

APPENDIX 1

EAST MEREENIE NO. 10

CUTTINGS SAMPLE DESCRIPTIONS

Interval: 420 to 5830 feet

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- 420' - 450' --- 70% SILTSTONE: brown, micaceous, blocky - non fissile, indurated, carbonate cement (matrix), sandy (arenaceous) in part.
30% CALCILUTITE: grey green, silty limestone, indurated, subfissile to blocky.
- 450' - 480' --- 100% CALCILUTITE: grey to pale grey green silty limestone; arenaceous in part, subfissile to blocky; with $\pm 5\%$ white, crystalline mineral (no reaction with acid) probably gypsum/anhydrite.
- 480' - 510' --- 20% SILTSTONE: A/A.
80% CALCILUTITE: A/A.
- 510' - 540' --- 60% SILTSTONE: A/A becoming fine grained and more indurated, subfissile.
40% CALCILUTITE: A/A, grey and grey green, slightly fine grained (i.e., increase in grain size).
- 540' - 570' --- 40% SANDSTONE: light brown to brown, fine grained, well cemented, low porosity, subangular to angular.
30% SILTSTONE: A/A.
30% CALCILUTITE: A/A.
- 570' - 600' --- 20% SANDSTONE: clear to off white, medium grained, subrounded to rounded, frosted, loose grains - high porosity, low cohesion.
20% SANDSTONE: light brown, brown to orange brown fine grained, calcareous cemented, low porosity.
50% SILTSTONE: brown, micaceous, indurated, subfissile, calcareous cement.
10% CALCILUTITE: grey green, subfissile.
TR GYPSUM
- 600' - 630' --- 20% SANDSTONE: light brown, fine grained, calcareous cement with trace of loose medium grained, subrounded.
70% SILTSTONE: A/A.
10% CALCILUTITE: A/A.
- 630' - 660' --- 20% SANDSTONE: A/A.
70% SILTSTONE: A/A.
10% CALCILUTITE: A/A.
- 660' - 690' --- 40% SANDSTONE: off white, light orange to mainly light brown, fine to medium grained, subangular to subrounded, (with 20% loose grains fine to medium). Trace of gypsum.
60% SILTSTONE: brown, arenaceous, micaceous, calcareous cement, indurated, blocky.

- 690' - 720' --- 10% SANDSTONE: off white, orange to brown, fine to medium grained, angular to subangular, some loose grains, occasional gypsum.
90% SILTSTONE: brown, moderately indurated to friable, blocky to subfissile - slightly calcareous.
TR CALCILUTITE
- 730' - 760' --- 90% SILTSTONE: A/A, occasional gypsum, friable.
10% CALCILUTITE: A/A.
- 760' - 790' --- 20% SANDSTONE: off white, orange to pale brown, subrounded, fine to medium grained, loose grains, good porosity, gypsum crystals common.
80% SILTSTONE: A/A, friable, and also shaley in part, fissile.
- 790' - 820' --- 10% SANDSTONE: A/A, gypsum common.
30% SHALE: orange brown, indurated, fissile.
60% SILTSTONE: A/A.
TR CALCILUTITE
- 820' - 850' --- 40% SHALE: A/A.
60% SILTSTONE: A/A.
TR SANDSTONE: A/A with gypsum.
TR CALCILUTITE: A/A.
- 850' - 880' --- 10% SANDSTONE: A/A, gypsum common.
50% SILTSTONE: A/A.
30% SHALE: A/A.
10% CALCILUTITE: grey, green subfissile.
- 880' - 914' --- 20% SILTSTONE: A/A.
80% CALCILUTITE: A/A.
TR SHALE: A/A, gypsum common.
- 914' - 945' --- 70% SANDSTONE: off white, orange to brown, fine to medium grained, subrounded, loose sand.
20% CALCILUTITE: A/A.
10% SILTSTONE: A/A, trace gypsum.

Good porosity.
- 945' - 977' --- 100% SANDSTONE: off white to orange, fine to coarse grained, subrounded to rounded to occasional cemented fine grains, blocky, subfissile.
TR SILTSTONE: A/A.
TR CALCILUTITE: A/A.

Good porosity.

- 977' - 1,010' --- 100% SANDSTONE: off white to orange brown, fine to moderately grained, subrounded to rounded, occasionally cemented, blocky, silty, friable.
- Good porosity.
- 1,010' - 1,040' --- 100% SANDSTONE: A/A.
- 1,040' - 1,070' --- 100% SANDSTONE: off white to orange, fine to medium grained, subrounded to rounded, occasional fragments blocky, red-brown, silty, fine grained, friable sandstone.
- Good porosity.
- 1,070' - 1,100' --- 100% SANDSTONE: A/A with grains off-white to orange brown.
- Good porosity.
- 1,100' - 1,135' --- 100% SANDSTONE: A/A with 10% as fragments.
- Good porosity.
- 1,135' - 1,167' --- 100% SANDSTONE: A/A.
- Good porosity.
- 1,167' - 1,198' --- 100% SANDSTONE: A/A with grains off-white to orange.
- Good porosity.
- 1,198' - 1,230' --- 100% SANDSTONE: off white to orange, fine grained, rounded sub-spherical, occasional fragments red-brown, fine grained silty friable sandstone.
- Good porosity.
- 1,230' - 1,261' --- 100% SANDSTONE: off white to orange brown, fine to medium grained, subrounded - 10% fragments of red-brown, fine grained, silty friable sandstone.
- Good porosity.
- 1,261' - 1,292' --- 100% SANDSTONE: A/A with trace fragments.
- Good porosity.
- 1,293' - 1,324' --- 100% SANDSTONE: A/A with trace fragments.
- Good porosity.

1,324' - 1,357' --- 100% SANDSTONE: A/A.

Good porosity.

1,357' - 1,388' --- 100% SANDSTONE: A/A - mainly off-white.

Good porosity.

1,388' - 1,419' --- 100% SANDSTONE: A/A - mainly off-white.

Good porosity.

1,419' - 1,450' --- 100% SANDSTONE: A/A - mainly off-white.

Good porosity.

1,450' - 1,482' --- 100% SANDSTONE: off-white to orange brown,
fine grained, subrounded, sub-
spherical.

Good porosity.

1,482' - 1,515' --- 100% SANDSTONE: off-white to orange brown,
fine to medium grained, subrounded,
trace fragments of red-brown, fine
grained, silty friable sandstone.

Good porosity.

1,515' - 1,547' --- 100% SANDSTONE: A/A, with mainly off-white
grains.

Good porosity.

1,547' - 1,577' --- 100% SANDSTONE: A/A with trace white
cement.

Good porosity.

1,577' - 1,673' --- NO SAMPLES. LOST CIRCULATION.

1,673' - 1,705' --- 100% SANDSTONE: A/A.

1,705' - 1,737' --- 100% SANDSTONE: A/A.

Good porosity.

1,737' - 1,960' --- NO SAMPLES. LOST CIRCULATION.

1,960' - 1,990' --- 100% SANDSTONE: A/A.

Good porosity.

1,990' - 2,021' --- 100% SANDSTONE: A/A.

Good porosity.

2,021' - 2,180' --- NO SAMPLES. LOST CIRCULATION.

2,180' - 2,210' --- 100% SANDSTONE: A/A, excessive contamination by up-hole calcilutite.
Good porosity.

2,210' - 2,240' --- NO SAMPLE. LOST CIRCULATION.

2,240' - 2,270' --- 100% SANDSTONE: off-white to orange brown, fine grained, subrounded,
Good porosity.

2,270' - 2,370' --- NO SAMPLES. LOST CIRCULATION.

2,370' - 2,400' --- 100% SANDSTONE: off white to orange brown, fine to medium grained, subrounded.
Good porosity.

2,400' - 2,430' --- 100% SANDSTONE: off-white, minor orange, fine to medium grained, subrounded - occasionally coarse frosted grains.
Good porosity.

2,430' - 2,465' --- NO SAMPLES. LOST CIRCULATION.

2,465' - 2,495' --- 100% SANDSTONE: off-white to orange brown, fine to medium grained, subrounded to subangular.
Good porosity.

2,495' - 2,525' --- 100% SANDSTONE: off-white, minor orange, fine to medium grained, subrounded - occasionally coarse frosted grains.
Good porosity.

2,525' - 2,555' --- 100% SANDSTONE: off-white to orange brown, fine to medium grained, subrounded to subangular.
Good porosity.

2,555' - 2,585' --- 100% SANDSTONE: A/A.
Good porosity.

2,585' - 2,615' --- 100% SANDSTONE: off-white, minor orange, fine to medium grained, subrounded - occasionally coarse frosted grains.
Good porosity.

2,615' - 2,645' --- 100% SANDSTONE: A/A.

Good porosity.

2,645' - 2,675' --- 90% SANDSTONE: red-brown to off-white,
fine to medium grained, subrounded to
subangular, silty, micaceous.
10% SILTSTONE: brown, micaceous, lumpy,
friable, sandy.

Fair to poor porosity.

2,675' - 2,705' --- 80% SANDSTONE: A/A.
20% SILTSTONE: brown micaceous laminated,
friable, sandy.

Fair to poor porosity.

2,705' - 2,735' --- 70% SANDSTONE: A/A.
30% SILTSTONE: A/A.

Poor porosity.

2,735' - 2,765' --- 70% SANDSTONE: A/A.
30% SILTSTONE: A/A.

Poor porosity.

2,765' - 2,795' --- 80% SANDSTONE: A/A.
20% SILTSTONE: A/A.

Poor porosity.

2,795' - 2,825' --- 80% SANDSTONE: A/A.
20% SILTSTONE: A/A.

Poor porosity.

2,825' - 2,855' --- 70% SANDSTONE: A/A.
30% SILTSTONE: A/A.

Poor porosity.

2,855' - 2,885' --- 50% SANDSTONE: red-brown, fine to medium
grained, subrounded to subangular,
silty, micaceous.
40% SILTSTONE: brown laminated micaceous,
sandy, friable becoming red-brown when
dolomitic.
10% CALCILUTITE: mainly green, white,
friable, blocky.

2,885' - 3,035' --- NO SAMPLES. LOST CIRCULATION.

- 3,035' - 3,065' --- 30% SANDSTONE: red brown to off white, fine to coarse grained, subrounded, coarse grains are subspherical, friable.
50% SHALE: mainly brown, some green, slightly laminated, subfissile, micaceous, slightly dolomitic.
20% CARBONATE: green to off white, dolomitic and calcareous, slightly micaceous.
TR SILTSTONE: chocolate, blocky friable.
Poor porosity.
- 3,168' - 3,260' --- NO SAMPLES.
- 3,260' - 3,290' --- 100% SHALE: 70% red-brown, 30% green to grey green, occasionally mottled, occasionally sandy, slightly dolomitic and micaceous, fissile.
TR DOLOMITE: off white, occasionally sandy, finely micaceous.
TR SANDSTONE: black, fine grained, subrounded - matrix is black, fissile, blocky.
Nil porosity.
- 3,290' - 3,320' --- 100% SHALE: 50% red-brown, 50% green to grey green, occasionally mottled, silty, sandy, micaceous, slightly dolomitic.
TR DOLOMITE & SANDSTONE: A/A.
TR SILTSTONE: brown, slightly dolomitic.
- 3,320' - 3,350' --- 70% SHALE: 60% red brown, 40% green to grey green - A/A.
20% SILTSTONE: brown, slightly sandy and dolomitic, fissile.
10% DOLOMITE: off-white to grey green, finely micaceous.
- 3,350' - 3,380' --- 50% SHALE: A/A - dolomite interbedded with grey-green shale.
40% SILTSTONE: A/A.
10% DOLOMITE: A/A.
- 3,380' - 3,410' --- 50% SHALE: A/A - dolomite interbedded with grey-green shale.
40% SILTSTONE: A/A.
10% DOLOMITE: A/A.
- 3,410' - 3,440' --- 70% SILTSTONE: brown, indurated, shaley in part, laminated weakly dolomitic.
20% SHALE: green, fissile.
10% DOLOMITE: green, speckled to off-white, finely micaceous.
- 3,440' - 3,470' --- 60% SILTSTONE: A/A.
30% SHALE: A/A.
10% DOLOMITE: A/A.

3,470' - 3,500' --- 60% SILTSTONE: A/A.
30% SHALE: A/A.
10% DOLOMITE: A/A.

3,500' - 3,530' --- 70% SILTSTONE: A/A.
20% SHALE: A/A.
10% DOLOMITE: A/A.

3,530' - 3,560' --- 70% SILTSTONE: A/A.
20% SHALE: A/A.
10% DOLOMITE: A/A.

3,560' - 3,590' --- 80% SILTSTONE: A/A.
10% SHALE: A/A.
10% DOLOMITE: A/A.

3,590' - 3,620' --- 90% SILTSTONE: A/A.
5% SHALE: A/A.
5% DOLOMITE: A/A.

3,620' - 3,650' --- 80% SILTSTONE: brown, shaley in part,
laminated, dolomitic, fissile.
10% SHALE: 5% green, fissile, weakly
dolomitic, 5% grey, dolomitic.
10% DOLOMITE: grey, firm, fissile.

3,650' - 3,680' --- 70% SILTSTONE: brown, indurated shaley in
part, sandy dolomitic cement.
20% DOLOMITE: grey, fissile, mica.
10% DOLOMITE: green, fissile.

3,680' - 3,710' --- 60% SILTSTONE: A/A with trace of brown
sandstone.
20% DOLOMITE: A/A.
20% DOLOMITE: A/A.

3,710' - 3,740' --- 10% SANDSTONE: red/brown, fine to very
fine grained, subangular, carbonate
matrix grading to siltstone.
60% SILTSTONE: brown, shaley in part, sub-
fissile to fissile.
20% DOLOMITE: green, fissile.
10% DOLOMITE: grey.

3,740' - 3,765' --- 20% SILTSTONE: brown A/A with <5% grading
to sandstone.
50% DOLOMITE: green A/A grading to dolo-
mitic siltstone.
20% DOLOMITE: grey, grading to dolomitic
shale.

3,765' - 3,800' --- 50% DOLOMITE: green, shaley in part 20%.
40% DOLOMITE: grey, crystalline.
10% CARBONATE: white.
TR SILTSTONE: brown, possibly contamin-
ated.

- 3,800' - 3,830' --- 80% DOLOMITE-SHALE: grey, crystalline, slightly pyritic, blocky to subfissile, indurated.
10% DOLOMITE: green, shaley, fissile.
10% CARBONATE: white to off white.
TR SILTSTONE: brown - sidewall contamination.
- 3,830' - 3,860' --- 90% DOLOMITE: grey, fissile, shaley with occasional pyrite A/A.
10% CARBONATE: white, A/A.
- 3,860' - 3,890' --- 90% DOLOMITE: A/A.
10% CARBONATE: A/A.
(Increase in sidewall contamination after survey-connection. Circulation required to clear base of hole.)
- 3,890' - 3,920' --- 70% DOLOMITE: grey A/A, silty, micaceous and pyrite.
10% CARBONATE: white/off white, crystalline A/A, mottled.
20% DOLOMITIC-SHALE: green, fissile.
- 3,920' - 3,950' --- 40% DOLOMITIC SILTSTONE: grey, subfissile, pyrite, mica.
30% DOLOMITIC SHALE: green, fissile.
30% SANDSTONE: white, clear to off white; fine grained, subrounded, to subangular, carbonate/dolomite cement. Generally well cemented with occasional large separate grains.
- 3,950' - 3,980' --- 30% DOLOMITE: light to dark grey, shaley in part, fissile, mica.
30% DOLOMITIC SHALE: green, fissile.
40% SANDSTONE: white to clear grains, fine to medium grained, subangular to subrounded - carbonate/dolomitic and silica cement - well cemented with mica and large spherical clear quartz grains.

Very poor porosity.
- 3,980' - 4,010' --- 60% SANDSTONE: A/A.
30% SILTSTONE: light to dark grey, shaley, micaceous and pyritic in part fissile, calcareous.
10% SHALE: green, fissile, dolomitic.

Very poor porosity.
- 4,010' - 4,040' --- 80% SANDSTONE: A/A with occasional pyritic cement.
10% SILTSTONE: A/A.
10% SHALE: A/A.

Very weak hydrocarbon staining - weak residual cut.

- 4,040' - 4,070' --- 80% SANDSTONE: white to clear, fine grained, occasionally medium grained, subangular to subrounded, siliceous cement, poor porosity.
10% SILTY SANDSTONE: grey white, fine grained, occasional brown stain. (Tested for hydrocarbons - negative).
10% SHALE: grey green, non calcareous, fissile to subfissile.

Note: High contamination of brown dolomitic Upper Stokes shale/silt ±20% sample.

Very poor porosity.

- 4,070' - 4,100' --- 80% SANDSTONE: A/A (20% contamination of brown).
20% SILTY SANDSTONE: A/A (Upper Stokes).

- 4,100' - 4,130' --- 60% SILTSTONE: grey to dark grey, micaceous, sandy, subfissile to blocky, occasionally shaley and laminated; weakly dolomitic, siliceous cemented.
30% SANDSTONE: white, laminated to subfissile, fine to medium grained.
10% SILTY SANDSTONE: A/A.

- 4,142' --- 80% SILTSTONE: grey to dark grey, micaceous, sandy, ultra fine sulphides (pyrite!), subfissile, indurated.
20% SANDSTONE: predominantly grey silty sand with ±5% white sandstone A/A.

- 4,130' - 4,160' --- 80% SILTSTONE: A/A with 10 - 20% shaley siltstone.
20% SANDSTONE: A/A.

- 4,160' - 4,190' --- No sample collected - no returns after survey break! Additional foam being added.

- 4,190' - 4,220' --- 80% SILTSTONE: A/A with 20% shaley siltstone.
20% SANDSTONE: dark grey, silty sandstone, calcareous and siliceous cement. Side-wall contamination.

Poor porosity.

- 4,220' - 4,250' --- 70% SILTSTONE: grey to dark grey, very friable (sample grinds through fine sieve), arenaceous very fine grained, subrounded to subangular, fine pyrite and mica. Note: Sample loss due to ultra fine silt.

4,220' - 4,250' --- 30% SANDSTONE: grey to grey white, pyritic,
(Contd.) fine grained, subrounded to subangular,
thin laminated (dirty silty sandstone!).

Note: Hole cavings 10%.

Poor porosity, no cut or fluorescence.

4,250' - 4,280' --- 90% SILT & SILTSTONE: predominantly fine
silt composed of mica, quartz and car-
bonate derived from thin lamina layers
of friable grey siltstone, interleaved
with thin sandstone bands.

10% SANDSTONE: A/A.

4,280' - 4,310' --- 70% SILTSTONE: A/A.
30% SANDSTONE: A/A.

4,310' - 4,340' --- 80% SILTSTONE: A/A, occasionally with high
content pyrite.
20% SANDSTONE: A/A.

4,340' - 4,370' --- 70% SILTSTONE: grey to dark grey, friable,
partly laminated, weakly dolomitic,
pyritic, micaceous.

30% SANDSTONE: white to off white to grey,
fine grained, pyritic, micaceous, sub-
rounded to subangular.

Poor porosity.

4,370' - 4,400' --- 60% SILTSTONE: A/A.
40% SANDSTONE: A/A.

4,400' - 4,430' --- 60% SILTSTONE: A/A.
40% SANDSTONE: A/A.

4,430' - 4,460' --- 70% SILTSTONE: A/A.
30% SANDSTONE: A/A.

4,460' - 4,470' --- 30% SILTSTONE: A/A with occasional pyrite.
70% SANDSTONE: white to occasional grey,
fine grained, subangular, micaceous in
part, rare pyrite, a few very coarse
spherical quartz grains.

4,470' - 4,480' --- 60% SILTSTONE: off white, minor dark grey,
sandy, occasionally pyritic, micaceous.
40% SANDSTONE: A/A with rare glauconite.

4,480' - 4,490' --- 80% SILTSTONE: grey to dark grey, sandy,
pyrite occasionally, very friable.
20% SANDSTONE: white, clear to off white,
fine grained to medium grained, larger
grains, subrounded to rounded. Poor
porosity.

Poor porosity, no fluorescence, no cut.

4,490' - 4,500' --- 80% SANDSTONE: clear to light grey, fine grained to medium grained, with occasional coarse grains. Well cemented with silica and weakly dolomitic, poor porosity. Grains sub-angular to subrounded.

20% SILTSTONE: grey to grey block, sub-fissile, indurated to friable.

Poor porosity, no cut or fluorescence.

4,500' - 4,510' --- 90% SANDSTONE: clear to white, medium to coarse grained, subrounded to rounded, especially large coarse grains - good porosity in coarse grains often frosted, cement siliceous and weakly dolomitic and rare pyrite.

10% SILTSTONE: grey to black, fissile A/A.

Good porosity. Weak cut, yellow fluorescence (contamination from oil based mud).

4,510' - 4,520' --- 100% SANDSTONE: A/A.

4,520' - 4,530' --- 90% SANDSTONE: clear to white, medium to coarse grained, subrounded to rounded, occasionally frosted, fair to poor porosity, rare pyrite.

10% SILTSTONE: grey A/A.

Note: Contamination by uphole formations (one fragment of glauconite sandstone as found in Pacoota).

Fair porosity.

4,530' - 4,540' --- 90% SANDSTONE: A/A.

10% SILTSTONE: A/A.

4,540' - 4,550' --- 90% SANDSTONE: A/A.

10% SILTSTONE: A/A.

Fair porosity.

4,550' - 4,560' --- 100% SANDSTONE: A/A.

TR SILTSTONE: A/A.

4,560' - 4,570' --- 100% SANDSTONE: white to light brown, fine to medium grained, subangular to subrounded, cemented in part by silica and rare dolomite - occasional quartz grains coarse, rounded, spherical and rare pyrite.

TR SILTSTONE: light brown to block occasional sandy and pyrite.

Poor porosity.

- 4,570' - 4,580' --- 70% SANDSTONE: white to off white, to pale brown, A/A. Few large subrounded grains.
30% SILTSTONE: light grey to dark grey, thinly laminated, indurated to very friable (High percentage of sidewall dilution after new bit).

Poor porosity. Weak cut and fluorescence (contamination).
- 4,580' - 4,590' --- 60% SANDSTONE: off white, fine grained to occasional medium grained, subangular to subrounded.
40% SILTSTONE: A/A.
- 4,590' - 4,600' --- 10% SANDSTONE: off white to grey white, fine grained, subangular, cemented, poor porosity.
90% SILTSTONE: grey, subfissile, friable to indurated, pyritic.

Poor porosity.
- 4,600' - 4,610' --- 40% SANDSTONE: white to clear, medium to coarse grained, subangular, subrounded to rounded (especially in coarse grains), also faceted/crystalline, pitted. Poor/fair porosity, siliceous cement. Cryptocrystalline material along grain boundaries - some is black - hydrocarbon?
60% SILTSTONE: grey, A/A.

Poor/fair porosity.
- 4,610' - 4,620' --- 30% SANDSTONE: white to clear, medium to coarse, A/A.
70% SILTSTONE: A/A.

Poor porosity.
- 4,620' - 4,630' --- 50% SANDSTONE: clear, medium to coarse, subangular to subrounded, faceted quartz crystals, silicified, poor porosity.
50% SILTSTONE: grey to dark grey, subfissile, slightly pyritic, sandy in part.

Poor porosity.
- 4,630' - 4,640' --- 100% SANDSTONE: clear, medium to coarse, subangular to rounded, faceted, fair porosity 40% grains stained brown and black, siliceous matrix.

Fair porosity. Fair to strong cut and yellow fluorescence. 40% grains discoloured by hydrocarbon.

- 4,640' - 4,650' --- 90% SANDSTONE: A/A rare pyrite.
10% SILTSTONE: dark grey, sandy in part, micaceous, pyritic.
- Fair porosity - fair cut and yellow fluorescence. 20% grains discoloured by hydrocarbon.
- 4,650' - 4,660' --- 80% SANDSTONE: clear mud to coarse grained subangular to subrounded, faceted, 40% stained brown to black (hydrocarbons), weak siliceous cement. One grain, rounded, layer of very glauconitic sandstone.
20% SILTSTONE: dark grey, sandy micaceous.
- Poor porosity, weak to strong cut and yellow fluorescence.
- 4,660' - 4,670' --- 90% SANDSTONE: clear medium to coarse, subangular to subrounded, fair to good porosity, siliceous cement (strong brown hydrocarbon staining and black tar), contamination by uphole sidewall cavings plus 'orange' chemical contaminant.
10% SILTSTONE: dark grey, pyritic, sub-fissile.
- Fair to good porosity. Strong hydrocarbon staining on 40% grains. Good cut and yellow fluorescence, streaming effect.
- 4,670' - 4,680' --- 90% SANDSTONE: clear, fine to medium grained, subangular to subrounded, cemented with silica, poor porosity, strongly stained brown and black (mainly brown) with hydrocarbons.
10% SILTSTONE: A/A.
- Poor porosity, strong hydrocarbon staining on 70% of grains, strong cut and yellow fluorescence.
- 4,680' - 4,690' --- 60% SANDSTONE: clear, fine grained, occasionally medium, 80% coated with hydrocarbon staining, poor porosity.
40% SILTSTONE: grey to black - highly stained with hydrocarbon. Fragment of nodular pyrite fairly common.
- Poor porosity, strong hydrocarbon staining 80% of grains.

4,690' - 4,700' --- 30% SANDSTONE: clear, fine grained,
pyritic, subangular to subrounded;
well cemented, poor porosity. Highly
discoloured, brown and black hydro-
carbon depositions.
70% SILTSTONE: dark grey to black, pyritic
often nodular, subfissile, indurated.

Poor porosity, good cut and yellow
fluorescence.

4,700' - 4,710' --- 100% SILTSTONE: A/A, pyritic.
TR SANDSTONE: A/A.
TR LIMESTONE

DST No. 1 carried out on interval
4630 - 4714. Rec: Gas 3 MMcf/day and
oil 58 API at ± 100 BBLs/day estimate.

Note (1): Sand sample from below
hydrospring gave subrounded to sub-
angular, medium grained clear quartz of
fair to good porosity, hydrocarbon
stained: probably from 4660 - 4670'.

Fair porosity, strong white cut and
yellow fluorescence.

Note (2): Sand sample packets, washed
and dried have oil stained packet
4660 - 4670 only! Possible "weeping"
effect by oil from cuttings.

4,710' - 4,720' --- 60% SHALE: dark to light grey, pyritic,
hard, indurated.
40% LIMESTONE: off white to very light
brown, dirty, slightly micaceous.

Horn Valley Siltstone Top 4,710'.

4,720' - 4,740' --- No Samples Collected.

4,740' - 4,750' --- 70% SHALE: light grey to dark grey, slight
pyritic, hard indurated.
30% LIMESTONE: A/A.

4,750' - 4,760' --- 70% SHALE: A/A pyritic.
30% LIMESTONE: A/A.

4,760' - 4,770' --- 70% SHALE: A/A, pyritic.
20% LIMESTONE: A/A.
10% SILTSTONE: off white, subrounded,
silica-carbonate cement, slightly
micaceous, pyritic.

- 4,770' - 4,780' --- 100% SHALE: dark grey, fissile to sub-fissile, indurated to friable.
TR LIMESTONE: in very thin laminae.
- 4,780' - 4,790' --- 90% SHALE: A/A becoming silty in part and more pyritic.
10% LIMESTONE: A/A.
- 4,790' - 4,800' --- 60% SHALE: A/A, black - dark grey, fissile.
30% SILTSTONE: grey to light grey, micaceous, pyritic, subfissile.
10% LIMESTONE: thin off white laminae.
- 4,800' - 4,810' --- 80% SHALE: A/A.
10% SILTSTONE: A/A.
10% LIMESTONE: A/A.
- 4,810' - 4,820' --- 90% SHALE: A/A.
10% LIMESTONE: A/A.
- 4,820' - 4,830' --- 60% SHALE: dark grey to black, fissile, indurated, pyritic, silty in part.
40% LIMESTONE: light grey to white, occasionally pyritic.
- 4,830' - 4,840' --- 60% SHALE: A/A, pyritic and silty in part.
40% LIMESTONE: A/A.
- 4,840' - 4,850' --- 20% SHALE: A/A.
40% SILTSTONE: grey, finely pyritic, sandy silt, laminated.
40% LIMESTONE: thin layers of off white to light grey dirty limestone, pyritic in places.
- 4,850' - 4,860' --- 60% SHALE: A/A.
40% LIMESTONE: A/A.
- 4,860' - 4,870' --- 50% SHALE: A/A.
50% LIMESTONE: A/A.
TR SILTSTONE: A/A.
- 4,870' - 4,880' --- 80% SHALE: A/A.
20% LIMESTONE: A/A.
- 4,880' - 4,890' --- 90% SHALE: A/A with shell fragments.
10% LIMESTONE: A/A.
- 4,890' - 4,900' --- 90% SHALE: A/A.
10% LIMESTONE: A/A.
- 4,900' - 4,910' --- 60% SHALE: A/A.
40% LIMESTONE: A/A, pale brown to off white. Trace of glauconite.

SPECIAL SAMPLE

4,912' --- 100% LIMESTONE: off white, to pale grey brown; streaky in part, contains shale fragments, glauconite and pyrite.

TR SHALE

Very poor porosity, 20% of cuttings have moderate/strong hydrocarbon staining. Moderate to strong white cut and yellow fluorescence.

4,915' - 4,920' --- 20% SHALE: A/A, light grey, pyritic, micaceous (possible contaminant from drill break at 4,909'?)
80% LIMESTONE: pale grey brown (80%) off white (20%), glauconitic, occasionally pyritic - brown colour, very heavy hydrocarbon staining (i.e., 70% of total sample), intergranular.
TR SANDSTONE: fine grained, subangular to subrounded, carbonate cement, glauconitic, occurs as thin bands within limestone.

Very poor porosity, moderate to strong white and yellow cut and yellow fluorescence, white to yellow residual.

4,920' - 4,930' --- 60% LIMESTONE: off white to brown, sandy, glauconitic, slightly pyritic, moderate to heavy hydrocarbons staining.
30% SANDSTONE: white, fine grained, subangular to subrounded, clear quartz grains, glauconitic sandstone, carbonate/silica cement.
10% SHALE: A/A, pyritic, micaceous.

Moderate to heavy hydrocarbon staining, weak to moderate white cut and yellow fluorescence, white residual, weak to moderate hydrocarbon staining, weak white cut, weak white residue, poor porosity.

4,930' - 4,940' --- 50% SANDSTONE: A/A.
50% SANDSTONE: brown, medium to fine grained, carbonate cement, glauconitic, slightly pyritic (gradation from limestone in 4,920'), brown colour due to hydrocarbon staining.
TR SHALE: grey to black, pyritic, micaceous.

- 4,930' - 4,940' --- Weak to moderate yellow and white cut, white to yellow residual fluorescence, poor porosity.
- 4,940' - 4,950' --- 60% SANDSTONE: white, fine grained, partly glauconitic, silica cement, trace pyrite.
30% SANDSTONE: brown fine grained, silica cement - colour due to hydrocarbons.
10% SHALE: grey, black, pyritic, micaceous.
Poor porosity, weak white to yellow cut and yellow fluorescence.
- 4,950' - 4,960' --- 70% SANDSTONE: white A/A, friable.
20% SANDSTONE: brown A/A.
10% SHALE: A/A.
Poor porosity, weak to moderate white cut and yellow fluorescence.
- 4,960' - 4,970' --- 90% SANDSTONE: white to brown fine grained, subangular, silica cement, weakly glauconitic, brown colour (30%) due to residual hydrocarbon.
10% SHALE: A/A.
Poor porosity, weak to moderate cut and yellow fluorescence.
- 4,970' - 4,980' --- 90% SANDSTONE: white to brown (discoloured), fine grained, subangular to subrounded, silica cement, poor porosity, highly discoloured brown and black by hydrocarbons (30 - 40%).
10% SHALE: A/A.
Poor porosity, strong white cut, yellow fluorescence (streaming common).
- 5,005' - 5,010' --- Highly contaminated sample after coring and DST No. 2.
- 5,010' - 5,020' --- 40% SANDSTONE: white glassy to grey white clear, fine to medium grained, subangular to subrounded, silica cemented, poor porosity, no hydrocarbon discoloration.
60% SILTSTONE: light grey grading to black shaley siltstone, pyritic, indurated subfissile to fissile.
Very poor porosity, weak cut and fluorescence (contamination).

- 5,020' - 5,030' --- 80% SANDSTONE: off white to pale grey, fine grain, highly silicified, very poor porosity, laminated, fractures distinct flat flakes, competent not friable.
20% SILTSTONE: A/A.
Poor porosity, cut and fluorescence.
- 5,030' - 5,040' --- 30% SANDSTONE: off white to brownish, fine to medium grain, subangular - subrounded, silicified, poor porosity, glauconitic.
70% SILTSTONE/SHALE: grey to dark grey, laminated.
TR SANDSTONE: medium to coarse, rounded, loose grained, clear, good porosity.
Poor porosity.
- 5,040' - 5,050' --- 70% SANDSTONE: white, to grey to brown, fine grained, subangular to subrounded, strongly silicified, poor porosity, quartzitic, laminated partly. 10% grains show brown/black oily discolouration, 2% of coarse rounded grains.
30% SILTSTONE/SHALE: grey to dark grey, sandy silt, laminated, subfissile.
Poor porosity, weak to fair cut and fluorescence.
- 5,050' - 5,058' --- 90% SANDSTONE: white, clear to glassy quartzose sandstone, strong silica cement, very poor porosity, laminated (flakey), predominantly fine grained, subangular.
10% SILTSTONE/SHALE: A/A.
Very poor porosity, weak cut, fluorescence.
- 5,058' - 5,070' --- 90% SANDSTONE: white, clear, grey to brown quartzose sandstone, strong silica cement, poor porosity, fine grained to medium grained, subangular to subrounded, hydrocarbon staining 40%.
10% SILTSTONE: grey sandy silt with occasional dark grey fissile shale.
Poor porosity, weak cut and fluorescence.
- 5,070' - 5,080' --- 20% SANDSTONE: off white, fine grained, subangular, quartzose, poor porosity.
80% SILTSTONE: A/A.
Poor porosity.

5,080' - 5,090' --- 60% SANDSTONE: white, to clear to grey white, fine to medium grained, sub-angular to subrounded, poor porosity, quartzose. 20% residual hydrocarbon stain.
40% SILTSTONE: grey, sandy in part, shaley, subfissile to fissile.

Poor porosity, hydrocarbon stain 20% weak cut and fluorescence.

5,090' - 5,100' --- 90% SANDSTONE: white, clear to grey white, predominantly medium grained and sub-rounded, siliceous and quartzose, with slight improvement in porosity due to increase in grain size. Residual brown and black hydrocarbon staining 40 - 50%.
10% SILTSTONE: A/A.

Poor porosity (slight improvement).

5,100' - 5,110' --- 90% SANDSTONE: white, clear grains, fine grained, subrounded to subangular, siliceous cement occasionally becoming quartzitic, rare pyritic cement, friable to fissile. Residual brown and black hydrocarbon staining 30%.
10% SILTSTONE: grey to dark grey, sandy, micaceous, subfissile to fissile, weakly pyritic.

Poor porosity.

5,110' - 5,120' --- 100% SANDSTONE: A/A.

Poor porosity.

5,120' - 5,130' --- 70% SANDSTONE: A/A.
30% SILTSTONE: A/A.

Poor porosity.

5,130' - 5,140' --- 60% SANDSTONE: white fine to medium grained, subangular to subrounded, silica cement, occasioning to quartzitic, rare pyrite cement, subfriable to fissile. Residual hydrocarbon staining on 30%.
40% SILTSTONE: grey to black sandy micaceous pyritic subfissile.

Poor porosity.

5,140' - 5,150' --- 80% SANDSTONE: A/A, residual hydrocarbon = 40%, coarser grains showing improved porosity, occasionally frosted and rounded.
20% SILTSTONE: A/A.

Poor to fair porosity.

- 5,150' - 5,160' --- 90% SANDSTONE: clear to white, fine to medium grained, with rare coarse grain, subangular - subrounded, siliceous cement, poor porosity, hydrocarbon staining 40%.
10% SILTSTONE: shaley in part, subfissile, fine pyrite.

Poor porosity.

- 5,160' - 5,170' --- 80% SANDSTONE: A/A with occasional pyrite - hydrocarbon staining 60% ranging from brown to black.
20% SILTSTONE: A/A.

Poor porosity medium cut and streaming, white to yellow fluorescence.

- 5,170' - 5,180' --- 80% SANDSTONE: A/A, no coarse grains - hydrocarbon staining 60%.
20% SILTSTONE: A/A.

- 5,180' - 5,190' --- 80% SANDSTONE: white, clear, grey to black (discolouration), fine to medium grained, subrounded, quartzose sandstone, discoloured black by hydrocarbon to $\pm 60\%$ of sample, poor to very poor porosity.
20% SILTSTONE: black to dark grey, fissile to subfissile, pyritic.

Poor porosity, moderate staining, cut and fluorescence. 60 - 70% hydrocarbon discoloured.

- 5,190' - 5,200' --- 90% SANDSTONE: grey sandstone completely discoloured 100% by residual hydrocarbons quartzose, strong siliceous cement, very poor porosity, fine to medium, subrounded grains.
10% SILTSTONE: A/A.

Poor porosity. 100% hydrocarbon discoloured, moderate and strong cut and fluorescence (contamination + old oil).

- 5,200' - 5,210' --- 90% SANDSTONE: white to grey, discoloured 70% by hydrocarbon, subangular to subrounded, quartzose siliceous cement. Poor porosity (slight improvement), grain size fine to medium, rare coarse grains, glassy crystalline in part.
10% SILTSTONE: A/A.

Poor porosity, 70% hydrocarbon (discoloured). Moderate cut and fluorescence.

5,210' - 5,220' --- 100% SANDSTONE: white A/A, but only 20% discoloured by hydrocarbon. Poor porosity, very silicified. Occasional medium/coarse grains.

Poor porosity, 20% hydrocarbon discoloured.

5,220' - 5,230' --- 100% SANDSTONE: white A/A, 20% grains discoloured by hydrocarbon, poor porosity, fine to medium grains with 10% rounded coarse grains - fair porosity.

TR SILTSTONE

Poor porosity, 20% hydrocarbon discolouration.

5,230' - 5,240' --- 80% SANDSTONE: white, clear, grey black, fine to medium grained with occasional clear medium/coarse rounded grains; although predominantly subangular to sub-rounded, quartzose, strong silica cement, discoloured by hydrocarbons 30%. Poor porosity. (Fair on rounded coarse grains - 10%).

20% SILTSTONE: grey to grey black, sub-fissile to fissile, pyritic, shaley in part.

Poor porosity to poor fair. Hydrocarbon discolouration 30%, moderate cut and fluorescence.

5,240' - 5,250' --- 80% SANDSTONE: clear to grey white, medium to coarse grained (with occasional coarse rounded grains), quartzose, discoloured by hydrocarbon 50%.

20% SILTSTONE: A/A.

Poor porosity, discolouration hydrocarbon 50%.

5,250' - 5,260' --- 90% SANDSTONE: A/A, discoloured hydrocarbon 80%, slight improvement in porosity.

10% SILTSTONE: A/A.

Poor porosity, hydrocarbon discolouration 80%.

5,260' - 5,270' --- 90% SANDSTONE: A/A, black discolouration by hydrocarbon intergranular at 60%, poor porosity.

10% SILTSTONE: A/A.

Poor porosity, hydrocarbon discolouration 60%.

- 5,270' - 5,280' --- 100% SANDSTONE: clear to grey white, fine to medium grain, subangular to subrounded (occasionally coarse grained and rounded $\pm 10\%$), but generally poor porosity. Quartzose, silica cement. Hydrocarbon staining 50%.
Poor to poor fair porosity. Hydrocarbon residual 50%.
- 5,280' - 5,290' --- 90% SANDSTONE: clear to white, fine to medium grained (occasional coarse round grains 5% fair porosity), but generally subangular to subrounded, quartzose, silica cement, poor porosity. Hydrocarbons 10%.
10% SILTSTONE: dark grey, fissile, shaley in part, pyritic.
Poor porosity, residual hydrocarbons $\pm 10\%$.
- 5,290' - 5,300' --- 90% SANDSTONE: A/A. Hydrocarbon staining 30%.
10% SILTSTONE: A/A.
Poor porosity, hydrocarbons = 30%.
- 5,300' - 5,310' --- 60% SANDSTONE: clear to white A/A. Hydrocarbon staining 10%, poor porosity.
40% SILTSTONE: light to dark grey, indurated and shaley in part, also friable and sandy.
Poor porosity, residual hydrocarbons 10%.
- 5,310' - 5,320' --- 90% SANDSTONE: clear to white, glassy, fine grained, subangular, quartzose, strong silica cement, 70% grains show residual intergranular black hydrocarbon stain, very poor porosity.
10% SILTSTONE: A/A.
Very poor porosity. Residual hydrocarbon = 70%.
- 5,320' - 5,330' --- 90% SANDSTONE: clear to white, to grey white, predominantly fine grained, some medium grained, subangular to subrounded, with less 5% rounded coarse grains. Poor porosity. 60% residual hydrocarbons.
10% SILTSTONE: A/A.
Poor porosity, 60% residual hydrocarbons.

- 5,330' - 5,340' --- 80% SANDSTONE: clear to white to glassy, medium to fine grained, subangular, quartzose, lamina fracture, poor porosity. Minor hydrocarbon discolouration < 5%. Weak cut and fluorescence.
20% SILTSTONE: grey, shaley in part, occasional pyrite fine grained, subfissile to fissile.

Poor porosity, minor hydrocarbon < 5%. Weak cut and fluorescence.
- 5,340' - 5,350' --- 80% SANDSTONE: A/A, but with $\pm 20\%$ coarse, clear white - some hydrocarbon discolouration (10%), rounded to subrounded grains, good porosity. Generally poor porosity and quartzose.
20% SILTSTONE/SHALE: A/A.

Poor porosity except for 20% good porosity.
- 5,350' - 5,360' --- 90% SANDSTONE: A/A, rounded coarse grains, 5% hydrocarbon discolouration.
10% SILTSTONE: A/A.

Poor porosity.
- 5,360' - 5,370' --- 90% SANDSTONE: A/A, but with improved porosity - increase in rounded - subrounded, clear coarse quartz grains = 30%. Increase oil discolouration = 30%.
10% SILTSTONE: A/A, Streaming effect on cut.

Fair porosity on 30%. Poor porosity on rest. Fair white cut, fair yellow fluorescence.
- 5,370' - 5,380' --- 90% SANDSTONE: A/A, generally medium grained, 5% coarse grained, quartzose, intergranular discolouration common 40%.
10% SILTSTONE: A/A.

Poor porosity.
- 5,380' - 5,390' --- 100% SANDSTONE: pale grey to grey black, speckled, fine to medium grained, subangular, quartzose siliceous cement, glauconitic, with intergranular shale, silt and possible residual hydrocarbon material locked into the matrix. Occasional pyrite. Poor porosity.

Poor porosity, minor hydrocarbon discolouration, fair to poor white cut and yellow fluorescence.

- 5,390' - 5,400' --- 90% SANDSTONE: grey to dark grey, speckled fine grained to medium grained, quartzose, siliceous, A/A.
10% SILTSTONE: dark grey, subfissile, pyritic.
Poor porosity, minor staining.
- 5,400' - 5,410' --- 90% SANDSTONE: A/A.
10% SILTSTONE: A/A.
Poor porosity, minor staining tar/bitumen.
- 5,410' - 5,420' --- 80% SANDSTONE: grey, spotted with shale, hydrocarbon residual particles, glassy quartzose, siliceous, glauconitic, fine to medium grained, subangular to subrounded, with 10% medium grains, subrounded, clear, fair porosity, sandstone.
20% SILTSTONE/SHALE: grey, subfissile, pyrite aggregated.
Poor porosity, minor hydrocarbon residual tar 10%, fair porosity sandstone.
- 5,420' - 5,430' --- 90% SANDSTONE: A/A with increase in strongly glauconitic clear to white grains. Generally poor porosity. High 10% of orange chemical ppt.
10% SILTSTONE: A/A.
Poor porosity.
- 5,430' - 5,440' --- 90% SANDSTONE: grey, spotted with hydrocarbons, glauconite and shale particles, subangular to subrounded, fine to medium grained, $\pm 10\%$ medium to coarse, fair porosity, subrounded grains, generally poor porosity.
10% SILTSTONE: grey, subfissile, shaley in part, pyrite aggregates.
Poor porosity, residual hydrocarbons. Weak cut and fluorescence.
- 5,440' - 5,450' --- 90% SANDSTONE: 45%:45% grey spotted, glassy, quartzose, poor porosity, subangular sandstone and clear, glauconitic, fine to medium grained, poor porosity, siliceous and calcareous cement, quartzose sandstone, pyrite.
10% SHALE: dark grey, fissile.
Poor porosity, residual black hydrocarbon staining on 45%.

5,450' - 5,460' --- 90% SANDSTONE: predominantly clear, white, subangular - subrounded, medium grained, occasionally coarse grained, calcareous cement, fair to poor porosity, glauconitic, pyrite aggregates, discoloured, spotted sandstone = $\pm 20\%$.

10% SHALE: dark grey, fissile.

Poor to poor/fair porosity. Weak cut and fluorescence. Improved porosity related to change over from siliceous to carbonate matrix.

5,460' - 5,470' --- 100% SANDSTONE: A/A, clear, white, subangular, glauconitic, poor to fair porosity, calcareous cement, medium grained.

TR SHALE: A/A.

Poor to poor/fair porosity. Weak cut and fluorescence, improved porosity with carbonate matrix.

5,470' - 5,480' --- 90% SANDSTONE: A/A, clear, subangular to subrounded, medium to coarse grained, fair porosity, calcareous and siliceous.

10% SHALE: A/A.

Fair porosity.

5,480' - 5,490' --- 100% SANDSTONE: clear, subangular to subrounded, medium to coarse grained, siliceous, some friable, weakly glauconitic (no carbonate cement). Fair porosity, some pyrite.

TR SHALE

Fair porosity, weak cut, yellow and white fluorescence.

5,490' - 5,500' --- 100% SANDSTONE: clear to white medium to coarse grained, subangular to subrounded, (contamination after bit change light brown siltstone, glauconite sandstones). Siliceous cement, poor to fair porosity.

TR SHALE: fissile, grey (could be sidewall contamination).

Poor to fair porosity. Weak cut and fluorescence (moderate white fluorescence).

5,500' - 5,510' --- 100% SANDSTONE: A/A.

TR SHALE

Poor to fair porosity. Weak cut, white fluorescence.

5,510' - 5,520' --- 100% SANDSTONE: A/A.
TR SHALE

Poor to fair porosity. Weak cut, white fluorescence.

5,520' - 5,530' --- 100% SANDSTONE: A/A, predominantly medium grained.
TR SHALE

Poor porosity, A/A.

5,530' - 5,540' --- 90% SANDSTONE: white, quartzose, very siliceous, fine to medium grained, sub-rounded, abundant siliceous cement.
10% SILTSTONE: grey, soft.

Light white fluorescence throughout from oil based mud.

Poor porosity.

5,540' - 5,550' --- 60% SANDSTONE: pink-red, white, quartzose, silty in part, siliceous cement, fine to medium grained, moderately sorted, some poorly.
30% SILTSTONE: red-brown, sandy in part, red clay matrix.
10% SHALE: red-brown, subfissile, firm.

Poor porosity.

5,550' - 5,560' --- 50% SANDSTONE: A/A.
30% SILTSTONE: A/A.
20% SHALE: A/A.

Poor porosity.

5,560' - 5,570' --- 80% SANDSTONE: white to buff, quartzose siliceous, fine grained, moderately to well sorted, subrounded with red and pink and white quartzitic sandstones as above.
20% SILTSTONE: A/A.
HTR SHALE: A/A.

Minor porosity, minor white, minor fluorescence.

5,570' - 5,580' --- 70% SANDSTONE: white and brickred, quartzose, very siliceous, medium to fine grained, minor coarse, moderately and poorly sorted, siliceous cement.
20% SILTSTONE: A/A.
10% SHALE: A/A.

Poor porosity.

CORE NO. 2, 5,585 - 5,616.5 ft. Cut
31.5 ft. Recovered 31.5 ft.

Red stained quartzose sandstone with
minor shaley siltstone horizons and
rare shale inclusions. Minor white
blobs and horizons of sandstone.

5,616' - 5,630' --- 90% SANDSTONE: white and red stained,
quartzose, lithic sandstone, fine to
medium grained, subangular, moderately
sorted, abundant siliceous cement and
red staining.

10% SILTSTONE: green, red, red-grey,
argillaceous and micaceous in part.

Poor porosity.

5,630' - 5,640' --- 80% SANDSTONE: A/A, almost totally stained
red and finer grained.

20% SILTSTONE: A/A.

HTR SHALE: red brown, rare green, firm.

Very poor porosity.

5,640' - 5,650' --- 70% SANDSTONE: red, pink, white, quartzose,
siliceous, haematitic, sublithic, fine
to medium grained, subangular - sub-
rounded, moderately sorted, very poor
porosity due to siliceous cementation.

30% SHALE: red-brown, firm to soft, micac-
eous and silty in part.
(Minor grey-green horizons of sand and
shale.)

Poor porosity.

5,650' - 5,660' --- 80% SANDSTONE: A/A, more red stain, fine
grained, some medium.

10% SILTSTONE: red, some grey green,
haematitic and micaceous, sandy in part.

10% SHALE: A/A.

Very poor porosity.

5,660' - 5,670' --- 100% SANDSTONE: A/A quartzose, siliceous,
haematitic fine and medium grained.

Poor porosity.

5,670' - 5,680' --- 80% SANDSTONE: A/A.

20% SHALE: A/A.

Poor porosity.

5,680' - 5,690' --- 40% SANDSTONE: A/A.
60% SHALE: A/A, silty in part, mainly soft.

Poor porosity.

5,690' - 5,700' --- 100% SANDSTONE: A/A, quartzose, siliceous,
not sublithic, less red haematite stain,
medium grained, some fine.

Poor porosity.

5,700' - 5,710' --- 90% SANDSTONE: A/A, red, pink, quartzose,
siliceous, haematitic, fine grained,
some medium, silty in part.
10% SHALE: red, brown, silty in part,
minor black shale fragments.

Very poor porosity. Lithic sandstone
with scattered shale clasts.

5,710' - 5,720' --- 100% SANDSTONE: homogenous red-brown,
quartzose, siliceous in part, haematitic,
fine to medium grained, well sorted,
subrounded.

Minor porosity, no show.

5,720' - 5,730' --- 100% SANDSTONE: mixture of sand as from
5,710 and 5,720.
HTR SHALE: A/A.

Very poor porosity.

5,730' - 5,740' --- 100% SANDSTONE: 50% red poorly sorted
haematitic, quartzose, siliceous sand-
stone and 50% white, clear, fine
grained quartzite and medium grained
sandstone.
HTR SHALE: A/A.

Very poor porosity, minor thin medium
grained horizon, minor porosity.

5,740' - 5,750' --- 100% SANDSTONE: A/A, 70% red haematitic
sandstone and 30% white clear fine and
medium grained sandstone.
HTR SHALE: A/A.

Poor porosity.

5,750' - 5,760' --- NB: Complete colour change. Top of P4?
at 5,748 ft.

100% SANDSTONE: white, clear, quartzose,
siliceous, medium to coarse grained,
subrounded, moderately sorted, many
loose grains, ubiquitous siliceous
cement.

Moderate porosity to 6%, no show.

5,760' - 5,770' --- 100% SANDSTONE: white, clear, minor pink, quartzose, siliceous, fine to medium grained, moderately sorted, subangular to rounded.

Poor porosity, no show.

5,770' - 5,780' --- 100% SANDSTONE: A/A.

Poor porosity.

5,780' - 5,790' --- 100% SANDSTONE: A/A, increase in coarse rounded loose grains.

Poor to moderate porosity.

5,790' - 5,800' --- 100% SANDSTONE: A/A.

Poor to moderate porosity.

5,800' - 5,810' --- 100% SANDSTONE: A/A, fine to coarse, very siliceous increase in pink calcareous stain to 40%.

Moderate porosity.

5,810' - 5,820' --- 100% SANDSTONE: white, pink, brown red, quartzose, siliceous, fine and medium grained, some coarse, subrounded, moderately and poorly sorted, siliceous cement.

Poor porosity. No show.

5,820' - 5,830' --- 100% SANDSTONE: A/A.

Poor to moderate porosity. No show.

T.D. at 5,835 ft. Circ 1-1/2 Hrs.
Strap out of hole. Run E. Logs.