391169

ENCLOSURE 6 OR-354

HEMATITE PETROLEUM PTY. LTD.

LITHLOG

WELL: PELICAN # 4
BASIN: BASS BASIN
LOCATION: 40°21' 39.29" S / 145° 52' 15.22" E
ELEVATION: SEA LEVEL (G.L.) 82' (K.B.)
RIG: OCEAN ENDEVOUR GEOLOGIST: ATKINS / WARNER

COMMENTS: Water depth = 254'

5 cm

ROCK TYPES

- Limestone
- Claystone
- Shale
- Siltstone
- Sandstone
- Dolomite
- Coal
- Arenaceous Limestone

ACCESSORIES

- Corals
- Forams
- Gasteropods
- Pyrite

DRILLING RATE (Mins/ft)	LITHOLOGY Interp	LITHOLOGY % Cuttings	DESCRIPTION AND REMARKS

Limestone: Coquina, white cream, some grey, loose calcareous fossil aggregate, minor clay matrix. Fauna includes, corals, bryzoans, molluscs, sponge spicules, forams and gasteropods. Some delicate branching and remains of spicules. Good primary moldic porosity preserved.

Controlled drilling - 4 joints/hour.

Limestone: arenaceous, white, cream, soft to firm, very fine to medium grained, bioclastic, clayey. No quartz just reworked fossil debris.

Limestone: bioclastic, white, cream, grey, firm, loose but often cemented with white calcareous matrix.

New Driller - uncontrolled drilling!

Marl: white, cream, very soft, sticky, calcareous.

Limestone: bioclastic, white, cream, loose fossil fragments.

Limestone: arenaceous, white, light brown, granular, bioclastic in part, sli glauconitic.

Limestone: arenaceous, bioclastic, white, light brown, firm, granular, fine to medium grained, speckled black and green, glauconitic.

Claystone: grey, brown, very soft, homogenous, very sticky, calcareous.

Limestone: arenaceous, bioclastic as above.

Limestone: bioclastic, loose, white, cream, All brancked coral debrie

Siltstone: Limey, grey, grey-brown, very soft, calcareous, very clayey.

Limestone: as above with minor porifera and foraminifera

Shale: silty, grey, speckled, white, soft to slightly firm, calcareous, scattered bioclasts. Some very soft and clayey.

2861'. Run E. Logs and 13 3/8 Casing

Siltstone: grey, soft, calcareous, clayey. Abundant fossil fragments imbedded in this matrix.

Limestone: bioclastic, abundant loose fossil fragments, forams, corals, white, buff, occasionally bound in white sucrosic calcareous cement/matrix.

Siltstone: grey, very soft, calcareous, clayey, scattered calcareous bioclastic debrie.

Claystone: grey, very soft, sticky, hydrated, calcareous.

Limestone: cream, buff, abundant loose abraided bioclasts

Siltstone: grey, soft, calcareous, clayey, abundant scattered white bio-debrie

Claystone: grey, very soft, hydrated, calcareous.

Siltstone: grey, soft, calcareous, few bioclasts, clayey, some subfissile.

Claystone: grey, very soft, hydrated, calcareous.

Siltstone: grey, dark grey, soft, subfissile, calcareous, occasional gasteropod and brachiopod, trace pyrite. Grading to shale

Shale: grey, soft, subfissile, calcareous, silty in part

Siltstone: grey, brown, subfissile, soft, calcareous with occasional fossil. N.B. different bio assemblege. No corals or forams. See data sheets for description.

Siltstone: brown, some grey, soft, subfissile, calcareous. Grading to fine calcareous sandstone.

Shale: grey, soft, subfissile, calcareous.

Trace amount of buff, v. fine, glauconitic sandstone

Siltstone: brown, soft, subfissile, calcareous, some sandy, some shaley. Trace of fossils, pyrite and glauconite.

Shale: grey, soft, calcareous, sub fissile.

Siltstone: light grey, brown, soft to firm, carbonaceous, fossiliferous calcareous, slightly micaceous and pyritic, sandy.

Shale? grey, soft to firm, calcareous, micaceous.

Shale: as above, fossiliferous in part, trace pyrite.

Siltstone: as above, carbonaceous flecks.

Dolomite: pale brown, very hard. Poor ϕ.

Siltstone: Sandy, buff, very soft, calcareous, carbonaceous.

Sandstone: buff, firm, very fine grained argillaceous, some carbonaceous.

Sandstone: pale grey, v.fine grained, firm, quartzose, calcareous cement, some with trace of fossils, some glauconitic. Poor ϕ. No show.

Limestone: white, massive, hard. Poor ϕ

Marl: pale blue-green, firm, shaley, fossiliferous,

Shale: pale blue-green, soft, calcareous and fossiliferous in part, micaceous.

Siltstone: chocolate brown, firm to soft sandy. Some black and soft, some pyritic and some calc.

Siltstone: brown, black, soft, argillaceous, pyritic

Siltstone: brown, dark brown, argillaceous, very soft, slightly calcareous.

Claystone: dark brown, very soft, hydrated, slightly calcareous

Siltstone: as above, carbonaceous in part.

TR: Sandstone, very fine grained, light brown.

Sandstone: dark brown, brown, firm, very fine grained, moderately sorted, micaceous, pyritic, calcareous, carbonaceous. Very poor ϕ. No show

Dolomite: Sandy, brown, hard, fine grained, quartz grains scattered in dolomitic matrix/cement, trace pyrite. Very poor ϕ.

Sandstone: green, white, firm to hard aggregates of fine to very fine sand, Med to crse loose quartz grains, quartzose, poorly sorted, glauconitic in part, slightly calcareous cement. Poor ϕ. No show.

Sandstone: white, light brown, firm, fine, few very coarse grains, moderately sorted, sub rounded, quartzose, slightly calcareous cement. Poor ϕ. No show

Coal: dull lustre, black, [illegible]

Siltstone: sandy, black, brown, soft, argillaceous, carbonaceous, pyritic

Sandstone: white, soft, medium grained, well sorted, sub angular, quartzose, carbonaceous.

Sandstone: white, firm, hard, fine to medium grained, moderately sorted, subangular to angular, quartzose, some pyritic, white non calcareous matrix. Very poor ϕ. No fluor or cut

Sandstone: white, clear, medium grained to very coarse grained, finer sand in tightly cemented aggregates, coarser sand is loose, poor to moderate sorting, angular to subrounded, quartzose, slightly calcareous & silicious cement. Moderate to fair ϕ. No fluor No cut.

Heavy trace of coal throughout this section (6400 - 6500').

Sandstone: as above, coarse to very coarse.

Sandstone: as above, poorly sorted cemented aggregates with silicious cement.

Sandstone: as above, loose, medium to coarse, moderately sorted.

Siltstone: chocolate brown, firm, carbonaceous

Sandstone: clear, hard, fine, moderately sorted, subangular, quartzose, silicious cement.

Coal: firm, black, dull lustre.

Sandstone: as above, medium grained, sub rounded.

Siltstone: chocolate brown, carbonaceous, firm.

Coal: as above

Sandstone: clear, white, hard, fine to coarse, poorly sorted, subangular to subrounded, silicious cement. Slightly calcareous.

Coal: black, very hard, dull lustre.

Sandstone: white, firm to hard, fine to coarse, moderately sorted, sub rounded, quartzose, authigenic quartz cement. Moderate to poor ϕ

Siltstone: brown, white, carbonaceous and sandy, soft.

Sandstone: as above. Some very coarse grained, trace pyrite.

Coal: black, hard conchoidal fracture.

Sandstone: as above coarse grained

Sandstone: white, clear, hard, fine to medium grained, some coarse, poorly sorted, quartzose. White & clear silicious and calcareous cement.

Sandstone: clear, white, loose, medium to coarse, some very coarse, subangular to sub rounded, poor to moderately sorted, quartzose, some moderate ϕ. Trace pyrite.

Coal: black shiny, blocky fracture, hard, pyritic

Sandstone: white, clear, hard, cemented, and loose, medium to coarse, some very coarse, poorly sorted, subangular, quartzose, where cemented have silicious and slightly calcareous cement. Mod. ϕ. No fluor. No cut.

Siltstone: brown, soft, firm, very carbonaceous

Shale: black, brown, subfissile, very carbonaceous, laminated. Some

Both Sands and Shales heavily pyritized in part.

Sandstone: as above, some very coarse grained

Coal: black, hard, conchoidal fracture.

Siltstone: brown, firm, carbonaceous and micaceous, trace pyrite.

Sandstone: white, hard, coarse to fine, sub angular, poorly sorted.

Sandstone: clear, hard cemented, loose, angular, poorly sorted, medium to coarse grained, quartzose, silicious/calc cement in part.

Sandstone: as above, fine grained, cemented, very hard, dolomitic in part.

Coal: black, hard, brittle, sub vitreous lustre

Coal: very hard, black, conchoidal fracture, resinous lustre.

Siltstone: brown, firm, carbonaceous, micaceous. Trace pyrite

Coal: black, very hard, resinous lustre, conchoidal fracture.

Sandstone: white, hard, very fine to coarse grained, moderately sorted, sub angular, quartzose, silicious calc/dol cement.

Siltstone: brown, buff, soft to firm, carbonaceous.

Coal: black, firm, brittle, sub vitreous.

Shale: dark brown, firm subfissile, laminated, carbonaceous.

Siltstone: as above

Sandstone: white, firm, fine grained.

Sandstone: white, clear, medium to fine, loose, fine cemented, subangular, moderately sorted, quartzose, some dolomitic, carbonaceous, slightly micaceous, silicious & dolomitic cement.

N.C.U.

Dolomite: limey, fawn, brown, sli carbonaceous, hard brittle

Siltstone: brown, buff, firm, carbonaceous.

Shale: dark brown, firm, carbonaceous, sub fissile

Dolomite: brown, light brown, mottled grey, carbonaceous, sli calcareous, massive.

Sandstone: white, soft - firm, some clayey, sli dolomitic, fine grained, sub angular, quartzose, silicious-dol cement sm cly matrix. Poor ϕ No fluor. No cut.

Siltstone: brown, firm to soft, carbonaceous.

Coal: black, firm, brittle, sub vitreous.