

ANNUAL TECHNICAL EXPLORATION REPORT

FOR THE PERIOD

ENDING 28 FEBRUARY 2010

(MAIDENWELL DIATOMITE)

(SOUTH OF KINGAROY)

MDL293

REGISTERED HOLDER: Maidenwell Holdings Pty Ltd

PROPOSED HOLDER: Clay Resources Limited

COMPILED BY: Maidenwell Holdings Pty Ltd

DATE: February 2010

CONTENTS

1. Summary of Tenure

MDL293 was granted on 1 March 1999 for a term of five (5) years. The tenement was renewed in 2004 and in 2009 for a further five (5) years respectively. The tenement lies 35 kilometres south of Kingaroy.

The Clarence-Moreton Basin is a broad Mesozoic intracratonic basin extending from the Kumberilla Ridge in the west, to the east coast of Australia and overlies the mid to late Palaeozoic rocks of the New England Orogen in south-east Queensland and north-east New South Wales. It consists of three sub-basins. These are from the west, the Cecil Plains Sub-basin, the Laidley Sub-basin and the Logan Sub-basin. The Cecil Plains Sub-basin is separated from the Surat Basin in the west by the Kumberilla Ridge, and from the Laidley Sub-basin to the east by the Gatton Arch. The Laidley Sub-basin is separated from the Logan Sub-basin by a complex structural high called the South Moreton Anticline. A zone of strike slip fault was active since the Early Triassic or Late Permian. The West Ipswich and East Richmond Faults form the west and eastern boundaries of the South Moreton Anticline.

Within the sub-basins are subsidiary structures. The deepest part of the Cecil Plains Sub-basin is a half graben, probably formed by strike-slip faulting, called the Horrane Trough. The Logan Sub-basin consists of a complex series of highs and troughs that probably reflect the trend of older faults. In addition, the Logan Sub-basin is divided along the Queensland-New South Wales border by a group of imposing intermediate intrusions of Tertiary age. Smaller dykes are abundant in this region and extensive basalt shield obscures the Mesozoic geology. The structure contour map of the base of the Clarence-Moreton Basin shows steep upturning by the Mount Barney intrusion that also brings Palaeozoic basement and Ipswich Coal Measures to the surface.

The tectonic history of basin formation in the region can be summarised as follows:

- Late Permian dextral transtension on the West Ipswich Fault formed a basin beneath the Laidley Sub-basin.

- In the Early Triassic, transtension stepped eastward to the Logan Sub-basin and the Esk Trough formed by thermal relaxation subsidence.
- Thermal subsidence and continued minor strike slip faulting formed the Ipswich Basin in the east and the Horrane Trough in the west. The area of the Esk Trough-Laidley Sub-basin was a region of non-deposition.
- From the Late Triassic to probably the Cretaceous, thermal subsidence high across the region saw deposition of the Clarence-Moreton Basin. Minor dextral strike slip movements along the basin forming faults produced locally enhanced subsidence or uplift.
- Compression or transpression during the Late Cretaceous formed minor thrusts with hanging wall anticlines, flower structures and inverted some normal faults.
- Initiation of rifting and sea floor spreading along the eastern Australian continental margin in the palaeogene saw heating and uplift of the eastern part of the Clarence-Moreton Basin and the end of dextral transpression.
- Intermediate to basic volcanics and intrusions produced extensive heating and disruption of parts of basins during the Miocene.

In summary, the tectonic model for the Clarence-Moreton Basin is almost pure dextral strike slip along the Coraki Fault. Such a stress direction would produce transpression and hence thrusting on the East Richmond and Pillar Range Fault, whereas flower structures formed on the eastward side steps or restraining bends on the Coraki Fault. The deeper parts of the Basin occupy zones of dividing faults. The Yamba Trough is a pull-apart basin formed between splay faults, and the Martin and Shannon Faults south of Grafton are thrust faults splaying from the Coraki Fault. The basin would thus offer some areas of extensional tectonics with perhaps improved permeability.

2. Statement of philosophy and objectives of the exploration

To conduct an extensive drilling program to supply existing mine operations.

3. Technical Summary:- N/A

4. Work Completed in the Reporting Year

Operation has been under care and maintenance pending ownership transfer to Clay Resources Limited.

5. Statement detailing whether the program of activities for the permit was complied with during the reporting period, including details of, and reasons for, any failure to comply with the program; and

Maidenwell Holdings Pty Ltd has complied with the Terms and Conditions of the Licence and with the terms of the Mineral Resources Act in relation to the Licence.

6. Proposed Exploration for the forthcoming year

Operation has been under care and maintenance pending ownership transfer to Clay Resources Limited. To be advised.

**7. Statement and a map with cross-sections of any
Resources and reserves identified; and
Statement describing any significant mineralisation
Identified and related geological or structural features**

Map of MDL 293.

