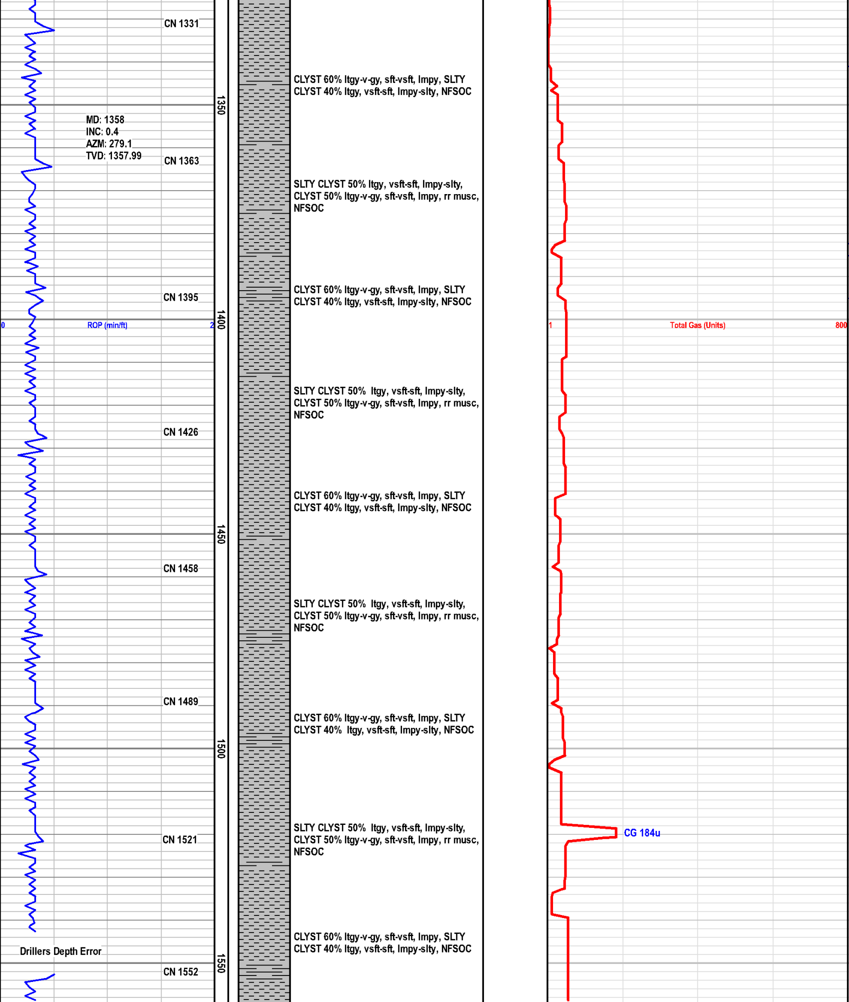
SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr biot, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr biot, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC



CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY
CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty,
CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc,
NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY
CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty,
CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc,
NFSOC

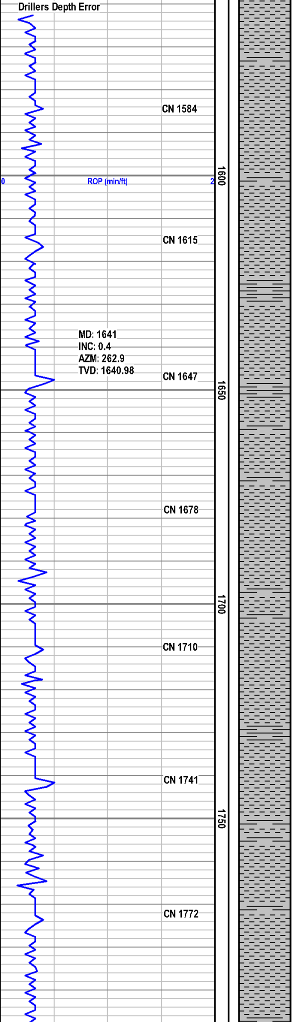
CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY
CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty,
CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc,
NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY
CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty,
CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc,
NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY
CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC



SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

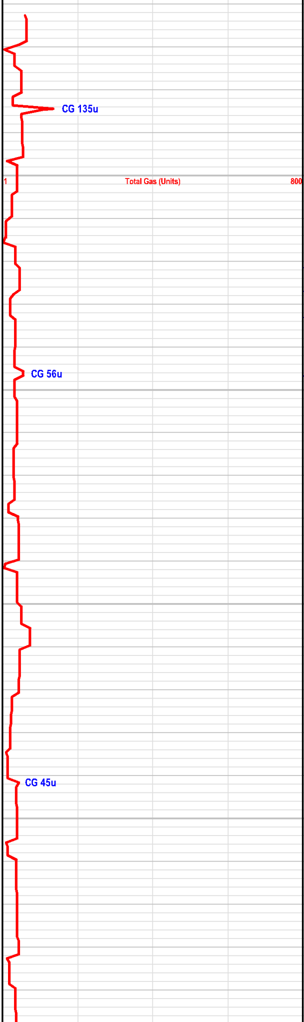
CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

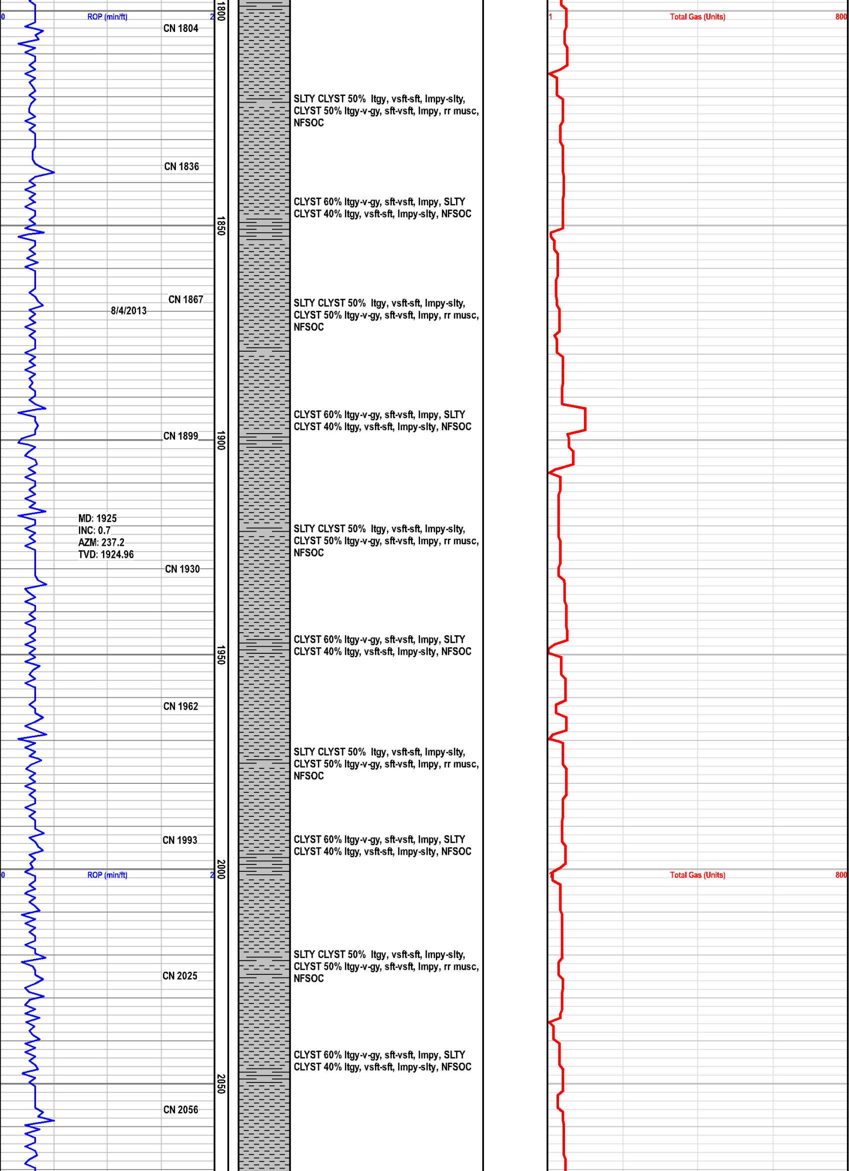
SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC





MD: 1925
INC: 0.7
AZM: 237.2
TVD: 1924.96

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

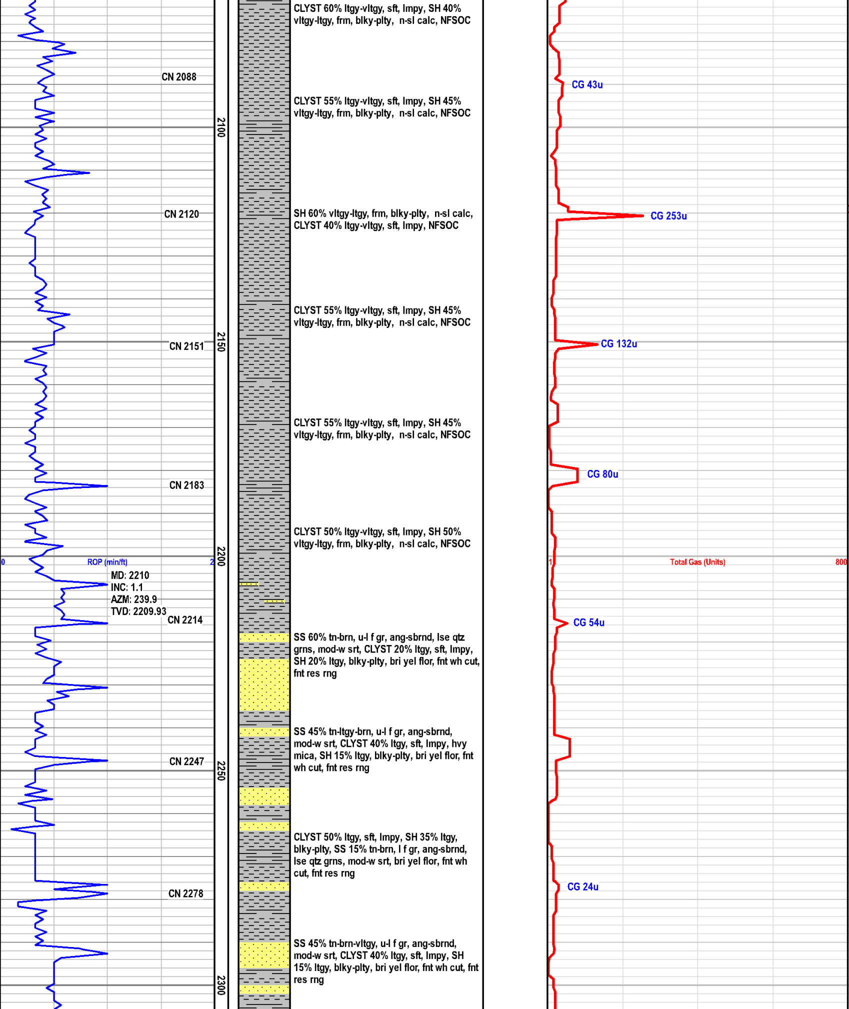
CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC

SLTY CLYST 50% ltgy, vsft-sft, lmpy-slty, CLYST 50% ltgy-v-gy, sft-vsft, lmpy, rr musc, NFSOC

CLYST 60% ltgy-v-gy, sft-vsft, lmpy, SLTY CLYST 40% ltgy, vsft-sft, lmpy-slty, NFSOC



CLYST 60% ltgy-vltgy, sft, lmpy, SH 40% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

CLYST 55% ltgy-vltgy, sft, lmpy, SH 45% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

SH 60% vltgy-ltgy, frm, blky-plty, n-sl calc, CLYST 40% ltgy-vltgy, sft, lmpy, NFSOC

CLYST 55% ltgy-vltgy, sft, lmpy, SH 45% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

CLYST 55% ltgy-vltgy, sft, lmpy, SH 45% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

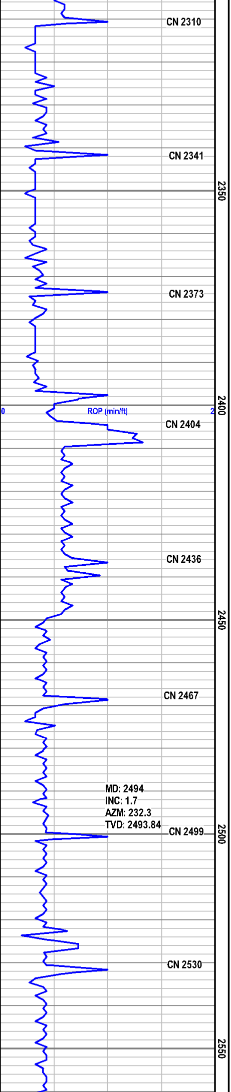
CLYST 50% ltgy-vltgy, sft, lmpy, SH 50% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

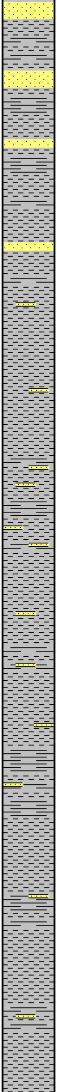
SS 60% tn-brn, u-l f gr, ang-sbrnd, lse qtz grns, mod-w srt, CLYST 20% ltgy, sft, lmpy, SH 20% ltgy, blky-plty, bri yel flor, fnt wh cut, fnt res rng

SS 45% tn-ltgy-brn, u-l f gr, ang-sbrnd, mod-w srt, CLYST 40% ltgy, sft, lmpy, hvy mica, SH 15% ltgy, blky-plty, bri yel flor, fnt wh cut, fnt res rng

CLYST 50% ltgy, sft, lmpy, SH 35% ltgy, blky-plty, SS 15% tn-brn, l f gr, ang-sbrnd, lse qtz grns, mod-w srt, bri yel flor, fnt wh cut, fnt res rng

SS 45% tn-brn-vltgy, u-l f gr, ang-sbrnd, mod-w srt, CLYST 40% ltgy, sft, lmpy, SH 15% ltgy, blky-plty, bri yel flor, fnt wh cut, fnt res rng





CLYST 50% ltgy, sft, lmpy, SH 25% ltgy, blky-plty, SS 25% tn-brn, l f gr, ang-sbrnd, lse qtz grns, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

CLYST 50% ltgy, sft, lmpy, SH 35% ltgy, blky-plty, SS 15% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt wh cut, fnt res rng

CLYST 60% ltgy, sft, lmpy, SH 25% ltgy, blky-plty, SS 15% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull-fnt res rng

CLYST 60% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull-fnt res rng

CLYST 70% ltgy, sft, lmpy, SH 20% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt wh cut, dull-fnt res rng

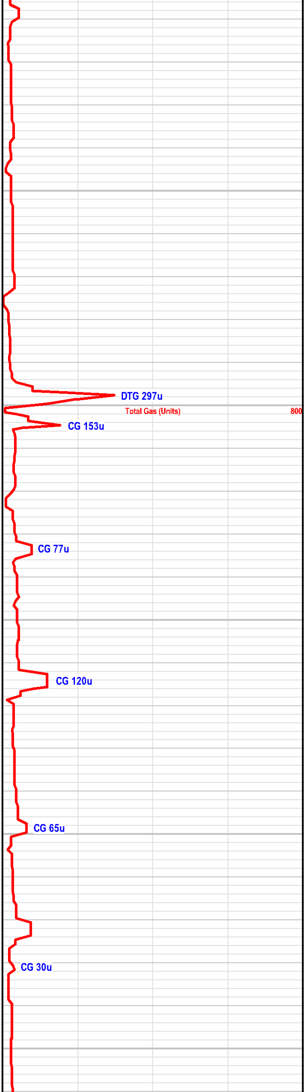
CLYST 60% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

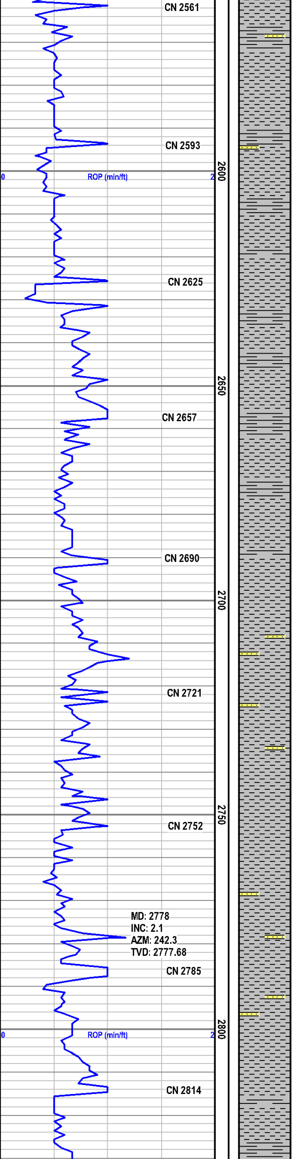
CLYST 70% ltgy, sft, lmpy, SH 20% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull-fnt res rng

CLYST 75% ltgy, sft, lmpy, SH 15% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull-fnt res rng

CLYST 60% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 70% ltgy, sft, lmpy, SH 20% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull-fnt res rng





CLYST 60% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 75% ltgy, sft, lmpy, SH 15% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull-fnt res rng

CLYST 55% ltgy-vltgy, sft, lmpy, SH 45% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

CLYST 60% ltgy-vltgy, sft-frm-vsft, lmpy, SH 40% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

CLYST 60% ltgy-vltgy-gy, sft-frm, lmpy, SH 40% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

CLYST 70% ltgy-vltgy, sft, lmpy, SH 30% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

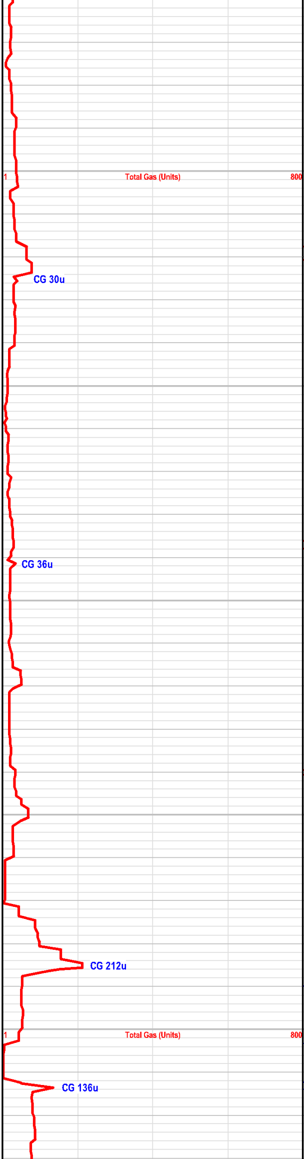
CLYST 65% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 5% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

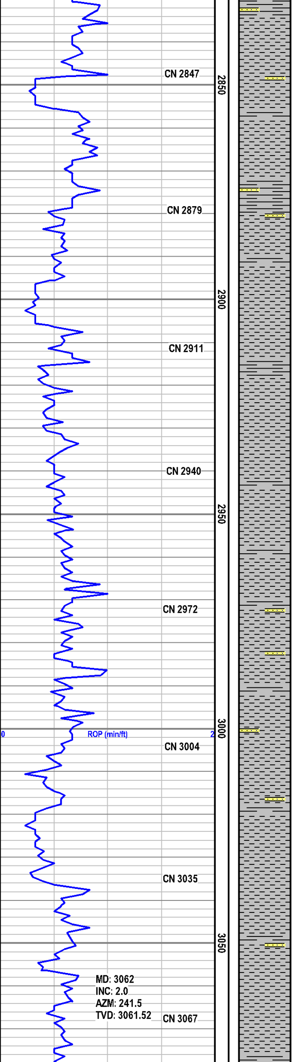
CLYST 70% ltgy-vltgy, sft, lmpy, SH 30% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

CLYST 65% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 5% tn-brn, hd-frm, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 65% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 65% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 5% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng





CLYST 65% ltgy, sft, lmpy, SH 20% ltgy, blky-plty, SS 10% tn-brn, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 65% ltgy, sft, lmpy, SH 30% ltgy, blky-plty, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 70% ltgy-vltgy, sft-frm-hd, lmpy, SH 30% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

SLTY CLYST 60% ltgy-vltgy, sft-frm-hd, lmpy, SH 40% vltgy-ltgy, frm, blky-plty, n-sl calc, qtz gr clr ang, NFSOC

SLTY CLYST 70% ltgy-vltgy, sft-frm-hd, lmpy, qtz gr clr ang SH 30% vltgy-ltgy, frm, blky-plty, n-sl calc, NFSOC

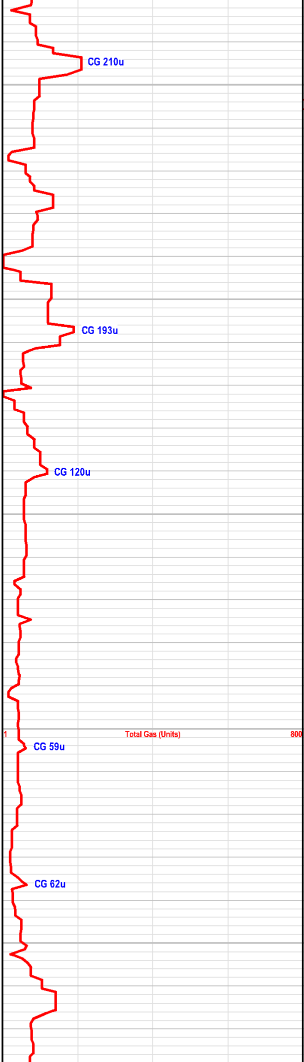
SLTY CLYST 60% ltgy, sft-frm-hd, lmpy, qtz gr clr, SH 35% vltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, bri yel flor, fnt-dull wh cut

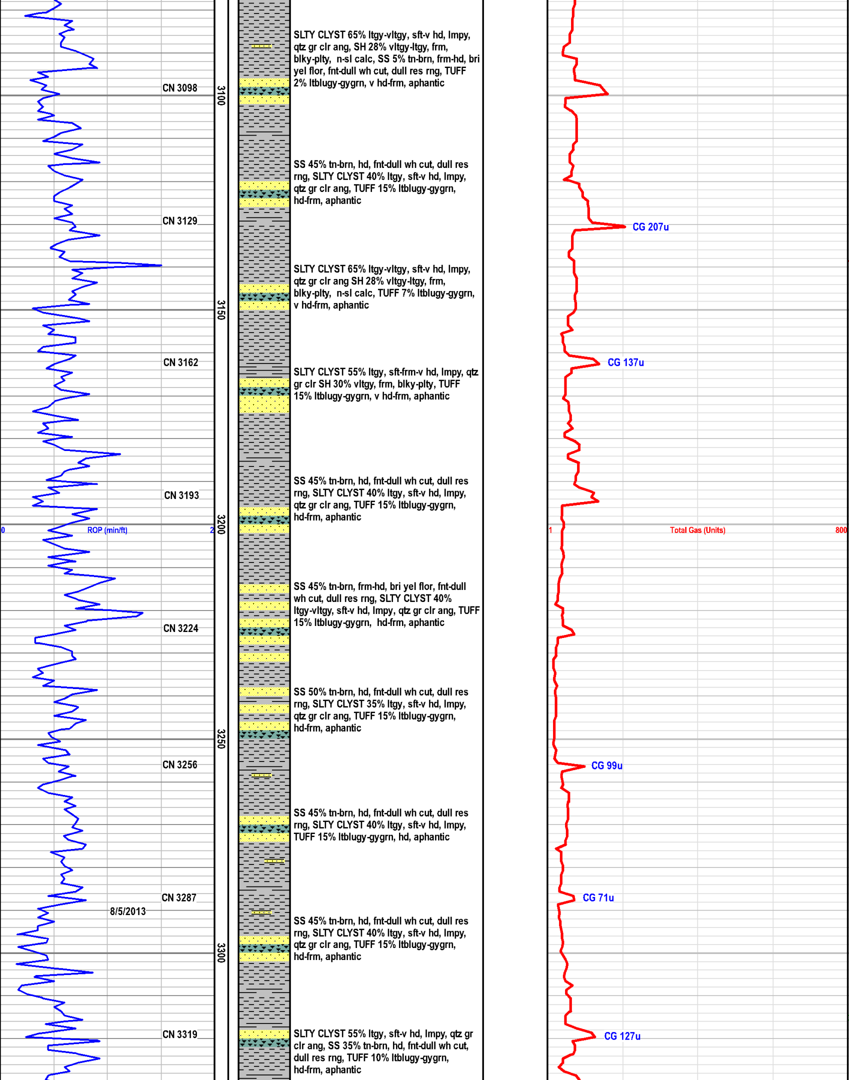
SLTY CLYST 65% ltgy-vltgy, sft-frm-hd, lmpy, qtz gr clr ang, SH 30% vltgy-ltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, bri yel flor, fnt-dull wh cut, dull res rng

SLTY CLYST 60% ltgy, sft-frm-hd, lmpy, qtz gr clr, SH 35% vltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, bri yel flor, fnt-dull wh cut

SLTY CLYST 65% ltgy-vltgy, sft-frm-hd, lmpy, qtz gr clr ang, SH 30% vltgy-ltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, bri yel flor, fnt-dull wh cut, dull res rng

SLTY CLYST 55% ltgy, sft-frm-v hd, lmpy, qtz gr clr, SH 38% vltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, bri yel flor, fnt-dull wh cut, TUFF 2% ltblugy-gygrn, v hd-frm, aphantic





SLTY CLYST 65% ltgy-vltgy, sft-v hd, lmpy, qtz gr clr ang, SH 28% vltgy-ltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng, TUFF 2% ltblugy-gygrn, v hd-frm, aphantic

SS 45% tn-brn, hd, fnt-dull wh cut, dull res rng, SLTY CLYST 40% ltgy, sft-v hd, lmpy, qtz gr clr ang, TUFF 15% ltblugy-gygrn, hd-frm, aphantic

SLTY CLYST 65% ltgy-vltgy, sft-v hd, lmpy, qtz gr clr ang SH 28% vltgy-ltgy, frm, blky-plty, n-sl calc, TUFF 7% ltblugy-gygrn, v hd-frm, aphantic

SLTY CLYST 55% ltgy, sft-frm-v hd, lmpy, qtz gr clr SH 30% vltgy, frm, blky-plty, TUFF 15% ltblugy-gygrn, v hd-frm, aphantic

SS 45% tn-brn, hd, fnt-dull wh cut, dull res rng, SLTY CLYST 40% ltgy, sft-v hd, lmpy, qtz gr clr ang, TUFF 15% ltblugy-gygrn, hd-frm, aphantic

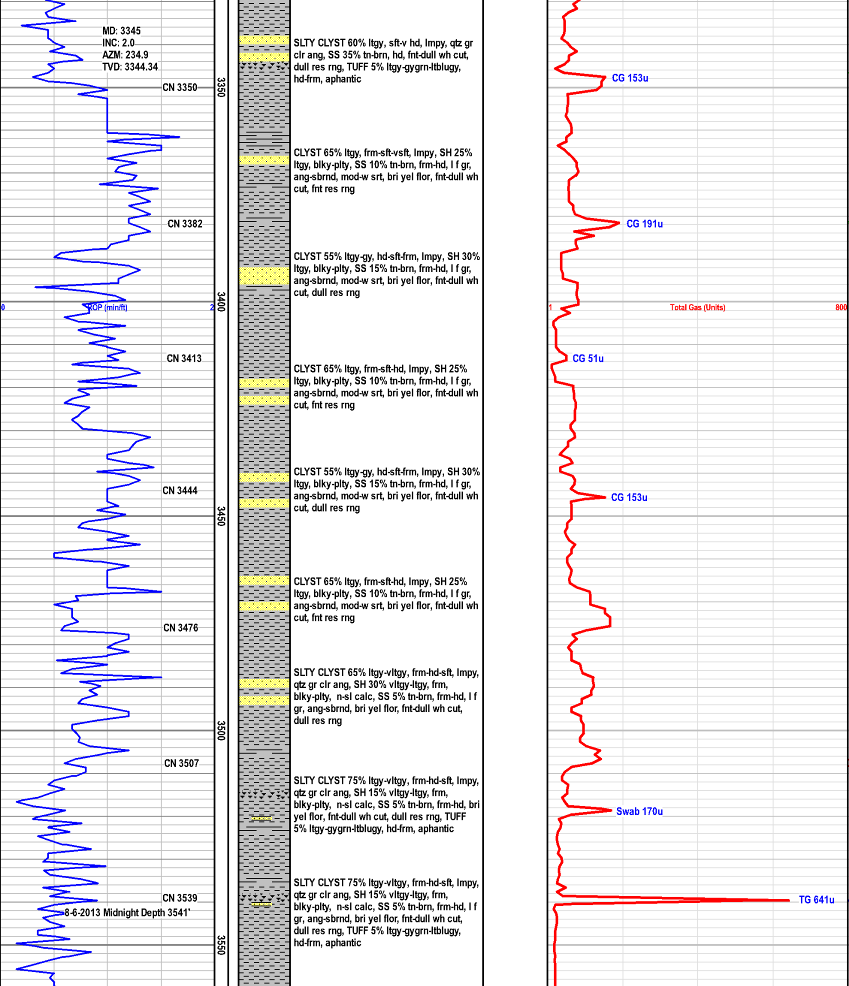
SS 45% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng, SLTY CLYST 40% ltgy-vltgy, sft-v hd, lmpy, qtz gr clr ang, TUFF 15% ltblugy-gygrn, hd-frm, aphantic

SS 50% tn-brn, hd, fnt-dull wh cut, dull res rng, SLTY CLYST 35% ltgy, sft-v hd, lmpy, qtz gr clr ang, TUFF 15% ltblugy-gygrn, hd-frm, aphantic

SS 45% tn-brn, hd, fnt-dull wh cut, dull res rng, SLTY CLYST 40% ltgy, sft-v hd, lmpy, TUFF 15% ltblugy-gygrn, hd, aphantic

SS 45% tn-brn, hd, fnt-dull wh cut, dull res rng, SLTY CLYST 40% ltgy, sft-v hd, lmpy, qtz gr clr ang, TUFF 15% ltblugy-gygrn, hd-frm, aphantic

SLTY CLYST 55% ltgy, sft-v hd, lmpy, qtz gr clr ang, SS 35% tn-brn, hd, fnt-dull wh cut, dull res rng, TUFF 10% ltblugy-gygrn, hd-frm, aphantic



SLTY CLYST 60% ltgy, sft-v hd, lmpy, qtz gr clr ang, SS 35% tn-brn, hd, fnt-dull wh cut, dull res rng, TUFF 5% ltgy-gygrn-ltblugy, hd-frm, aphantic

CLYST 65% ltgy, frm-sft-vsft, lmpy, SH 25% ltgy, blky-plty, SS 10% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

CLYST 55% ltgy-gy, hd-sft-frm, lmpy, SH 30% ltgy, blky-plty, SS 15% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 65% ltgy, frm-sft-hd, lmpy, SH 25% ltgy, blky-plty, SS 10% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

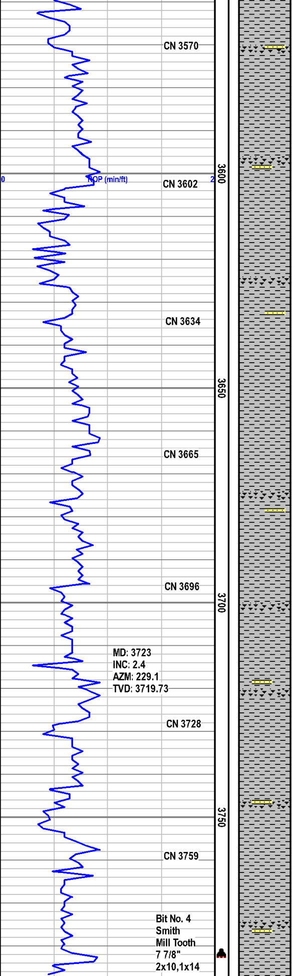
CLYST 55% ltgy-gy, hd-sft-frm, lmpy, SH 30% ltgy, blky-plty, SS 15% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, dull res rng

CLYST 65% ltgy, frm-sft-hd, lmpy, SH 25% ltgy, blky-plty, SS 10% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

SLTY CLYST 65% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, SH 30% vltgy-ltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, bri yel flor, fnt-dull wh cut, dull res rng

SLTY CLYST 75% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, SH 15% vltgy-ltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng, TUFF 5% ltgy-gygrn-ltblugy, hd-frm, aphantic

SLTY CLYST 75% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, SH 15% vltgy-ltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, bri yel flor, fnt-dull wh cut, dull res rng, TUFF 5% ltgy-gygrn-ltblugy, hd-frm, aphantic



MD: 3723
INC: 2.4
AZM: 229.1
TVD: 3719.73

Bit No. 4
Smith
Mill Tooth
7 7/8"
2x10,1x14

SLTY CLYST 75% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, SH 15% vltgy-ltgy, frm, blky-plty, n-sl calc, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng, TUFF 5% ltgy-gygrn-ltblugy, hd-frm, aphantic

SLTY CLYST 85% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, TUFF 10% ltgy-gygrn-ltblugy, hd-frm, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng

SLTY CLYST 85% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, TUFF 10% ltgy-gygrn-ltblugy, hd-frm, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng

SLTY CLYST 85% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, TUFF 10% ltgy-gygrn-ltblugy, hd-frm, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut

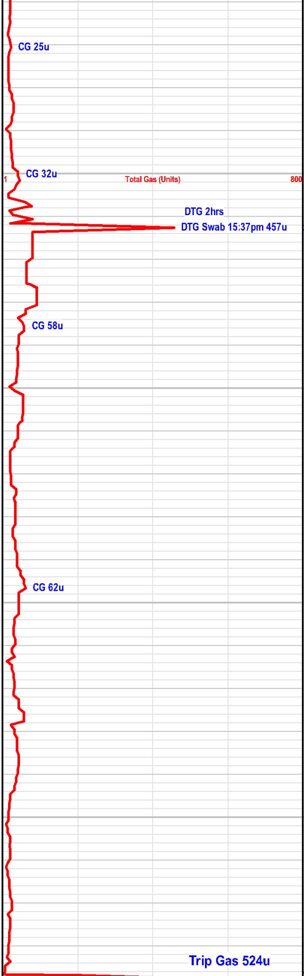
SLTY CLYST 85% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, TUFF 10% ltgy-gygrn-ltblugy, hd-frm, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng

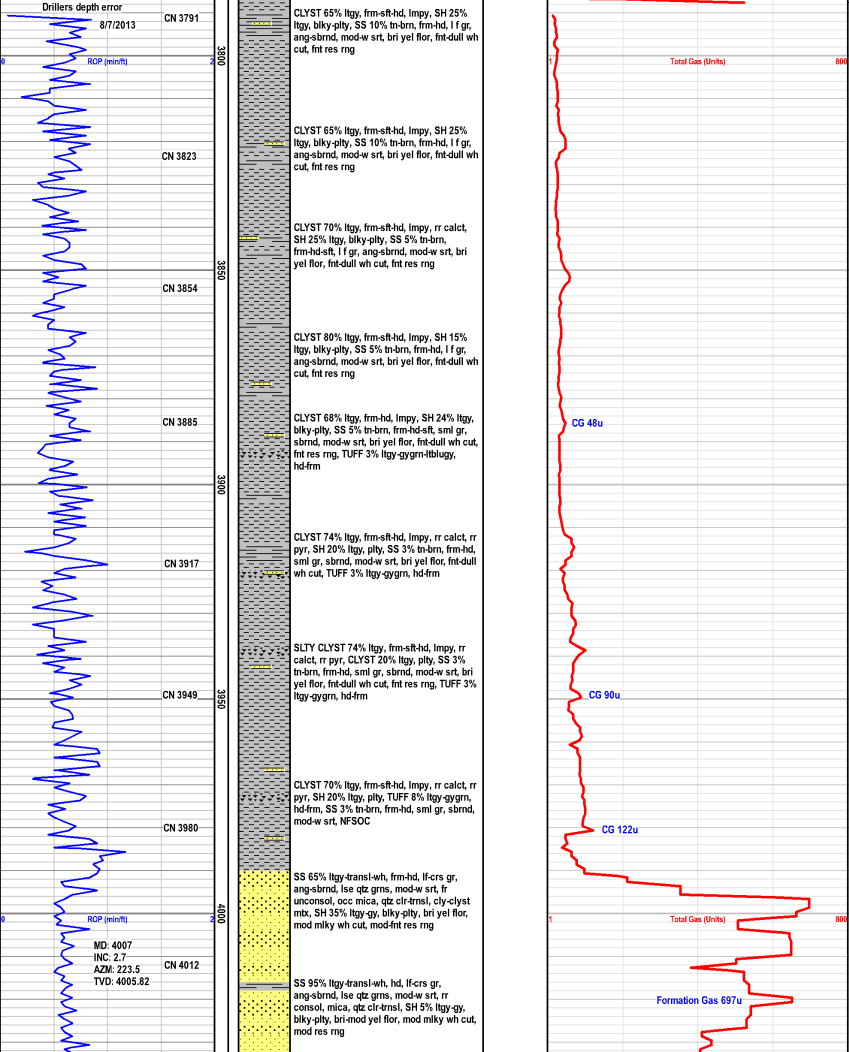
SLTY CLYST 85% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, TUFF 10% ltgy-gygrn-ltblugy, hd-frm, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut

SLTY CLYST 85% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, TUFF 10% ltgy-gygrn-ltblugy, hd-frm, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut, dull res rng

SLTY CLYST 85% ltgy-vltgy, frm-hd-sft, lmpy, qtz gr clr ang, TUFF 10% ltgy-gygrn-ltblugy, hd-frm, SS 5% tn-brn, frm-hd, bri yel flor, fnt-dull wh cut

Added 5 gallons of diesel @ 3607' to drill pipe in attempt to clear bit





CLYST 65% ltgy, frm-sft-hd, lmpy, SH 25% ltgy, blky-plty, SS 10% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

CLYST 65% ltgy, frm-sft-hd, lmpy, SH 25% ltgy, blky-plty, SS 10% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

CLYST 70% ltgy, frm-sft-hd, lmpy, rr calct, SH 25% ltgy, blky-plty, SS 5% tn-brn, frm-hd-sft, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

CLYST 80% ltgy, frm-sft-hd, lmpy, SH 15% ltgy, blky-plty, SS 5% tn-brn, frm-hd, l f gr, ang-sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng

CLYST 68% ltgy, frm-hd, lmpy, SH 24% ltgy, blky-plty, SS 5% tn-brn, frm-hd-sft, sml gr, sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng, TUFF 3% ltgy-gygrn-ltblugy, hd-frm

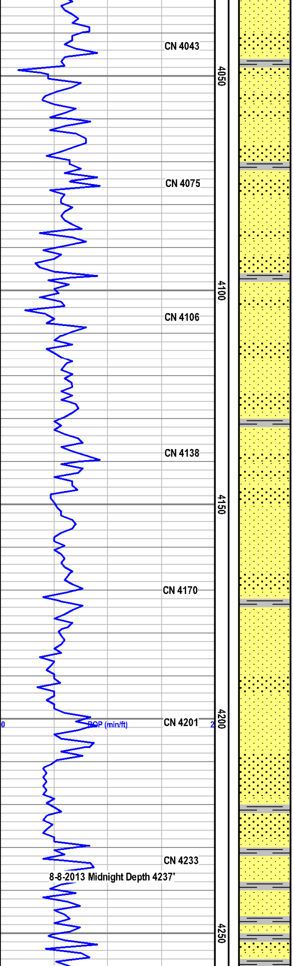
CLYST 74% ltgy, frm-sft-hd, lmpy, rr calct, rr pyr, SH 20% ltgy, plty, SS 3% tn-brn, frm-hd, sml gr, sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, TUFF 3% ltgy-gygrn, hd-frm

SLTY CLYST 74% ltgy, frm-sft-hd, lmpy, rr calct, rr pyr, CLYST 20% ltgy, plty, SS 3% tn-brn, frm-hd, sml gr, sbrnd, mod-w srt, bri yel flor, fnt-dull wh cut, fnt res rng, TUFF 3% ltgy-gygrn, hd-frm

CLYST 70% ltgy, frm-sft-hd, lmpy, rr calct, rr pyr, SH 20% ltgy, plty, TUFF 8% ltgy-gygrn, hd-frm, SS 3% tn-brn, frm-hd, sml gr, sbrnd, mod-w srt, NFSOC

SS 65% ltgy-transl-wh, frm-hd, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, fr unconsol, occ mica, qtz clr-trnsl, cly-clyst mtx, SH 35% ltgy-gy, blky-plty, bri yel flor, mod mlky wh cut, mod-fnt res rng

SS 95% ltgy-transl-wh, hd, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, rr consol, mica, qtz clr-trnsl, SH 5% ltgy-gy, blky-plty, bri-mod yel flor, mod mlky wh cut, mod res rng



SS 95% ltgy-transl-wh, frm-hd, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, fr unconsol, gr mtx, occ mica, qtz clr-trnsl, SH 5% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, mod-fnt res rng

SS 80% ltgy-transl-wh, hd, lf-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 20% ltgy-gy, blky-plty, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 95% ltgy-transl-wh, frm-hd, fri, gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, occ mica, qtz clr-trnsl, SH 5% ltgy-gy, blky-plty, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 80% ltgy-transl-wh, hd, lf-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 20% ltgy-gy, blky-plty, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

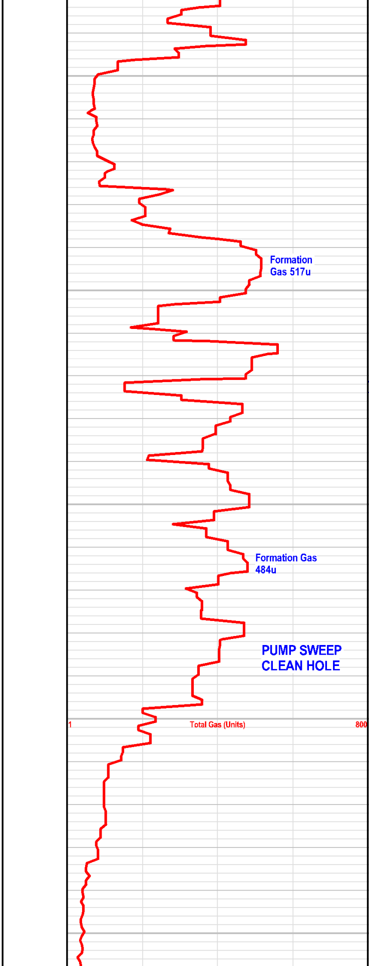
SS 95% ltgy-transl-wh, frm-hd, fri, gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, occ mica, qtz clr-trnsl, SH 5% ltgy-gy, blky-plty, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

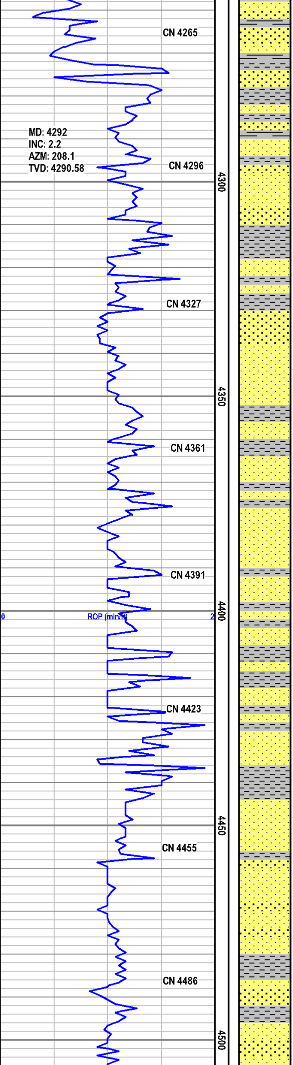
SS 80% ltgy-transl-wh, hd, lf-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 20% ltgy-gy, blky-plty, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 95% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, occ mica, qtz clr-trnsl, SH 5% ltgy-gy, blky-plty, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 80% ltgy-transl-wh, hd, ml-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 20% ltgy-gy, blky-plty, no flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 70% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, occ mica, qtz clr-trnsl, SH 25% ltgy-gy, blky-plty, CLYST 5% ltgy, frm-sft-hd, lmpy, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng





SS 65% ltgy-transl-wh, hd, mL-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 25% ltgy-gy, blky-plty, CLYST 10% ltgy, frm-sft-hd, lmpy, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 70% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, occ mica, qtz clr-trnsl, SH 15% ltgy-gy, blky-plty, CLYST 15% ltgy, frm-sft-hd, lmpy, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

CLYST 55% ltgy, frm-sft-hd, lmpy, SS 35% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, occ mica, qtz clr-trnsl, SH 10% ltgy-gy, blky-plty, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 75% ltgy-transl-wh, hd, lm-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 15% ltgy-gy, blky-plty, CLYST 10% ltgy, frm-sft-hd, lmpy, mod yel flor, fnt mlky wh cut, mod-fnt res rng

SS 60% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, occ mica, qtz clr-trnsl, CLYST 25% ltgy, frm-sft, lmpy, SH 15% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

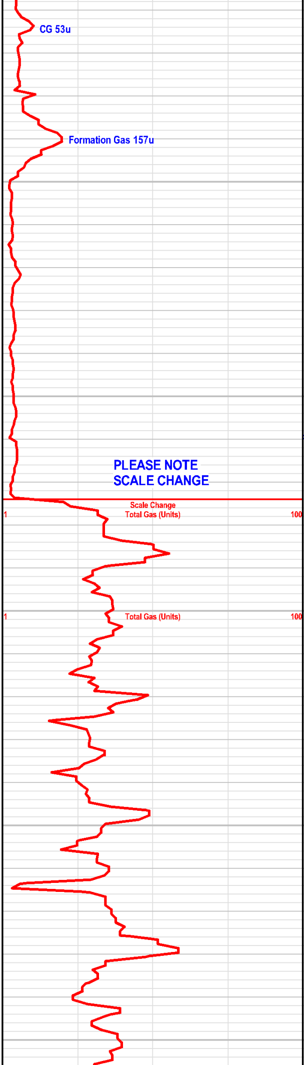
SS 65% ltgy-transl-wh, hd, mL-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 25% ltgy-gy, blky-plty, CLYST 10% ltgy, frm-sft-hd, lmpy, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

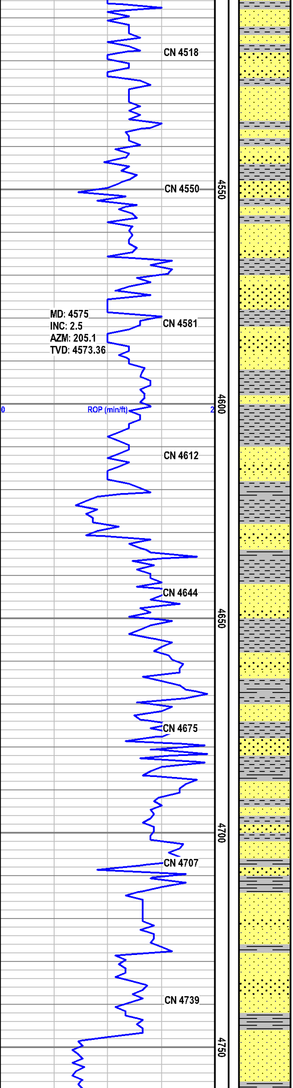
SS 60% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, CLYST 25% ltgy, frm-sft, lmpy, SH 15% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 65% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, CLYST 25% ltgy, frm-sft, lmpy, SH 10% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 75% ltgy-wh, hd, crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 15% ltgy-gy, blky-plty, CLYST 10% ltgy, frm-sft-hd, lmpy, mod yel flor, fnt mlky wh cut, mod-fnt res rng

SS 65% ltgy-transl-wh, frm-hd, fri, crs gr mtx, crs-lf-m gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, CLYST 25% ltgy, frm-sft, lmpy, SH 10% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng





SS 75% transl-wh, hd, crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 15% ltgy-gy, blky-plty, CLYST 10% ltgy, frm-sft-hd, lmpy, mod yel flor, fnt mlky wh cut, mod-fnt res rng

SS 80% ltgy-transl, hd, ml-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, consol, mica, qtz clr-trnsl, SH 10% ltgy-gy, blky-plty, CLYST 10% ltgy, frm-sft-hd, lmpy, mod yel flor, fnt mlky wh cut, mod-fnt res rng

SS 65% ltgy-transl-wh, hd, mL-crs gr, fri, gr mtx, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, mica, qtz clr-trnsl, SH 25% ltgy-gy, blky-plty, CLYST 10% ltgy, frm-sft-hd, lmpy, bri-mod yel flor, fnt-mod mlky wh cut, mod-fnt res rng

SS 65% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, CLYST 25% ltgy, frm-sft, lmpy, SH 10% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

CLYST 70% dkgy, lmpy, SS 20% frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnslSH 10% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

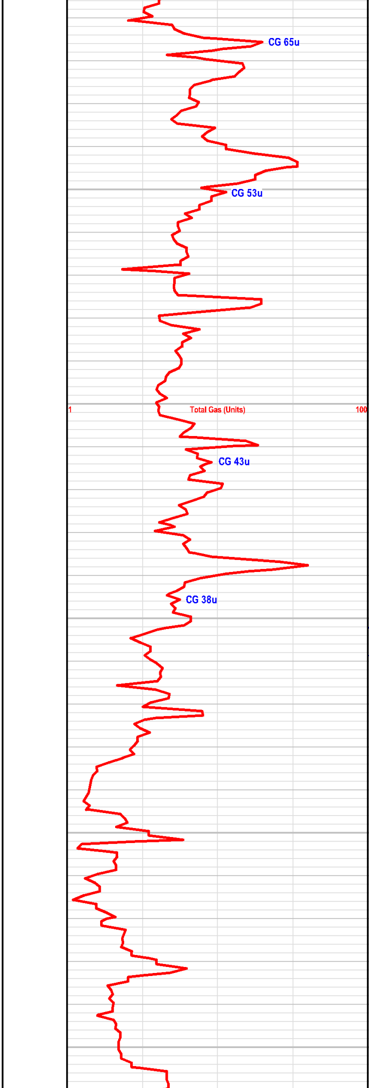
CLYST 60% dkgy, lmpy, SS 30% frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, SH 10% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng,

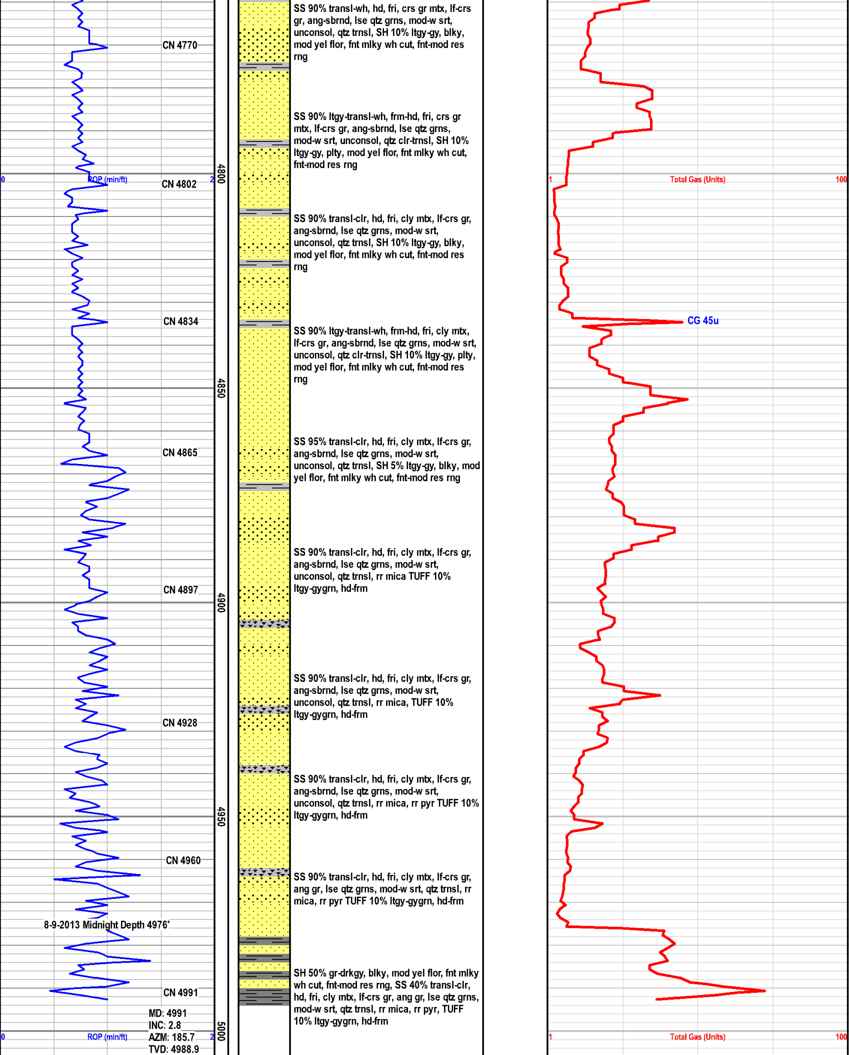
CLYST 60% dkgy, lmpy, SS 30% frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl SH 10% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 65% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, CLYST 25% ltgy, frm-sft, lmpy, SH 10% ltgy-gy, blky-plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 90% transl-wh, hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz trnsl, SH 10% ltgy-gy, blky, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 90% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, SH 10% ltgy-gy, plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng





SS 90% transl-wh, hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz trnsl, SH 10% ltgy-gy, blky, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 90% ltgy-transl-wh, frm-hd, fri, crs gr mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, SH 10% ltgy-gy, plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 90% transl-clr, hd, fri, cly mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz trnsl, SH 10% ltgy-gy, blky, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 90% ltgy-transl-wh, frm-hd, fri, cly mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz clr-trnsl, SH 10% ltgy-gy, plty, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 95% transl-clr, hd, fri, cly mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz trnsl, SH 5% ltgy-gy, blky, mod yel flor, fnt mlky wh cut, fnt-mod res rng

SS 90% transl-clr, hd, fri, cly mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz trnsl, rr mica TUFF 10% ltgy-gygrn, hd-frm

SS 90% transl-clr, hd, fri, cly mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz trnsl, rr mica, TUFF 10% ltgy-gygrn, hd-frm

SS 90% transl-clr, hd, fri, cly mtx, lf-crs gr, ang-sbrnd, lse qtz grns, mod-w srt, unconsol, qtz trnsl, rr mica, rr pyr TUFF 10% ltgy-gygrn, hd-frm

SS 90% transl-clr, hd, fri, cly mtx, lf-crs gr, ang gr, lse qtz grns, mod-w srt, qtz trnsl, rr mica, rr pyr TUFF 10% ltgy-gygrn, hd-frm

SH 50% gr-drkgy, blky, mod yel flor, fnt mlky wh cut, fnt-mod res rng, SS 40% transl-clr, hd, fri, lf-crs gr, ang gr, lse qtz grns, mod-w srt, qtz trnsl, rr mica, rr pyr, TUFF 10% ltgy-gygrn, hd-frm

Final TD 4991'

5050

5100

CONFIDENTIAL