





WELL SUMMARY  
WOODSIDE-2  
(W442)

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APPENDIX 1.0

PE904205

This is an enclosure indicator page.  
The enclosure PE904205 is enclosed within the  
container PE904204 at this location in this  
document.

The enclosure PE904205 has the following characteristics:

ITEM\_BARCODE = PE904205  
CONTAINER\_BARCODE = PE904204  
NAME = Well Card  
BASIN = GIPPSLAND  
PERMIT =  
TYPE = WELL  
SUBTYPE = WELL\_CARD  
DESCRIPTION = well card Woodside 3  
REMARKS =  
DATE\_CREATED = 28/02/57  
DATE\_RECEIVED =  
W\_NO = W442  
WELL\_NAME = Woodside-3  
CONTRACTOR = Woodside Lakes Entrance Oil Co  
CLIENT\_OP\_CO = Woodside Lakes Entrance Oil Co

(Inserted by DNRE - Vic Govt Mines Dept)

WELL DETAILS  
 WELL: WOODSIDE No 2. W442 TYPE: N.F.W. BASIN GIPPSLAND  
 TEN. HOLDER: Woodside (C.E.) Oil. Co. N.L. Lat. 38°37'43"S Ph. Ballong  
 OPERATOR: " " " " LOCATION. Long. 146°53'42"E  
 TENEMENT: PPL. 174 (Now PPL 157) Military Map. Allentown (Mile Lands)  
 ELEVATION: 25 T.O. 882 STATUS: DTA  
 SPUD: Jan 1956 COMPL. Suspended at 6110' on March 1956 ABD. Feb 1957 1956  
 CASING: Cemented at 6110'

STRATIGRAPHY.

AGE	FORMATION	DEPTH	THICKNESS
	Gippsland L.S.	980	
	Lake District L.S.	2240	
	Lalorke Valley Coal. M/s.	2490	
	Marracan Group.	3543.	
	Streytecki Group.	3800.	



FORMATION TESTS

LOG SUMMARY and INTERPRETATION

Type	Run	Interval	Date	Type	Run	Interval	Date	Interval	φ	Sw
E Log.	1	6089-1127	22 Mar '56							

WOODSIDE (C.E.) OIL CO. N.L.  
WOODSIDE No 2.

CORES

No	Interval	Rec									
										6892-6910	10' 3 1/2"
				2325-2330							
							3560-3570				
	1103-1123									7785-7805	20'
				2500-2511						7951-7958	6' 6"
				2527-2530							
				2530-2540							
	1641-1660			2542-2550						8843-8862	15'
	1960-1966										
	1966-1981										

CHEMICAL ANALYSES (OIL, WATER, GAS)

Analyses by Mines Dept.

1310-1350. - Dark brown to black crude oil of S.G. 0.92 to 0.93  
- heavy crude oil free from gasoline, Kerosene, & other light  
fractions, of a mixed paraffinic-asphaltic base.

5635-5640. Dark brown crude oil of S.G. 0.97.  
Crude oil, containing approx. 20% of light low b.p.  
fractions, and is of mixed paraffinic-asphaltic base  
of softening point 40°-50° C. and contains some sulphur.

Shows.  
Oil 980-1000 - 51' slt.  
1310'  
1500'  
1966-1980' Top of water tank Oil  
2493-2511 " " " " show oil.  
Gen. 980'-1000'.  
3104' gas continually.  
3170' large flow of gas when  
in production.  
5022'-5032'  
5235'-5266'  
5120'-5290' surface show light oil  
& paraffin.  
5351-5400 Gen. Oil show surface.

GENERAL (Conclusions, structure, abandonment programme, etc)

5704-5713 show 1 slt.

Location from County Bala Bala plan in Drafting office

and other details of same from available graphic &  
descriptive log.

APPENDIX 2.0

MINES DEPARTMENT

VICTORIA

*not complete*

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. NL. bore on  
No. 2 Well.

\* Petroleum Prospecting Licence Number .....174..... during week  
\* ~~Petroleum Mineral Lease~~  
ending ..... 25th January, .... 1956.

DEPTH	DESCRIPTION OF STRATA
0' - 382'	Sand and Clay.
382' - 606'	Sand and Shells.
606' - 831'	Sand, Shells and Quartz.
831' - 1101'	Hard Sandy Shale, Shells and streaks of lime stone
1101' - 1135'	Light Brown Sandstone and limestone.
1135' - 1180'	Limestone.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

Show of gas and slight show of oil from 980' - 1000'.

9.5/8" casing cemented to 1123 feet.

SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER ... Rees B. Withers ..... COY.

Date ..17.../..2.../..56..

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

*Dr. [Signature]*  
*24.2.56*

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. NL. bore on  
No. 2 Well.

\* Petroleum Prospecting Licence Number .....174..... during week  
\* ~~Return to the Department~~  
ending .....1st. February,..... 1956.

DEPTH	DESCRIPTION OF STRATA
1180' - 1300'	Limestone.
1300' - 1310'	Coarse Grit and shells.
1310' - 1350'	Brownish coarse sand.
1350' - 1429'	Limestone.
1429' - 1470'	Silica Quartz.
1470' - 1546'	Limestone.
1546' - 1817'	Limestone, sand and sandy shale.
1817' - 2141'	Limestone and brown sand.

Continued on next page.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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*J. H. Thomas*  
*24.2.56*

SIGNED .....

LEGAL MANAGER ..... COY.

Date ...../...../.....

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT  
VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
No. 2 Well.

\* Petroleum Prospecting Licence Number 174 during week  
~~\* Petroleum Mining Licence~~  
ending 1st February 1956. CONTINUED.

DEPTH	DESCRIPTION OF STRATA
2141' - 2286'	Very changeable, limestone, sandy shale, blue clay and grey mudstone.
2286' - 2400'	Sandy shale and blue clay.
2400' - 2528'	Sand, shells and coal.
2528' - 2714'	Brown coal with some shale.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

Oil show reported between 1310 feet and 1500 feet levels.

1966 feet - 1980 feet - Top of core showed brown oil sand.

2493 feet - 2511 feet - indications of oil in top section of core.

*J. Howard*  
*24.2.56*

SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.  
LEGAL MANAGER Rees.B. Withers COY.

Date 17./2./56

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at .WOODSIDE.(LAKES.ENTRANCE).OIL.CO.N.L.bore on  
No. 2. Well.

\* Petroleum Prospecting Licence Number ...174..... during week  
\* ~~Petroleum Mining Licence~~  
ending ...8th February,..... 19.56.

DEPTH	DESCRIPTION OF STRATA
2714' - 2916'	Coal with sand and clay.
2916' - 3104'	Silica, quartz at 2920' with seam of hard black coal underlying.
3104' - 3295'	Silica sands with shells.
3295' - 3566'	Silica quartz, sandstone with brown mudstone and shale.
3566' - 3678'	Brown clay and shale with mudstone.
3678' - 3851'	Grey sandy shale and clay.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

After passing through coal series mud became saturated with oil and coal and showed considerable gas constantly.  
Gas showing continuously at 3104 feet.

Large Flow of gas encountered at 3170 feet with colour in mudstream.

*J. H. ...*  
*24.2.56*

SIGNED .WOODSIDE.(LAKES.ENTRANCE).OIL CO.N.L.

LEGAL MANAGER ...Rees.B.Withers..... COY.

Date ..17./...2./..56. .

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
NO. 2 WELL.

\* Petroleum Prospecting Licence Number .....174..... during week  
~~\* Petroleum Prospecting Licence~~  
ending .....15th February, 1956.

DEPTH	DESCRIPTION OF STRATA
3851' - 4018'	Blue grey sandy shale and clay.
4018' - 4121'	Hard shale and shells.
4121' - 4251'	Hard shale and sandy shale.
4251' - 4302'	Hard shale and sandy shales.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER ... Rees. B. Withers ..... COY.

Date 16 / 3 / 56 .

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT  
VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at .WOODSIDE.(LAKES.ENTRANCE).OIL.CO.N.L.bore on  
No. 2 WELL

\* Petroleum Prospecting Licence Number ....174..... during week  
\* ~~Petroleum Prospecting Licence~~  
ending ....22nd.February,.... 1956..

DEPTH	DESCRIPTION OF STRATA
4302' - 4402'	Shale and sandy shale with hard bands.
4402' - 4634'	Shale and sandy shale with hard streaks.
4634' - 4756'	Sand, shale with hard streaks.
4756' - 4844'	Hard grey shale with brown clay.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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SIGNED WOODSIDE.(LAKES.ENTRANCE).OIL.CO.N.L.  
LEGAL MANAGER ...Rees..B..Withers..... COY.

Date .16../..3../.56.. .

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
No. 2 Well.

\* Petroleum Prospecting Licence Number .....174..... during week  
~~\* Petroleum Prospecting Licence~~  
ending ...29th February,..... 1956.

DEPTH	DESCRIPTION OF STRATA
4844' - 4933'	Sandstone with bands of hard shale.
4933' - 4981'	Brown sandy shale.
4981' - 5019'	Sandy shale.
5019' - 5128'	Sandy shale with hard bands.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

Chloroform test shows color from bit sample at 4962 ft.

Show of gas at 5022' - 5032'.

SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER Rees B. Withers..... COY.

Date ..16../...3../..56..

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT  
VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at ...WOODSIDE..(LAKES. ENTRANCE)..OIL. CO. NLbore on  
No. 2 WELL

\* Petroleum Prospecting Licence Number .....174..... during week  
\* ~~Petroleum Mineral Lease~~  
ending .....7th March,..... 1956.

DEPTH	DESCRIPTION OF STRATA
5128' - 5266'	Hard shale and sandstone with streaks of sandy shale.
5266' - 5351'	Sandstone shale and sandy shale.
5351' - 5449'	Sandstone, dark siltstone and sandy shale.
5449' - 5567'	Sandy shale and sand.
5567' - 5600'	Sandy shale and shale.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

- Show of gas 5235' - 5266'.
- 5120' - 5290' samples show light oil and paraffin.
- Gas and oil show in mudstream continuously 5351' - 5600'.

SIGNED WOODSIDE..(LAKES. ENTRANCE)..OIL. CO. N.L.  
LEGAL MANAGER .....Rees. B..Withers..... COY.

Date ..16./..3../.56.. .

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
No. 2 WELL.

\* Petroleum Prospecting Licence Number ....174..... during week  
\* Petroleum Mineral Lease ending ...14th March..... 1956.

DEPTH	DESCRIPTION OF STRATA
5600' - 5640'	Sandstone and shale.
5640' - 5675'	Shale.
5675' - 5728'	Sand and Sandy Shale.
5728' - 5749'	Sandy Shale and Shale.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

1. Coarse Sand 5708' - 5713' show of oil.

SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER Rees. B. Withers COY.

Date 24./4./56

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
No. 2 WELL.

\* Petroleum Prospecting Licence Number ...174... during week  
\* Petroleum Mineral Lease ending ...21st March,..... 1956.

DEPTH	DESCRIPTION OF STRATA
5749' - 5837'	Hard shale and sandy shale.
5837' - 5949'	Shale, sandy shale and sandy limestone.
5949' - 5976'	Hard shale.
5976' - 5995'	Hard shale.
5995' - 6017'	Hard black shale.
6017' - 6067'	Sandy shale and shale.
6067' - 6088'	Oil Sand.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER Rees E. Withers..... COY.

Date ..24../...4../...56..

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
No. 2 WELL

\* Petroleum Prospecting Licence Number ..... 174 ..... during week  
\* Petroleum Mineral Lease ending ..23th March..... 1956.

DEPTH	DESCRIPTION OF STRATA
6088' - 6108'	Hard sandstone.
6108'	Final depth.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

Ran electric log of well.

Cemented 6104 feet of 6.5/8" casing.

Halliburton cement plug was inserted approximately 30 ft. up from casing shoe.

NOTE - Logging of well indicates further sands at 6108 ft. and it is, therefore, intended to resume drilling on this well as soon as lighter drill pipe can be obtained.

SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER Rees. R. Withers..... COY.

Date ..24../...4../.56..

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

13/20

15/20

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. bore on  
No. 2 WELL.

\* Petroleum Prospecting Licence Number ..174..... during week  
\* ~~Revised Licence No. 174~~  
ending ....30th November,.... 1956:

DEPTH	DESCRIPTION OF STRATA
6108'-6151'	Hard Sandstone.
6151'-6197'	Medium Hard Sandstone.
6197'-6270'	Hard Sandstone.
6270'-6364'	" "
6364'-6402'	Hard Sandstone and Grey Shale.
6402'-6469'	Sandstone with traces of Calcite.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

Drilling was resumed on this hole from 6108 ft.  
after the hole had been standing cased for some  
months pending the completion of hole No. 3 and  
the arrival of light drill stems.

SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER Rees. B. Withers..... COY.

Date ...16./...1./57..

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

~~14 of 25~~

16/20

MINES DEPARTMENT  
VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. bore on  
No. 2 WELL.

\* Petroleum Prospecting Licence Number ....174..... during week  
\* ~~Petroleum Mining Lease~~  
ending .....7th December, 1956 ~~XX~~..

DEPTH	DESCRIPTION OF STRATA
6469'-6553'	Grey Sandstone with Shale Bands.
6553'-6643'	do. do.
6643'-6669'	do. do.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.  
LEGAL MANAGER ...Rees. B. Withers..... COY.

Date ...16./1.../57..

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.  
Analyses of water, gas and oil should be submitted if available.

*For Drilling*

~~15/25~~ 46

MINES DEPARTMENT

17/20

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE)..... bore on

\* Petroleum Prospecting Licence Number ..... during week  
\* Petroleum Mineral Lease ending 13th December..... 1956.

DEPTH	DESCRIPTION OF STRATA
Bore No. 2 - 6,800'	Drilling is proceeding satisfactorily in formation of hard sandstone with shale bands. Slight traces of an oily substance have occurred in the drilling mud at these lower depths but insufficient quantities were recovered to allow its full significance to be evaluated.
Bore No. 4 - 708'	After casing the hole to 184' drilling has been resumed and is proceeding through sand and shell formation with clay and sandstone becoming more evident.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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SIGNED .. Rees B. Withers.....  
General  
LEGAL MANAGER Woodside (Lakes Entrance) COV.  
Oil Co. N.L.

Date ...../...../..... .

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. bore on  
No. 2 WELL

\* Petroleum Prospecting Licence Number ...174..... during week  
~~\* Petroleum Prospecting Licence~~  
ending .....14th December..... 1957.

DEPTH	DESCRIPTION OF STRATA
6669'-6700'	Sandy Shale.
6700'-6781'	Sandstone and Shale with traces of Calcite.
6781'-6845'	Sandstone with Shale bands.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.  
LEGAL MANAGER ..Rees B. Withers..... COY.

Date ..16./..1.../..57:.. .

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

17/8/25

19/20

MINES DEPARTMENT

VICTORIA

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
No. 2 WELL

\* Petroleum Prospecting Licence Number .....174..... during week  
\* ~~Petroleum Prospecting Licence~~  
ending .21st December,..... 19.56.

DEPTH	DESCRIPTION OF STRATA
6845'-6967'	Fine-grained grey Arkose.
6967'-7054'	do. do.
7054'-7106'	do. do. (HARD)
7106'-7350	do. do.
7350'-7595'	ARKOSE
7595'-7825'	SANDSTONE

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

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SIGNED WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

LEGAL MANAGER .... Rees. B. Withers..... COY.

Date ...16./....1./57..

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

*Dr. Thomas*  
*Copies for mine files*  
*15.1.57*  
*23.1.57*

MINES DEPARTMENT

VICTORIA

20/20

49  
~~25 of 25~~

Mines (Petroleum) Act, 1935.  
Section 45.

Record of Work at WOODSIDE (LAKES ENTRANCE) OIL CO. N.L. bore on  
No. 2 Well.

\* Petroleum Prospecting Licence Number ....174..... during week  
~~\* Petroleum Prospecting Licence~~  
ending .....15th February,.... 19.57.

DEPTH	DESCRIPTION OF STRATA
7825'-8862'	Arkose - Total Depth.

Notes by Driller in Charge (State in notes whether water, gas or petroleum has been met with, and, if so, give depth and nature of occurrence, also depth to which casing has been inserted and cemented.)

Cored from 8853 ft. - 8862 ft. Arkose.  
Cement plug at 5645 ft.  
Perforation tests carried out by Lane Wells Ltd. with  
negative results.

*J. Thomas*  
*Copies for name files*  
*30.7.57*

WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.  
SIGNED .....  
LEGAL MANAGER ..... Rees B. Withers..... COY.

Date ....24./...7./...57. .

N.B. - The Act also requires the Minister to be notified immediately water, gas or petroleum is encountered.

Analyses of water, gas and oil should be submitted if available.

APPENDIX 3.0

Page 1 of 13 20

WOODSIDE WELL No 2  
STRATIGRAPHIC COLUMN

Driller's Depth	Correction (if any)	Description of Lithology
120		Fine gravelly sand with marine shells
140		As above.
160		As above. Some shells rolled. Gravel getting coarser.
180		As above.
200		Particularly shelly level. Obviously beach sand. Some worm-perforated shell fragments. Most fragments well rolled
220		Gravel coarse, up to pea size.
260		As above. Gravel somewhat finer.
320		As above. Grains mainly quartz, but also some basalt. Shells rolled.
410		50/50 shell and gravel, medium to fine
420		Very coarse gravel shell beds.
440		Shells rolled.
460		As above, gravel badly sorted.
580		coarse, well rolled gravelly sand with about 30% rolled shells.
620		Better graded quartz gravel ( $\frac{1}{8}$ - $\frac{1}{16}$ )
640		No shells.
660		Less well graded gravelly sand with some $\frac{1}{4}$ inch grains. No shells.
720		As above. Occasional large grains.
740		No shells.
760		Shell-less quartz gravel, mostly $\frac{1}{8}$ to $\frac{1}{16}$ , with some prominently larger grains here and there.
780		As above.
800		As above.
820		As above.
830		As above.
840		As above.
850		Coquina of coarse gravel and shells. Many gravel grains are rolled shells, but besides these are also delicate and well-preserved pelecypod shells. Fragments of Bryozoa. Gravel unsorted
860		As above.
870		Shell bed with subordinate sand. Sand gravelly, prominent gastropods; also pelecypods and bryozoa. Some shells well preserved. Others broken but not rolled.
880		Lumachelle. Small shells whole.
900		Fine gravel with gastropods, pelecypods, scaphopods and bryozoa.
		As above. Some fine shell specimens.
		As above. Particularly shelly.
		As above.
		As above.
		As above.
		Coarse gravel, up to pea size. Some well-preserved gastropods etc. -shore, marine.

## WOODSIDE WELL No 2.

2/20

920		Fine gravel. Shells fall off steeply.
950		Shell bed with fragments of lime-cemented sand matrix attached to shells.
960		As above. Oyster fragments prominent.
970		As above.
980		Coarse travertine with embedded shells of Turritella and other shells: Pecten etc.
990		Carbonaceous travertine with floated ligneous fragments mixed with marine shells Deltaic.
1000		Travertine with largeish pebbles incl. quartz & basalt. Some rolled shells.
1005	<u>CORE.</u>	A core exactly corresponding in lithology to chips of prec. sample: calcareous, cemented travertinous sand.
1010		Chips of same. Some shell fragments.
1015	<u>CORE.</u>	Calcareous, cemented sand with carbon. gr. scattered through the mass.
1020		Same sand. Largeish grains of rolled quar. and well pres. Turritella shells. Some quartz grains with cement attached.
1025	<u>CORE.</u>	Sand as above. No visible shells.
1030		Sample identical to 1020.
1040		Carbonaceous travert. as above. Rare shells Occ. large grains of rolled quartz.
1050		As above. Fragments of travertine as in core above, with embedded scaphopods.
1060		As above. Matrix contains many tubes of scaphopods. Some loose bryozoa and shells.
1070		As above. Much embedded sand, some coarse, and embedded shells common: all marine.
1080		As above. Also veins of bedded calcite.
1090		Travertine increasingly calcareous. Tubes of tightly packed bryozoa and scaphopods forming porous limestone.
1100		As above. Matrix turning to sandy marl & limestone.
1103-1123	<u>CORE.</u>	Sandy marl, packed with scaphopoda and pelecypoda. Fragments of bryozoa.
1160		Carbonaceous sandy marl with shells as ab. Occ. sand grains of large size.
1170		Marl as above with <u>embedded</u> sand grains. Many shells: increasingly sandy.
1180		Gravelly marl. Shells and pea-sized quartz grains embedded in marl cement.
1190		As above: Scaphopods very numerous. Sand grains of some size clearly imbedded in the marl; interesting facies interfinger.
1200		As above: scaphopods partic. numer.
1210		As above: saphop. tightly packed with sand grains in marl cement.
1220		<u>Ditrupa</u> -laden calcareous marly limestone.
1230		As above.
1240		As above.
1250		As above.
1260		As above.
1270		As above. Occasional grains rolled red qu.
1280		As above.
1290		Ditrupa marlstone; sandy; crab claws.
1310	<u>Oil trace.</u>	Cream-coloured sandy marl. As above.
1310-1320	<u>Oil stained</u>	sandy marl as above.
1320	<u>Oil sticky,</u>	sandy foraminiferal and Ditrupa carrying marl. Most of the oil extracted from this level. Oil described in Chemical Laboratory Report 50/52/-56 of 10-2-1956.

WOODSIDE WELL No 2

3/20

- 1320-1330 Oil sticky, brown-stained foraminifer-  
al marl. Some largeish sand grains  
embedded in marl matrix with forams &  
scaphopods.
- 1340 As above. Oil has been extracted from  
this sample and described in report  
previously mentioned.
- 1350 Bottom oil level. Oil stains decrease. Lithology as  
above: sandy foramin. & scaph. marl.
- 1360 As above: quartz grains and forams  
very abundant: sand lenses cannot be  
far removed from well.
- 1370 Very sandy and shelly marl. Sand gr.  
very fine in about 50/50 prop. to marl.
- 1380 Foraminiferal marl. Occ. sand grains.
- 1390 Very occ. pea-sized quartz gr. in a  
marlstone matrix. Matrix otherwise  
not sandy.
- 1400 Finely sandy marl.
- 1410 50/50 marl and very fine sand.
- 1420 50/50 marl and sandstone.
- 1430 As above. Some foreign quaternary mat.
- 1440 As above.
- 1490 50/50 fine sand-marl mixture.
- 1500 Bryozoal marl.
- 1520 As above. slightly contaminated.
- 1530 As above. Strongly polluted by Quatern.  
cave-in material.
- 1540 Marl. Somewhat contaminated.
- 1550. Foraminiferal marl.
- 1560 As above. Numerous rolled foraminifera.
- 1570 As above. Occ. sand grains.
- 1580 Polyzoal marl.
- 1600 As above. Marlstone.
- 1610 Polyzoal limestone.
- 1620 "" "" or marlstone.
- 1630 Polyzoal limestone.
- 1640 As above.
- 1641-1660 CORE. Polyzoal marlstone & marl with well  
preserved large branching bryozoa.  
Middle: marl with some polyzoa.  
Bottom: marl.
- 1670 50/50 marl and marly sandstone.
- 1680 As above. Rare polyzoal fragments.
- 1690 As above: sandy marl or marly sdstone.
- 1700 Ditrupa sandy marl facies.
- 1710 As above.
- 1720 As above.
- 1730 As above: very sandy.
- 1740 Calcareous very fine grained sandstone  
to marlstone.
- 1750 Calcareous sandstone. Getting coarser.  
sand grains in marl matrix.
- 1760 Polyzoal limestone with some sand gr.
- 1770 Cream coloured Polyzoal limestone.
- 1780 Gray polyzoal limestone.
- 1790 As above.
- 1800 Polyzoal limestone. Quaternary contamin.
- 1810 Polluted mixture containing even box  
wood. Not collected on screen.
- 1820 Contaminated polyzoal limestone.
- 1830-40 As above.
- 1850 Polyzoal limestone.

WOODSIDE WELL No 2

4/20

1860	Polyzoal limestone.
1870	As above.
1880	Gray to cream-coloured polyzoal marl.
1900	<u>Glaucanitic polyzoal limestone.</u> First appearance of glauconite.
1910	Polyzoal marl or limestone.
1920	Gray coloured polyzoal marl.
1930	As above.
1940	As above.
1950	As above.
1960	Marl/becoming somewhat clayey.
1960	<u>BIT SAMPLE</u> Polyzoal marl.
1960-1966	<u>CORE</u> Greenish cream coloured glauconitic marl. Bottom: Greenish glauconitic marl. Top: White foraminiferal marl. Bottom: White foraminiferal marl. White marl with glauconitic patches. White marl with glauconitic patches. White marl.
1966-1981	<u>CORE</u>
1970	As above.
2000	White marl; small glauconitic nests.
2010	As above.
2020	White foraminiferal marl.
2040	As above.
2050	White foraminiferal marl.
2060	As above.
2070	As above with green glauconitic nests.
2080	Glaucanitic greenish marl.
2090	White marl with glauconitic pellets.
2110	Polyzoal limestone.
2120	Mixed polyzoal limestone and marl.
2130	White marl.
2140	White marl with some polyz. lstone.
2150	As above.
2160	Gray polyzoal marl.
2170	White " " " " contaminated with Quarter gravel and shells.
2180	Gray bryozoal marl with <u>Brachiopods</u> .
2192	White polyz. marl.
2195	Gray to white Do.
2200	As above
2210	As above.
2220	Gray polyzoal limestone.
2230	Do heavily polluted from gravel levels ab
2232	As above . Pollution less severe,
2240	Polyzoal lstone. Some foreign sand grains
2250	Gray, clayey foraminiferal limestone.
2262	Gray, shelly marl. Shell fragments along planes of stratification.
2270	Gray marly clay with rolled polyzoa, spon
2280	Pyritic clayey marl with pyrites and lst.
2290	Argillaceous polyz. marl. Contaminated.
2300	Somewhat glauconitic polyzoal marl. Cots
2310	
2320	
2325	Glaucanitic marl. Contaminated.
2325-2330	<u>CORE.</u> Argillaceous cream-coloured marl. Top: gray to dark gray well stratified argill. foraminif. marl. Dip about 3°. Worm tracks filled-in with darker material. Sponges. Bottom: Gray marl as above. Forams and worm tracks. However rock more massive and lighter coloured (less argillaceous). Marl as above.
2340	Do.
2350	Do.
2360	Do.
2370	Do.
2380	Do.
2390	Do.

5.  
20

2400		Marl as above.
2410		Cherty marl.
2420		Glaucanitic and somewhat coarse marl.
2430		Foraminiferal marl with worm tracks.
2440		As above.
2450		Foraminiferal marl with much glauconite in largeish grain clusters.
2460		Glaucanitic marl. Large gl. grains.
2470		Pyritic and glaucanitic marl. Contam.
2480		Intensely polluted useless sample.
2490		Glaucanitic marl. Badly contaminated.
2500-2511	<u>CORE.</u>	<u>Top:</u> Very sandy and glaucanitic marl, containing also large <u>Turritella</u> & other shells filled with pyrite. <u>Middle:</u> About 9 feet of highly glauc. sandy marl with as much as 50% sand. Sand grains large, up to pea-sized gravel grade, scattered through the argillaceous marl. Colour is dark gray, almost black to green. An evil smelling organic ooze strewn with coarse sand and gravel. Positive chloroform reaction in top of core. Negative in the argillaceous middle part. <u>Bottom:</u> Dark marl rests in bottom foot on <u>brown coal</u> . Penetrates cracks of latter: base of Middle Miocene-Oligocene suite. At contact, the sand grains are <u>sub-angular</u> .
2520		Brown coal.
2525		Brown coal with some marl as above.
2527-2530	<u>CORE.</u>	Solid brown coal.
2530-2540		Brown coal. 100%
2547-2550	<u>CORE.</u>	Brown coal 100%
2550		Do.
2560		Do.
2570		Do. Some contamination.
2580		Brown coal 100%
2590		1/3 brown coal 2/3 quartz sand.
2600		As above.
2610		About 50/50 br. coal & coarse qu. sd.
2620		Do.
2630		About 1/3 coal to 2/3 coarse sand.
2640		As above.
2650		100% brown coal.
2660		100% brown coal.
2670		Do.
2680		Do.
2690		Do. Much polluted with marl.
2700		100% brown coal.
2710		Do.
2720		Do.
2730		Do.
2740		Do.
2750		Very coarse, well rolled quartz grav. sand to pea size. About 1/6 br. coal. Gravel as above. Traces of coal. 99% brown coal. Traces of gravel.
2760		Do.
2770		Brown coal 100%
2780		50/50 brown coal & med. gr. qu. sd.
2790		Coarse, gravelly sand up to pea size.
2800		Traces of coal.
2810		

## WOODSIDE WELL No 2

6/20

2820		Unsorted gravel and gravelly sand. Some $\frac{1}{4}$ inch or larger grains.
2830		As above with perhaps 1/10 coal.
2840		Gravel coarser still. About 1/6 coal.
2860		About $\frac{1}{2}$ coal in very coarse gravelly sand. Gr. size up to $\frac{1}{2}$ inch.
2870		50/50 sand and coal. Sand unsorted, finer but with some very large grains.
2880		Coarse sand with about 1/6 coal.
2890		As above. Rather less coal.
2900		Brown coal 2/3; sand 1/3.
2903-2910	<u>CORE.</u>	Impure, partly carbonaceous <u>fire clay</u> .
2910		Brown coal 100%.
2911-2928.	<u>CORE.</u>	Gray-yellow <u>fire clay</u> .
2930		Brown coal 100%.
2950		About $\frac{1}{4}$ coal with coarse quartz gravel.
2960		About 1/8 coal in medium grav. sand.
2970		50/50 coal and coarse gravelly sd.
2980		As above. Contam. with marl.
2990		50/50 coal and gr. sd.
3000		Clear quartz medium grav. sand.
3010		Coarse gravel. Traces of coal.
3020		Coarse, poorly sorted qu. gravel.
3030		Do.
3040		Do. Up to $\frac{1}{2}$ " grains.
3050		About 1/3 coal in fine sand.
3060		Traces of coal in coarse and poorly sorted gravel.
3070		Better graded gravel about $\frac{1}{8}$ -1/16".
3080.		Do.
3090		Do.
3100		Do.
3110		Do.
3120		Do.
3130		Do.
3140		Do.
3150		Coarse, poorly sorted gravel & few coal lumps.
3160		Do.
3170		Fine gravelly sand with coal lumps.
3171		About 1/10 coal in very fine gravelly sd.
3172-3182	<u>CORE.</u>	<u>Fire clay</u> .
3190		Fine grained quartz sand.
3200		Coarsening sand & coal traces.
3220		Do.
3230		50/50 very coarse gravel ( $\frac{1}{2}$ inch), sub-angular, unsorted.
3240		Do.
3250		Do.
3260		Brown coal with about 1/8 coarse angul. gravel as above.
3270		50/50 coal and gravel as above.
3280		1/3 coal and gravel as above.
3290		gravel as above with coal lumps.
3300		50/50 mixture coal and <u>fire clay</u>
3310		1/3 coal, 1/3 fire clay, 1/3 med. qu. gr.
3320		Very coarse unsorted gravel ( $\frac{1}{2}$ " ) Coal tr.
3330		Coal lumps in gravel up to $\frac{1}{2}$ inch.
3340		Do.
3350		Do. No coal.
3360		50/50 coal & gravel.
3370		Unsorted gravel. Traces of coal.
3380		Do.

7/20

WOODSIDE WELL No 2

3390-3430

Gravel gradually gets finer through this series of samples downward. No coal, except in traces. Fine gravel to coarse sand. About 1/3 coal in fine gravel or sd. Coarse sand with lumps of coal. Sd. sub-angular.

3440  
3450  
3460

Do.  
50/50 coarse unsorted gr. & coal.  
Do.  
Do.

3470  
3480  
3490  
3500  
3510  
3520

Very coarse grav. (1/2") Traces brown c  
Exceedingly coarse gravel (mostly above 1/2 inch) qu. & other rock compon., tr. br. c

3530  
3540  
3550  
3560  
3560-3570

CORE.

Do.  
Mixed Quartz & basalt gravel. Coal traces.  
Weathered basalt.

3580  
3590  
3600  
3610  
3620  
3630  
3640  
3650

Do. Wine to gray coloured basalt.  
Weathered basalt.  
Do.  
As above.  
Do.  
Do.  
Do.  
Do.

3660  
3670  
3680  
3690  
3700  
3710  
3720  
3730

Basalt with some chips of Mesozoic sandstone: Unconformity level. Base of Tertiary.  
Mesozoic sandstone.  
Mesozoic sandstone.  
Do.  
Do.  
Do.  
Highly contaminated cave-in sample.  
As above.  
Jurassic arkose. Coarse, calc. cemented impervious.

3740  
3750  
3760  
3770  
3780

Jurassic arkose, somewh. finer-gr. Contam.  
Dense Jurassic arkose. Coarse.  
As above, polluted with Tertiary cave-in.  
Do. Highly contaminated.  
Unacceptable sample: wood fibre and about everything drilled through so far: not from screen. Poor sampling.

3800  
3810  
3820  
3830  
3840  
3850  
3860

Fairly coarse, cemented Jurassic arkose.  
Do. Some brown coal contamin.  
Do.  
Do. Badly contaminated.  
Do. Very contaminated.  
Do.

3870  
3880  
3890  
3900

50/50 mixture of fine-grained Jurassic sandstone and arkose. Some contamination.  
About 1/3 mixture arkose, fine-gr. sdst. & mudstone.  
Very fine-gr. gray sandstone; muddy.  
As above: very fine-grained sandy mudstone.  
Mostly mudstone, with streaks of sdst. as above and occ. arkoses w. black coal veins.

3910  
3920  
3930

Do.  
Do.  
50/50 fine-gr. sdst. and coarser arkose.

WOODSIDE WELL No 2.

3/20

- 3940 50/50 coaly mudstone, black coal and ark.
- 3950 50/50 arkose and fine grained muddy sdst.
- 3960 50/50 mudstone & fine-grained sandstone.
- 3970 Arkose with black coal veinlets.
- 3980 50/50 arkose and dense fine-gr. sdstone.
- 3990 Completely contaminated sample.
- 4000 50/50 arkose and very dense fine-gr. sdst.
- 4010 As above with conspicuous mudstone chips.  
Some brown coal & gravel pollution.
- 4020 50/50 sandstone and mudstone.
- 4030 50/50 mudstone and coarse sandstone.
- 4040 As above.
- 4060 2/3 sanstone and 1/3 mudstone. Contamin.
- 4070 As above.
- 4080 50/50 fine grained dense sandstone and  
mudstone with occasional arkose.
- 4090 As above.
- 4100 As above.
- 4110 Very fine gr., dense sanstone with occas.  
mudstone streaks.
- 4120(?) 50/50 sandstone and mudstone.
- 4114-4127 CORE. Dense mudstone with plant remains of same  
type as above.
- 4130 As above.
- 4140 As above. About 50% fine-gr. muddy sdst.
- 4150 As above.
- 4160 50/50 mudstone and fine-gr. sandstone.
- 4170 As above.
- 4180 as above with streaks of coarse arkose.
- 4190 Mostly mudstone.
- 4200 As above with some coal streaks and sdst.
- 4210 Almost only mudstone.
- 4220 As above.
- 4225 50/50 mudstone and fine-gr. sandstone.
- 4230 Fine-gr. sdst. with streaks of dark gray  
mudstone. Some brown coal contamination.
- 4240 50/50 mudstone and dense sandstone.
- 4250 Mostly mudstone.
- 4250 Bit sample. Caved sample of everything  
drilled through so far.
- 4251- 4256 CORE. Massive mudstone with plants.
- 4260 Mostly mudstone.
- 4270 Finely laminated mudstone. Thin streaks of  
very fine grained sandstone.
- 4280 Mudstone with a few lumps of dense arkosic  
sandstone.
- 4290 90% coarse and fine gr. sdst. & 10% shale.
- 4300 As above with coal streaks. Ab. 95% sandst.
- 4310 As above.
- 4320 As above.
- 4330 As above.
- 4340 At least 95% coarse calcium cemented arkose  
and not more than 5% shale.
- 4350 100% fine gr. banded sandstone and arkose.
- 4360 Largely coarse or med. grained arkose.  
Streaks of banded fine-gr. sdst. & bl. shale.
- 4370 As above. Shale increases to ab. 20%.
- 4380 Coarse and med. gr. arkose.
- 4390 As above. About 10% shale.
- 4400 Coarse arkose. 5% or les shale, black as ab.
- 4410 50/50 arkose and black shale.
- 4420 Not more than 3% shale in coarse arkose.
- 4430 Coarse ark. less than 10%. 90% black shale.
- 4440 95% coarse arkose. 5% shale.
- 4450 Mostly coarse arkose and sandstone.
- 4460 Coarse arkose, banded sdstone.

4405-10

9/20

WOODSIDE WELL No 2.

4470		70% arkose and sandstone. 30% shale.
4480		Coarse and fine sandstone. Traces bl. coal.
4490		As above.
4500	4480	90% hard siliceous shale. 10% fine grain-
4510	4490	ned muddy, siliceous sandstone.
4510	4490	85% coarse arkose. 15% shale.
4520	4500	70% shale, 30% fine grained banded, mu-
		ddy sandstone and mudstone. Bl. coal str.
4530	4510	90% shale. Sandstone & coal as ab. 10%.
4540	4515	As above.
4550		As above.
4560	4520	About 100% coarse & med. gr. arkose.
4570		100% arkose of various grades.
4580		100% arkose.
4590		As above.
4600		As above.
4610		95% arkose, 5% shale.
4620	4605	50/50 arkose and shale.
4630		As above.
4640		About 80% arkose and 20% shale.
4650	4630	As above. Shale tends to increase.
4660	4640	About 95% arkose.
4670	4650	About 95% shale.
4680		80% arkose. Brown coal contamination.
4690		100% arkose. " " " "
4700		As above.
4710		As above.
4720		As above.
4730		As above.
4740		About 1/4 shale: black, hard, siliceous.
		3/4 in coarse arkose.
4750	4730	80% coaly black shale. 20% muddy sil. sds
4760		50/50 shale and sandstone.
4770		As above.
4780		Cave-in material.
4780		Bit Sample as above.
4790		50/50 sandstone and shale.
4800		As above.
4800		As above.
4820	4805	100% arkose.
4830		As above.
4840		As above.
4850(?)		As above.
4848-4865		<u>CORE</u> . Top: Horizontally bedded plant bearing, med. & coarse grained arkose
		Bottom: Hard, horizontally bedded shale.
4865		95% very coarse arkose. 5% shale.
4870		75% arkose and 25% finely banded shale.
4880		As above. Some very coarse arkose.
4890		As above.
4900		About 50/50 arkose & black shale.
4910	4870-75	As above.
4920		About 100% arkose. Fairly coarse.
4930		
4940	4905-10	50/50 shale and sandstone.
4950		As above.
4960		As above.
4970		About 75% shale.
4980		About 90% shale.
4981-4983		<u>CORE</u> . Top: Coarse to medium-grained plant bearing arkose.
		Bottom: fine-grained Do. Dip: Horizontal to 2-3° at most.
4983		Bit Sample: caved-in Tertiary rocks.
5000		70-75% arkose, polluted with Tertiary.
5010		Medium to coarse grained arkose. Traces of shale. Considerable Tertiary rock cont.

5020		50/50 arkose and shale.
5030		As above. Some of the arkose component is white, black coal streaked.
5040	5025	As above. 50/50 arkose and shale, with banded, varve-like sandstone.
5050	5030	100% rather fine-grained arkosic sandstone.
5070		100% rather coarse arkose.
5080		100% arkose as above.
5090		As above.
5100		As above.
5110		As above. Tertiary brown coal contaminat.
5120		100% coarse arkose.
5130	5100	Almost 100% arkose. Some weathered basalt from Tertiary levels above.
5140		50/50 arkose and shale. Tert. contamin.
5140		80 Or more% shale.
5150	5120	80% shale and mudstone. Fine banded sandstone present in remainder. Tert. poll.
5160	5130	Almost all shale. Badly contaminated.
		100% black & gray shale. Tertiary contamin.
5170	5140	50/50 shale and coal streaked, banded, varve-like arkosic sandstone.
5180		80% arkose with 20% shale and mudstone.
5190		50/50 shale and arkose.
		50/50 shale and arkose.
5200		75% arkose. Rest shale.
5205	5180	About as above.
5210		As above.
5215		As above.
5220		About 75% arkose as above.
5230	5205	100% arkose.
5235		100% arkose.
5240		As above.
5245		Coarse arkose. Some siliceous sandstone.
5250		100% arkose.
5255		As above.
5260		As above.
5265		As above.
5270		As above.
5275	5245	75% arkose and 25% shale.
5280	5250	As above.
5285		75% to 80% arkose and sandstone.
5290	5260	As above. Some finely banded siliceous rock.
5295		50/50 arkose and shale.
5300		75-80% arkose.
5305		90-95% arkose variously graded.
5310		As above.
5315		As above.
5320		As above.
5325		As above.
5330		As above.
5335		As above.
5340		As above.
5345		As above.
5350		50/50 arkose & shale mixture.
5355		Almost 100% arkose and sandstone.
5360	5330-35	75% shale. Tertiary contamination.
5370		About 1/3 or less shale in coarse arkose.
5375		As above, but proportion of shale somewhat smaller.
5380		As above.
5385	5360	As above. Not more than 10% shale.
5390		About 100% hard, siliceous, fine-gr. and coarse, calcium cemented arkose.
5395		As above. Whatever smal prop. of shale there is, is hard, siliceous, sandy.
5400	5380	50/50 shale and arkose.
5405		Fine-gr. and coarse arkose in 50/50 proport.
5410		As above.
5420		As above.
5415		As above.
5420		As above.

11/20

5420		As above. 100% variously graded arkose.
5425		As above.
5430		As above.
5435		As above.
5440		As above.
5445		Largely variously graded arkose. Occasion. shaly partings (maybe 5%).
5450		As above, but arkose coarser.
5455		As above.
5460		about 1/3 shale and 2/3 arkose.
5465		As above.
5470	5445	About 50/50 shale, arkose and some bl. coal
5475		about 50/50 shale & arkose.
5480		As above.
5485	5460	About 80% shaly sandstone & coarse arkose. Fine-gr. sandst., hard, siliceous and coarse arkose in 50/50 proportion.
5490		Arkose, mostly coarse. 30% siliceous sdst.
5495		As above.
5500		As above.
5505	5485	About 1/3 to 1/2 shale & mudstone. Rest, coarse, calcite-cemented arkose.
5510		As above.
5515		Coarse arkose.
5520		As above.
5525		As above.
5530		As above.
5535		As above.
5540	5510	1/3 siliceous shale. 2/3 coarse arkose & siliceous sandstone.
5545		Coarse arkose.
5550		As above.
5555		Same as above.
5560		Coarse arkose, fine-gr. banded, varve-like sandstone, & occasional mudstone.
5565		As above.
5570		As above.
5575		Rocks as above. Proportion of mudstone increased to about 1/3.
5580		As above.
5585		Coarse arkose.
5595		As above.
5600		50/50 arkose and fine-gr. banded sil. sdst.
5605		Coarse arkose.
5610		As above.
5615		As above.
5620		Coarse arkose with lumps of muddy, silic., fine-grained sandstone.
5625		Rocks as above. Mudst. prop. up to 30%.
5630		As above.
5635	5600	<u>Oil.</u> Sample strongly stained with free, viscous green oil strongly smelling of crude petroleum. Chemical analysis of hydrocarbon in Chemical Laboratory Report 271/272/56 of 6th April, 1956.
5640		Rock is 70% arkose, 30% shaly mudstone & a few 1/8" veinlets of black coal.
5645		Rock as above., some oil traces.
5650		As above. No free oil. Chlorof. react. +.
5655		50/50 shale and sdst., some coal.
5660		As above.
5665		As above.
5670	5630	Almost all dark gray, coaly shale & mudst. 100% arkose.
5675		80% arkose, 20% mudstone.
5680	5660	Overwhelmingly mudstone and dark gray shale

5685		As above. Practically all shale.
5690		Do.
5695		Do.
5700		Do.
5705		Do.
5710		50/50 shale and arkose.
5715	5695	As above.
5720		80% arkose with 20% or less shale.
5725		75% fins-gr. sdst. dominant. 25% arkose.
5730	5710	Just about pure arkose.
5735		100% coarse arkose.
5740		Almost pure arkose: streaks of shale.
5745	5720	Arkose and fine-grained sandstone.
5750		Highly polluted sample containing Tert. rocks.
5750(second sample)		Curiously, not contamin.: 50/50 arkose and shale.
5755		50/50 arkose and shale.
5760		Do. Some contamination.
5765		Do.
5770		Do. Strong Tertiary contamin.
5775		Mostly shale; also fine-gr. sdy mudstone.
5780		Almost pure shale.
5785		Shale with mudstone. Some contamin.
5790		Almost all shale.
5795		Do.
5800		Do.
5810		Do.
5815		All shale.
5820		85% shale.
5830		50/50 shale & hard siliceous mudstone.
5835		Do.
5840		75-80% shale. The rest: hard mudstone.
5845		50/50 shale and arkose.
5850		Do.
5855		80% pink lime-cemented arkose: large pink angular feldspars.
5860		100% arkose.
5865		Do.
5870		Do.
5875		Highly contaminated with Tertiary. Shale dominant.
5880		Do.: shale and siliceous mudstone.
5885		Do.
5890		Do.
5895		As above: polluted with basalt, marl etc.
5900		50/50 shale & fine, banded silic. sdst. considerab. polluted with Tertiary.
5905		Do.
5910		75% shale, contaminated.
5915		Do.
5920		Do.
5925		Mostly arkose. Some brown coal contamin.
5930		Do.
5930-5945		Do. Contamin. with weathered basalt.
5940		100% arkose.
5945		50/50 arkose & finely-banded silic. sdst.
5950	NO LAG.	80% arkose & 20% shale.
5955		Pure shale but high contamination.
5960		All shale.
5965		Do.
5970		do.
5975		Do.
5980		Do.
5980-5992	CORE.	Somewhat sandy, massive dark gray shale. Regular partings break-up core into segms. Dip about 5°. Towards top becomes dark, conchoidally fractured.
5992-5995	CORE.	As above. Massive but regul. bedded. 5°.

5992-5995

CORE. (continued): Shale becomes dark & conchoidally fractured towards the top. Very dark, waxy coaly gray to black shale. Some coal veinlets.

6000

Do.

6005

Do.

6010

80 to 90% arkose and 10-20% silic. fine-gr. sandstone.

6015

Do. 100% ark.-sdst mixture.

6020

Do.

6030

Do.

6035

50/50 shale & mudstone + sandstone mixt.

6040

All shale.

6045

Do.

6050

Overwhelmingly shale.

6055

All shale.

6060

6050

Mostly shale.

6065

50/50 shale-arkose mixture.

6070

Do.

6075

Do.

6080

CORE. Arkose as above: med.-gr., micaceous, pink.

6090-6093

CORE. As above: pink feldspars.

6093-6096

CORE. Arkose becoming noticeably coarser. Large Biotite mica flakes.

6096-6099

CORE. Arkose as above, gray, massive.

6099-6102

CORE. As above.

6102-6105

CORE. Somewhat finer-grained arkose, massive & gray. Probably 5° dip, as indicated by varying rock hardness.

6105-6108

WELL TO BE DEEPENED FROM THIS LEVEL DOWN.

APPENDIX 4.0

## Core Report.

Yarram, Vict.

10/2/57.

Woodside No.2.

Interval- 8843' to 8862'

Recovery- 15ft, 7 inches.

Length.	Lithology.
Top.	
6"	Arkose, gray, medium grained; veins of calcite at angle of 80 to diameter of core, also calcite with crystal faces embedded in arkose; few streaks of coal. ( This section of core in small broken pieces).
2'2"	Arkose gray, medium grained, with few very small streaks of coal and siltstone; 2 calcite veins as before.
3"	Arkose, pink as a pellet in gray arkose as above.
1'5"	Arkose, gray, medium grained, with very many streaks of coal throughout, few streaks of siltstone as pellets. ( This section of core many pieces but not broken).
2'7"	Arkose, gray medium grained to fine grained, with few thin streak coal and siltstone, several calcite veins as before.
1'2"	Arkose pink with few specks and streaks of coal.
10"	Arkose, pink to gray, medium to fine grained with calcite veins irregular and irregularly running along diameter of core, siltstone in veins intersecting calcite veins slickensided, irregular.
3'2"	Arkose, gray, medium to fine grained, with bands of siltstone, many calcite veins at angle 80 degrees to diameter of core. Occasional patches of coal. ( This section of core has many broken pieces)
4"	Siltstone black, coarse grained, massive with pink calcite veins at angle 80 degrees to diameter of core. (This section has many broken pieces).

Bottom of hole.

P.W.Bollen.

File copy Twp/200

Core Report.

10/1/57.

Woodside No. 2.  
Interval 7785ft- 7805ft.  
Recovery 20ft.

*2<sup>nd</sup> Copy.*

Top.

- 11 1/2" Arkose-Gray coloured, medium grained.
- 2" Arkose-Pinkish white medium grained.
- 1'2" Arkose-Gray, medium grained.
- 1' Arkose-Gray, medium grained with streaks of coal.
- 2'6" Arkose-Gray, medium grained.
- 1'3" Arkose-Gray, medium grained with pellets of siltstone.
- 1' Arkose-Gray, fine grained.
- 1'3" Arkose-Gray, medium grained.
- 2" Arkose-Gray, medium grained with pellet of pink-white arkose.
- 2' Arkose-Gray, medium grained.
- 1 1/2" Arkose-Gray, medium grained with pellet of pink-white arkose.
- 14" Arkose-Gray, medium grained.

5'3" Arkose-uniform gray medium grained with thin streaks of coal at interval throughout.

2' Arkose- Gray fine grained (Finer grained slightly than above)

Bottom.

This core was in pieces of the following lengths: 12'9"  
5'3"  
1'3"  
9" of pieces.

*[Signature]*  
P.W.Bollen.

Core Report.

14/1/57.

Woodside No 2.  
Core.  
Interval 7951'-7958'.  
Recovered 6'6".

*2<sup>nd</sup> Copy*

7951' Top.

5' Gray ARKOSE uniformly medium to fine grained with a 2" pellet of Pink arkose.

1'6" Gray Arkose medium grained with streaks of coal at angle of 20 degrees to diam of core, little pyrites associated with coal, few streaks of siltstone. One streak of calcite at 80 degrees to diam of core. Displacement of 1mm on calcite. Red quartzite grains in base of core associated with arkose.

Bottom

*[Signature]*  
Erik W. Tjebk

2/18

WOODSIDE (LAKE'S ENTRANCE) OIL COMPANY.

CORE RECORD. Well No. 2.

15/12/56.

Interval cored 6892-6910 ft.  
Recovered Length 10ft 3 1/2".

1ft 2" Gray fine-grained arkose with mud pellets and thin strands of coalified plant remains. Core in 4 pieces and bottom one had at it's base black shale at angular contact of 30 degrees to diam. of core with arkose. (I think this a large mud pellet).

4ft. 7 1/2" Gray siltstone showing bedding, with slight cross-bedding, at angle of 30-35 degrees to diam. of core. Thin layer of calcite at 82 degrees to diam. of core. Very slight to no displacement of beds. 3 pieces of core.

4ft 6" Without break in core from siltstone to gray fine-grained arkose as in top 1ft 2", but with mud pellets only in the top foot and then none.

On bottom foot of core a layer of calcite at angle of 82 degrees to diam of core. This layer one tenth of an inch wide approx. Nothing seen to give an idea if displacement present or not.

A concave downwards contact seen with above siltstone.

Bottom of core.

Test with chloroform done on spot piece and may be positive - test material ~~XXXX~~ sent to Dr. Boutakoff for decision.

Sample of core sent to Dr. Boutakoff.

P.W.Bollen.

Interval	Length in tray.	Cores.	Lithology.
1003'-1023'	8'		Foss. sandy marl
1103'-1123'	2'		Foss. sandy lmst.
16408-1660'	5'		Foss. sandy lmst.
1966'-1981'	8'		Foss. sandy lmst.
2325'-2330'	4'		Foss. marl.
2493'-2511'	18'		Coal & foss. glauc. marl.
2511'-2528'	9'		Coal.
2528'-2548'	1'		Coal.
2903'-2928'	2'6"		Coal.
3182'-3192'	2'		Marl.
3560'-3570'	2'		Basalt ( Weathered.)
4114'-4127'	1'	7062	✓ Sltst.
4251'-4256'	3'		✓ Sltst
4858'-4865'	6'		✓ Ark. & grn. sh.
4981'-4983'	1'6"		✓ Ark.
5989'-5992'	5'		Ark. & sltst.
60908-6108'	9'		Ark.
✓ 6402'-6420'	10'		Ark. & sltst.
Interval	Recovery		Lithology.
6892'-6910'	10'3"	6991	✓ Ark & sltst.
✓ 7785'-7805'	20'		✓ Ark.
✓ 7951'-7958'	6'6"		✓ Ark.
8843'-8862'	15'7"		✓ Ark. (fualted).

Bottom of hole.

P.W.Bollen.

3/18

Wellside No 2.

Core

7785'-7805'

Rec 20'

12' 9" Arkose.-

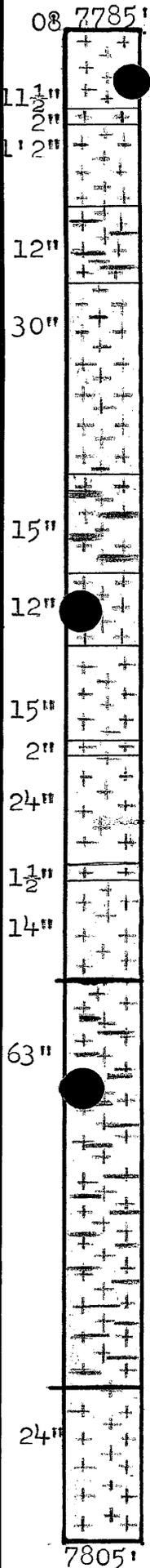
- 11 1/2" Gray medium grained arkose.
- 2" Pinkish white medium grained arkose.
- 1' 2" Gray medium grained arkose.
- 12" Gray medium grained arkose with streaks of coal.
- 2' 6" Gray medium grained arkose,
- 1' 3" Gray medium grained arkose with pellets of siltstone.
- 12" Gray fine grained arkose
- 1' 3" Gray medium grained arkose.
- 2" Gray medium grained arkose with pellet of pink arkose.
- 2' Gray medium grained arkose.
- 11" Gray medium grained arkose with pellet of pink arkose.
- 14" Gray medium grained arkose.

5' 3" Arkose- gray medium grained with streaks of thin coal.

2' Arkose -gray fine grained.

Bottom of core.

4/18



Arkose, gray medium grained.

Arkose, pinkish white medium grained.

Arkose, gray medium grained.

Arkose with streaks of coal.

Arkose

Arkose, with streaks of siltstone pellets.

Arkose, fine grained.

Arkose, medium grained.

Arkose with pellet of pinkish white ark.

Arkose.

Arkose with pellet of pinkish-white ark.

Arkose.

Arkose with streaks of coal.

Arkose, fine grained.

Woodside No2

Core

7951'-7958'

Rec. 6'6"

5/18

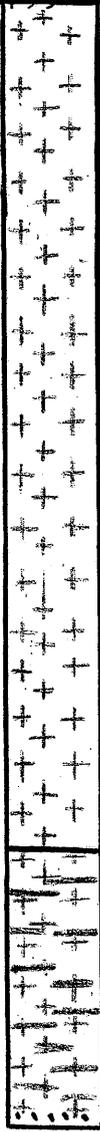
- 5' Gray arkose uniformly medium to fine grained, with a 2" long pellet of pink arkose.
- 1'6" Gray arkose medium grained with streaks of coal at angle 20 degrees to diameter of core, little pyrites associated with coal; few streaks of siltstone, one streak of calcite at 80 degrees to diam. of core.  
Red quartzite grains in base of core. Displacement 1mm on calcite.

Bottom of core.

*[Handwritten signature]*

6/18

7957



ARKOSE, gray; medium to fine grained.

5'

Pellet of pink arkose.

18 6"

ARKOSE, with streaks of coal and siltstone.

7958'

*[Handwritten signature]*

7/18

●odside No 2

Core

8843'-8862'

Rec. 15'7"

6" Arkose, gray medium grained, veins of calcite at angle 80 degrees to diameter of core, also calcite with crystal faces embedded in arkose few specks of coal.

(This section of core in small broken pieces)

2'2" Arkose gray medium grained, with few very small streaks of coal and siltstone, 2 calcite veins as above.

3" Arkose pink as a pellet in gray arkose as above.

4'5" Arkose gray medium grained with very many streaks of col throughout, few streaks of siltstone as pellets.

(This section of core many pieces not broken)

2'7" Arkose gray medium grained to fine grained with few thin streaks of coal and siltstone, several calcite veins as before.

11" Arkose pink with few specks and streaks of coal,

10" Arkose, pink to gray, medium to fine grained, with calcite veins irregular and irregularly running along diameter of core, siltstone in veins intersecting calcite veins and slickensided, irregular.

3'2" Arkose, gray med-fine grained, with bands of siltstone; many calcite veins at angle 80 degrees to diam. of core. Occasional patches of coal.

(This section of core has many broken pieces)

4" Siltstone, black coarse grained, massive with pink calcite veins at 80 degrees to diam. of core.

(This section of core has many broken pieces)

Bottom of core.

Bottom of hole.

6960 Arkose, fine grained, gray, occasional pieces siltstone, &  
few pieces calcite.

6970 "

6980 "

6990 "

7000 "

7010 "

7018 circ "

7020 "

7030 Arkose as above with siltstone no calcite.

7040 "

7050 "

7054 circ . "

7060 "

7070 "

7080 "

7090 "

7100 "

7106 circ "

7110 "

7120 "

7130 "

7140 "

7150 "

- 7160 Arkose, fine grained, some siltstone.
- 7164 circ "
- 7170 " plus little calcite.
- 7180 " plus little coal
- 7190 " plus little calcite
- 7200 " plus little calcite.
- 7210 "
- 7220 " plus little coal and calcite.
- 7230 " plus little calcite.
- 7240 "
- 7250 Arkose fine grained and medium grained, some siltstone  
and little calcite.
- 7260 Arkose, med grained, some siltstone & little calcite.
- 7270 Arkose med and fine grained, siltstone more than previously,  
little calcite. (Calcite assoc with med arkose)
- 7280 As for 7270 less fine grained arkose.
- 7290 As for 7270
- 7300 Med and fine grained arkose, some siltstone, little calcite.
- 7310 Med grained arkose, some siltstone, little coal, little calcite
- 7320 "
- 7330 " calcite greater than before.
- 7340 Med-fine grained arkose, some siltstone. little calcite.
- 7350 Med grained arkose some siltstone.
- 7360 Med grained arkose, some siltstone, little calcite.
- 7370 circ Arkose, med grained, siltstone present, few pieces calcite.
- 7370 As above but coal present in small amounts.
- 7380 Arkose, med grained (large chips) some siltstone and coal  
present.
- 7390 Arkose medium grained little siltstone.
- 7400 Arkose, medium grained, little siltstone, little calcite.
- 7410 Arkose, med-fine grained, little siltstone.
- 7420 Arkose, med & fine grained, little siltstone, little coal.

- 7430 Arkose, medium and fine grained, little siltstone, little coal.
- 7435 circ Arkose, medium and fine grained, little siltstone, little coal and calcite.
- 7440 Arkose, medium and fine grained, little siltstone
- 7450 Arkose, medium and fine grained, little siltstone, little calcite.
- 7460 Arkose, medium grained, little siltstone, few pieces calcite.
- 7470 Arkose, medium and fine grained, some siltstone, little calcite
- 7480 "
- 7490 Arkose, medium grained, some siltstone, little coal, little calcite.
- 7500 Arkose, medium grained, some siltstone, little calcite.
- 7510 Arkose, medium grained, some siltstone, little calcite.
- 7520 Arkose, medium grained, some siltstone, little calcite.
- 7530 Arkose, medium grained, some siltstone, little coal & calcite.
- 7540 Arkose, medium and fine grained, little calcite.
- 7550 Arkose, medium and fine grained, some siltstone.
- 7558 Arkose, medium grained, some siltstone, much calcite.
- 7558 circ Arkose, medium grained, some siltstone.
- 7560 Arkose, med & fine grained, some siltstone, little calcite.
- 7570 Arkose, medium grained, some calcite little siltstone.
- 7580 "
- 7590 Arkose, med & fine grained, some siltstone, calcite.
- 7600 Arkose, med & fine grained, some siltstone, calcite, coal.
- 7610 "
- 7620 Arkose, med & fine grained, some siltstone.
- 7630 Arkose, med & fine grained, some siltstone, calcite.
- 7635 circ Arkose, med and fine grained, some siltstone.
- 7640 Arkose, med & fine grained, some siltstone, calcite.
- 7650 Arkose, med & fine grained, some siltstone, calcite.

- 7660 Arkose, med grained, some siltstone, coal & calcite.
- 7670 "
- 7680 "
- 7690 "
- 7700 "
- 7710 Arkose, medium and fine grained, some siltstone, calcite.
- 7720 Arkose, medium grained, some siltstone, calcite.
- 7723 Coal seen at shale shaker 50% coal, 50% arkose.---
- 7725 Arkose, medium grained, coal, some siltstone, calcite.
- 7730 Arkose, medium and fine grained, siltstone, coal, calcite.
- 7740 Arkose, medium and fine grained, siltstone, coal, calcite.
- 7750 "
- 7760 Arkose, med and fine grained, some siltstone and calcite.
- 7769 Arkose, med and fine grained, some siltstone little coal.
- 7769 circ Arkose, med and fine grained, some siltstone little calcite.
- 7780 Arkose, med grained some siltstone, some calcite.
- 7787 Arkose, med and fine grained; little siltstone, coal, calcite.
- 7800 Arkose, gray med to fine grained; very little siltstone.
- 7805 Arkose, gray med and fine grained; some siltstone, very little coal.
- 7810 Arkose, gray med & fine grained; little siltstone; few pieces calcite.
- 7820 "
- 7830 Arkose gray med & fine Grained.
- 7840 Arkose, gray med & fine grained, some siltstone.
- 7850 Arkose, gray med & fine grained, some siltstone.
- 7860 Arkose, Gray med & fine grained; some siltstone; some calcite.
- 7870 Arkose, gray med & fine grained; some siltstone; little calcite.
- 7875 circ Arkose, gray med & fine grained; some siltstone, little calcite.
- 7880 Arkose, gray med & fine grained.
- 7890 Arkose, gray med & fine Grained; some siltstone.

- 7900 Arkose, gray med & fine grained; some siltstone.
- 7910 Arkose, gray med & fine grained; some siltstone; little calcite
- 7920 Arkose, gray med & fine grained; some siltstone;
- 7930 Arkose, gray med & fine grained; little siltstone; little calcite and coal.
- 7940 Arkose, gray med & fine grained; little siltstone; little calcite and coal.
- 7950 Gray arkose, med-fine grained, some siltstone; little coal.
- 7951 circ Gray arkose, med-fine grained; some siltstone; little coal.
- 7960 Gray arkose medium grained; some siltstone; little coal.
- 7970 Gray arkose, med-fine grained; some siltstone; little coal.
- 7980 Gray arkose, med-fine grained; some siltstone;
- 7990 Gray arkose, med-fine grained; some siltstone; little coal.
- 8000 "
- 8010 Gray arkose, med-fine grained; some siltstone; little calcite.
- 8020 Gray arkose, med-fine grained; some siltstone.
- 8030 "
- 8040 "
- 8050 "
- 8060 "
- 8065 circ "
- 8070 Gray arkose, med-fine grained; very little siltstone.
- 8080 "
- 8090 "
- 8100 "
- 8110 "
- 8116 circ "
- 8120 "
- 8130 "
- 8140 "

- 8150 . Arkose, gray, med-fine grained.
- 8160 ● Arkose, gray med-fine grained; little siltstone and calcite.
- 8170 circ Arkose, gray med-fine grained; little siltstone.
- 8170 " "
- 8180 Arkose, gray med-fine grained; some siltstone.
- 8190 Arkose, gray med-fine grained; little siltstone and calcite.
- 8200 Arkose, gray med-fine grained;
- 8210 " "
- 8220 Arkose, gray, med-fine grained; little siltstone.
- 8230 Arkose, gray, med-fine grained; little siltstone; coal present
- 8230 circ Arkose, gray, med-fine grained; little siltstone.
- 8240 ● " "
- 8250 Arkose, gray med-fine grained; siltstone.
- 8260 " "
- 8270 Arkose, gray, med-fine grained; siltstone; some calcite.
- 8280 Arkose, gray, med-fine grained; some coal and calcite.
- 8288 circ Arkose, gray, med-fine grained; little siltstone and calcite.
- 8290 Arkose, gray, med-fine grained; siltstone; few pieces red quartzite ; calcite associated with arkose.
- 8300 Gray arkose, med-fine grained; little siltstone; few pieces calcite.
- 8310 ● Gray arkose, med-fine grained; little siltstone; few pieces calcite and coal.
- 8320 " "
- 8330 Gray arkose, med-fine grained; little siltstone.
- 8340 " "
- 8350 Gray arkose, med-fine grained; little siltstone.
- 8360 Gray arkose, <sup>med</sup>-fine grained; siltstone; little coal; few pieces calcite.
- 8370 Gray arkose, med-fine grained; siltstone.
- 8380 " "
- 8390 Gray arkose, med-fine grained; little siltstone; few pieces calcite.

14/18

- 8390 circ Gray arkose, med-fine grained; little siltstone.
- 8400 ● Gray arkose, med-fine grained $\frac{1}{2}$  siltstone, coal.
- 8410 no sample.
- 8420 Gray arkose, medium and fine grained; siltstone.
- 8430 Gray arkose, medium and fine grained, few pieces coal.

- 8440 Gray arkose. med-fine grained, siltstone as pellets, few pieces of coal. calcite., ~~anhydrite~~.
- 8452 circ. Arkose, gray, med-fine grained, siltstone ( ~~one piece of siltstone together with anhydrite~~) few pieces coal, calcite, anhydrite.
- 8460 Arkose, gray, med-fine grained, less siltstone than 8452' occasional pieces of coal, calcite, ~~anhydrite~~.
- 8469 Arkose, gray, med-fine grained, siltstone present (same amt as 8460 ) very small amounts of calcite, ~~anhydrite~~.
- 8469 circ 1 hr. Arkose; gray, med-fine grained, siltstone present, calcite associated with arkose- few pieces including a piece of pink calcite-, little coal, ~~anhydrite present~~.
- 8469 circ 1 1/2 hr Arkose, gray med-fine grained, siltstone, few pieces of coal, calcite, ~~anhydrite~~.
- 8480 Arkose; gray med-fine grained, siltstone, few pieces of ~~anhydrite~~, coal, calcite.
- 8490 Arkose, gray med-fine grained, siltstone present few pieces calcite, ~~anhydrite~~; also rounded quartz grains diam 1/5mm.
- 8500 Arkose; gray, med-fine grained, siltstone present, few pieces coal, ~~anhydrite~~.
- 8508 circ. Arkose; gray med-fine grained, some siltstone present, several pieces of coal, few pieces calcite, ~~anhydrite~~.
- 8510 Arkose, gray, med-fine grained, siltstone, few pieces calcite coal, ~~anhydrite~~, several pieces rounded quartz grit.
- 8520 Gray arkose, medium to fine grained, siltstone, little calcite associated with arkose.
- 8530 Gray arkose, med-fine grained, siltstone, little calcite, little coal.
- 8540 Gray arkose, med-fine grained, less siltstone than before, little calcite.
- 8550 Gray arkose medium grained, little fine grained; siltstone present, little calcite, ~~few pieces anhydrite~~.
- 8560 Gray arkose, med-fine grained, little siltstone, calcite pres.
- 8561 circ Gray arkose, med-fine grained, few pieces siltstone.
- 8570 Gray arkose, medium grained, little siltstone, few pieces coal
- 8580 Gray arkose, med-fine grained, little siltstone, few pieces of coal, ~~few pieces anhydrite~~.
- 8590 Gray arkose, med-fine grained, little siltstone, ~~few pieces anhydrite~~.

- 8600 Gray arkose, med-fine grained, siltstone present., few pieces coal. ~~anhydrite.~~ calcite.
- 8602 circ Gray arkose, med-fine grained, siltstone; few pieces calcite, ~~anhydrite.~~
- 8610 Gray arkose, med-fine grained, ( 1 piece arkose with mica); siltstone present; little coal, little calcite.
- 8620 Gray arkose;, med-fine grained; siltstone present ; little coal; little calcite.
- 8630 Med-fine grained gray arkose, little siltstone present; few pieces coal and calcite.
- 8640 Med-fine grained gray arkose; siltstone present; little calcite, few pieces coal.
- 8646 circ Gray arkose, med-fine grained; siltstone present; few pieces calcite, ~~anhydrite~~, odd pieces of coal.
- 8650 Arkose, gray, medium grained; little siltstone; few pieces ~~xx~~ coal, calcite, one piece of shell fragment(?)
- 8655 Arkose, gray, med-fine grained; little siltstone; few pieces coal.
- 8660 Arkose, gray, med-fine grained; little siltstone; few pieces calcite, ~~anhydrite.~~
- 8665 Arkose, gray, med-fine grained; little siltstone; few pieces calcite, coal , ~~anhydrite.~~
- 8670 Arkose, gray, med-fine grained; little siltstone; few pieces ~~anhydrite.~~ of calcite.
- 8675 Arkose, gray, med-fine grained; little siltstone; few pieces calcite, ~~anhydrite~~, coal.
- 8680 Arkose, gray, med-fine grained,; very little siltstone; few pieces coal, calcite, ~~anhydrite.~~
- 8685 Arkose, gray, med-fine grained, little siltstone; several pieces coal, few pieces calcite, ~~anhydrite.~~
- 8690 Arkose, gray, med-fine grained; little siltstone, few pieces coal, ~~anhydrite~~, calcite.
- 8695 Arkose, gray, med-fine grained; little silt stone; few pieces calcite, ~~anhydrite~~, coal.
- 8700 Arkose, gray, med-fine grained; siltstone present; few pieces calcite, ~~anhydrite~~ and occasional piece of rounded quartz grit.

- 8705 Arkose, gray, med-fine grained; siltstone present; several pieces calcite, few pieces coal and rounded quartz grit.
- 8710 Arkose, gray, med-fine grained; little siltstone; few pieces calcite.
- 8715 Arkose, gray, med-fine grained; siltstone present; many pieces calcite.
- 8720 Arkose, gray, med-fine grained; little siltstone; little calcite, few pieces rounded quartz grit.
- 8725 Arkose, gray, med-fine grained; little siltstone; several pieces calcite, few pieces coal.
- 8730 Arkose, gray, med-fine grained, little siltstone; few pieces calcite, coal.
- 8740 Arkose, gray, med-fine grained; siltstone present; much calcite, few pieces coal, ~~anhydrite~~.
- 8750 Arkose, gray, med-fine grained; little siltstone; several pieces calcite.
- 8750 Arkose, gray, med-fine grained, little siltstone. few pieces coal, calcite, rounded quartz grit.
- 8755 Arkose, gray, med-fine grained; little siltstone, many pieces calcite; few pieces coal.
- 8760 Arkose, gray, med-fine grained, little siltstone; several pieces calcite, few pieces coal.
- 8765 Arkose, gray, med-fine grained, few pieces siltstone, occasional pieces calcite, ~~anhydrite~~.
- 8770 Arkose, medium grained; few pieces siltstone, several pieces calcite, ~~few pieces anhydrite~~.
- 8775 Arkose, gray med-fine grained, few pieces siltstone. few pieces calcite ~~very few pieces anhydrite~~.
- 8780 Arkose, gray, medium grained, few pieces siltstone., several pieces calcite, very few pieces coal.
- 8783 circ Arkose, gray, medium grained, very few pieces siltstone, few pieces calcite.
- 8790 Arkose, gray med-fine grained, siltstone present, few pieces calcite, very few pieces coal. one rounded piece quartz grit.
- 8795 Arkose, gray medium grained, much siltstone, very few pieces calcite.
- 8800 Arkose, gray medium grained little siltstone. very few pieces calcite, coal.
- 8805 Arkose, gray med-fine grained, little siltstone, very few pieces calcite.

- 8810 Arkose, gray, med-fine grained, little siltstone, few pieces calcite.
- 8815 Arkose, gray, med-fine grained, few pieces siltstone, many pieces coal, few pieces calcite, ~~very rarely pieces anhydrite.~~
- 8820 Arkose, gray, med-fine grained, few pieces siltstone, much coal, few pieces calcite.
- 8825 Arkose, gray, med-fine grained, few pieces coal, calcite.
- 8830 Arkose, gray, med-fine grained, very few pieces calcite, rarely piece coal.
- 8835 Arkose, gray, med-fine grained, few pieces calcite, rarely piece coal.
- 8840 Arkose, gray, med-fine grained, very few siltstone, very few pieces coal, several pieces calcite.
- 8843 circ Arkose, gray, med-fine grained, few pieces siltstone, very many pieces calcite, few pieces coal.
- 8845 Arkose, gray, med-fine grained, little siltstone, many pieces calcite, very few pieces coal, calcite.
- 8850 Small sample -not valid.
- 8862 Arkose, gray, med-fine grained, siltstone present, many pieces coal, several pieces calcite, ~~very few pieces anhydrite.~~

bottom of hole.

APPENDIX 5.0

The following data was obtained from lithologic logs and drilling reports of the Woodside wells. Oil and gas shows indicated on drilling reports are labelled "D.R."

WOODSIDE NO. 1.

<u>Depth</u>	<u>Description of Show</u>
1002'	Slight gas indication (D.R.)
2539'	Gas indication. Petroliferous odour (D.R.)
2556' - 2577'	Diffuse oil stains in marl. Marl, green, very glauconitic, no permeability and low porosity, oil smell. Immediately overlies Latrobe Valley Coal Measures
3650'	Gas Show (D.R.)
3720' - 3728'	Oil Show? (D.R.)
4430'	Arkose and mudstone, strongly smelling of crude petroleum. Dark yellow chloroform reaction.
5830'	Oil show in mud stream. No Gas (D.R.)

WOODSIDE NO. 2.

980' - 1000'	Gas Show and slight show of oil (D.R.)
1310' - 1500'	Oil show reported in this interval (D.R.)
1310' - 1350'	Oil show in sandy marl. Sandy marl, cream coloured, stained brown, containing large quartz grains. Foraminifera, scaphopods and Ditrupa. Oil described in Chemical Laboratory Report 50/52 - 56 of 10/2/56.
1966' - 1980'	Top of core showed brown oil sand (D.R.)
2493' - 2511'	Indications of oil in top section of core (D.R.)
3104'	After drilling through coal series mud became saturated with oil and coal and showed considerable gas constantly (D.R.)
3170'	Large flow of gas encountered with colour in mudstream (D.R.)
4962'	Positive chloroform test.
5022' - 5032'	Gas Show (D.R.)
5120' - 5290'	Light oil and paraffin in samples (D.R.)
5235' - 5266'	Gas Show (D.R.)
5351' - 5600'	Gas and oil show in mudstream continuous (D.R.)
5600' - 1707m	Strongly stained sample with free viscous green oil strongly smelling of crude petroleum. Sample 70% arkose, 30% shaly mudstone with a few $\frac{1}{8}$ " bands of black coal. Chemical analysis of hydrocarbon in Chemical Laboratory Report 271/272/56 of 6/4/56.
(5635-5640 BOUTAK.)	
6067' - 6088'	Oil sand (D.R.)

2.

PERFORATION TESTS - WOODSIDE NO. 2.

Perforation tests were carried out by Lane Wells Ltd. with negative results. Well <sup>was</sup> cased to 6104' with 6 $\frac{5}{8}$ " casing.

TEST 1.

Perforated interval 1310' - 1345'. Plug set at 1428'  
Packer set at 1305'. Test first gave mud mixed with water, then slightly brackish water and finally freshwater.

TEST 2.

Perforated interval 5582' - 5618'. Plug set at 5657'  
Packer set at 5570'. Nothing recovered from formation.

Reports on Oil Samples (Chemical Lab. Reports)

Samples 50 - 52/56 of 10/2/56

Oil from the 1310 - 1350 level in Woodside Well No. 2.  
Dark brown to black crude oil of S.G. 0.92 - 0.93.  
This oil is described as a heavy crude oil free from gasoline, kerosine and other light fractions of a mixed paraffinic asphaltic base.

Samples 271 - 272/56 of 6/4/56

Oil from 5635' - 5640' level in Woodside Well No. 2.  
This oil is described as a crude oil which in the 5640 level contains approximately 20% of light, low boiling point fractions of mixed paraffin - asphalt base, is of softening point 40 - 50° c and contains some sulphur.

WOODSIDE (LAKES ENTRANCE) OIL COMPANY N.L.

178 Victoria Parade,  
East Melbourne.  
25th February, 1957

The Secretary for Mines,  
Mines Department,  
Treasury Gardens,  
MELBOURNE. C.2.

Dear Sir,

Testing operations on the Woodside No. 2 Hole have been completed.

The casing was perforated at the level of 1310' to 1345' level and also at 5583' to 5618' level.

Both tests failed to show any evidence of flow oil.

In deepening this hole to 8862' it was hoped to reach the base of the Jurassic formation in this locality. Unfortunately this has not been achieved and in view of this the Directors have decided to temporarily cease operations with the Company's large rig, until such time as the results of further geophysical work are known.

In the meantime it is proposed to intensify the work of scout drilling in the present vicinity and to extend these operations over the Company's more recently acquired areas.

Plans to make another call on Contributing Shares have now also been deferred as finance in hand is adequate for the Company's immediate needs.

Yours faithfully,

WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

Rees. B. Withers.  
General-Manager.

COPY

~~12 of 25~~ 43  
14/20

WOODSIDE (LAKES ENTRANCE) OIL COMPANY  
NO LIABILITY.

---

178 Victoria Parade,  
East Melbourne.

1st August, 1956.

The Secretary for Mines,  
Department of Mines,  
Treasury Gardens,  
MELBOURNE. C.2.

Dear Sir,

The Directors of Woodside (Lakes Entrance) Oil Co. N.L. advise that it has been decided to cease drilling on No. 3 Well which is now at a depth of 5,985 ft. in hard sandstone and shale.

No 3 Well has provided important additional geological information which, together with structural data now made available by the Geophysical Section of the Bureau of Mineral Resources Geology and Geophysics, enables the Company to further its exploratory drilling programme.

Work will commence immediately on moving the Rig back to the No. 2 Well in which oil shows were encountered. This Well has been previously cased and cemented off at 6,108 feet preparatory to deepening.

The lighter drill pipe required for deepening Well No. 2 is expected to arrive next week and drilling will commence as soon as the rig has been mechanically overhauled and re-erected on the site.

After completion of the Well each level at which oil shows were recorded will be tested.

Yours faithfully,  
WOODSIDE (LAKES ENTRANCE) OIL CO. N.L.

(Sgd.) Rees B. Withers.  
S e c r e t a r y.

JEWELL

Memorandum for:-

Secretary for MinesREPORT ON FURTHER OIL BEARING SAMPLES FROM  
WOODSIDE No. 2. WELL.

Samples of sludge and chippings, representing 5635' (Lab. No. 271/56) and 5640' (Lab. 272/56) have been examined in the Departmental Laboratory.

Sample 271 weighed 777 grams and had an odour somewhat similar to that of kerosene. No. 272 weighed 758 grams and had no distinctive odour.

Each sample was steam distilled to recover any light fractions present without loss. From No. 271 no measurable quantity of light fraction was obtained but the distillate had a kerosene-type odour and a faint iridescence on the surface of the water. From No. 272, 0.1 millilitre of a straw coloured oil was obtained, which had a similar odour.

The residue, after suitable drying without loss of any oil constituent, was benzene-extracted yielding 0.85 grams in the case of No. 271, and 0.30 grams in the case of No. 272, of a brownish-black, heavy consistency crude oil.

These two small residues were combined (1.15 grams) and tested with the following results:-

Specific gravity	0.97
Softening point	40-50°C
Sulphur	present
Freezing test in appropriate solvent	produced crystals of a wax-like substance, softening at 25-30°C.

The combined residue was insufficient for a distillation test but it is unlikely that there would be any quantity of distillate boiling below 300°C; lighter fractions had already been removed by steam distillation.

As with previous samples examined from this well, the amount of oil present is very small (approximately 0.1% in No. 271, and 0.05% in No. 272.)

The amount of light fraction obtained from No. 272, although extremely small, represents an appreciable proportion (approx. 20%) of the total oil present.

The oil obtained from these two samples is described as a crude oil, probably of a mixed (paraffinic -asphaltic) base, with about 20% of low-boiling point fraction in the case of No. 272.

The main differences between these samples of oil and those previously tested (1310-1330') are:-

- (a) The presence of a low boiling point fraction in one of the present samples, absent in the previous samples.
- (b) A higher specific gravity (0.97) of the benzene extract of these samples, as compared with that (0.92) of the previous samples.

While it is probably possible to obtain some information regarding the nature and constitution of the oil, by a special type of test applied to the very small quantity of light fraction obtained by steam distillation, this was not done. The oil obtained from these samples is almost certainly different, both in quality and quantity, from that present in situ. It would be materially modified by the effect of gas stripping and temperature changes during its progress as a wet sludge up the bore. Further, the quantity of oil, especially of the light fractions, is likely to be greater within the actual oil-bearing horizon. Any special testing must therefore be postponed until a larger and more representative sample of oil is obtained.

While the proportion of oil present in these samples is very low and the nature of the oil not necessarily that of the oil in situ, the occurrence of such an oil, with a relatively high proportion of lighter fractions, may be of significance in relation to ultimate oil discoveries in this region.

W. R. JEWELL  
Chief Chemist.

C O P Y

Page 1 of 2.

SCHLUMBERGER OVERSEAS S.A.  
Chepstow House, Frederick Street,  
PORT-OF-SPAIN,  
TRINIDAD B.W.I.

Vice President Operations

Paris, April, 18, 1956.

Schlumberger Overseas S.A.  
Australian Division Manager  
Sydney.

File : F.I. Australia.

Interpretation Woodside # 2

Dear Mr. de Coulon,

The maximum SP deflection between 2000 and 2050 is about 63 millivolts, which indicates a ratio  $R_{mf}/R_w$  of about 7.5. Assuming a temperature of about  $110^{\circ}$  F. - incidentally the unusually high temperature ( $116^{\circ}$  F) of the mud sample measured surprises us - the  $R_{mf}$  would be about 2.6 and  $R_w$  about 0.35; this value of  $R_w$  corresponds to a salt content of about 12000 ppm, quite substantially smaller than that of sea water.

However we are not too sure of this value of  $R_w$  arrived at with the SP curve. At 2000' the short normal reads about 10 ohms and the long normal about 2 ohms. The ratio of these two readings is 5, which seems to indicate a ratio  $R_{xo}/R_t$  of no less than about 10, and also accordingly a ratio  $R_{mf}/R_w$  of no less than 10. This would indicate a connate water with a concentration of possibly as much as 20.000 ppm.

Above 1900 the resistivities increase to reach about some 25 ohms at 1130-1200. This increase of the resistivity is probably due to several factors : higher shale content, fresher connate water, presence of oil or gas. There is no evidence that the formation factors are appreciably greater at 1200 than at 2150 for example where the  $R_t$  is much smaller (about 3 ohms). As the reduction in SP deflection is not very important, it would seem that the greater shale content and the fresher connate water are not the main factors accounting for the higher resistivity at 1200 and it seems probable then that the upper part of the formation contains appreciable quantities of oil or gas.

The interpretation would certainly be more reliable if we

rger Overseas S.A.

2 of 2

- 2 -

WOODSIDE - 2.

Paris, 18, April 1956.

knew the position of the SP base line above the permeable interval.

In the interval 2500-2810 there are several beds which look permeable (unfortunately there is no Microlog over that section) : 2500-2570, 2700-2760 and 2775-2810. The connate water is fairly fresh, with  $R_w$  probably somewhat greater than 1 ohm. Porosities seem to be of the same order as in the 1130-220 interval. The true resistivities are not very high, no more than about 25 ohms. If any oil or gas is present the saturation would probably be less than 50%.

In the lower part of the well the only formation where the Microlog shows some permeability is the sand at 4360-4408. The SP indicates an  $R_w$  of the order of .8-1.0 ohm.  $R_t$  is probably less than 15 ohms. The 16" Normal reads as high as 25 ohms; with  $R_{mf}$  of the order of 2. ohms it seems then that the formation factor is greater than about 12. Chances that the sand contains appreciable amounts of oil or gas look rather poor.

It should be pointed out however that the above interpretation is very rough and takes no account of the fact that the sand contains less than 50% of fairly thin permeable streaks : as a result the readings of the Normals and Lateral are not easily interpretable, particularly that the ES is not at the same depth scale as the Microlog.

Yours truly,

Pa/nf

(Signed) .....

cc. Houston + 1  
Trinidad.

Memorandum for:-

Secretary for MinesREPORT ON FURTHER OIL BEARING SAMPLES FROM  
WOODSIDE No. 2. WELL.

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While it is probably possible to obtain some information regarding the nature and constitution of the oil, by a special type of test applied to the very small quantity of light fraction obtained by steam distillation, this was not done. The oil obtained from these samples is almost certainly different, both in quality and quantity, from that present in situ. It would be materially modified by the effect of gas stripping and temperature changes during its progress as a wet sludge up the bore. Further, the quantity of oil, especially of the light fractions, is likely to be greater within the actual oil-bearing horizon. Any special testing must therefore be postponed until a larger and more representative sample of oil is obtained.

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W. R. JEWELL  
Chief Chemist.

copy

2<sup>nd</sup> Copy

10th February, 1956.

/PO'H

KENNEDY REPORT

WOODSIDE-2

Secretary for Mines.

Report on Samples Nos. 50-52/56.

Samples: Oil-bearing Calcareous Sandstone  
 Locality: Woodside  
 Sender: Dr. D.E. Thomas, Mines Department.

Three samples of calcareous sandstone were submitted for separation of any contained oil and further examination of any such oil, to determine its chemical and physical characteristics.

The samples were obtained from Well No. 2 of the Woodside Oil Co., as follows:-

<u>No.</u>	<u>Depth</u> <u>feet</u>	<u>Weight of Sample</u> <u>gms.</u>
50	1310	189
51	1320	344
52	1330	137

Extractions of the samples with the solvents, diethyl ether and benzene, yielded the following results:-

<u>No.</u>	<u>Diethyl ether</u> <u>extraction</u> %	<u>Benzene</u> <u>extraction</u> %	<u>Total Oil</u> <u>recovered</u> %
50	0.008	0.004	0.01
51	1.26	0.38	1.64
52	0.17	0.018	0.19

Testing of Oil

Only sample No. 51 (1320' level) provided sufficient oil for testing and even here, the quantity was so small that normal A.S.T.M. or I.P.T. testing methods were out of the question and recourse was made to micro techniques with the following results:-

Colour: Ether Extract - Dark brown  
 Benzene " - Black  
 Setting Point: Ether Extract 14°C. approx.  
 Benzene " Insufficient sample to determine

Specific Gravity (of mixed extracts): 0.92 - 0.93

Distillation:-  
 0° - 300°C. No distillate obtained  
 340°C. Distillation with decomposition

REPORT ON SAMPLES Nos. 50-52/56

2/2

9/

-2-

Remarks:-

As no portion of the oil distilled below 300°C, the oil contains no gasoline nor kerosene fractions.

No lubricating oil was obtained by ordinary distillation and an assessment of the lubricating oil content (if any), by means of a vacuum distillation was not possible with the amount of oil available.

On the analytical evidence available, the oil is described as heavy crude oil, free from gasoline, kerosene and other light fractions, probably of mixed (paraffinic-asphaltic) base origin.

(Signed:) John C. Kennedy

For Senior Chemist, Mines Department.

APPENDIX 6.0

Palaeontology

57

1956/57

REPORT ON SAMPLES FROM  
WOODSIDE No 2 WELL

1310'-1320', 1330', 2325'

A.N. CARTER. M.Sc.

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T  
A  
R  
T

REPORT ON SAMPLE FROM WOODSIDE NC. 2 WELL,  
1310' - 1320'

by A. N. Carter, M. So., Field Geologist.

SOURCE OF SAMPLE: Dr. N. Boutakoff. Part received on  
6. 2.1956 and remainder on 9. 2.1956.

MEGASCOPIC DESCRIPTION OF SAMPLE:

Lumps of calcareous sandstone, foraminifera  
and other fossils embedded in grey mud.

TREATMENT:

Sample was boiled in sodium carbonate  
solution, the fine material removed by decantation and the  
coarse residue dried and examined. The fine material was  
disregarded because of probable contamination by drilling mud.

DESCRIPTION OF RESIDUE:

(a) Lithology of Cuttings.

Grey calcareous sandstone, sometimes  
containing calcareous worm-tubes of. Ditrupa.

(b) Fossils.

The following have been identified:

Bryozoa - several species

Gastropod cast

Worm tubes of. Ditrupa

Irregular echinoids, 2 spp.

Operculina sp. (some specimens contain a black  
waxy substance).

Elphidium 2 spp.

Nodosaria sp.

Notorotalia sp.

Fragments of crustacean carapaces

Fragments of Pliocene mollusca, quite alien to the  
remainder of the fauna.

AGE AND CORRELATION.

The rock is closely comparable with that seen in the core sample at 1405 ft. in the Woodside Company's No. 1 Well, where the lithology is identical and Operculina and Ditrupa tubes are the commonest fossils. The thickness of this facies in the No. 1 well is not known.

Lepidocyclina sp. is present in the No. 1 well at 1,465 ft., so the beds at 1,405 ft. containing Globigerinoides bispherica are provisionally considered to be of Balcombian age.

Consequently, rocks at 1310' - 1320' in the No. 2 well are tentatively placed in the Balcombian Stage.

A. N. Carter.

(A. N. Carter)  
10. 2. 1956.

REPORT ON SAMPLE FROM WOODSIDE No. 2 WELL

1330 FEET.

SOURCE OF SAMPLE: Received from Dr. N. Boutakoff on 6 : 2 : 1956.

MEGASCOPIC DESCRIPTION AND TREATMENT:

See previous report on sample 1310 - 1330.

CONTENTS OF RESIDUE:

Operculina sp. (abundant)

Elphidium sp. (common)

Glypeaster sp.

Pliocene mollusca (contamination)

Quartz sand and occasional large quartz grains, probably derived from beds higher up the sequence.

AGE:

The fossils listed above give no age indications other than "Balcombian Stage" sensu Crespin 1943.

*A. N. Carter*

(A. N. Carter)

FIELD GEOLOGIST

2 : 3 : 1956

REPORT ON SAMPLE FROM WOODSIDE NO. 2 WELL, NO. 2325

by A. N. Carter, M.Sc., Field Geologist

SOURCE OF SAMPLE:

Collected by Dr. N. Boutakoff from the Company's Field Superintendent on 29. 1.1956. Received for examination on 30. 1.1956.

MEGASCOPIIC DESCRIPTION OF SAMPLE:

Screen sample - fairly large cuttings of a grey to greenish grey rock could be observed in a matrix of pale greenish-grey drilling mud.

TREATMENT:

The sample, as received, was divided into two parts and each was placed in a basin of water. A teaspoonful of sodium carbonate was added to each basin, which was then brought to the boil and allowed to boil for about 5 minutes. The clay suspension was then poured off and the process repeated. After the second boiling and decanting, all the residue was poured into a 10-mesh screen and such material as was held by the screen was washed carefully upon it until all traces of drilling mud had disappeared.

DESCRIPTION OF MATERIAL HELD BY 10-MESH SIEVE:

The sieve retained lumps of hard clay of various sizes, the largest being about  $1\frac{1}{2}$ " x  $\frac{3}{4}$ " x  $\frac{3}{8}$ ". Two types of clay were represented by the fragments:

1. Evenly finegrained, pale green clay without visible fossils.
2. Dark grey clay with plentiful grains of glauconite, bryozoa and foraminifera.

This material was dried and after a representative sample had been taken for a permanent record, the remainder was again boiled in a solution of sodium carbonate to release the microfossils.

DESCRIPTION OF MATERIAL PASSED BY 10-MESH SIEVE:

This residue consisted of finer particles of the same two types of hard clay described above. Numerous glauconite grains were also present. This material is probably contaminated by fossils from the drilling mud. This material was also dried and again boiled in a solution of sodium carbonate.

FOSSILS OBTAINED BY RE-BOILING THE WASHED AND DRIED CUTTINGS:

It is reasonably certain that fossils obtained in this way were free from contamination. Sponge spicules were abundant in the residue, molluscan fragments were common, echinoid spines and plates were rare. The following foraminifera were obtained:

Vaginulinopsis gippslandica (Chapman & Crespin)

Victoriella sp. (crushed and unidentifiable, but probably  
V. pleote.)

Ammodiscus sp. cf. A. parri Crespin.

Ancmalina colligeroides Carter MS.

Cibicides temperata Vella.

Cyclammina incisa Stache.

Cyclammina longicompressa Chapman & Crespin.

Parrelliza n.sp. (in Mioaceous Series at Lakes Entrance).

Glauconite grains were common in the washings and a few pyritic nodules were present.

AGE AND CORRELATION.

The sample is from rocks of Janjukian age (Zone of Victoriella pleote) and they are correlated with the Lakes Entrance Formation of the eastern part of the Gippsland Basin.

A. N. Carter.

(A. N. Carter)  
Field Geologist  
10. 2. 1956.

ENCLOSURES

PE603971

This is an enclosure indicator page.  
The enclosure PE603971 is enclosed within the  
container PE905579 at this location in this  
document.

The enclosure PE603971 has the following characteristics:

ITEM\_BARCODE = PE603971  
CONTAINER\_BARCODE = PE905579  
NAME = Composite Well Log  
BASIN = GIPPSLAND  
PERMIT = PPL/174  
TYPE = WELL  
SUBTYPE = COMPOSITE\_LOG  
DESCRIPTION = Composite Well Log of Woodside 1-3  
(from WCR) for Woodside-2  
REMARKS =  
DATE\_CREATED = 31/12/56  
DATE\_RECEIVED =  
W\_NO = W442  
WELL\_NAME = WOODSIDE-2  
CONTRACTOR =  
CLIENT\_OP\_CO =

(Inserted by DNRE - Vic Govt Mines Dept)

PE603970

This is an enclosure indicator page.  
The enclosure PE603970 is enclosed within the  
container PE905579 at this location in this  
document.

The enclosure PE603970 has the following characteristics:

ITEM\_BARCODE = PE603970  
CONTAINER\_BARCODE = PE905579  
NAME = Electrical Log  
BASIN = GIPPSLAND  
PERMIT = PPL/174  
TYPE = WELL  
SUBTYPE = WELL\_LOG  
DESCRIPTION = Electrical Log (from WCR) for  
Woodside-2  
REMARKS =  
DATE\_CREATED = 22/03/56  
DATE\_RECEIVED =  
W\_NO = W442  
WELL\_NAME = WOODSIDE-2  
CONTRACTOR = SCHLUMBERGER  
CLIENT\_OP\_CO = WOODSIDE (LAKES ENTRANCE) OIL COMPANY  
N.L.

(Inserted by DNRE - Vic Govt Mines Dept)

PE905577

This is an enclosure indicator page.  
The enclosure PE905577 is enclosed within the  
container PE905579 at this location in this  
document.

The enclosure PE905577 has the following characteristics:

ITEM\_BARCODE = PE905577  
CONTAINER\_BARCODE = PE905579  
    NAME = Geological Cross-section  
    BASIN = GIPPSLAND  
    PERMIT = PPL/174  
    TYPE = WELL  
    SUBTYPE = CROSS\_SECTION  
DESCRIPTION = Geological Cross-section for Woodside  
              wells 1-3 (from WCR) for Woodside-2  
REMARKS =  
DATE\_CREATED =  
DATE\_RECEIVED =  
    W\_NO = W442  
    WELL\_NAME = WOODSIDE-2  
CONTRACTOR =  
CLIENT\_OP\_CO =

(Inserted by DNRE - Vic Govt Mines Dept)

PE905578

This is an enclosure indicator page.  
The enclosure PE905578 is enclosed within the  
container PE905579 at this location in this  
document.

The enclosure PE905578 has the following characteristics:

ITEM\_BARCODE = PE905578  
CONTAINER\_BARCODE = PE905579  
    NAME = Feildnote Survey Map  
    BASIN = GIPPSLAND  
    PERMIT = PPL/174  
    TYPE = GENERAL  
    SUBTYPE = SRVY\_MAP  
    DESCRIPTION = Feildnote Survey Map (from WCR) for  
                  Woodside-2  
    REMARKS =  
    DATE\_CREATED = 13/03/56  
    DATE\_RECEIVED =  
    W\_NO = W442  
    WELL\_NAME = WOODSIDE-2  
    CONTRACTOR =  
    CLIENT\_OP\_CO =

(Inserted by DNRE - Vic Govt Mines Dept)

PE905609

This is an enclosure indicator page.  
The enclosure PE905609 is enclosed within the  
container PE905579 at this location in this  
document.

The enclosure PE905609 has the following characteristics:

- ITEM\_BARCODE = PE905609
- CONTAINER\_BARCODE = PE905579
  - NAME = Electric Log
  - BASIN = GIPPSLAND
  - PERMIT = PPL/174
  - TYPE = WELL
  - SUBTYPE = WELL\_LOG
- DESCRIPTION = Electric Log Characteristics of the  
Lakes Entrance formation (from WCR) for  
Woodside-2
- REMARKS =
- DATE\_CREATED = 30/04/65
- DATE\_RECEIVED =
- W\_NO = W442
- WELL\_NAME = WOODSIDE-2
- CONTRACTOR =
- CLIENT\_OP\_CO = WOODSIDE (LAKES ENTRANCE) OIL COMPANY  
N.L.

(Inserted by DNRE - Vic Govt Mines Dept)

PE906846

This is an enclosure indicator page.  
The enclosure PE906846 is enclosed within the  
container PE905579 at this location in this  
document.

The enclosure PE906846 has the following characteristics:

- ITEM\_BARCODE = PE906846
- CONTAINER\_BARCODE = PE905579
  - NAME = Lithological Column
  - BASIN = GIPPSLAND
  - PERMIT = PPL/174
  - TYPE = WELL
  - SUBTYPE = STRAT\_COLUMN
- DESCRIPTION = Lithological Log (enclosure from WCR)  
for Woodside-2
- REMARKS =
- DATE\_CREATED = 28/09/55
- DATE\_RECEIVED = 17/03/86
  - W\_NO = W442
  - WELL\_NAME = WOODSIDE-2
- CONTRACTOR =
- CLIENT\_OP\_CO = WOODSIDE OIL CO NL

(Inserted by DNRE - Vic Govt Mines Dept)