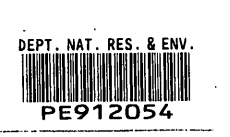


SUNDAY ISLAND-1

BASIC DATA

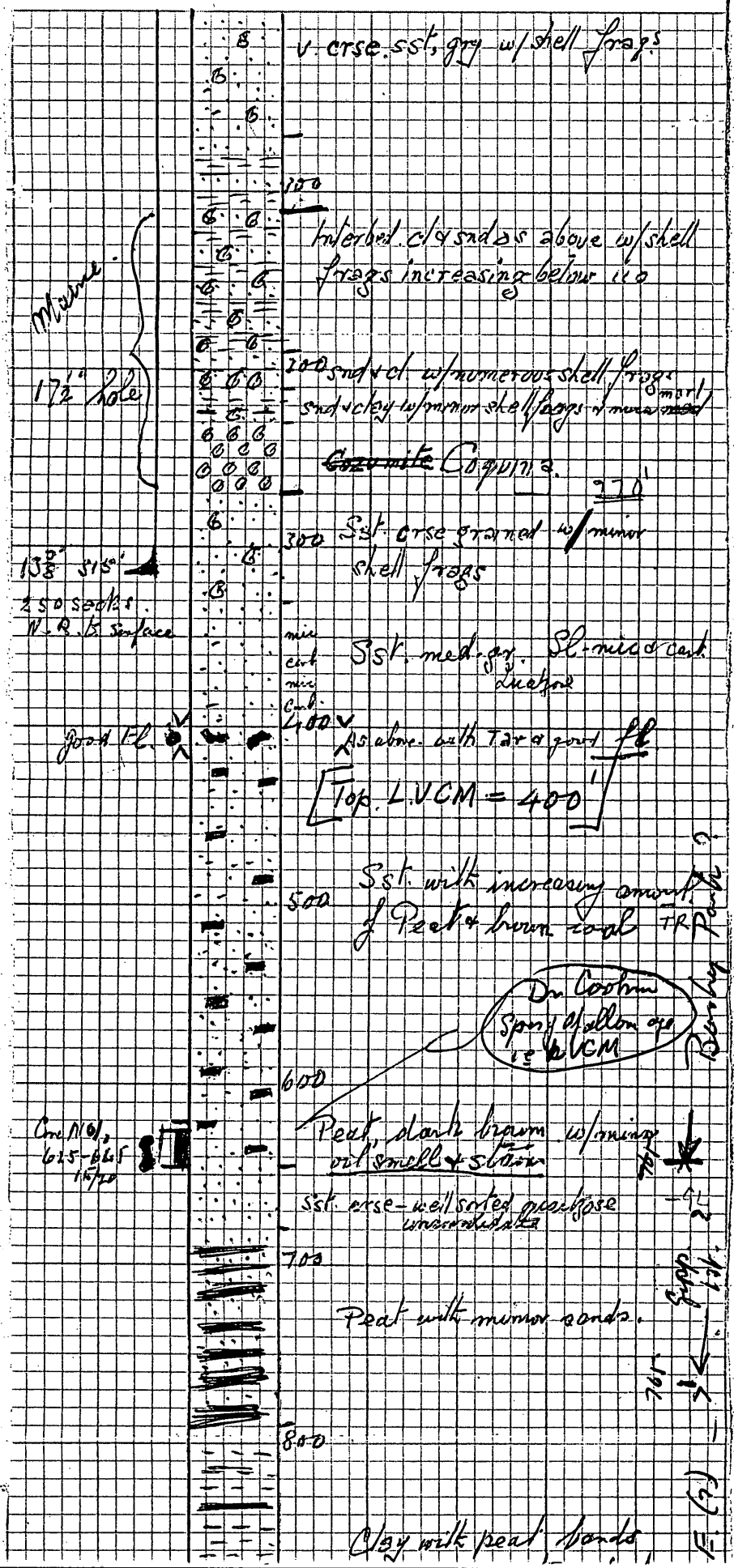
W495

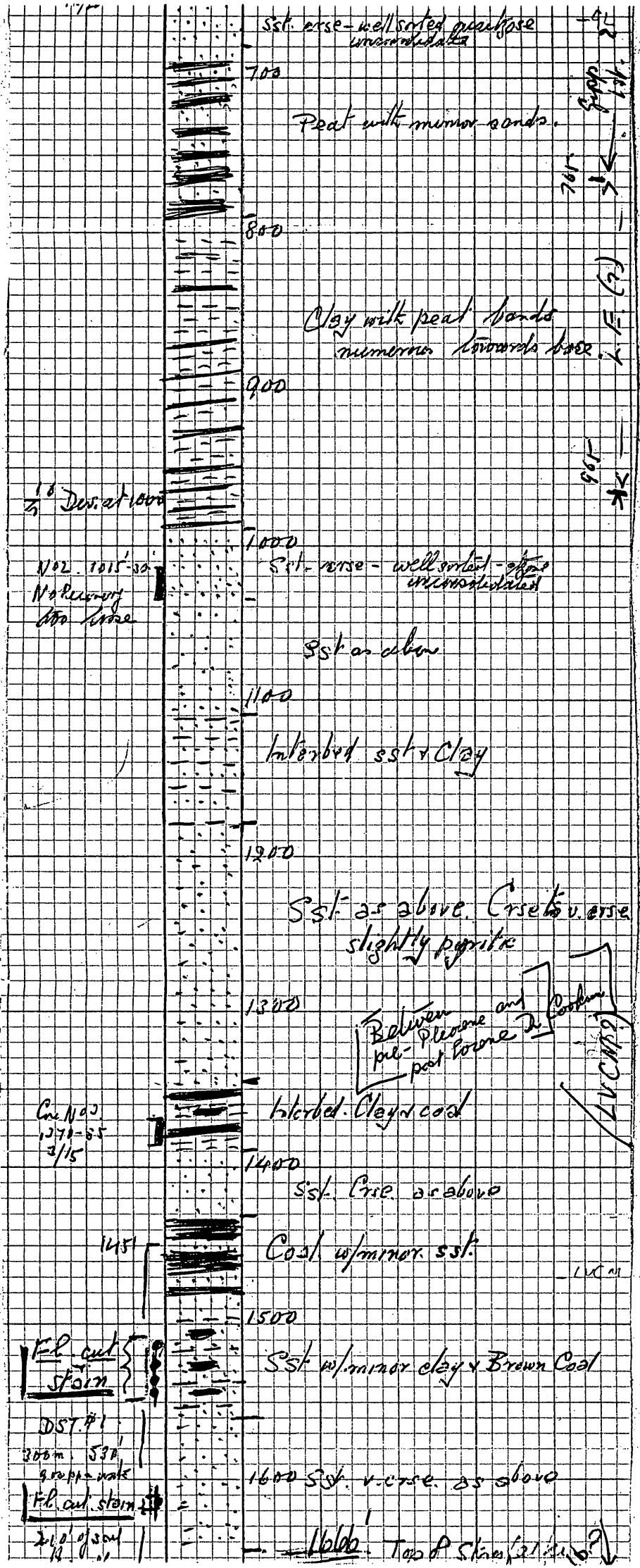
SUNDAY ISLAND No 1

,81205 1 002

Spudded: 19-Nov. (2.30a.m.) 1965

Elvn: G.L. R.T.




Sst. crse - well sorted quartzose
700
Peat with minor sands.
800
Clay with peat bands
numerous towards base.
900
16° Decs. at 1000
1000
Sst. crse - well sorted - quartzose
Sst as above
1100
Interbed sst & Clay
1200
Sst. as above. Crse to v. crse
slightly pyritic
1300
Between pre-Pleistocene and pre-Eocene
Interbed. Clay & coal
1400
Sst. Crse as above
1451
Coal w/minor sst.
1500
Sst w/minor clay & Brown Coal
DST #1
1600 Sst. v. crse as above
Holds
Top of Strata

9120054 003

Core No 3 1370-85 3/15

Microcl. Wayne coal

1400

Sst. Crse. as above

1451

Coal w/minor sst.

LVCM

1500

Fl. cut stain

Sst w/minor clay + Brown Coal

DST #1
300m. 537'
grapp. wate

1600 Sst. v. crse. as above

Fl. cut stain

210' of sand with small cut lost 1680

1666' Top of Strzelecki

Core No 4 Sst. Lt green, fine to med-gr, kaolinitic matrix quartzose

1666?

1700

Strz.

1800

Interbed lt grn Sst siltst + shale

1900

Dr. Cookson. High up in Lower Cret. - Aptian-Albian

9 5/8" 1958

Core 5 1964 2/3

2000 Mainly sst. lt-green, lithic, quartzose, f-gr, poorly sorted - sub-rnd, kaolinitic, limonitic, carb. feldspathic

2100 Sst lt grn-gry f-m-gr. Qtz - feldsp - kaolinite. trace Muscovite + biotite; some coal.

2200 Sst. dense, f-gr-Sst + Silts increasing

2300

Core No 6 2315-42 6/7

Shale, variably carbonaceous numerous plant remains

Shale w Siltstone of feldspathic

912054 004

2100 Sst lt-grn-gry f-m-gr. Qtzy - felds - kaolinte - trace Muscovite + biotite; some coal.

2150 10 ft

2200 Sst. decreasing, fn-gr. Sst + silts increasing

2300 Shale, variably carbonaceous - numerous plant remains

Core No. 6 2315 - 22 6/7

Shale & Siltstone sl. feldspathic carb. Sst lamintn.

2400

2500 Sst. lt-grn - f-m-gr - tight. Kaol + shl matrix feldspathic, carb. calc.

2600 Silt & shale

NO7 2620-35 10/15

Sst lt-grn - carb. strks - dip 20°-30° current bedding pronounced Sst.

2700 Sst. grn to gry - vf to m. gr - tight - Kaol - calc - carb - feldspathic - quartzose

Siltst. gry - feldspath - carb. - interbedded w shale.

2800 Sst. gry & brownish - f to med gr

As ab.

2900

N08. 2946-57 11/11

Sst. grn-gry - m - crse gr - Kaol mat. - sl calc - carb quartzose tight

3000

9L

light - Kaol - calc - carb -
feldspathic - quartzose

Siltst. gry - feldspath - carb. - intercal. shale

2800

Sst. gry & brownish - f to med-gr

As abv

2900

No 8.
2946-57 4/11

Sst. grn-gry - m - crse gr -
Kaol mat. - sl calc - carb
quartzose light

3000

gl.

Sst. as abv. m-gr.
kaol & minor chlor & calc matrix.
glauconitic. Mica

3100

gl.

3200

As abv with some
interbeds of gry silt & sh

3300

3400

Dep. 30°

No 9
3454-65 7/11

Sst - feldsp - f-m-gr - subang
light - sl Kaol & calc
quartzose dip ± 30° (Carb. stri.
light

3500

3600

Sst. lt-gry - f-m-gr -
3700 kaol & calc matrix - felds-

912054 007

Neg. 3454-65 9/11

Dip 30°

Sst - feldsp - f-m-gr - subclt calc - tight - sl kaol & calc quartzose dip ± 30° (Carb stks) tight

3500

3600

Sst. lt-gy - f-m-gr - kaol & calc matrix - felds - mica - quartz - minor siltst & shale. Tight carbonaceous

3700

3800

3900

Dip 10°

Core 10. 3956 - 3976 15.5/20

Sst. as above. tight

Some fractures filled with calcite & pyrite.

4000

4100

Sst. as above. tight

gas detector off during this interval - faulty rheostat

4200

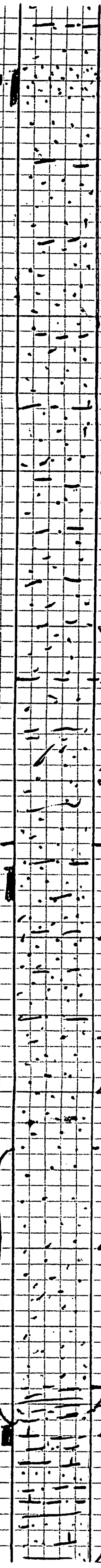
dip 5°-10° very variable.

4300 Grey Siltstone and shale w/some marl

Core 11 4314-25 10/11

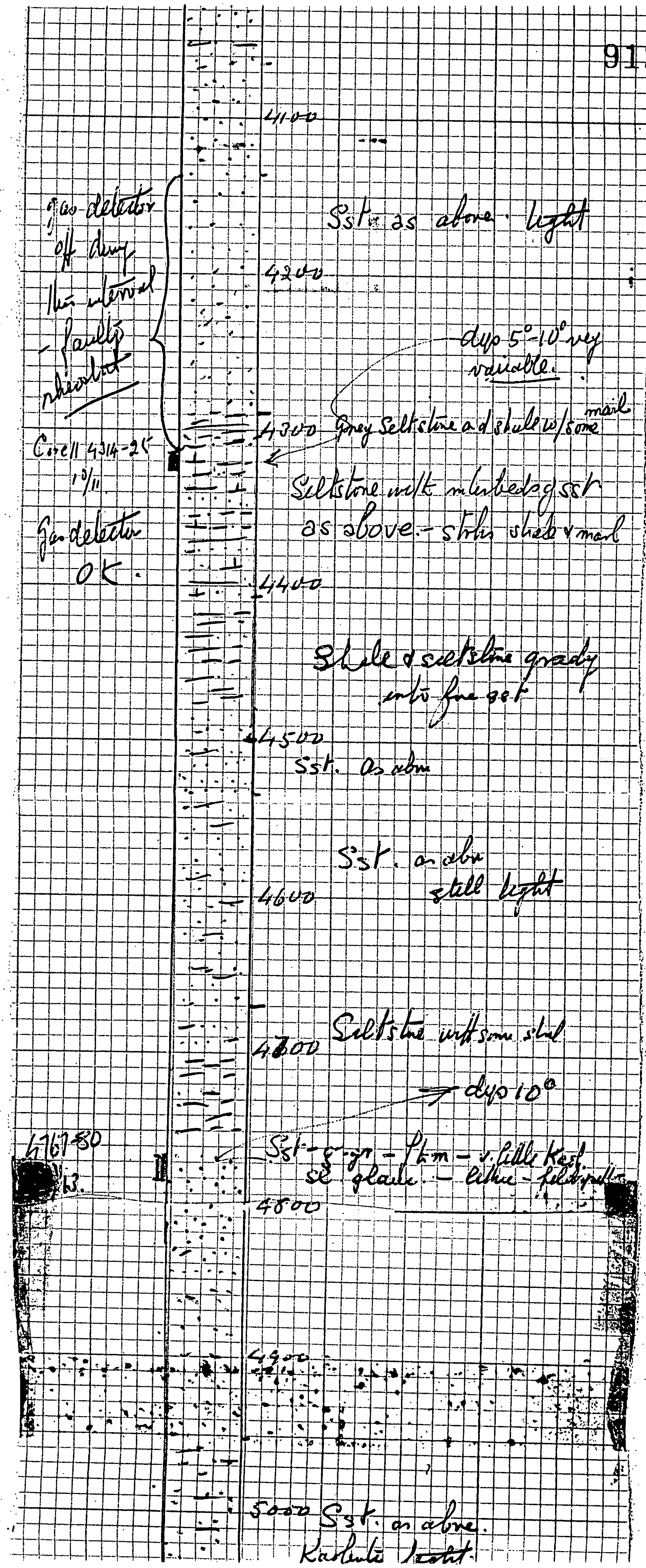
Siltstone with interbeds of sst as above. - strks shale & marl

Gas detector OK



4400

912054 008


4100
Gas detector off during this interval - faulty rheostat
Sst. as above. light
4200
dip 5°-10° very variable.
4300 Grey Siltstone and shale w/some marl
Core II 4314-25' 10/11
Siltstone with interbeds of sst as above.- strks shale & marl
Gas detector OK.
4400
Shale & siltstone grading into fine sst
4500
Sst. as abv
Sst. as abv still light
4600
Siltstone with some shale
4700
dip 10°
4767-80
III
Sst - g.-gr. - f.m. - v. little Kaol. sl. glauc. - lithic - feldspathic
4800
4900
5000 Sst. as above. Kaolinitic light

912054 009

4761-84

13.

Sst - g-gr - f-m - v. little Kaol
sl glauc - lithic - feldspathic

4800

4900

5000 Sst. as above.
Kaolinite tight

Dev 3¾° [illegible]

5100

Sandstone. As above
Tight.

5200

Dip 10°

No 13
5261-53. 6.5/11

Shale blue black with siltstone & SST.

5300

Sst. lt-grn - f-m. -
sl. carb - feldspathic & lithic
[illegible] with shale & silt st
layers

5400

Sst. as above

5500 Sst. as above

Sst. as above

5600
Sst as above tight

5700 As above [T.O. - recovered]

Sst. as above

5500 Sst. as abv

Sst as abv

5600

Sst as above light

5700 As abv [T.O. - recovered]

Sst as above

No 14
5795-5801
910

Dip 20° ±

5800 Sst as above

Sst as above

5900

No 15
5988/6000

6000 Sst. lt. grn, fn banded-grnish light. Dip 20°
mult current & x-bedding

SUNDAY 1-5 No 1 912054

~~3-0-3-0~~ 282-320 cement plug

330-340' 35% qu sst m-c gr. sub ang-subr. (r.) clear fair sort. ∇ traces wood and musc. Rest cement. Few orange-red grains with little ang. clear qu. grains (chert?)

340-350' as above. m gr. f-g sort.
8 5% orange red chert. Brick red has qu grain attached. 2 shell fragments. ∇ trace biotite?

350-360' a.a. less qu more cement m-c gr.
10

360-370' a.a. trace biotite. more wood
7

370-380' qu sst. well sorted f-m gr. clear qu few milky subr. (r.) few brick (or.) red. gr trace biotite. No cement. felspar?
5

380-390' a.a. more cement
6 felspar?

390-400' qu sst m gr well sort sub ang-subr.
2% flakes medium brown biotite
quartz grains with malleable silver coloured ore.
3% rounded white grains felspar?
few grains orange red. 1 shell fragment
10% cement

400-410' [illegible] grey fluorescence (white) in numerous slots

912054 C12

410-420' l gr sst m gr med sort ang-sub ang.
15% carbonaceous material qu gr's.
20% cement
traces mica (musc.) and or-red. grains
are specks in qu grns.
5% subr. milky white: felspar?
traces grey quartzite well rounded and shell frag.

420-430' Grey sst. m gr med sort ang-sub angl grns
10% carb mat
5% rounded grey quartzite grns. No cement
Traces muscovite.
Trace Pyrite as veinlets in between qu. grns
? 15% well rounded whitish felspar.

430-440' grey sst; m grnd; med-well sort; sub ang-sub r.
15% rounded grey quartzite grns. No carb material
traces biotite + muscovite
well rounded milky grns 15-20% felspar?
traces brick red material and cement

440-450' grey sst. m - well sort. subr - r grns (well r.)
clear qu. milky fs.
5% carbonaceous material 912054 013
20% rounded grey quartzite grains

450-460' gr sst well sort r - well r grains
clear qu. some with pyrite
milky felspar Trace muscovite
l grey quartzite. traces carb. material.

460-470 brownish grey sst. ang - w. r. qu grns
15% carb. material. ~~carbonaceous material~~ merged?
~~480-490 25%~~ muscovite, pyrite.
~~520-530%~~ felspar as rounded white opalese xl's.
~~vele kleine xl's~~ a lot of small kristals clustered together (pyrite)

470-480. as above. dirty grey. less carb. mat.
some kristals ang. other sub - well rounded
traces brick red mat. Trace muscovite
1% marl
Pyrite in qu kristals

480-490 a.a. r - well r. 25% carb. material

490-500 50% carb. material. Sandy peat
ss a.a.
1 shell fragment.

912054 014

500 - 510' a. a.
slightly more muscovite
65% lignite - peat

510 - 520' grey sst. m sort. subr - r.
2% small r. grey quartzite grns
Traces muscovite Traces brick - red mat.
little carbonaceous material

520 - 530' 50% carbonaceous material Peat? charcoal?
subangular - rounded clear qu. grns
musc. traces
grey quartzite rounded grns

530 - 540'

540 - 550' 40% carbonaceous mat.
Sandy peat - lignite sst. coal & brown coal
subang. qtz. mostly clouded. Pink clear
15% marl
Traces brick red material
muscovite Pyrite
1% grey quartzite well rounded.

912054 015

550 - 560' : marly carbonaceous sst.
sst grns subrounded fairly well sorted
bitumen veneer.
quartzite grns (grey) well rounded

560 - 570' : qutz sst f - m grnd. milky grns subr - subang ~~subr~~ rounf
well sorted. Pyrite.
10% carb. mat (brown coal or peat)
10% grey white quartzite grns
Some marls and brick red material

570 - 580' : qutz sst well rounded. well sorted.
clear grns Some milky.
Traces biotite, muscovite,
Some marl Pyrite
5% grey/whitish quartzite grns well rounded.
alle grns have a bitumen veneer.

580 - 590' as above. qutz grns sometimes pinkish

590 - 600' 20% SANDSTONE as before
80% ~~Red~~ Brown Coal containing numerous
plant wood fragments.

600 - 610' grey quartz ss. m - c grnd. well sorted chiefly clear. sub ang. to rounded. Very little carbonaceous mat 912054 016
Few rounded grey quartzite grns.
pyrite blobs.

610 - 620' a a less clear quartz better rounding and better sorting.

620 - 630' a a well sorted, ~~well~~ sub rounded grey ss.
no impurities. Mostly blue opalesc.
Few grey quartzite grns
Trace carb mat and marl

625 - 645 CORE No 1

630 - 640' a a more clear qtz grns
more grey qtzite grns } both very few.
more marl
Trace mica

640 - 650' 100% SANDSTONE very fine to fine grained, rarely medium grained, entirely quartzose, sub rounded, moderate ~~sorting~~ to poor sorting, ~~dominantly quartz~~

650 - 660 100% SANDSTONE as above though more fine grained

660 - 670 100% SANDSTONE coarse grained, entirely quartzose, well sorted, generally sub rounded, rarely sub angular, generally slightly clayey, to very clayey grey, rarely clean.

670 - 680 100% SANDSTONE as above though all grains generally rounded and clayey. Sorting is excellent. Rare grey grains contain pyrite.

680 - 690 70% SANDSTONE as above and sub rounded
30% PEAT brown as in core. Plant fragments also present

690 - 700 10% SANDSTONE as above.
90% PEAT dominantly wood fragments

700 - 710 5% SANDSTONE as above.
95% PEAT dominantly ~~so~~ yellow, brown wood fragments with the fibrous nature of the wood outstanding.

710 - 720 5% SANDSTONE as above
95% PEAT as above. very little sand associated with wood fragments.

720 - 730 100% PEAT as above.

730 - 740 5% SANDSTONE
95% PEAT } as above.

740-750' 100% Peat orange brown wood fragments as above. negative gas reading 670.

750-760' 90% peat orange + brown wood mainly fibrous
10% kwarts sst. poor sort. sub ang - r. mostly subr. c - vc grns. milky. few clear and bluey
some l brn qutz grains

760-770' a a

770-780' a a. sand m - vc grnd

780-790' a.a. slightly less sand 5%

790-800'. 50% clay.
~~75~~ 45% peat. less fibrous
5% quartz grns c - vc. milky. opalesc. blue. subr.

800-810' : 60% clay.
40% peat
10% quartz sst } a a

810-820' : a a

820-830' : a a

830-840' : 95% clay
4% peat
1% vc - gravel qutz sst

840-850' : 80% clay.
12% peat a a
8% qutz sst c-granule mainly milky same blue opalescence. few clear subr.
traces grey subr qutz grns
trace silver-grey ore (arseno pyrite ?)

850-860' : 80% clay
5% peat
15% qutz sst. c-vc-gran grns m-g sort milky. Few clear & clouedy. Subr.

860-870' : a a.
qutz m-c grnd. subang-subr.

870-880' : 100% clay

880-890' : 70% clay 10% peat & qutz
as 860-870

890-900' : 80% clay
10% peat
10% qutz

900-910' : 70% clay
20% peat ~~a~~
10% qutz subang. clear. vc grnd.
traces blue grey subr qutzite grns.

910 - 920' : 70% peat brown & black wood. fibrous
15% clay
15% qutz sst. f - m grnd. ang - subang
m. sort
trace muscovite

912051 020

920 - 930' : 65% peat. bl & bl fibrous
35% qutz sst. m - g sort. m grnd subang - subr
clear & milky
trace muscovite.

930 - 940' : 55% peat } a a
45% qutz sst. subr }
1 shell. blue.

940 - 950' : 65% peat } a a
35% qutz sst.
1 organic rest.

950 - 960' : a.a.

960 - 970' : 70% peat } a a
30% qutz sst }
traces muscovite.

970 - 980' : 100% clay no sample

980 - 990' : a a

900 - 1000' : 95% qutz sst. VC - granule well sort.
well rounded. mainly milky. also white
grey, clear & blue opales.
minor wood fragments 912054 021
Trace pyrite on qutz grn

1000 - 1010' : a.a.

1010 - 1020' : a.a.

1020 - 1030' : a.a.

1030 - 1040' : 95% sand
5% peat
sand VC - gran. m/well sort. r - well r.
milky, nitreous, clear.
Trace biotite Trace org. subst.
more than traces pyrite. matrix Esper small grns

1040 - 1050' : 95% sand
5% peat
sand C - VC - granule. White, milky clear.
Traces pyrite. subr - r - well r
grey - grey black r. quartzite grns

1050 - 1060' : a.a. qutz granule - gravel
Trace felspar (Plagioklase)
Trace shell fragments
Trace chert (blue grey)

1060 – 1070': 100% qutz sand. r – well r. well sort. vc – granule cloudy grns.
Trace shell fragm, pyrite on qutz grns
trace blue grey qutzite 912054 022

1070 – 1080': a.a well rounded. f – g sort. Granules

1080 – 1090': a.a. f sort (vc-gran) qutz also yellow and pinkish.
Some peat fragments

1090 – 1100': 100% sand clouded f sort. well r. c-gran
Traces peat

1100 – 1110': a.a. Trace muscovite. little more peat.

1110' – 1120': a.a. Trace felspar (plagioklase?)

1120 – 1130': 20% clay
5% peat
75% qutz sand m – c grnd well r. clear – cloudy. Trace yellow. Trace pyrite

1130 – 1140': 30% clay
70% qutz sand subang. cloudy grns well r. grns of pyrite.

1140 – 1150': 95% qutz sand subang – subr. f sort c-granule clear & cloudy. Pyrite
minor peat (5%)

1150 - 1160' : a a c - vc grnd qtz with yellow & pinkish grns

912054 023

1160 - 1170' : a a subangl milky grns well s
m - vc grnd m sort

1170 - 1180' : 20% clay noticeable fluorescence greenish yellow
75% Qtz sand clear/cloudy m sort m - vc grnd
5% peat s subang milky grns w rounded

1180 - 1190' : 25% clay tor fluorescence greenish yellowbrn
75% qtz sand sub-ang m - vc grnd
trace muscovite & trace blue grey quartzite

1190 - 1200' : 20% clay fluorescence greenish yell br
75% qtz sand m sort m - gravel subang - well s
(esp. milky grns)
5% peat
Trace pyrite

1200 - 1210' : 100% qtz sand c - vc grnd f - g sort subangl - sub
trace fs fluorescence

1210 - 1220' : a a f sort m - granule

1220 - 1230' : a a tor stains on sand grns

1230 - 1240' : a a muscovite flakes

1240 - 1250' : a a slightly coarser
Increase in muscovite.

812054 024

1250 - 1260' : a a subangular.
Some peat f. sorting. m - vc. grained

1260 - 1270 100% SAND. coarse to very coarse as above. most quartz
slightly cloudy.

1270 - 1280 100% SANDSTONE as above.

1280 - 1290 100% SANDSTONE as above

1290 - 1300 100% SAND. as above.

1300 - 1310 100% SAND.

1310 - 1320 100% SAND.

1320 - 1330 100% SANDSTONE, poorly sorted, subangular to angular.
most of the quartz is pyritic.

1330 - 1340 100% SAND.

1340 - 1350 100% SAND.

1350 - 1360 100% SAND

1360 – 1370 40% SANDSTONE ~~~~
100% CLAY

912054 025

1370 – 1380 40% SANDSTONE ~~~~
20% CLAY dark gray
40% PEAT grading into brown coal. Entire wood fragments not common
Few large muscovite flakes.

13 CORE No 3
INTERVAL 1370 – 1385' REC 3' 20%

Top 1' COAL dark brown with numerous fracture planes.
1' COAL → CLAY lighter in color toward the clay, containing dark brown to black carbonaceous fragments.
1' CLAY light brown to gray, plastic containing a number of ~~~~ fragments of carbonaceous material.
Strong smell of H2S throughout.
No indication of dip or petroleum

1380 – 1390 90% SANDSTONE coarse to very coarse grained. angular. poor to moderate sorting.
10% COAL

1390 - 1400 100 % SANDSTONE coarse grained as described previously.

912054 026

1400 - 1410 100 % SANDSTONE as above
To carbonaceous material. Quartz is sub angular & slightly dusty.

1410 - 1420 100 % SAND as above with some grains possibly iron stained.

1420 - 1430 100 % SAND as above.

1430 - 1440 100 % SAND a.a.

~~1440 - 14~~

1440 - 1450 80 % SAND very coarse to granular sub rounded, moderately well sorted with quartz generally slightly dusty
20 % BROWN COAL

1450 - 1460 40 % SAND
60 % BROWN COAL
} as above.

1460 - 1420 5 % sand granule to gravel. subangular
95 % brown coal

1470 - 1480 10 % sand VC to gravel. sub ang to subr.
90 % brown coal

1480-1490': 5% sand cloudy subang gran-gravel
95% Brown coal

912054 027

1490-1500': 10% clay 5% brown coal
85% sand. poor sort. f-gravel. subang.

1500-1510': 5% clay 15% brown coal
80% sand a a (Rounded pink fs?)

1510-1520'. 5% clay 10% brown coal slight fluores.
85% sand. slightly better sorting. m-grand

1520-1530': 5% clay 5% brown coal fluorescence
90% sand. ang-subang. vc-gravel. Cloudy
Trace pyrite

1530-1540': 10% clay 5% brown coal fluorescence
85% sand. clear/cloudy. Well sorted: granul
to gravel Angl to subangl. Pink & Yellow. Pyrite,

1540-1550: 10% clay 10% brown coal fluorescence
80% sand. m sort.: v.c to gravel grnd.
angular to Subangl. Clear and Cloudy.
Some pinkish or yellowish.

1550-1560': 20% clay 10% brown coal
70% sand. poor sort: vf-gravel
Angl-subr. Large grns tend to be rounded
Clear & clouded. Also bluish & brn tnd
Trace muscovite

1560 - 1570' : 15% clay. 10% Brown coal
75% sand. a.a. more f and granul size
large muscovite flakes

S12054 028

1570 - 1580' : m - g sort. vc - pebbles. Subangl - subr.
clear, cloudy, milky. Some blue grey & reddish
Trace muscovite
90% sand
5% brown coal 5% clay.

1580 - 1590' : 100% SAND as above very coarse.

1590
~~1600~~ - 1600 100% SANDSTONE a.a.

1600 - 1610 100% SAND as above with much larger percentage
of granule size

1610 - 1620 95% SAND granule size as above
5% BROWN COAL
Muscovite present

1620 - 1630 100% SAND as above with staining, possibly Fe
~~Staining~~ of the angular grains

1630 - 1640 100% SAND a.a.

1640 - 1650 95% SANDSTONE coarse & very coarse, angular, poorly sorted
dominantly quartzose, clear gravity grains
5% BROWN COAL

1650 - 1660 100% SANDSTONE very poorly sorted clear to slightly clouded, angular, pyritic in part, felspathic?, micaceous (muscovite) (no fluorescence

812054 029

CORE No 4

1666 - 1680 RECOVERY 12'6" out of 14'

89%

Description: sandstone l. green. / grey. Tight.

70% quartz sandstone. f-m grns. l. grey/green.

30% weathered felspar, forming a kaolinic matrix.

Traces red brown mineral. poss. limonitized pyrite

Trace biotite Barren?

- a few carbonaceous layers 1/8" thick. eg. 1675'10"

Initial dip 10°-15°.

The amount of kaolinic matrix varies slightly throughout the core, as does the grain size. finer grained has less matrix.

1690ft - 1700 90% SANDSTONE mainly coarse angular grains as previously also green, fine grained, completely tight with some kaolinitic matrix, slightly felspathic, quartzose with the matrix green as well as many of the clastics.
10% BROWN COAL

912054 030

1700 - 1710 90% SANDSTONE as above and with two types - approx. same proportions. Green sandstone is possibly slightly micaceous.
5% BROWN COAL

1710 - 1720 100% SANDSTONE as above with much greater percentage of green fine grained sandstone. This contains a number of orange (ferruginous) spots throughout. Is also definitely carbonaceous.

1720 - 1730 100% SANDSTONE as above with larger percentage of green sandstone. It is fine to medium grained, light slightly carb, micaceous felspathic, lithic, occasional orange ferruginous spots with a more definite kaolinitic matrix, poor to moderately sorted and all grains appear sub rounded to rounded. The green rounded grains making up most of clastics are probably quartz siliceous material.

1730 - 1740 100% SANDSTONE as above.

1740 - 1750 100 SANDSTONE as above with quartz grains more dominant.

S12054 031

1750-1760 100% sst. Same quartz grns as above aggregates of v.f. grnd greenish qutz with white powdery kaolinic matrix. Red xls of limonitized pyrite.
Traces pyrite, coal, fs. shells (caving? also cement)
The coarse pinkish and white subangl - subr (T) qutz grns are seen as caving. The aggregates as the sample.

1760-1770. Very clay like due to complete desintegration of sample by drilling. The very fine sst and kaolinic matrix form a silty clay, light grey/brown. It is not representative of the layer.
a.a.
Large blobs of pyrite.
Shell fragments; coal; peat
Much pink qutz grns. Some milky grns (& pink) very well rounded (spheroidal)

1770-1780 a.a. more representative sample

1780-1790 100 SANDSTONE as above, is a complete gradation between very fine grained grns and medium grained fragments.
Tr SILTSTONE light grey to grey green.

1790 - 1800 100% SANDSTONE as above with green type more prominent. Amount of Kaolinite in this can vary hugely overall colour of fragment. 4

1800 - 1810 100% SANDSTONE both types as above. Large amount of individual light green silicious fragments. 6

1810 - 1820 100% SANDSTONE as above with quartz grains dominant. 3

1820 - 1830 100% SANDSTONE (i) coarse angular quartz grains. 4
(ii) fine to v. fine, quartz, silica, lithic grains generally subangular to subrounded.

1830 - 1840 100% SANDSTONE almost entirely subangular to subrounded med grained quartz grs, generally clean, slightly dusty in part 4

1840 - 1850 100% SANDSTONE dominantly med grained, sub rounded quartz grains. Also some fine grain 5

1850 - 1860 90% SANDSTONE as quartz grains as above 2
10% SILTSTONE light grey to dark grey, grading into a fine grained sandstone or a shale, slightly calc., lithic, very micaceous in part, grades

CORE #2

1860 – 1870 — 95% SANDSTONE fine + med. subangular to angular quartz grain. 912054 033'
5% SILTSTONE light grey as above.

1870 – 1880 — 80% SANDSTONE very little light green type as above.
20% SILTSTONE as above.

1880 – 1890 — 80% SANDSTONE as above and very poorly sorted
20% SILTSTONE as above grading into a shale.

1890 – 1900 — 70 SANDSTONE only coarse quartz grain as above
30 SILTSTONE light + dark grey, slightly carb, micaceous, felspathic quartzose, lithic, grading into a shale.

1900 – 1910 — 80% SANDSTONE quartz grain as above
15% SILTSTONE as above
5% SHALE dark grey with rare carbonaceous fragments

1910 – 1920 — 60% SANDSTONE as above, generally fine grained
20% SILTSTONE as above
20% SHALE " "

1920 – 1930 — 70 SANDSTONE
20 SILTSTONE
10 SHALE
} as above.

1930 - 1940 60% SANDSTONE coarse to fine angular quartz grains as above.
20% SILTSTONE grey-brown, variably carb., kaolinitic, slightly quartzose, lithic.
20% SHALE light grey
Pyrite also present.

1940 - 1950 70% SANDSTONE as above.
10% SILTSTONE as above, grading into a fine grained sandstone.
20% SHALE light grey to grey brown.

1950 - 1960 60% SANDSTONE as above also light grey to brown, fine to medium grained, tight with a calcareous cement, slightly felspathic, rare limonitic material, carbonaceous, quartzose (possibly glauconitic?)
20% SILTSTONE grey-brown as above
T. Shell fragments (casings?)

CORE No 5 (INTERVAL 1965 - 1967) Rec. 2'

2' SHALE with minor silty and very fine grained sandstone bands. The shale is dark grey with a carbonaceous whisps. One large coal fragment (elongated) is present as well as one well preserved plant fragment. Graded bedding is present going from shale to sandstone. The siltstone region of the gradation has a variation in the amount of carbonaceous material and hence a dip of approx. 10° can be determined. The Sandstone, dark grey, fine grained, tight with a argillaceous matrix, variably carbonaceous, lithic, quartzose. Glauconitic is present. No hydrocarbon indication.

SUNDAY ISLAND No 1 912054 035

4120 - 4130 (40) 70% SANDSTONE light grey and brown, mostly medium grained, tight with very calc., slightly kaolinitic matrix, slightly micac., lithic, felspathic, greywacke. Sorting is fair to moderate with most grains subrounded. 2

Also - light green, fine & medium grained with very little kaolinitic matrix, slightly calc. & felspathic, greywacke.

20% SILTSTONE light grey to brown, slightly micac & felspathic, calc, lithic, greywacke

10% SHALE (mostly coloured, possibly a mudstone

4130 - 4140 (45) 70% SANDSTONE as above with light green type greener and more prominent

30% SILTSTONE as above

4140 - 4150 (45) 80 SANDSTONE } as above
20 SILTSTONE }

4150 - 4160 (35) 90 SANDSTONE } as above 3
10 SILTSTONE }
Tr Coal

4160 - 4170 (40) 100% SANDSTONE as above with a more kaolinitic matrix.

4170 - 4180 90% SANDSTONE > as above.
(40) 10% SILTSTONE

4180 - 4190 100% SANDSTONE as above
(40) T. Sh. siltstone fragments

4190 - 4200 90% SANDSTONE > as above
(43) 10% SILTSTONE

4200 - 4210 100% SANDSTONE light grey medium grained,
(37) calcareous in part

4210 - 4220 80 SANDSTONE > as above
(34) 10 SILTSTONE
10 COAL

4220 - 4230 90 SANDSTONE > as above
(40) 10 SILTSTONE

4230 - 4240 90 SANDSTONE > as above
(45) 10 SILTSTONE

4240 - 4250 60 SANDSTONE as above but also tending
(50) to be fine to very fine grained as well
30 SILTSTONE light grey to brown, slightly
carb. & felspathic, thin, quartzose
10 SHALE brown, very carb.

4250-4260 (55) 70% SANDSTONE as above with fine to very fine grained type predominant
30% SILTSTONE light & dark grey

4260-4270 (60) 60% SANDSTONE } as above
40% SILTSTONE } dominantly light grey type.

4270-4280 (45) 40% SANDSTONE almost entirely fine to very fine grained, completely tight with kaolinite & calc. matrix, slightly calc. & glauconitic, lithic greywacke
50% SILTSTONE Grey-brown as above.
10% SHALE grey & brown
Tr. pyrite & calcite

4280-4290 (60) 30 SANDSTONE entirely fine to very fine grained as above
50 SILTSTONE grey & brown as above.
20 SHALE grey & brown

4290-4300 (45) 50 SANDSTONE fine to very fine grained as above.
40 SILTSTONE as above
10 MARL brown with rare calc. fragments.

4300-4310 (55) 20 SANDSTONE } as above
60 SILTSTONE }
20 MARL as above

4

CORE No 11

INTERVAL 4314 - 4325 REC. 10 ft

Interbedded grey siltstone and shale with minor very fine grained sandstone towards the base. The shale is varyingly calcareous and very carbonaceous in places with plant and wood fragments present. The siltstone is dark grey, slightly lithic arenite, variably calcareous (very calcareous in places) felspathic, quartzose. An argillaceous matrix possibly also present. The f sandstone is very fine grained and the same composition as the siltstone. Dip is approximately 5 degrees. Fracturing is present towards the base with the resultant fractures calcite filled. These make an angle of approx. 35° with the vertical axis of the core.

4314' - 4315' 8" Shale grey, very calcareous towards the base.

4315' 8" - 4316' Marl (limestone ?) brown, extremely calcareous with rare quartz grains present. The boundary with the overlying grey shale or marl is extremely abrupt and resembles an even stylolytic surface i.e. curves are smooth. At the boundary is concentrated black carbonaceous material. The base of the brown marl shows a gradual mixing with the grey shale

CORE NO 11 (Cont.) 4314' - 4325' REC 10'

and siltstone below ~~Gradd~~

4316' - 4317' Siltstone, calcareous - pal

4317' - another band of brown marl However the boundary both above and below is gradual with the centre somewhat a darker brown.

4317 - 4318' Siltstone

4318 - 4322' Shale

4322 - 4324 Interbedded siltstone and shale with minor very fine grained sandstone Slight current bedding is present in this interval

PETROLEUM MANIFESTATIONS Nil.

~~4325~~ 4325-4330	20	Sandstone	3
(35)	80	Siltstone	as above
4330-4340	20	Sandstone light grey, fine to very fine grained, tight with calcareous matrix, carb., felspathic, lithic, quartzose	2
(70)	40	Siltstone similar composition to sandstone but very calcareous	
	40	Marl brown, extremely calcareous but containing large amount of carb. material	
	20	Shale light grey similar composition to siltstone	
4340-4350	50	Siltstone as above though non calcareous in part	3
(90)	40	Marl brown as above	
	10	Shale as above	
4350-4360	~~10~~	Sandstone	3
(60)	50	Siltstone	as above
	40	Shale	
	10	Marl	

912054 041

4360 - 4370 (60)	30	Siltstone	gray	2
	40	Marl	brown } as above	
	30	Shale	gray	(6'
4370 - 4380 (65)	60	Siltstone	gray very calc.	
	10	Marl	} as above	2
	30	Shale		
4380 - 4390 (55)	10	Sandstone	very fine grained as above	7
	40	Siltstone	Laminae as above	
	40	Shale	as above	
	10	Coal		
4390 - 4400 (60)	80	Siltstone	very calc. as above	12
	20	Shale	gray	

~~4400 - 4410~~

4400 - 4420'
10 % sst
20 % siltstone
70 % shale Trace marl

4420 - 4430'
10% sst
80% siltstone
10 % shale Tr. coal qtz grns

4420 – 4430' : 10% sst f-vfgrnd micaceous, felspathic
60 30% siltstone
60% shale

912054 042

4430 – 4440' : 10% sst
(60) 40% siltstone
50% shale Tr. coal

4440 – 4450' : 10% sst
(60) 50% siltstone
30% shale
10% coal

4450 – 4460' : 10% sst
(70) 50% siltstone
40% shale Tr coal

4460 – 4470' : 10% sst
~~(70)~~ 50% siltstone
40% shale Tr coal

4470 – 4480' : 50% siltstone
(85) 50% shale Tr m-cgrnd sst.

4480 – 4490' : 20% vf grnd sst
(80) 40% siltstone
40% shale

4490 - 4500' (75)
20% f - vf grnd sst grey & green glauc
50% siltstone
30% shale

912054 043

4500 - 4510' (60)
50% f - m grnd sst a way a 3
30% siltstone
20% shale Tr coal

4510 - 4520' (65)
70% f - m grnd sst aa 3
30% siltstone
Trace shale

4520 - 4530' (80)
60% f - m grnd grey green sst kaol + calc matrix 4
30% siltstone
10% shale

4530 - 4540' (85)
40 SANDSTONE
40 SILTSTONE } as above 3
20 SHALE

4540 - 4550' (90)
70% SANDSTONE light green, fine to medium grained, 2
tight with very slight, ~~trace~~ calc, dominantly
kaolinitic matrix, (possibly slightly glauconitic)
slightly lithic + felspathic, quartzose
moderately to poorly sorted, silt grain
sub-rounded. Also brown, medium - fine

4540-4550 (bot.) grained, tight with calc. cement. slightly lithic (blue + grey) felspathic, quartzose, well-sorted with grain shape angular to sub-rounded.

30 SILTSTONE light grey to grey-brown, slightly lithic felspathic (~ fair % of kaolinite) and calcareous, carb., lithic, quartzose

6

4550-4560 (10m/11') 80 SANDSTONE dominantly light green type both types as above
20 SILTSTONE as above

4560-4570 (100) 60 SANDSTONE } as above 3
40 SILTSTONE
T: glauconite, calcite

4570-4580 (75) 60 SANDSTONE 3
20 SILTSTONE
20 SHALE

4580-90' (50) 80 sst 5
10 slst
10 shale

4590-4600' (47) 90 sst 2
10 slt
Trace coal

X

912054 045

4600 - 4610' (63) 80% sst 3
20% slst
Trace shale & marl coal

4610 - 4620' (80) 80% sst 2
10% siltst
10% shale Trace marl + coal

4620 - 4630' (45) 80% sst 5
20% siltstone
Trace shale, coal, glauconite, gyt, gyps

4630 - 4640' (60) 80% sst 3
10% siltst
10% shale coal

4650 - 4660' (70) 80% sst f grained 2
10% siltst
10% shale

4640 - 4650' (80) 80% sst 3
10% siltstone
10% coal
Trace shale, marl

4660 - 4670' 80 SANDSTONE 3
(90) 20 SILTSTONE

4670 - 4680 T.S. Sandstone 2
(100) 80 SILTSTONE dark grey, slightly felspathic and quartzose, carbonaceous, lithic.
20 SHALE dark grey grading into siltstone.

4680 - 4690 90 SILTSTONE > as above 2
(85) 10 SHALE

4690 - 4700 30 SANDSTONE light brown, fine grained, 3
(85) tight with kaolinitic matrix, slightly carb., lithic, felspathic, quartzose
50 SILTSTONE as above and grading into sandstone.
20 SHALE brown as above.

4700 - 4710 80 SANDSTONE light grey, fine grained, tight 3
(120) with possible chloritic matrix (very little matrix present) slightly lithic, carb., mainly quartzose. Moderately sorting with grains subangular to subrounded
20 SILTSTONE as above.

912054 047

Hone On Added

4710-4720' : 80 Sandstone ⎫ Mon lith... 8
(110) 10 Siltstone ⎬ a above
10 Shale ⎭

4720-4730' : 100 Sandstone a above 6
(122) Tr. Siltstone

4730-4740' : 100 Sandstone light green as above 4
(140) Tr. Siltst... [illegible] to light green slightly
[illegible] [illegible] [illegible] [illegible]

4740-4750' : 100 Sandstone a above 6
(140)

4750-4760' : 100 Sandstone a above 10
(145)

4760-4770' : 100 % sandstone a.a lithic ... 5
(-) minor dark reddish grey shale. Green grns

4770-4775' : 80% sandstone
↑ 20% shale. ... l-d grey a a
3½ hrs very light grey splintery long fragments
↓

4775-4780' : 90% sst a a
10% shale a a

CORE 12 SUNDAY 19/12 INTERVAL 4767 - 4780'

CUT : 13' RECOVERY 1'

DESCRIPTION : sandstone greenish grey light f - m (white, clear, green) grained. Very little matrix. kaolinitic quartzose, felspathic, lithic, glauconite. (slightly calcareous

Few very thin discontinuous bands carbonaceous material indicating Dip 5° - 10°

1 band of 8 elongated rounded shale fragment(s) brown grey

SUBARKOSE

4780 - 4790' (90) : 70% sandstone light green/grey. Tight f - m grnd, qutzose (greenish, grey, clear) & felspathic (white), lithic (d grey). Subangl. wells Matrix < 15% (kaolinitic ?) calcareous (slightly)

10% siltstone. Same comp.

20% shale. d grey, reddish grey, very light grey. Last in elongated chips.

Trace pyrite, glauconite, micas, Coal lge glkz & fs grains subr to well

4790-4800' (95): 60% sst aa; 10% siltstone aa; 30% shale aa. Coal — 10

4800-4810' (90): 60 - 10 - 30 aa; Coal pyrite — 12

4810-4820' (40)?: 50 - 20 - 30 aa; Coal — 12

4820-4830' (140): 40 - 10 - 40 - 10% coal aa — 14

4830-4840' (100): 40% sst, 30% siltstone, 30% shale } aa; coal — 16

4840-4850' (100): 20 SANDSTONE light green to light grey as above.
50 SILTSTONE grey to brown, slightly felspathic, variably carb., lithic, quartzose very rarely calcareous.
30 SHALE brown, generally containing carb. fragments. — 18

4850-4860 (100): 20 SANDSTONE, 50 SILTSTONE, 30 SHALE } as above. — 13

4860 - 4870 50 ~~30~~ SILTSTONE light brown as above 12
(110') 50 ~~70~~ SHALE brown, very carbonaceous
T/ black coal.

4870 - 4880 80 SANDSTONE light grey to brown, fine 10
(115) to very fine grained, grading into a siltstone in part, tight with matrix very calcareous in part, also slightly kaolinitic, slightly feldspathic and lithic, variably carbonaceous & very carb. in part, dominantly quartzose. Sorting is moderate to good and grain are sub angular to sub rounded.
20 SILTSTONE as above, also grading into very fine grained sandstone

4880 - 4890 20 SANDSTONE as above & grading into 13
(115) siltstone.
60 SILTSTONE brown as above
20 SHALE brown

4890 - 4900 30 SANDSTONE
(115) 60 SILTSTONE
10 SHALE
} as above. Tends to be grey rather than brown. 13

12

4900-4910 (85) 100 % SILTSTONE light grey, slightly micac., carb., felspath, lithic, manly quartzose

N.B. 4912.

4910-4920 (60 / 84) 80 % SILTSTONE as above 26
20 % SHALE brown, carbonaceous

4920-4930 (60) 100 SILTSTONE light grey, quartzose, as 33

4930-4940 (55) 100 SILTSTONE as above 35

4940-4950 (60) 100 SILTSTONE as above 41

4950-4960 (60) 30 % SANDSTONE light brown to grey, very fine grained, slightly micac., felspathic, carb., lithic, quartzose 45
60 % SILTSTONE as above
10 SHALE dark grey, brown

4960-4970 (75) 60 SANDSTONE light green, fine to medium grained, tight with a white to light green manly kaolinitic, patchy calc., chloritic matrix, slightly felspathic & carb/lithic, quartzose 45
40 SILTSTONE as above

4970 - 4980 : 80? Sandstone light grn to light grey 49
(75) — shale
20 Siltstone — shale.

4980 - 4990 : 80 Sandstone > shale 45
(75) 20 Siltstone

4990 - 5000 : 100 Sandstone light grn shale 46
(75) Tr brown very calcareous sandstone.

5000 - 5010 : 100 Sandstone shale 41
(80)

5010 - 5020 : 100 Sandstone shale 50
(83)

5020 - 5030 : 80 sandstone 45
(85) 20 siltstone

5030 - 5040' : 70 sst 49
(105) 20 slst
10 shale

5040 - 5050' : 80 sst
(110) 20 shale

5050 - 5060' : 80 sst
100 10 slst
10 shale → ?? phyllite 40

3

5060-5070' (120) : 60% sst f-m grnd aa — 45
20% siltst
20% shale lwart lioklte?

5070-5080' (120) : 80% sst } aa — 45
20% shale }
Trace siltstone, coal

5080-5090' (120) : 60% sst } aa — 46
10% siltstone }
20% shale }
10% coal }

5090-5100' (115) : 60 SANDSTONE } a-a — 50
30 SILTSTONE }
10 SHALE

5100-5110 (90) : 80 SANDSTONE } a-a — 49
20 SILTSTONE }

RE ZERO

5110-5120 (65) : 100 SANDSTONE light green, generally fine 19 grained, partly medium light with an increased amount of white clay matrix, also more felspathic, lithic, slightly calc., quartzose. Matrix is possibly chloritic

5120 - 5130 100 Sandstone as above and very feldspathic 14
(60) Slightly micaceous in part.

5130 - 5140 100 Sandstone green as above 23
(70)

5140 - 5150 100 Sandstone light green as above with very 18
(85) calcareous matrix. Also brown, medium grained,
tight with calc. cement (brown) [very large percentage
of matrix cement) slightly lithic, quartzose and
feldspathic

5150 - 5160 20 Sandstone light green as above 16
(85) ~~80~~ 60 Siltstone grey ~~brown~~, grey-brown
slightly calc., feldspathic, lithic mainly
quartzose.
20 Shale brown, grading into a siltstone
in part.

5160 - 5170 30 Sandstone light grey, fine to very fine grained
(95) tight with kaolinitic matrix, slightly calc., 14
feldspathic, lithic, quartzose
60 Siltstone as above though tending to a
darker grey and more lithic
10 Shale as for siltstone

5170 - 5180 (80) 80 SANDSTONE light green and brown types 13
as above with light green type probably containing more lithics than previously. Also not as calcareous as 5160 sample
20 SILTSTONE brown to grey

5180 - 5190 (80) 100 SANDSTONE light green, fine to medium 12
grained, tight with very little white kaolinitic matrix, slightly calc. lithic (containing also orange limonitic areas) feldspathic, quartzose. Is large number of light green, siliceous lithics, poorly sorted with subangular to subrounded grains

5190 - 5200 (80) 100 SANDSTONE as above 15

5200 - 5210 (95) 100 SANDSTONE light green, fine grained 24
than previously.

5210 - 5220 (120): 50% sst
20% siltstone
30% shale

5220 - 5230 (105): ~~50%~~ 40% sst
10% siltstone
50% shale
Vitrain

912054 056

5230 - 5240' (120) : 40 % sandstone
10 % siltstone
50 % shale

5240 - 5250' :

CORE Nº 13. INT 5241' - 5252' CUT 11'. REC 6'6" (59%)

DESCRIPTION:

5241' - 5241'6" shale blue black. Discontinuous streaks and flakes of carb. material. Fossil twigs.

5241'6" - 5244' : shale (blue black) and siltstone (light grey) sequence. Many sedimentary structures e.g. current & cross bedding, grading, slumping, convolute bedding. Very few thin carb. streaks. Dip (possibly initial) 10°.

5244' - 5244'6" : shale as above

5244'6" - 5245'9" : shale and siltstone grading into sandstone light grey, very tight, vf grained with current & cross bedding. 5245' - 5245'4" some carb flakes. The sst has a few dark streaks. dip approx 10°.

5245'9" - 5247'4" : sandstone as above

5247'4" - 5247'6" : shale as above.

BMR 4 SAMPLES: 5241' - 43 - 45 - 47½" MINES 2

5250 - 5260' (60): 80% siltstone, l-d grey also reddish. mica
20% shale
Trace vf sst. 12

5260 - 5270' (90): 20% sandstone grey vf-m grnd 20
qtzose (frakic, lithic) <15% matrix
subangl m. sort few glauc. grns
50% siltstone a.a
10% shale. Trace coal

5270 - 5280' (105): 40% sst vf-f grnd 25
40% siltstone
20% shale Trace coal

5280 - 5290' (105): 40% sst (25)
50% siltstone
10% shale Trace coal

5290 - 5300' (120): 20% sst 33
60% siltstone
20% shale Trace coal

5300 - 5310' (90): 30 SANDSTONE generally medium grained 28
60 SILTSTONE } a.a.
10 SHALE }

5310 - 5320 (105) 80 SANDSTONE light green to light grey, fine grained, tight with quite large amount of kaolinite matrix, slightly carb. felspathic, lithic marly quartzose sorting is fair with most quartz and lithic grains sub rounded. 25

~~20 SILTSTONE~~ → (tuffite tuff phyllite ??)

20 SHALE grey - brown with very light grey ~~paper~~ type also present. Later probably a metamorphic fragment in sandstone.

5320 - 5330 (85) 80 % SANDSTONE light green, fine - medium grained, with less matrix than above and more lithics 23

20 % SILTSTONE grey to brown slightly carb, felspathic, quartzose lithic matrix is argillaceous

5330 - 5340 (100) 80 SANDSTONE light green to light grey, probably 1% more felspathic than above ashown ?

10 SILTSTONE as above

10 SHALE brown, very carb.

5340 - 5350 (115) 90 SANDSTONE } as above 19

10 SILTSTONE

5350 - 5360 (120)	90	Sandstone as above with possibly slightly chloritic matrix.	23
	10	Siltstone brown as above	
5360 - 5370 (120) ~~135~~	100	Sandstone as above with very little matrix (is partly chloritic) Very little felspar	30
N.B. 5376			
5370 - 5380 (120)	90	Sandstone light green & more calc. as than above.	20
	10	Siltstone grey. brown.	
5380 - 5390 (90)	100	Sandstone light green as above	16
5390 - 5400' (120)	100%	sandstone	20
5400 - 5410' (120)	100%	sandstone	25
5410 - 5420' (120)	100%	sandstone	18
5420 - 5430' (128)	100%	sandstone	25
5430 - 5440' (130)	100%	sandstone	25
5440 - 5450' 140	90%	sandstone	25
	10%	shale	

5450 - 5460 (140) 100 SANDSTONE as above 25

5460 - 5470 (140) 100 SANDSTONE light green, medium grained, tight, slightly more lithic than usually 23

5470 - 5480 (110) 100 SANDSTONE as above with slightly calc. matrix 29

5480 - 5490 (115) 100 SANDSTONE as above also brown, fine to medium grained, tight with brown, calcareous cement, slightly calc., lithic, very feldspathic pet. quartzose. Sor sorting is poor to moderate with grains subangular to subrounded. Quartz is generally cloudy 22

5490 - 5500 (112) 90) SANDSTONE light green & brown 10) SILTSTONE brown, grading into a shale slightly feldspathic & quartzose, carbonaceous, argillaceous 23

5500 - 5510 (78) 70 SANDSTONE 30 SILTSTONE > as above 26

N.B. 5509

5510 - 5520 (210)	80 SANDSTONE 20 SILTSTONE	> - shows	22
5520 - 5530 (195)	100 SANDSTONE	light grey, mainly medium grained, tight with very little matrix (partly chloritic) - shows	24
5530 - 5540 (215)	90% sandstone 10% shale		30
5540 - 5550 (210)	90% sandstone 10% shale		32
5550 - 5560 (175)	100% sandstone		32
5560 - 5570 (200)	80% sst 10% siltst 10% shale		32
5570 - 5580 (225)	80 sst 10 slst 10 sh		32
5580 - 5590 (240)	90% sst (calc) grey, m grnd, m sort, tight, little to no matrix, quartzose subord feathic, lithic slightly carb, micac 10% slst, micaceous Trace shale, coal		

N.B. 5591

912054 062

5590 - 5600 (70) SANDSTONE light green to light grey, generally fine grained, tight with little matrix but a small amount of calc. cement, slightly lithic, felspathic and carbonaceous, grains. Sorting is good, grains are subrounded and quartz clear to very slightly cloudy.

20 SILTSTONE brown, slightly calc. felspathic, argillaceous, grains.

5600 - 5610 (105) 20 SANDSTONE medium grained type, probably coring. 26

80 SHALE brown, silty in part carbonaceous

5610 - 5620 (85) 20 SANDSTONE fine grained, brown, calcareous.

40 SILTSTONE brown & brown 26

40 SHALE brown.

5620 - 5630 (90) 20 SANDSTONE medium grained type 31

& brown.

70 SILTSTONE ~~light~~ grey-brown slightly calc. & micac, felspathic, lithic, grains.

10 SHALE brown & brown.

5630 - 5640 (115) 100 SANDSTONE light green to light grey, medium grained, tight with little matrix moderately sorted, calc. felspathic, lithic, grains. Amount of felspar varies.

~~5640 - 5650~~ 100 SANDSTONE light green and brown 26
(135)

5650 - 5660 100 SANDSTONE as above 26
(140)

5660 - 5670 100 SANDSTONE as above, very slightly 23
(150) micaceous in part

~~5677~~ 5677 N. B. REZERO.

5670 - 5680' (-) 80 sandstone 14
10 siltstone
10 shale

5680 - 5690' (135) 100 sandstone 15

5690 - 5700' (135) 100 sandstone 12

5700 - 5710 (130) 100 SANDSTONE light green medium grained 14
as above

5710 - 5720 (140) 100 SANDSTONE light green medium grained, light 11
with very little kaolinitic matrix, slightly
chloritic & calcareous, lithic, feldspathic,
mainly quartzose. Quartz is clear to slightly
cloudy, sorting is moderate. Quartz is sub
angular to subrounded.

5720 - 5730 (95)	90% SANDSTONE light green as above 10% SILTSTONE grey, slightly carbonaceous lith, mainly quartzose grading into a very fine sandstone.	22
5730 - 5740 (107)	100 SANDSTONE light green to light grey dominantly quartzose as above.	24
5740 - 5750 (125)	100 SANDSTONE light green, finer grained than above, slightly more matrix.	26
5750 - 5760 (200)	100 SANDSTONE light green - light grey - NL to form finer grained generally than the latter	22
5760 - 5770 (175)	100 SANDSTONE as above	18
5770 - 5780 (180)	100 SANDSTONE light green, fine, ~~NL~~ rarely medium grained, light.	12
5780 - 5790 (150)	100 SANDSTONE light green generally, olive brown with carbonaceous cement	19

5795 ( ) Sample more carbonaceous and sandy with more kaolinitic matrix. Colour change.

CORE No 14

5795 to 5805 Recovered 9' (90%)

5795' to 5804'

SANDSTONE light green to light grey, generally medium grained, ~~with~~ moderately sorted, completely tight with very little kaolinitic matrix, slightly feldpathic, variably carbonaceous and lithic with the main sandstone dominantly quartzose. Lithics are brown black and grey lithic and carbonaceous material are somewhat elongated while quartz is subangular to subrounded. Quartz is generally slightly clouded. Throughout the sandstone are discontinuous laminations of black coal or carbonaceous material. Some of these bands can be concentrated in one area with the greatest thickness of one lamination being about 1/16 inch. The coal is generally marked by a large number of horizontal fractures which are filled with calcite. These lineages indicate a dip of between 15 and 20 degrees.

From 5795' to 5799' the sandstone is very poorly sorted and containing a large number of ~~black~~ elongated lithic and carbonaceous fragments. Coal fragments are much bigger and longer in this area. Coarse quartz grains are also present in places and are generally made up

Core No 14 (5795' - 5805') Rec 9' (Continued)
of dk gray. The grey lithic fragments are dominantly siltstone, slightly calc + lithic mainly quartzose. The size of the lithics vary though generally they are approximately ¼ to ½" in length and approx ⅛ across. An extremely large dark grey shale fragment is present at 5799' at take up most of the core.
Dip approx 15 degrees
Petroleum manifestation nil

5850 - 5860

5805 - 5810 (90/5ft)	70 % SANDSTONE light green to light grey, very slightly micac. carbonaceous, lithic quartzose with very little matrix 10 SILTSTONE grey, carbonaceous, silty, lithic, quartzose grading into a very fine grained sandstone 20 SHALE dark grey, very carbonaceous in part	14
5810 - 5820 (155)	100 SANDSTONE light green to light grey, medium grained, more silty, less carbonaceous & lithic than above	16
5820 - 5830 (180)	100 SANDSTONE as above Tr coal & carbonaceous material	14
5830 - 5840 (180)	100 SANDSTONE light grey, medium, rarely coarse grained, more lithic and carbonaceous than above	14
5840 - 5850 (170)	90 SANDSTONE as above 10 SHALE brown	12

5850 - 5860 (160)	100	SANDSTONE light green to light grey as above	16
5860 - 5870 (65)	100	SANDSTONE as above	18
		NB 5871	
5870 - 5880 (16 m/ft)	100	SANDSTONE light green med grained as above	14
5880 - 5890 (200)	90	SANDSTONE as above	15
	10	SILTSTONE light grey, grading to very fine grained sandstone - pat slightly calc. lithic, silty-lithic, quartzose	
5890 - 5900 (215)	50	SANDSTONE as above	17
	50	SILTSTONE ... Sa - very calcareous	
5900 - 5910 (225)	90%	Sandstone light grey, m grnd, tight, mod sort, quartzose, lithic, slightly friable very little matrix. Coal ore & lithic	25
	10%	siltstone light to reddish grey. Same comp. grading into shale	
5910 - 5920 (220)	100%	sandstone aa f - m grnd	22
5920 - 5930 (240)	80%	Siltstone aa	
	20%	shale aa	

5930 - 5940' : 90% sandstone 15
(180) 10% shale

5940 - 5950' : 100 SANDSTONE light green 16
(180) as above.

5950 - 5960 100 SANDSTONE light green as above. 13
(195)

5960 - 5970 100 SANDSTONE as above 14
(190)

5970 - 5980 100 SANDSTONE as above and rarely 15
(220) micaceous.

5980 - 5988 100 SANDSTONE as above slightly 19
(210) coarser grained.

CORE Nº 15 5988' - 6000' CUT 12' REC 12'

DESCRIPTION: sandstone, light grey to green, light with little matrix, mainly kaolinitic. well sorted, subangular - subrounded
5989' numerous thin discontinuous carbonaceous streaks.
- 5992' : sandstone as above, quartzose, felsphathic, lithic at 92 some carbonaceous streaks. Dip ca 10°
From 93' - 94' grading into siltstone. Foresets and minor carbonaceous streaks
94' - 95' sandstone with some carb streaks

DESCRIPTION CORE #15 CONTINUED · 912054 070

fore sets, cross & current bedding. Dip 10°

At 5996': sudden influx of coarser sandstone with shale pebbles, elongated, up to 1", slight imbrication. Also coarser coal fragments in streaks. Wash-in?

5996-5999': sandstone with very minor carb. streaks

At 5999': sharp change to shale, cross bedded

Last 4" sandstone.

Current Details for : 3511 08001 04/07/1994

Bore
Site Id : 327711
Parish Name : SUNDAY ISLAND 08001
LOCAL NAME : SUNDAY ISLAND 1
OTHER NAMES : SUNDAY ISLAND, W3650014
Completed on : 04/01/66
Measured Depth: 1830.00 metres
Authorised by : DMID - Petroleum
Regulation : Mines (1958)
Drilled by : Richter Bawden Drilling Company
For : Woodside Petroleum Ltd

Elevation 3.050m KB: 0.000m

Maps 1:100,000 YARRAM(8220)

Location	Easting	Northing	Zone	Latitude	Longitude	+/-	Method
	471282.00	5715861.00	55	38.705	146.670	10.00	Digitised metric

Method Rotary (diamond/drag
Purpose Petroleum
Usage Dry hole

AvailData
Core Samples : 14
Lith Logs : 0
Strat Logs : 1
Biostratigraphy : 0
Geophys Logs : 0
Temp Samples : 0

Stratigraphic Logs

Created by Boreholes/Wells Administrator

From	To	Description	Geol Age	AgeYr
0.00	33.50	UNIDENTIFIED FORMATION	Unknown Age	
33.50	54.90	Jemmys Point Formation	Pliocene	
54.90	195.10	Boisdale Formation	Pliocene	
195.10	295.60	Alberton Coal Measures	Miocene	
295.60	399.00	Balook Formation	Oligocene	
399.00	506.00	Latrobe Group	Eocene	
506.00	1829.00	Strzelecki Group	Cretaceous	

**** End of Report ****

Sunday Island No 1.

912054 072

Sunday Island No 1 well was located 2½ miles south west of Port Albert. It was drilled to a total depth of 6,003' of which 1,664' were in Tertiary sediments.

These sediments may be lithologically divided as follows:-

(a) Surface - 638'

The sands, clays ~~and~~ marls and shell beds comprise the upper unit. The dominant lithologic unit is sand often fine, medium to coarse grained and granular in part. Numerous coquina beds (between 110'-270') were evident with interbeds of marl and clay.

(b) 638'-939'

Composed of clay, peat (very carbonaceous and clayey containing numerous wood fragments.

(c) 939'-1664'

~~(2)~~ The brown coal, clays, sands and gravels of the Latrobe Valley Coal Measures.

2

Bore numbers 127, 130 and 141 were put down by the Victorian Dept. of Mines. These shallow test pits or bores were located along the coastal belt ~~between~~ between Welshpool and Port Albert. Hence the general lithology encountered in these bores may be regarded as fairly characteristic of the area.

Bore 127.	Depth struck ft.	ins.	Thickness ft.	ins.
Surf. soil	0	0	1	0
Grey sand	1	0	4	0
Ligneous sand	5	0	1	0
Yellow sand	6	0	12	0
Grey clay	18	0	10	0
Grey sand	28	0	26	0
Ligneous clay	54	0	25	0
Grey sand	79	0	4	0
Green sandy clay	83	0	11	0
Brown coal	94	0	141	0
Coarse grey sand	235	0	3	0
White sand	238	0	12	0
[illegible] drilled			[illegible]	

3

Bore 130.

	Depth struck ft. ins.	Thickness ft. ins.
Surface soil	0 - 0	1 - 0
Black sandy loam	1 0	2 - 0
White sand	3 - 0	1 - 0
Grey sand clay	4 - 0	7 - 0
Grey sand	11 0	1 - 0
Grey sandy clay	12 0	8 - 0
Greenish clay.	20 0	19 - 0
* Lignosus clay.	39 0	19 - 0
Brown coal	58 0	163 - 0

Bore 141.

	Depth struck ft. ins.	Thickness ft. ins.
Surface soil	0 - 0	1 - 0
Yellow sand	1 - 0	6 - 0
Greenish sandy clay	7 - 0	4 - 0
Grey sand	11 - 0	5 - 0
Lignosus clay	16 - 0	8 - 0
Grey clay	24 - 0	23 - 0
Coarse gravel	47 - 0	16 - 0
Grey sand	63 - 0	46 - 0
Sandstone containing pyrites	109 - 0	4 - 0
Lignosus clay.	113 - 0	6 - 0
Sandstone containing pyrites	119 - 0	2 - 0
Inferior brown coal	121 - 0	1 - 0
Brown coal	122 - 0	11 - 0

W495 912054 075

WELL SUNDRY ISLAND No 1. **TYPE** **BASIN** GIPPSLAND.

Tenement Holder	WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.	**Map Used**	Pt. Sunday Island.
Operator	WOODSIDE (Lakes Entrance) Oil Co N.L.	**Latitude**	38° 42' 19" S
Tenement	PEP 42	**Longitude**	146° 40' 11" E

Elevation KB 21' GL 10' **Total Depth** Driller 6001' E log 6003' **Status** Dry & Abandoned

Spud 19-11-1965 **Completed** Drilling 4-1-1966 **Abandoned** 5-1-1966

Casing 13 3/8" to 315' 9 5/8" to 1962

STRATIGRAPHY

From Well Completion Report

		Tops.
Tertiary		
Pliocene	Rosedale Beds	0'
Eocene + Paleocene	Latrobe Valley Coal Measures	939'
Mesozoic		
U. Jura L. Cret.	Strzelecki Group	1664'
	T.D.	6003'

FORMATION TESTS

D.S.T No. 1. 1491 ft. → 1680 ft. Rec:- 300 ft. Muddy water & Mud, slight Hydrocarbon
530 ft. Fairly clean water (Salinity 900 ppm).
210 ft. Sand.
Total. 1040 ft.

LOG SUMMARY AND INTERPRETATION	~~LAST READING~~	~~FIRST READING~~	
/ ELECTRICAL LOG	319	~~1965~~	6002
/ GAMMA RAY NEUTRON	34	~~1965~~	6002
/ MICRO LOG.	319	~~1965~~	6002
/ SONIC LOG	319	~~1956~~	5992
/ CONTINUOUS DIPMETER	319	~~1962~~	5999
/ TEMPERATURE LOG	150	1895	

SUNDRY ISLAND No 1.

912054 0746

CORES

No.	Interval	Rec.
1.	625' → 645'	15'
2.	1015' → 1035'	0'
3.	1370' → 1385'	3'
4.	1666' → 1680'	14'
5.	1965' → 1967'	2'
6.	2315' → 2322'	5'9"
7.	2620' → 2635'	10'5"
8.	2946' → 2957'	11'
9.	3454 → 3465	9'
10.	3956 → 3976	18½'
11.	4314 → 4325	10
12.	4767 → 4780	1

No.	Interval		Rec.
13.	5241' → 5252'		6½'
14.	5795' → 5805		9'
15	5988 - 6001'		12'
	Side Wall Cores.		
475	950	1025	1080
1153	1170	1180	1200
1260	1460	1470	1480
1510	1520	1610	1620
2100	2220	2440	2740
2750	2760	2820	3040
3160	3285	3360	3572

~~No.~~	~~Interval~~		~~Rec.~~
3700	3884	4050	4200
4450	4550	4660	4914
4975	5050	5150	5380
5510	5620	5718	5805
5918'			

No.	Interval	Rec.

CHEMICAL ANALYSES (Oil, water, gas.)

White to light-Blue fluorescence recorded:- 400'-410' : 1160'-1230' : 1510'-1550' : 1610'-1620' ;

GENERAL (Conclusion, structure, plugging, etc.)

Plugs for abondoment.
0'-20' with 22 sacks.
1830'-2080' " 90 "

Well Drilled as a Stratigraphic test of both the Tertiary & Mesozoic formations. Before drilling it was thought that Granite would be encountered at about 4,750', this depth being determined from Aeromagnetic data.

912054 0757 Sunday Island 8/31

2. DRILLING DATA (Cont'd.)

(m) Fishing Operations :

1. At 4470' to recover 12 x 6½" drill collars, 42 joints and part drill pipe. Pipe failure.
2. At 5677' to recover one single of drill pipe and 12 x 6½" drill collars lost on twist-off.

(n) Side tracked hole: Nil

3. LOGGING AND TESTING

(a) Ditch Cuttings:

Representative samples were collected at 10 ft. intervals throughout the hole and at 5 ft. interval whilst coring. The samples were collected from the shale shaker, washed, dried, described, split into three and distributed to :

(i) Bureau of Mineral Resources, Canberra A.C.T.
(ii) The Victorian Department of Mines, Victoria
(iii) Woodside (Lakes Entrance) Oil Co. N.L.

(b) Coring :

The original coring program called for cores to be cut every three hundred feet as well as in intervals exhibiting porosity, oil or gas. If possible a core was to be cut at the boundary of the Lakes Entrance Formation and the Latrobe Valley Coal Measures.

To a depth of 3000 feet cores were cut at approximately 300 feet intervals. Because of little variation in the section penetrated below this the interval was then extended to 500 feet.

No. of cores cut:	15
Total footage cored	193 ft.
Total footage recovered	125 feet 9 inches
Percentage recovered	65.2%

Core No.	Interval	Cut	Recovery	Recovery%	Type of Core Heads
1.	625'- 645'	20'	15'	75	7⅞" Hughes H.F.
* 2.	1015'-1035'	20'	0'	0	8¾" " S.F.
3.	1370'-1385'	15'	3'	20	8¾" " S.F.
4.	1666'-1680'	14'	12½'	89	8¾" " H.F.
5.	1965'-1967'	2'	2'	100	8¾" " H.F.
6.	2315'-2322'	7'	5¾'	82	8¾" " H.F.
7.	2620'-2635'	15'	10½'	69	8¾" " H.F.
8.	2946'-2957'	11'	11'	100	8¾" " H.F.
9.	3454'-3465'	11'	9'	82	8¾" " H.F.
10.	3956'-3976'	20'	18½'	93	7⅞" " H.F.
11.	4314'-4325'	11'	10'	91	7⅞" " H.F.
12.	4767'-4780'	13'	1'	8	7⅞" " H.F.
13.	5241'-5252'	11'	6½'	59	7⅞" " H.F.
14.	5795'-5805'	10'	9'	90	7⅞" " H.F.
15.	5988'-6001'	13'	12'	92	7⅞" " H.F.