

LAKES OIL N.L.**CORE REPORT No. 1****WELL NAME:** Patrobus No.1**DATE:** 06 OCT 05

INTERVAL CORED	232-234m	
CUT: 2m	RECOVERED: 1.3m	RECOVERY: 65%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Fine Sandy Marlstone (80%) With Sandy Limestone beds (20%)**

Sedimentary bedding at 0 degrees.

Limestone bands at 233.45m-233.55m and 234.8m-235m.

Generally sedimentary structurally amorphous, apart from limestone beds.

POROSITY	Poor
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral flourescence
CUT	Nil
STAIN	Nil

DESCRIPTION:**232.0-232.7m**

No Recovery

232.7-234.8m except 233.45-233.55m

Fine Sandy Marlstone (100%).

FINE SANDY MARLSTONE: medium grey-medium greenish grey, moderately sorted, subangular-subrounded, fine-very fine, abundant subangular-subrounded fine-very fine translucent-opaque quartz, common well rounded dark green glauconite nodules, common calcareous fossils, medium blue-grey claystone matrix, matrix supported, calcareous, weak limonite cement, poor visual porosity, no oil fluorescence.

233.45-233.55m and 234.8-235m

Sandy Limestone (100%)

SANDY LIMESTONE: very light grey-light greenish grey, moderately sorted, subangular-subrounded, fine-medium, abundant calcareous fossils, shells, gastropods, bryozoan, common subangular-subrounded fine-medium translucent-opaque quartz, medium blue-grey claystone matrix, matrix supported, strong calcareous cement, poor visual porosity, no oil fluorescence.

REMARKS:

The fine sandy marlstone and sandstone appear to contain a similar composition, however the sandstone contains a higher proportion of calcareous fossils and consequently contains a stronger calcite cement.

LAKES OIL N.L.	CORE REPORT No. 2
WELL NAME: Patrobus No.1	DATE: 06 OCT 05

INTERVAL CORED	234-237m	
CUT: 3m	RECOVERED: 1.6m	RECOVERY: 53%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:
Sandy Limestone (80%) with beds of Fine Sandy Marlstone (20%)
<p>Sedimentary bedding at 0 degrees.</p> <p>Minor calcite fractures at 10 to 20 degrees within the sandy limestone beds.</p> <p>Generally sedimentary structurally amorphous apart from sandy limestone/fine sandy marlstone contacts.</p>

POROSITY	Poor
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral flourescence
CUT	Nil
STAIN	Nil

DESCRIPTION:**234.0-234.8m**

Sandy Limestone (100%)

SANDY LIMESTONE: very light grey-pale yellow grey, fine-medium, moderately sorted subrounded-rounded, abundant subrounded-rounded fine-medium, translucent-opaque quartz grains with common iron-oxide cement, common fine, rounded-well rounded dark green glauconite, common calcareous fossils, occasional extremely thin calcite bands, brown silty matrix, strong calcareous cement, hard, good vuggy porosity, no oil fluorescence.

234.8-235.15m

Fine Sandy Marlstone (100%)

FINE SANDY MARLSTONE: medium grey-medium greenish grey, moderately sorted, subangular-subrounded, fine-very fine, abundant subangular-subrounded fine-very fine translucent-opaque quartz, common well rounded dark green glauconite nodules, common calcareous fossils, medium blue-grey claystone matrix, matrix supported, calcareous, weak limonite cement, poor visual porosity, no oil fluorescence.

235.15-235.4m

Sandy Limestone (100%)

SANDY LIMESTONE: very light grey-pale yellow grey, fine-medium, moderately sorted subrounded-rounded, abundant subrounded-rounded fine-medium, translucent-opaque quartz grains with common iron-oxide cement, common fine, rounded-well rounded dark green glauconite, common calcareous fossils, occasional extremely thin calcite bands, brown silty matrix, strong calcareous cement, hard, good vuggy porosity, no oil fluorescence.

235.4-237m

No Recovery.

REMARKS:

LAKES OIL N.L.**CORE REPORT No. 3****WELL NAME:** Patrobus No.1**DATE:** 06 OCT 05

INTERVAL CORED	237-240m	
CUT: 3m	RECOVERED: 1.4m	RECOVERY: 46%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Fine Sandy Marlstone (100%)****No definable sedimentary bedding.****Generally sedimentary structurally amorphous.**

POROSITY	Poor
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral fluorescence
CUT	Nil
STAIN	Nil

DESCRIPTION:
237-238.6m No Recovery.
238.6-240.0m Fine Sandy Marlstone (100%) FINE SANDY MARLSTONE: uniform medium grey-medium greenish grey, moderately sorted, subangular-subrounded, fine-very fine, abundant subangular-subrounded fine-very fine translucent-opaque quartz, abundant well rounded dark green glauconite nodules, rare calcareous fossils, medium blue-grey claystone matrix, matrix supported, calcareous, poor visual porosity, no oil fluorescence.

REMARKS:
Due to poor recovery in interval No.2, core 3 was run with no splits. Initially there was no recovery, and the splits were replaced for core No.4. Subsequently when core No.4 was cut 1.4m of Core No. 3 was recovered.

LAKES OIL N.L.**CORE REPORT No. 4****WELL NAME:** Patrobus No.1**DATE:** 06 OCT 05

INTERVAL CORED	240-241.7m	
CUT: 1.7m	RECOVERED: 1.7m	RECOVERY: 100%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Fine Sandy Marlstone (100%)****Sedimentary bedding at 0 degrees.****Generally sedimentary structurally amorphous.****Minor shelly band with coaly material**

POROSITY	Poor
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral fluorescence
CUT	Nil
STAIN	Nil

DESCRIPTION:
240-241.7m Fine Sandy Marlstone (100%) with minor shelly band at 240.33-240.34m FINE SANDY MARLSTONE: dark greenish grey, fine-very fine subangular-subrounded, abundant, fine-very fine subangular-subrounded, translucent-opaque quartz, common very fine, subrounded-well rounded glauconitic nodules, trace calcareous fossils, trace carbonaceous material, dark blue-grey claystone matrix, matrix supported, calcareous, poor visual porosity, no show. SHELLY BAND: light grey-medium grey, fossiliferous, strong calcareous cement, minor carbonaceous material.

REMARKS:
Recovered 1.4m of Core No3.

LAKES OIL N.L.**CORE REPORT No. 5****WELL NAME:** Patrobus No.1**DATE:** 06 OCT 05

INTERVAL CORED	241.7-243m	
CUT: 1.3m	RECOVERED: 1.3m	RECOVERY: 100%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Fine Sandy Marlstone (100%)****Sedimentary bedding at 0 degrees.****Generally sedimentary structurally amorphous.**

POROSITY	Poor
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral flourescence
CUT	Nil
STAIN	Nil

DESCRIPTION:
241.7-243.0m Fine Sandy Marlstone (100%) FINE SANDY MARLSTONE: medium greenish grey-medium green, fine-very fine subangular-subrounded, abundant, fine-very fine subangular-subrounded, translucent-opaque quartz, common very fine, subrounded-well rounded glauconitic nodules, trace calcareous fossils, trace pebbly lithics, dark blue-grey claystone matrix, matrix supported, moderately consolidated, calcareous, non-fissile, poor visual porosity, no oil fluorescence.

REMARKS:

LAKES OIL N.L.**CORE REPORT No. 6****WELL NAME:** Patrobus No.1**DATE:** 06 OCT 05

INTERVAL CORED	243-246m	
CUT: 3m	RECOVERED: 3m	RECOVERY: 100%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Fine Sandy Marlstone (98%) with minor Sandy Limestone bed (2%)****Sedimentary bedding at 0 degrees.****Generally sedimentary structurally amorphous.**

POROSITY	Poor to fair, good vuggy porosity in the Limestone
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral flourescence
CUT	Nil
STAIN	Nil

DESCRIPTION:
243.0-243.05m Sandy Limestone (100%) SANDY LIMESTONE: light grey-medium greenish grey, well sorted, subrounded-rounded, fine-medium, abundant fine-medium, subrounded-rounded, translucent-opaque quartz, abundant calcareous fossils, strong calcite cement, hard, good visual vuggy porosity, no oil fluorescence. 243.05-246.0m Fine Sandy Marlstone (100%) FINE SANDY MARLSTONE: medium greenish grey-medium green, fine-very fine rounded-well rounded, dominantly well sorted, well rounded, fine, translucent-opaque quartz with common iron oxide staining, rare very fine, subrounded-well rounded glauconitic nodules, trace calcareous fossils, brown marly matrix, moderately consolidated, weakly calcareous, soft, poor-fair visual porosity, no oil fluorescence.

REMARKS:
The quartz grains appear to be well rounded and sorted, the marly matrix appears to be only loosely attached to the sand grains.

LAKES OIL N.L.**CORE REPORT No. 7****WELL NAME:** Patrobus No.1**DATE:** 06 OCT 05

INTERVAL CORED	246-249m	
CUT: 3m	RECOVERED: 3m	RECOVERY: 100%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Fine Sandy Marlstone (95%) interbedded with Sandy Limestone (5%)****Sedimentary bedding at 0 degrees.****Major Limestone beds at 246.42-246.46m and 247.97-248.2m.****Generally sedimentary structurally amorphous apart from Sandy Limestone beds.**

POROSITY	Poor to fair, good vuggy porosity in the Limestone
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral fluorescence
CUT	Nil
STAIN	Nil

DESCRIPTION:**246.0-246.42m**

Fine Sandy Marlstone (100%)

FINE SANDY MARLSTONE: medium greenish grey-medium green, fine-very fine rounded-well rounded, dominantly well sorted, well rounded, fine, translucent-opaque quartz with common iron oxide staining, rare very fine, subrounded-well rounded glauconitic nodules, trace calcareous fossils, brown marly matrix, moderately consolidated, weakly calcareous, soft, poor-fair visual porosity, no oil fluorescence.

246.42-246.46m

Sandy Limestone (100%)

SANDY LIMESTONE: very light grey-light greenish grey, fine-very fine, moderately sorted, subangular-subrounded, common calcareous fossils, large shell fossils, common rounded-well rounded, dominantly well sorted, well rounded, fine, translucent-opaque quartz with common iron oxide staining, strong calcite cement, good visual vuggy porosity, no oil fluorescence.

246.46-247.97m

Fine Sandy Marlstone (100%)

FINE SANDY MARLSTONE: medium greenish grey-medium green, fine-very fine rounded-well rounded, dominantly well sorted, well rounded, fine, translucent-opaque quartz with common iron oxide staining, rare very fine, subrounded-well rounded glauconitic nodules, trace calcareous fossils, brown marly matrix, moderately consolidated, weakly calcareous, soft, poor-fair visual porosity, no oil fluorescence.

247.97-248.2m

Sandy Limestone (100%)

SANDY LIMESTONE: very light grey-light greenish grey, fine-very fine, moderately sorted, subangular-subrounded, common calcareous fossils, large shell fossils, common rounded-well rounded, dominantly well sorted, well rounded, fine, translucent-opaque quartz with common iron oxide staining, strong calcite cement, good visual vuggy porosity, no oil fluorescence.

248.2-249.0m

Fine Sandy Marlstone (100%)

FINE SANDY MARLSTONE: medium greenish grey-medium green, fine-very fine rounded-well rounded, dominantly well sorted, well rounded, fine, translucent-opaque quartz with common iron oxide staining, rare very fine, subrounded-well rounded glauconitic nodules, trace calcareous fossils, brown marly matrix, moderately consolidated, weakly calcareous, soft, poor-fair visual porosity, no oil fluorescence.

LAKES OIL N.L.**CORE REPORT No. 8****WELL NAME:** Patrobus No.1**DATE:** 06 OCT 05

INTERVAL CORED	249-252m	
CUT: 3m	RECOVERED: 2.96m	RECOVERY: 99%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Fine Sandy Marlstone (75%) interbedded with Sandy Limestone (25%)****Sedimentary bedding at 0 degrees.****Major Limestone bed at 249.47-249.63m****Generally sedimentary structurally amorphous apart from Sandy Limestone beds.**

POROSITY	Poor, good vuggy porosity in the Limestone
FLOURESCENCE	No oil fluorescence. Rare dull yellow mineral flourescence
CUT	Nil
STAIN	Nil

DESCRIPTION:
249.0-252.0m except 249.47-249.63m Fine Sandy Marlstone (100%) FINE SANDY MARLSTONE: medium greenish grey-dark greenish grey, fine-very fine, subangular-subrounded, moderately sorted, abundant fine-very fine, subangular-subrounded quartz, trace-common large shelly fossils, light grey-blue grey claystone matrix, matrix supported, calcareous, soft, poor visual porosity, no fluorescence. 249.47-249.63m Fossiliferous Sandy Limestone (100%) FOSSILIFEROUS SANDY LIMESTONE: very light grey-light brown grey, common subangular-subrounded fine-medium quartz, common calcareous fossils, strong calcite cement, hard, good visual vuggy porosity.

REMARKS:

LAKES OIL N.L.**CORE REPORT No. 9****WELL NAME:** Patrobus No.1**DATE:** 07 OCT 05

INTERVAL CORED	255-258m	
CUT: 3m	RECOVERED: 2.53m	RECOVERY: 84%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:

Fine Sandy Marlstone (70%) interbedded with Sandy Limestone (25%) grading to Sandstone (5%).

Sedimentary bedding at 0 degrees.

Major Limestone bed grading to sandstone at 252.8-253.0m

Major Limestone bed at 253.7-253.83m.

Generally sedimentary structurally amorphous apart from Sandy Limestone and Sandstone beds.

POROSITY	Poor-good visual porosity
FLOURESCENCE	No oil fluorescence, dull yellow mineral flourescence
CUT	Nil.
STAIN	Nil.

DESCRIPTION:**252.0-252.8m**

Fine Sandy Marlstone (100%)

FINE SANDY MARLSTONE: medium greenish grey-dark greenish grey, poorly sorted, subangular-rounded, fine-very fine, abundant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, common fine black coaly material, white-very light grey claystone matrix, moderately firm, clast supported, weakly calcareous, fair-good visual porosity, no oil fluorescence.

252.8-253.0m

Sandy Limestone (100%) grading to Sandstone at base (100%)

SANDY LIMESTONE: very light bluish grey- bluish grey, moderately sorted, subangular-subrounded, fine-very fine, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, no visible matrix, strong calcite cement, hard, moderate visual porosity, no oil fluorescence.

SANDSTONE: very light bluish grey- bluish grey, moderately sorted, subangular-subrounded, fine-very fine, dominant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, very light grey silty matrix, moderately consolidated, moderately calcareous, good visual porosity, no oil fluorescence.

253.0-253.7m

Fine Sandy Marlstone (100%)

FINE SANDY MARLSTONE: medium greenish grey-dark greenish grey, poorly sorted, subangular-rounded, fine-very fine, abundant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, common fine black coaly material, white-very light grey claystone matrix, moderately firm, clast supported, weakly calcareous, fair-good visual porosity, no oil fluorescence.

253.7-253.83m

Sandy Limestone (100%)

SANDY LIMESTONE: very light bluish grey- bluish grey, moderately sorted, subangular-subrounded, fine-very fine, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, no visible matrix, strong calcite cement, hard, moderate visual porosity, no oil fluorescence.

253.83-254.53m

Fine Sandy Marlstone (100%)

FINE SANDY MARLSTONE: medium greenish grey-dark greenish grey, moderately-well rounded, subangular-rounded, fine-very fine, abundant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, common fine black coaly material, white-very light grey claystone matrix, moderately firm, clast supported, moderately calcareous, fair-good visual porosity, soft, no oil fluorescence.

254.53-255m

No Recovery

REMARKS:

LAKES OIL N.L.	CORE REPORT No. 10
WELL NAME: Patrobus No.1	DATE: 07 OCT 05

INTERVAL CORED	255-258m	
CUT: 3m	RECOVERED: 3.1m	RECOVERY: 103%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:
Fine Sandy Marlstone (80%) with occasional coaly bands interbedded with Sandstone (15%) and Calcareous Sandstone (5%)
Sedimentary bedding at 0 degrees. Sandy granite wash from 257.6-257.9m Generally sedimentary structurally amorphous apart from occasional coaly bands.

POROSITY	Poor-good visual porosity
FLOURESCENCE	No oil fluorecence, dull yellow mineral fluorecence
CUT	Nil.
STAIN	Nil.

DESCRIPTION:**254.9-257.6m**

Fine Sandy Marlstone (100%) with minor coaly bands.

FINE SANDY MARLSTONE: medium greenish grey-dark greenish grey, moderately-well rounded, subangular-rounded, fine-very fine, abundant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, common fine black coaly material, trace calcareous fossils, white-very light grey claystone matrix, moderately firm, clast supported, moderately calcareous, fair-good visual porosity, soft, no oil fluorescence.

COALY BANDS: minor smeared disseminated brown coaly bands, soft, light grey-blue claystone matrix, weakly calcareous, rare calcareous fossils.

257.6-257.9m

Sandstone (100%)

SANDSTONE: white-very light greenish grey, moderately sorted fine-very fine subrounded-well sorted, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, common white-very light greenish grey rounded-well rounded fine granitic lithics, very light grey-light bluish grey claystone matrix, clast supported, friable, weakly calcareous, no visible cement, poor-fair visual porosity, no oil fluorescence.

257.9-258m

Calcareous Sandstone (100%)

CALCAREOUS SANDSTONE: white-very light greenish grey, moderately sorted, fine-very fine, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, trace calcareous fossils, white-pale blue claystone matrix, strong calcareous cement, hard, poor-fair visual porosity, faint petroliferous odour, no oil fluorescence.

REMARKS:

Recovered 10cm of Core 9. Faint petroliferous odour noted in the calcareous sandstone.

LAKES OIL N.L.**CORE REPORT No. 11****WELL NAME:** Patrobus No.1**DATE:** 07 OCT 05

INTERVAL CORED	258-261m	
CUT: 3m	RECOVERED: 2.83m	RECOVERY: 94%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Marly Fine Sandstone interbedded with Calcareous Sandstone with occasional Unconsolidated Sand intervals****Sedimentary bedding at 0 degrees.****Unconsolidated Sandy Granitic wash 260.50-260.67m****Generally sedimentary structurally amorphous except Calcareous Sandstone**

POROSITY	Poor-good visual porosity.
FLOURESCENCE	No oil fluorescence, dull yellow mineral fluorescence.
CUT	Nil.
STAIN	Nil.

DESCRIPTION:**258.0-258.15m**

Calcareous Sandstone (100%)

CALCAREOUS SANDSTONE: white-very light greenish grey, moderately sorted, fine-very fine, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, trace calcareous fossils, white-pale blue claystone matrix, strong calcareous cement, hard, poor-fair visual porosity, faint petroliferous odour, no oil fluorescence.

258.15-258.44m

MARLY FINE SANDSTONE: medium grey-medium greenish grey, moderately sorted, subangular-subrounded, fine-very fine, abundant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, trace basaltic lithics, trace carbonaceous material, common greenish grey-light greenish grey silty matrix, moderately consolidated, moderately calcareous, soft, poor-fair visual porosity, no oil fluorescence.

258.44-259.05m

Calcareous Sandstone (100%)

CALCAREOUS SANDSTONE: white-very light greenish grey, moderately sorted, fine-very fine, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, trace calcareous fossils, white-pale blue claystone matrix, strong calcareous cement, hard, poor-fair visual porosity, faint petroliferous odour, no oil fluorescence.

259.05-259.65m

MARLY FINE SANDSTONE: medium grey-medium greenish grey, moderately sorted, subangular-subrounded, fine-very fine, abundant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, trace basaltic lithics, trace carbonaceous material, common greenish grey-light greenish grey silty matrix, moderately consolidated, moderately calcareous, soft, poor-fair visual porosity, no oil fluorescence.

259.65-259.82m

Calcareous Sandstone (100%)

CALCAREOUS SANDSTONE: white-very light greenish grey, moderately sorted, fine-very fine, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, trace calcareous fossils, white-pale blue claystone matrix, strong calcareous cement, hard, poor-fair visual porosity, faint petroliferous odour, no oil fluorescence.

259.82-260.50m

MARLY FINE SANDSTONE: medium grey-medium greenish grey, moderately sorted, subangular-subrounded, fine-very fine, abundant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, trace basaltic lithics, trace carbonaceous material, common greenish grey-light greenish grey silty matrix, moderately consolidated, moderately calcareous, soft, poor-fair visual porosity, no oil fluorescence.

260.50-260.67m

Unconsolidated Sand (100%)

UNCONSOLIDATED SAND: light greenish grey-medium bluish grey, moderately sorted, fine-medium, subangular-rounded, dominant subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, common round-well rounded granitic lithics, trace carbonaceous material, trace brown silty matrix, moderately calcareous, no visible cement, unconsolidated, good-excellent visual porosity, no oil fluorescence.

260.67-260.83m

Calcareous Sandstone (100%)

CALCAREOUS SANDSTONE: white-very light greenish grey, moderately sorted, fine-very fine, common subangular-rounded fine-very fine translucent-opaque quartz with common iron oxide staining, rare fine black coaly material, trace calcareous fossils, white-pale blue claystone matrix, strong calcareous cement, hard, poor-fair visual porosity, faint petroliferous odour, no oil fluorescence.

260.83-261.00m

No Recovery.

REMARKS:

LAKES OIL N.L.**CORE REPORT No. 12****WELL NAME:** Patrobus No.1**DATE:** 07 OCT 05

INTERVAL CORED	261-264m	
CUT: 3m	RECOVERED: 2.81m	RECOVERY: 94%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Calcareous Silty Marlstone with minor shelly interbeds overlying Greensand.****Sedimentary bedding at 0 degrees.****Generally sedimentary structurally amorphous except for shelly interbeds and Marlstone/Greensand contact.****Calcareous Silty Marlstone 261-262.9m****Greensand 262.9-263.81m**

POROSITY	Moderate visual (Marl) Good visual (Greensand).
FLOURESCENCE	No oil fluorescence, dull yellow-blue mineral fluorescence.
CUT	Nil.
STAIN	Nil.

DESCRIPTION:
261.0-262.9m Silty Marlstone (100%) SILTY MARLSTONE: olive green-dark tan, abundant very fine subangular-subrounded translucent-opaque quartz with common iron staining, common lithics, occasional interbeds of shelly fragments, moderately consolidated, poor-moderate visual porosity, no oil fluorescence. 262.9-263.55m Greensand (100%) GREENSAND: medium green-dark green, unconsolidated-moderately consolidated, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, minor shelly fragments, mostly pelecypod fragments, pyritic echinoid spines, bryozoan, fine-moderately fine clear-opaque quartz, minor lithics, calcareous cement, moderate-good visual porosity, moderate petroliferous odour, no oil fluorescence.

REMARKS:
Greensand: visual porosity varies from moderate to very good, petroliferous odour but no fluorescence or show detected.

LAKES OIL N.L.**CORE REPORT No. 13****WELL NAME:** Patrobus No.1**DATE:** 07 OCT 05

INTERVAL CORED	264-267m	
CUT: 3m	RECOVERED: 3.06m	RECOVERY: 102%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Greensand with band of Glauconitic Conglomerate.****Sedimentary bedding at 0 degrees.****Generally sedimentary structurally amorphous except for shelly interbeds and upwards fining in the interval 265.31-265.90m**

POROSITY	Poor-moderate visual porosity
FLOURESCENCE	No oil fluorescence, dull blue-yellow mineral fluorescence.
CUT	Nil.
STAIN	Nil.

DESCRIPTION:**264.0-264.05m**

Greensand (100%)

GREENSAND: medium green-dark green, moderately consolidated, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, fine-coarse shelly fragments throughout, gastropods, fine-moderately fine clear-opaque quartz, minor lithics, calcareous cement, fair-moderate visual porosity, no oil fluorescence.

264.05-265.23m

Greensand (100%)

GREENSAND: medium green-dark green, unconsolidated-moderately consolidated, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, fine-moderately fine clear-opaque quartz, minor lithics, calcareous, fair-moderate visual porosity, no oil fluorescence.

265.23-265.31m

Greensand (100%)

GREENSAND: pale green-medium green, consolidated, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, fine-moderately fine clear-opaque quartz, coarse shell fragments, poor visual porosity, no oil fluorescence.

265.31-265.90m

Greensand (100%)

GREENSAND: medium green, consolidated, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, fine-moderately fine clear-opaque quartz, calcareous, fining upwards in interval, poor visual porosity, no oil fluorescence.

265.90-266.02m

Greensand (100%)

GREENSAND: medium green, consolidated, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, fine-moderately fine clear-opaque quartz, common medium-coarse shell fragments, trace pyrite, calcareous cement, hard, poor visual porosity, no oil fluorescence.

266.02-266.40m

Glauconitic Conglomerate (100%)

GLAUCONITIC CONGLOMERATE: medium green-grey green, coarse-very coarse shelly fragments, mud clasts, lithic fragments, poorly sorted, moderately consolidated.

266.40-266.48m

Greensand (100%)

GREENSAND: light green-medium green, fine-medium, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, fine-moderately fine clear-opaque quartz, calcareous matrix, fractured interval, hard, poor visual porosity, no oil fluorescence.

266.48-267m

Shelly Greensand (100%)

SHELLY GREENSAND: light green-medium green darker towards base, poorly sorted, consolidated, abundant dark green-brown subrounded-rounded medium-coarse glauconitic nodules, fine-moderately fine clear-opaque quartz, common coarse shell fragments, trace pyrite, calcareous cement, hard, poor visual porosity, no oil fluorescence.

REMARKS:

Recovered 6cm of core 12.

LAKES OIL N.L.**CORE REPORT No. 14****WELL NAME:** Patrobus No.1**DATE:** 08 OCT 05

INTERVAL CORED	267-270m	
CUT: 3m	RECOVERED: 2.56m	RECOVERY: 85%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Greensand with occasional pebbly intervals****Sedimentary bedding at 0 degrees.****Greensand with occasional upwards fining Glauconitic Conglomerate.****Generally sedimentary amorphous except of upwards fining in the Glauconitic Conglomerate.**

POROSITY	Poor-very good visual porosity
FLOURESCENCE	No oil fluorescence. Dull yellow mineral fluorescence
CUT	Nil.
STAIN	Nil.

DESCRIPTION:**267.0-267.3m**

GREENSAND: medium green-greenish grey, friable-moderately consolidated, coarsening towards the base, abundant dark green-brown medium-coarse subangular-subrounded glauconitic nodules, medium-coarse grained subangular-subrounded clear-translucent quartz grains, minor lithics, calcareous fragments, echinoid spines, calcareous matrix, moderate-good visual porosity, no oil fluorescence.

267.3-267.63m

GREENSAND: medium green-greenish grey, friable, coarsening towards the base, abundant dark green-brown medium-coarse subangular-subrounded glauconitic nodules, common medium-coarse grained subangular-subrounded clear-translucent quartz grains, minor lithics, calcareous fragments, echinoid spines, calcareous matrix, soft, moderate-good visual porosity, no oil fluorescence.

267.63-268.25m

GREENSAND: medium green-greenish grey, abundant dark green-brown medium-coarse subangular-subrounded glauconitic nodules, common medium-coarse grained subangular-subrounded clear-translucent quartz grains, minor lithics, calcareous fragments, echinoid spines, calcareous matrix, moderately firm-firm, moderate visual porosity, no oil fluorescence.

268.25-268.70m

GREENSAND: medium green-greenish grey, friable, fine-medium, abundant dark green-brown medium-coarse subangular-subrounded glauconitic nodules, common medium-coarse grained subangular-subrounded clear-translucent quartz grains, minor lithics, calcareous fragments, echinoid spines, calcareous matrix, soft, moderate-good visual porosity, no oil fluorescence.

268.70-268.83m

GREENSAND: medium green-greenish grey, abundant dark green-brown medium-coarse subangular-subrounded glauconitic nodules, common medium-coarse grained subangular-subrounded clear-translucent quartz grains, minor lithics, calcareous fragments, echinoid spines, calcareous matrix, moderately hard, moderate-good visual porosity, no oil fluorescence.

268.83-269.45m

GREENSAND: medium green-greenish grey, friable, abundant dark green-brown medium-coarse subangular-subrounded glauconitic nodules, common medium-coarse grained subangular-subrounded clear-translucent quartz grains, minor lithics, calcareous fragments, echinoid spines, calcareous matrix, soft, good visual porosity, no oil fluorescence.

269.45-269.56m

GREENSAND: medium green-greenish grey, abundant dark green-brown medium subangular-subrounded glauconitic nodules, common medium-coarse grained subangular-subrounded clear-translucent quartz grains, minor lithics, calcareous fragments, echinoid spines, calcareous matrix, soft-moderately hard, fair-good visual porosity, no oil fluorescence.

269.56-270m
No Recovery.

REMARKS:

Transitional changes in grain size.

LAKES OIL N.L.	CORE REPORT No. 15
WELL NAME: Patrobus No.1	DATE: 08 OCT 05

INTERVAL CORED	270-273m	
CUT: 3m	RECOVERED: 2.66m	RECOVERY: 89%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:
Fine Glauconitic Marlstone (100%) overlying Unconsolidated Sand (100%)
Sedimentary bedding at 0 degrees. Generally sedimentary structurally amorphous apart from Glauconitic Marlstone/Unconsolidated Sand contact. 270-272.2m: Fine Glauconitic Marlstone 272.2-272.66m: Unconsolidated Sandstone 272.66m-273m: No Recovery

POROSITY	Poor-excellent visual porosity
FLOURESCENCE	No oil fluorescence, dull yellow mineral fluorescence
CUT	Nil.
STAIN	Nil.

DESCRIPTION:
270.0-272.2m Glaucconitic Marl grading to Sandy Marl. GLAUCONITIC MARL: green-greenish grey, fine-medium coarsening towards base, abundant subrounded-rounded fine-medium translucent quartz, rare lithics, rare shelly fragments, calcareous, no apparent bedding, poor visual porosity, no oil fluorescence. 272.2-272.66m Unconsolidated Sand (100%) UNCONSOLIDATED SAND: light green-greenish grey, friable, fine-very fine, dominant fine-very fine subangular-subrounded quartz, common fine biotite, rare glauconitic nodules, weak very fine silty matrix, weakly calcareous, excellent visual porosity, no oil fluorescence. 272.66-273.00m No Recovery.

REMARKS:

LAKES OIL N.L.**CORE REPORT No. 16****WELL NAME:** Patrobus No.1**DATE:** 08 OCT 05

INTERVAL CORED	273-276m	
CUT: 3m	RECOVERED: 0.75m	RECOVERY: 25%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Moderately firm Calcareous Sandstone grading to Calcareous Sandstone grading to Unconsolidated Sand****Sedimentary bedding at 0 degrees.****Generally sedimentary structurally amorphous except Calcareous Sandstone
273.75-276m: No Recovery**

POROSITY	Poor-moderate visual porosity
FLOURESCENCE	No oil fluorescence. Dull yellow mineral fluorescence
CUT	Nil.
STAIN	Nil.

DESCRIPTION:
273.0-273.38m CALCAREOUS SANDSTONE: grey-light green, dominant moderately sorted subangular-subrounded fine-medium translucent quartz, common black fine-very fine rounded biotite, minor shell fragments, minor glauconitic nodules, rare pyrite, calcareous matrix, poor-moderate porosity, no oil fluorescence.
273.38-273.62m CALCAREOUS SANDSTONE: grey-light green, dominant moderately sorted subangular-subrounded fine-medium translucent quartz, common black fine-very fine rounded biotite, minor shell fragments, minor glauconitic nodules, rare pyrite, calcareous matrix, firm-consolidated, poor-moderate porosity, no oil fluorescence.
273.62-273.75m CALCAREOUS SANDSTONE: grey-light green, dominant moderately sorted subangular-subrounded fine-medium translucent quartz, common black fine-very fine rounded biotite, minor shell fragments, minor glauconitic nodules, rare pyrite, calcareous matrix, friable, poor-moderate porosity, no oil fluorescence.
273.75-276m No Recovery.

REMARKS:

LAKES OIL N.L.**CORE REPORT No. 17****WELL NAME:** Patrobus No.1**DATE:** 08 OCT 05

INTERVAL CORED	276-279m	
CUT: 3m	RECOVERED: 0.45m	RECOVERY: 15%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Calcareous Sandstone with interbeds of Unconsolidated Sand****Sedimentary bedding at 0 degrees.****Generally sedimentary structurally amorphous except Calcareous Sandstone****276.45-279m: No Recovery**

POROSITY	Poor-good visual porosity
FLOURESCENCE	No oil fluorescence. Dull yellow mineral fluorescence
CUT	Nil.
STAIN	Nil.

DESCRIPTION:
276.00-276.10m CALCAREOUS SANDSTONE: grey-light green, dominant moderately sorted subangular-subrounded fine-medium translucent quartz, common black fine-very fine rounded biotite, minor shell fragments, minor glauconitic nodules, rare pyrite, calcareous matrix, moderately hard, poor-fair visual porosity, no oil fluorescence.
276.10-276.15m UNCONSOLIDATED SAND: grey-light green, dominant moderately sorted subangular-subrounded fine-medium translucent quartz, common black fine-very fine rounded biotite, minor shell fragments, minor glauconitic nodules, rare pyrite, weakly calcareous, friable, good visual porosity, no oil fluorescence.
276.15-276.45m CALCAREOUS SANDSTONE: grey-light green, dominant moderately sorted subangular-subrounded fine-medium translucent quartz, common black fine-very fine rounded biotite, minor shell fragments, minor glauconitic nodules, rare pyrite, calcareous matrix, moderately consolidated, fair-moderate visual porosity, no oil fluorescence.

REMARKS:
Gradational lithological changes from consolidated to unconsolidated.

LAKES OIL N.L.**CORE REPORT No. 18****WELL NAME:** Patrobus No.1**DATE:** 08 OCT 05

INTERVAL CORED	279-282m	
CUT: 3m	RECOVERED: 1m	RECOVERY: 33%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Consolidated Sandstone unconformably overlying Phyllite****279-281m: No Recovery.****Sedimentary bedding in Consolidated Sandstone at 0 degrees.****Schistose quartz fracturing in Phyllite dipping at 80 degrees.****Palaeozoic Basement at 281.9m.**

POROSITY	Poor-fair fractured porosity
FLOURESCENCE	No oil fluorescence, dull yellow mineral fluorescence.
CUT	Nil.
STAIN	Nil.

DESCRIPTION:
279.00-281.00m No Recovery.
281.00-281.90m CONSOLIDATED SANDSTONE: dark green-very dark grey, well sorted, fine-medium, dominant fine-medium subangular-subrounded translucent quartz, common chlorite, common granitic lithics, rare dark green-black elongated xenoliths, well sorted weakly calcareous matrix, moderate consolidated-firmly consolidated becoming increasingly consolidated at base, poor visual porosity, no oil fluorescence.
281.90-282.00m METASEDIMENTS/PHYLLITE: medium dark grey, fine-very fine, dense, fine quartz xenoliths, common chlorite, common feldspars, dull green-grey sheen, foliated texture, extremely hard, high angle (80 degree) foliation, no intergranular porosity, poor quartz vein fracture porosity, no oil fluorescence. Low grade metamorphism indicated by foliations and presence of quartz and chlorite overgrowths and sulphide mineralisation with calcite veining along high angle fractures.

REMARKS:

LAKES OIL N.L.**CORE REPORT No. 19****WELL NAME:** Patrobus No.1**DATE: 08 OCT 05**

INTERVAL CORED	282-282.1m (Total Depth)	
CUT: 0.1m	RECOVERED: 0.1m	RECOVERY: 100%
GEOLOGIST:	Ingrid Campbell	

GENERALIZED LITHOLOGY OF INTERVAL:**Palaeozoic Phyllite with high angle Foliation****Schistose quartz fracturing in Phyllite dipping at 80 degrees.****Extremely hard rocks with ROP of 360 minutes per metre.****Attempted coring abandoned after 0.1m due to damage to bit and failure to achieve any significant penetration.**

POROSITY	No visual porosity
FLOURESCENCE	No oil fluorescence, no mineral fluorescence
CUT	Nil.
STAIN	Nil.

DESCRIPTION:

282.00-282.10m (Total Depth)

METASEDIMENTS/PHYLLITE: medium dark grey, fine-very fine, dense, fine quartz xenoliths, common chlorite, common feldspars, dull green-grey sheen, foliated texture, extremely hard, high angle (80 degree) foliation, no intergranular porosity, poor quartz vein fracture porosity, no oil fluorescence. Low grade metamorphism indicated by foliations and presence of quartz and chlorite overgrowths and sulphide mineralisation with calcite veining along high angle fractures.

REMARKS:

Total Depth in extremely hard, fractured Palaeozoic basement.
