NAUTILUS-1

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DEPT. NAT. RES & ENV
PE900564

N-1

Core Analysis Results:
Lithological Descriptions
SWC Descriptions

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Petroleum Technology Laboratory, Bureau of Mineral Resources, Geology and Geophysics, Canberra

CORE ANALYSIS RESULTS

NOTE: (i) Unless otherwise stated, porosities and permeabilities were determined on two plugs (V&H) cut vertically and horizontally to the axis of the core. Ruska porosimeter and permeameter were used with air and dry nitrogen as the saturating and flowing media respectively. (ii) Oil and water saturations were determined using Soxhlet type apparatus. (iii) Acetone test precipitates are recorded as Neg., Trace, Fair, Strong or Very Strong.

WELL NAME AND NO. NAUTILUS NO. A-1

DATE ANALYSIS COMPLETED 27th March, 1969.

Core No.	Sample Depth		Lithology	Average Effective Porosity two plugs (% Bulk Vol.	Absolute Permeability (Millidarcy)		Average Density (gm/cc.)		Fluid Saturation (% pore space)		Core Water Salinity (p.p.m. NaCl)	Acetone Test	Fluorescence of freshly broken core	Cut of freshly broken sample in tetrachloethylene
	From	To			V	H	Dry Bulk	Apparent Grain	Water	Oil				
6	4666'5"	4667'0"	Lst, Shly	16	Nil	Nil	2.26	2.68	57	Nil	N.D.	Nil	Dull Yell	Nil
7	5181'1"	5181'3"	Shale, Carb, Calc.	15	Nil	Nil	2.27	2.68	67	Nil	N.D.	Nil	As above	Nil
8a	5689'2"	5689'6"	Slt, Shly, Carb, Pyr	15	Nil	1	2.34	2.72	47	TR	N.D.	Strong	Nil	TR
8b	5689'10"	5690'4"	As above	15	Nil	Nil	2.29	2.69	44	TR	N.D.	Strong	Nil	TR
9	6112'6"	6113'0"	Sh., Carb, Slty	13	N.D.	N.D.	2.34	2.69	87	Nil	N.D.	Trace	Nil	Nil
10	6592'0"	6592'6"	Sh., Blk	10	N.D.	N.D.	2.42	2.68	100	Nil	N.D.	Trace	Nil	Nil

Remarks: - Core No. 8 - A strong precipitate was formed during acetone test, and a v. slight cut was also obtained (U.V. light) on placing sample pieces in cold tetrachlorethylene. Extract from the Dean & Stark extraction process contained sulphur (0.09% of the total weight of the sample) with traces of a petroleum residue determined by the IR spectrophotometer. See also the (attached) report on the petrographic analyses of this sample.

General File No. 62/399
Well File No. 68/2008

Petroleum Technology Laboratory, Bureau of Mineral Resources, Geology and Geophysics, Canberra

CORE ANALYSIS RESULTS

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	From	To			V	H	Dry Bulk	Apparent Grain	Water	Oil				
1	2775'5"	2776'1"	Lst., Arg., Slty	10	Nil	Nil	2.47	2.73	62	Nil	N.D.	Neg.	Dull Yellow	Nil
2	2787'0"	2787'8½"	Lst., Arg	12	Nil	Nil	2.40	2.72	35	Nil	N.D.	Neg.	As above	Nil
3	3131'0"	3131'7½"	As above	12	Nil	Nil	2.38	2.70	21	Nil	N.D.	Neg.	As above	Nil
4	3657'9"	3658'5½"	Lst., Arg Foss	13	Nil	Nil	2.36	2.71	38	Nil	N.D.	Neg.	Nil	Nil
5	4134'9"	4135'5"	Lst., Arg	12	Nil	Nil	2.40	2.72	40	Nil	N.D.	Neg.	Dull Yellow	Nil
5	4148'6½"	4149'0"	As above	10	Nil	Nil	2.43	2.69	93	Nil	N.D.	Neg.	Nil	Nil
6	4640'9"	4641'4"	As above	16	Nil	Nil	2.24	2.67	30	Nil	N.D.	Neg.	Dull Yellow	Nil
6	4649'8"	4650'6"	As above	17	Nil	Nil	2.21	2.68	51	Nil	N.D.	Neg.	Dull Yellow	Nil

Remarks: -

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