

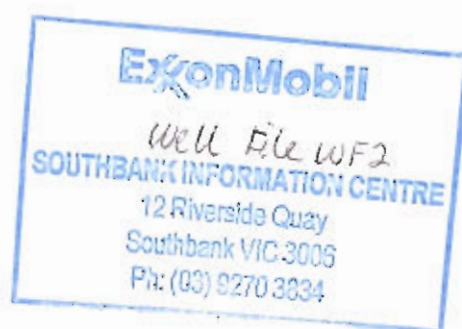


ExxonMobil Information Centre



00105183

PETROLEUM SERVICES



THIN SECTION ANALYSIS

FOR

**ESSO AUSTRALIA PTY LTD
WIRRAH-2 WELL
GIPPSLAND BASIN
OFFSHORE AUSTRALIA**

File 020917G-A

December 2002

Performed by:
Core Laboratories, Advanced Technology Center
Reservoir Geology Group
6316 Windfern
Houston, Texas 77040
U.S.A.

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December 6, 2002

Dr. John G. McPherson
Esso Australia Pty Ltd
12 Riverside Quay, Southbank 3006
Melbourne, Victoria 3001

Dear Dr. McPherson:

Core Laboratories in Houston, Texas, received from your company one (1) core sample of greenish gray rock for a quick, general thin section analysis. The sample (WIR2-02) is from 2261.54 meters in the Wirrah-2 Well, Gippsland Basin, offshore Australia. Plate 1 presents a thin section photomicrograph with caption. The sample is briefly discussed below.

The rock is identified as volcanic in origin with a classification of andesite bordering on latite-andesite; the ratio of plagioclase (probably andesine to oligoclase) to K-feldspar appears to be at 10:1 or above. The only other primary mineral(s) noted are minor amounts of ilmenite/magnetite. Mafic minerals such as biotite, hornblende, and pyroxene are absent; if minor amounts were present, they have been replaced. Approximately 50% of the rock consists of secondary alteration minerals. Common to abundant chert fills what appear to have been small vesicles and replaces some feldspar crystals. In the preliminary e-mail dated October 5, 2002, the chert was originally interpreted as kaolinite, because it seemed relatively soft under a binocular microscope; however, some kaolinite patches are probably also present. Fe-dolomite is as abundant as chert, mainly as a replacement of plagioclase. Pyrite occurs in moderate quantities, especially within and around microfractures. Illitic/smectitic clay is observed in minor amounts lining chert-filled vesicles and cleavage fractures in feldspars. Titanium oxide/leucoxene is also a minor alteration product. There are no visible pores in this rock.

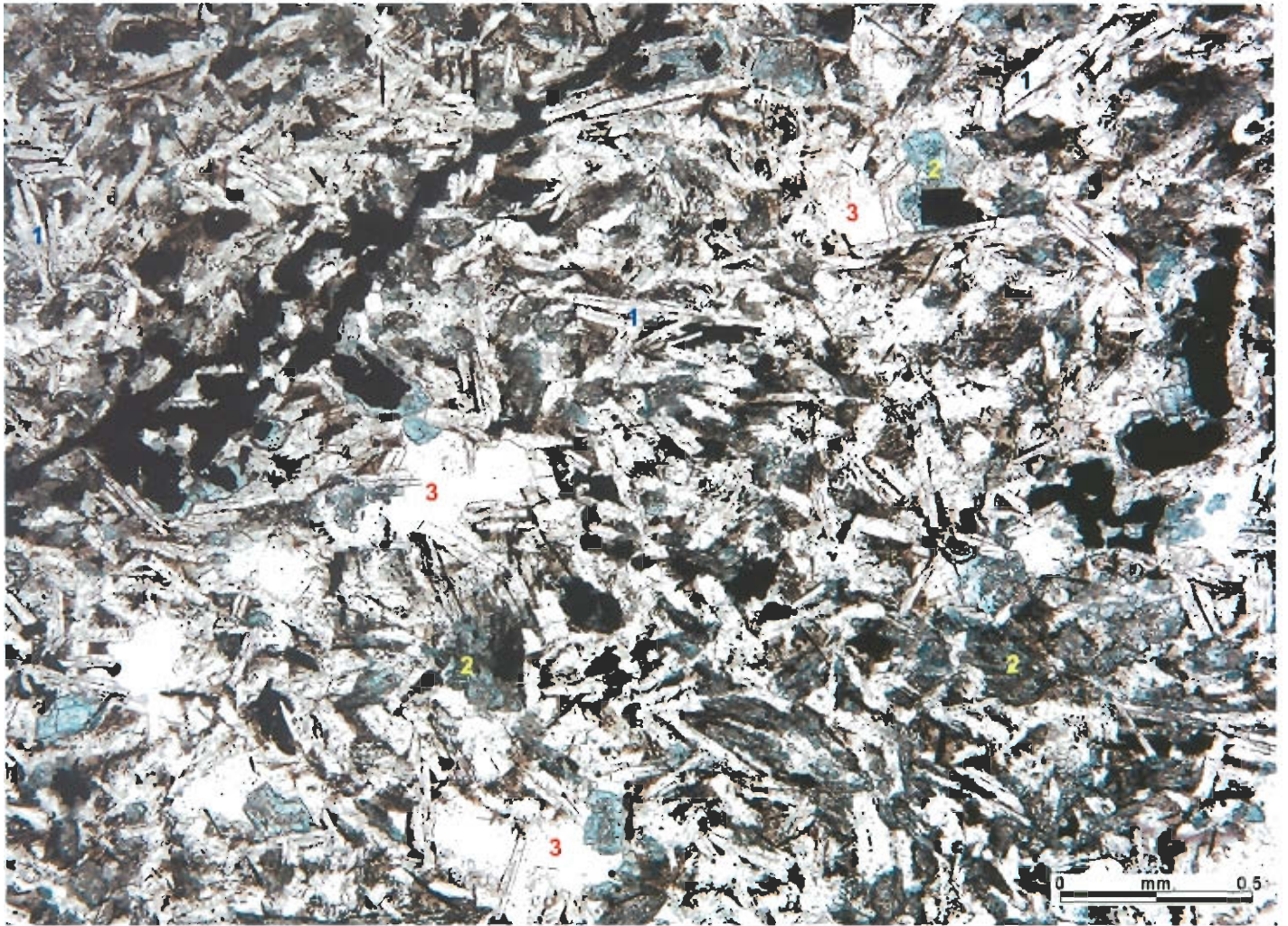
Thank you for selecting Core Laboratories to perform this analysis for Esso Australia Pty Ltd. If you have any questions, or we can be of further service, please call.

Sincerely,

A handwritten signature in blue ink that reads 'Drew Dickert'.

Drew Dickert
Senior Geologist
Core Laboratories
(713) 328-2574

Esso Australia Pty Ltd
Plate 1



Wirrah-2 Well
WIR2-02 (2261.54 m)

This volcanic rock, classified as andesite bordering on latite-andesite, consists primarily of plagioclase laths (1) and alteration minerals, including Fe-dolomite (2; stained blue), chert (3), and pyrite (larger black patches). The pyrite occurs principally within and around numerous microfractures. The chert fills vesicles and replaces some feldspar.