



Exploration Permit (Coal) 1761 – Millmerran

Partial Relinquishment Report

For Period Ending 14th December 2013

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1.0 SUMMARY

This report presents a summary of all the work undertaken within EPC 1761 as a part of Blackwood Corporation's Millmerran exploration program for the twelve month period ending 14th December 2013 on the relinquished sub block. Under Annexure C of the permit conditions of the permit, twenty five (25) sub-blocks have been relinquished reducing the permit from 45 to 20 sub blocks. A variety of issues prevented Blackwood from drilling on EPC 1761 in Year 2. However, drilling alone could not have achieved the detailed geological understanding of the project area that Blackwood's work this year has achieved.

Year 2 of the project focussed on exploration planning and a detailed study with four key deliverables: to build a digital framework for Blackwood's ongoing exploration program; to identify remote sensing and geophysical signatures of the Walloon Coal Measures and Tertiary basalts; to define the distribution of Tertiary basalt and igneous intrusions and determine the distribution of water-bearing units. Blackwood also commissioned the acquisition of 50cm GSD (Ground Sample Distance) colour RGB digital imagery and a DEM/DSM (Digital Elevation Model/Digital Surface Model) from the acquired imagery.

Millmerran project (EPC's 1555, 1702, 1703, 1474, 1475 & 1761) occur in the Jurassic Walloon Coal Measures at the western arm of the Clarence Moreton Basin in south-east Queensland. Blackwood is targeting coal deposits in the Middle to Upper Jurassic Walloon Coal Measures.

2.0 TENEMENT DETAILS

2.1 Introduction

Blackwood Corporation is the holder of Exploration Permit for Coal (EPC) 1761 'Millmerran', which was granted on 14th December 2011 for a term of 5 years and is comprised of 20 sub-blocks (see Table 1 & Figure 1) after a recent relinquishment of 25 sub blocks (see Table 2 & Figure 1).

TABLE 1: LAND SPECIFIED IN EPC 1761

| Block Identification Map | Block | Sub-Blocks | | | | No. of sub blocks |
|--------------------------|-------|------------|----|----------|----|-------------------|
| ARMI | 87 | K | OP | STUVWXYZ | 11 | |
| ARMI | 88 | F | L | Q | V | 4 |
| ARMI | 159 | DE | K | | | 3 |
| ARMI | 160 | A | F | | | 2 |
| | | | | | | 20 |

TABLE 2: LAND RELINQUISHED FROM EPC 1761

| Block Identification Map | Block | Sub-Blocks | No. of sub blocks |
|--------------------------|-------|---------------------------------|-------------------|
| ARMI | 87 | E | 1 |
| ARMI | 88 | A B C D G H J M N O R S T W X Y | 16 |
| ARMI | 160 | B C D E G H J K | 8 |
| | | | 25 |

2.1.1 Location and Access

EPC 1761 is located directly 23klms south of Millmerran in south-eastern Queensland. Millmerran is 82km (1 hour 15 minutes drive) south-west of Toowoomba. The EPC falls within the Toowoomba regional shire. The tenement can be accessed by roads running off the Millmerran-Inglewood road.

EPC 1761 is located in relatively flat country with Canning Creek running through the middle of the EPC. The area has been largely cleared for cropping however there are sections of State Forest scattered throughout the area. Access using farm tracks will be necessary to explore all areas of the EPC.

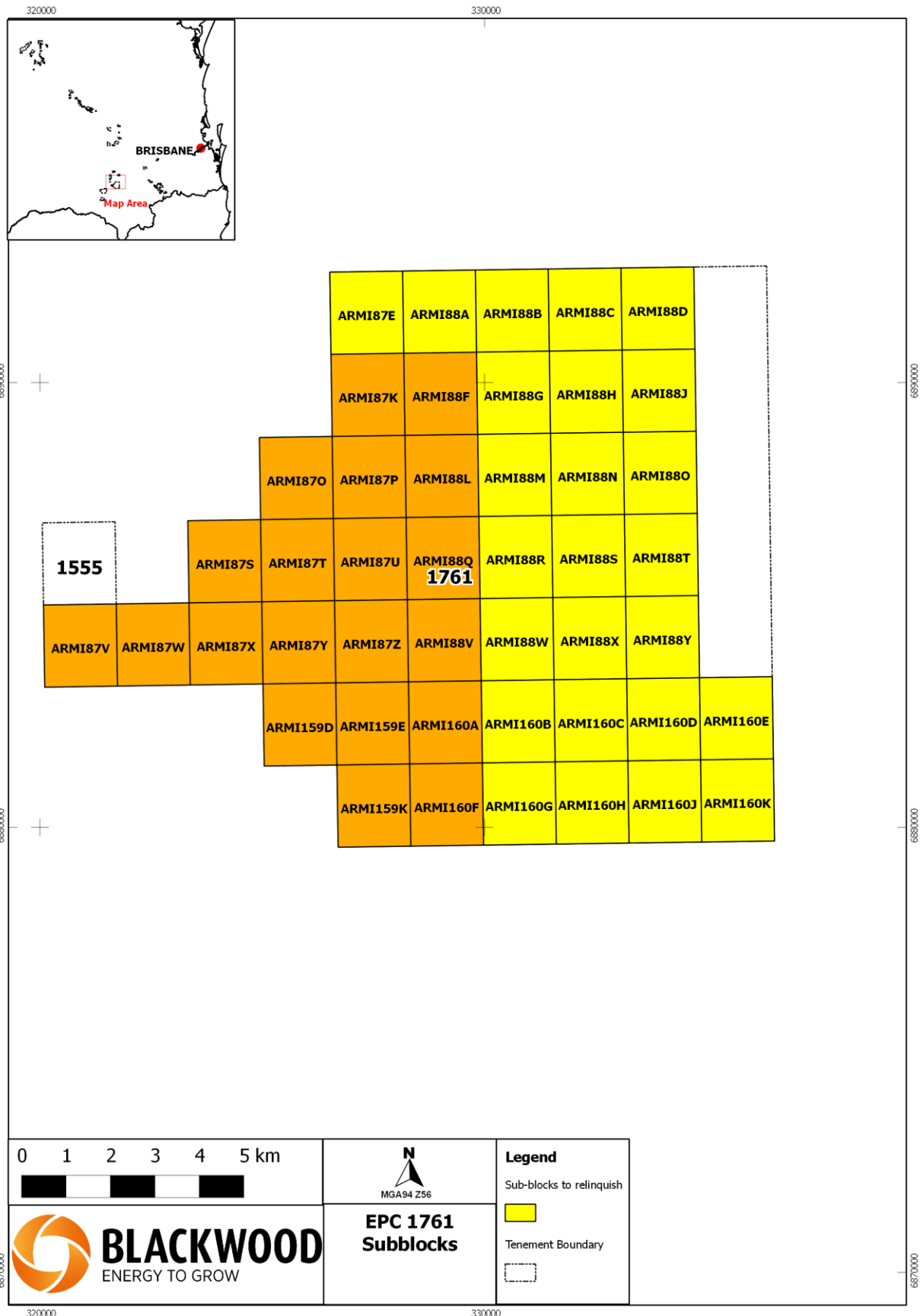


FIGURE 1: EPC 1761 MILLMERRAN SUB-BLOCKS AND LOCATION

2.1.2 Rail Access

The South Western rail system runs from Toowoomba to Dirranbandi via Warwick over approximately 610km (including the Wallangara and Millmerran branches).

2.1.3 Native Title

There are no active Native Title claims over the area covered by EPC 1761.

2.1.4 Restricted Areas

EPC 1761 has the Bringalily State Forest covering part or all of 10 sub blocks in the south of the EPC. There are also sections of Endangered Regional Ecosystems and River Improvement Areas (see Figure 2).

2.1.5 Environmentally Sensitive Areas

A web search of Environmentally Sensitive Areas on the Department of Environment and Heritage Protection web site has found there are Endangered Regional Ecosystems in the EPC. The main areas are in the central and north-eastern corner of the EPC (see Figure 2).

2.1.6 Overlapping Tenure

A web search of IRTM on the Department of Natural Resources and Mines web site has found there is no GHG or EPP overlapping EPC 1761 (Figure 3).

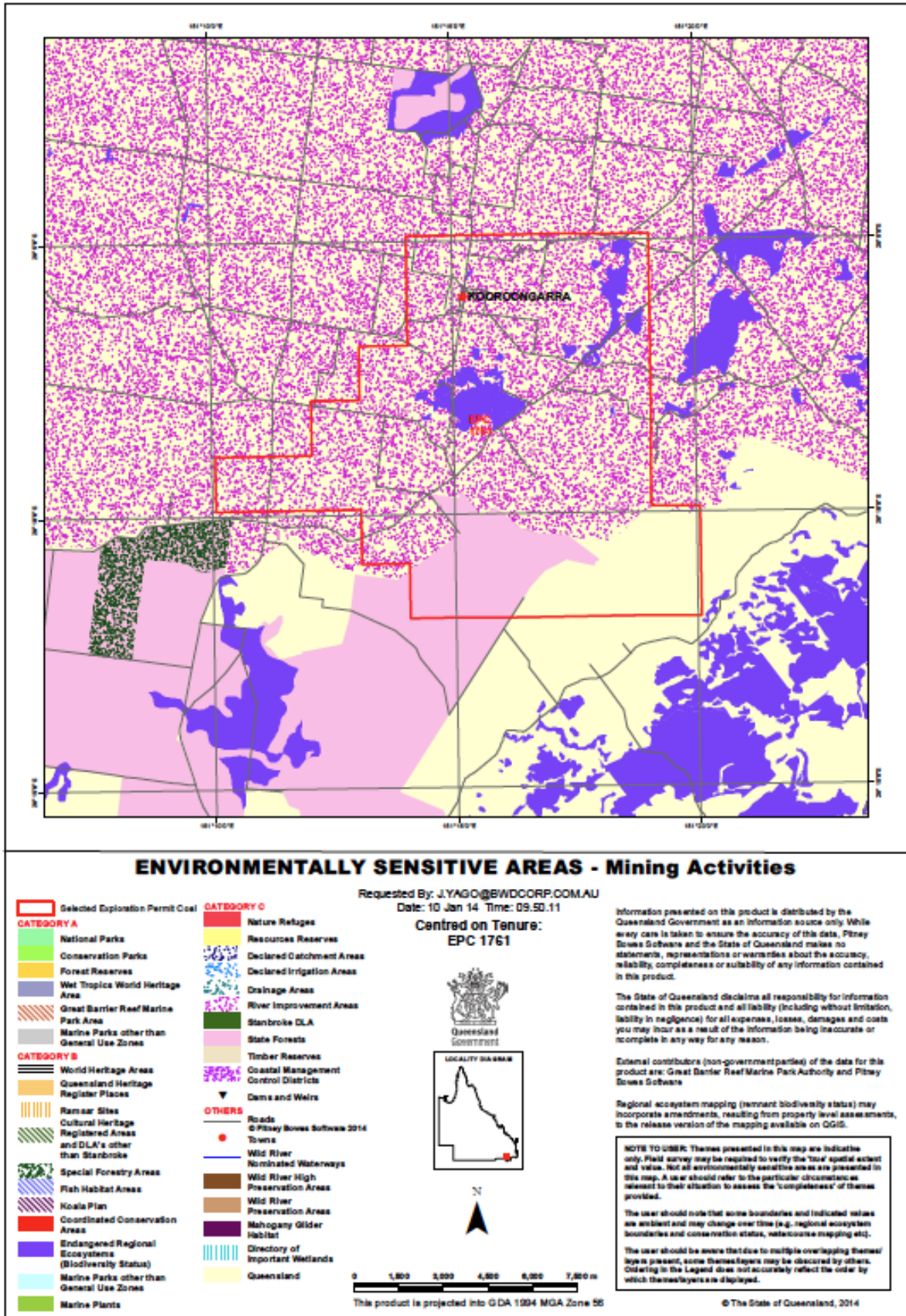


FIGURE 2: EPC 1761 ENVIRONMENTALLY SENSITIVE AREAS

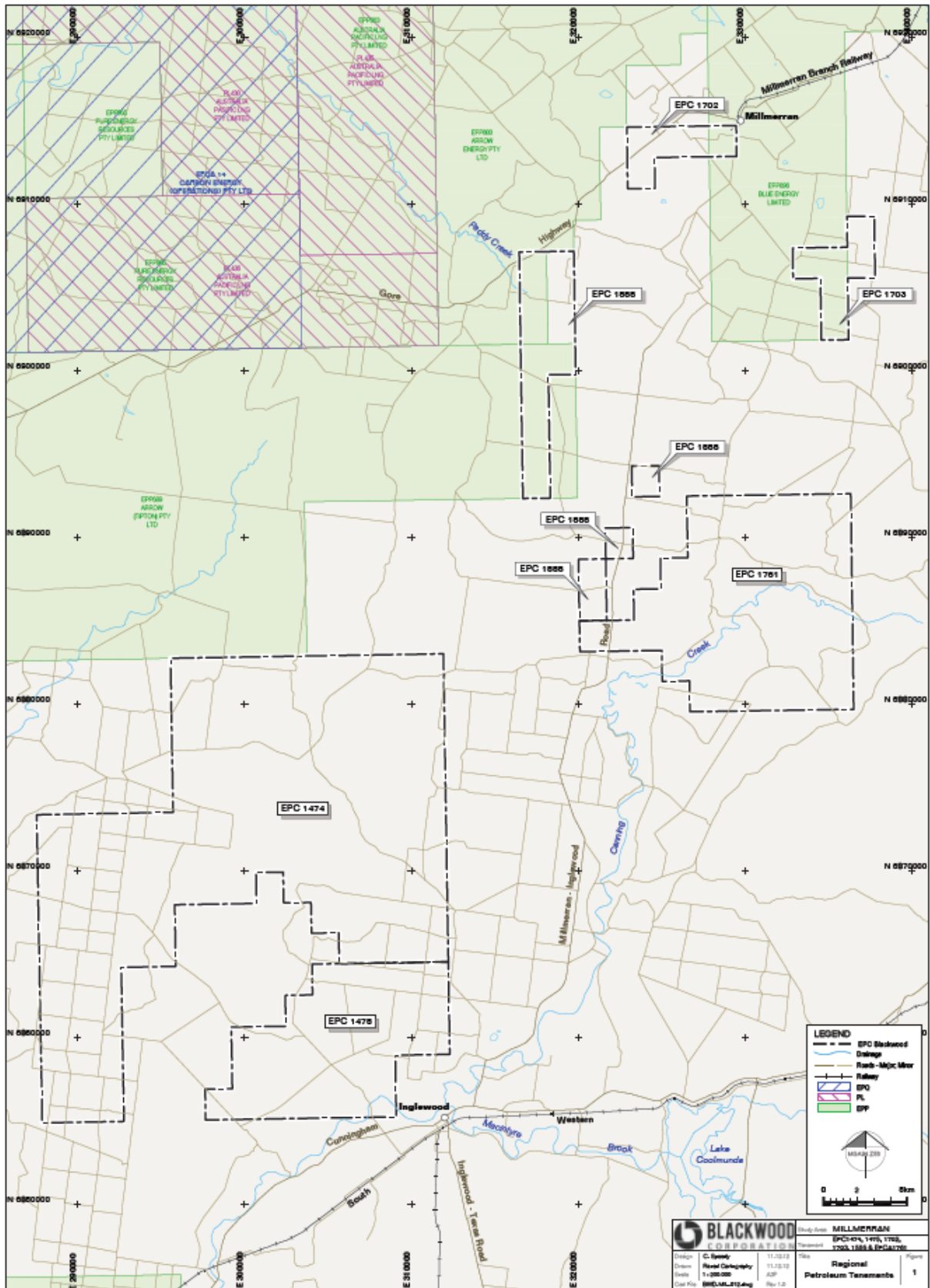


FIGURE 3: OVERLAPPING TENURE FOR BLACKWOOD MILLMERRAN PROJECT

(Note: Figure 3 was drafted prior to 25 sub-block relinquished in December 2013)

3.0 Historical Exploration & Geology

3.1 Regional Geology

The Surat Basin developed over part of the Tasman Geosyncline during the Mesozoic. The Jurassic and Triassic were periods of continental deposition dominated by fluvial sedimentation. Two marine incursions occurred during the Early Cretaceous. Contemporaneous andesitic volcanism was prevalent to the east during both the Jurassic and Cretaceous and the sediments reflect that activity via a high volcanogenic provenance and common pyroclastic rocks. The Late Cretaceous and Early Tertiary were periods of erosion and deep weathering. The Oligocene and Miocene were marked by phases of intense basic volcanism around the eastern margins of the basins. The present remnant erosional surface of the basins consists of uplifted and tilted yet relatively undisturbed Jurassic and Cretaceous strata overlying the Permo-Triassic sediments of the southern Bowen Basin and Palaeozoic basement.

The overall sedimentary development of both the Surat and Clarence-Moreton Basins was contemporaneous, and for the most part broad stratigraphic units can be correlated. However underlying tectonics and sources of sediment were different, which has resulted in differentiation of the sedimentary sequences, and in particular, the coal bearing sequences have different characteristics.

The Late Triassic Bundamba Group consists of a thick sequence of mainly conglomerate and sandstone deposited in a fluvial to lacustrine environment. An unconformity toward the top of the Bundamba Group separates out an upper unit, the Marburg Subgroup, which consists of interbedded sandstone, siltstone and claystone formed in a meandering stream environment. It appears to be transitional with the overlying Mid-Jurassic Walloon Coal Measures.

The Walloon Coal Measures represent a major episode of widespread fluvial and lacustrine to paludal deposition covering the Clarence-Moreton, Surat, and Eromanga Basins. They consist of grey siltstone, thick-banded coal horizons and fine- to medium-grained lithic sandstone. The overall thickness of the Walloons is remarkably consistent, averaging 420-440 m thick in the eastern Surat Basin, although individual seam packages can vary in thickness. The sequence thickens into the Clarence-Moreton Basin and, including the underlying Marburg Formation; a broad transitional zone, has a combined thickness of 800 m.

The principal coal-bearing sequence in the Surat and Clarence-Moreton Basins is the Walloon Subgroup (Tables 2 & 3). Within the Walloon Subgroup, the basin contains two coal-bearing formations: the upper Taroom Coal Measures and the lower Juandah Coal Measures. These coal measures are separated by the erosive Tangalooma Sandstone which has locally eroded parts of the Taroom section. This nomenclature has been formalised in the Surat Basin, however a number of informal names for units within the Walloon Coal Measures exist for the Clarence-Moreton Basin. Correlation of units between the two basins is approximate. The coal "seams" occurring within the two

coal-bearing formations are commonly described as “coal packages”, as distinct tabular coal seams are relatively uncommon, with seam splitting and variable thickness a common feature. Often a “coal package” will contain a number of coal seams, and that “package” can be recognised on a basin wide scale.

The coal packages in the Juandah Coal Measures were formed in an environment where fluvial channels were from time to time relatively stable, enabling thick peat deposition with only minor interruption by overbank mud deposits and minor pyroclastic deposition. The geometry of swamp areas was such that the areas of thick peat deposition formed “pod shaped” deposits between channels, and channel migration and relocation restricted peat swamp development over large areas. The plan shape of significantly thick deposits outlined by drilling is commonly of restricted areal extent, rather than the very wide extent characterising the seams of the Bowen and Sydney Basins. The Taroom Coal Measures formed in a similar environment to the Juandah Coal Measures, with likely lower energy fluvial activity. Three seams are consistently recognised occurring near the top of the formation in the Surat: Auburn, Bulwer, and Condamine coal seam packages. Three seams are mined at the Commodore deposit just south of Millmerran: Koorongarra seam, Commodore seam, and Bottom Rider seam.

The Walloon Coal Measures are overlain by the distinctive medium to coarse-grained litho-feldspathic Springbok Sandstone. Igneous rocks formed during Tertiary occur throughout the basin as flows and intrusives.

TABLE 3:

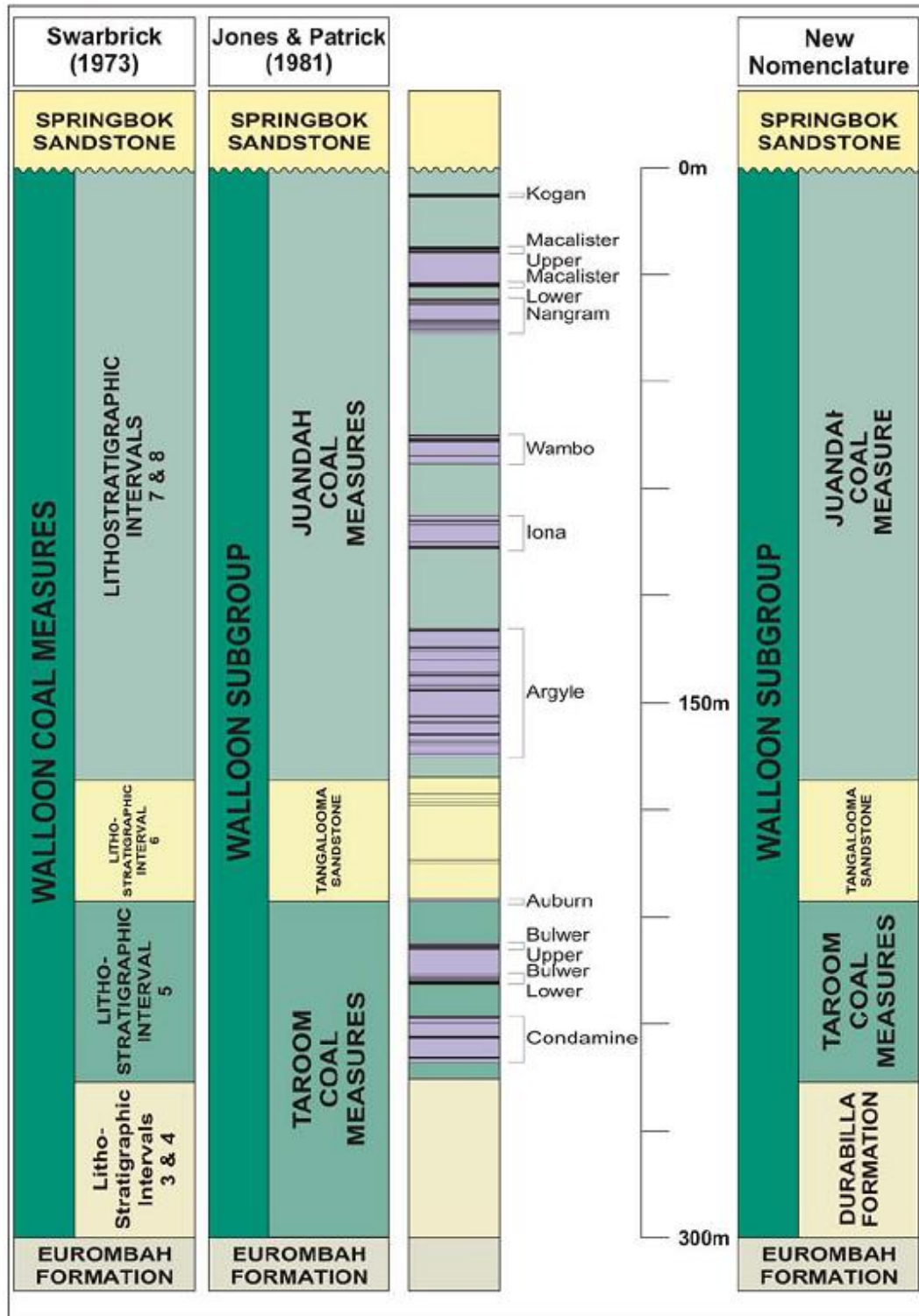
STRATIGRAPHY OF THE NORTH-EASTERN SURAT BASIN

(after Jones & Patrick, 1981)

| AGE | | FORMATION | DESCRIPTION | |
|-------------------------|--------------------|------------------------|---|---|
| Late Jurassic | | Gubberamunda Sandstone | Fine to coarse and pebbly, poorly sorted, friable, cross-bedded, quartzose to sub-labile sandstone. Minor interbedded siltstone and mudstone. Upper fluvial depositional environment | |
| Middle to Late Jurassic | | Westbourne Formation | Finely interbedded lithic sandstone, mudstone and coal in lower part. Interbedded siltstone and lithic sandstone in upper part. Lacustrine deposition grading to point bar at the top | |
| | | Springbok Sandstone | Litho-feldspathic sandstone, medium to coarse, porous and friable, some calcareous and cemented beds, minor siltstone, mudstone and coal seams. Lower part trough cross-stratified with authigenic matrix, upper part poorly cemented, exhibiting point bar depositional features | |
| Middle Jurassic | Injune Creek Group | Walloon Sub-Group | Juandah Coal Measures | Lithic, labile sandstone, interbedded with siltstone, mudstone and coal, with coal deposition more frequent towards top. Argillaceous component of sandstone is mainly authigenic |
| | | | Tangalooma Sandstone | Lithic, labile sandstone, medium grained with argillaceous matrix. Numerous intraformational conglomerate beds. Sedimentary structures suggest channel deposition grading to point bar deposition |
| | | | Taroom Coal Measures | Sub-labile, medium grained sandstone grading upwards to interbedded sandstone, siltstone, mudstone and coal |
| | | | Eurombah Formation | Lithic to sub-labile, poorly sorted, medium grained sandstone with argillaceous matrix. Minor siltstone and mudstone in basal section, more argillaceous towards top |
| Early Jurassic | | Hutton Sandstone | Interbedded labile to quartzose sandstone, siltstone and mudstone and intraformational conglomerate | |

TABLE 4: STRATIGRAPHY OF THE WALLOON SUBGROUP

(after Scott et al, 2007)



3.1.1 Local Geology

The local geology of EPC 1761 is shown in Figure 5. The target Walloon Coal Measures lie at shallow depth beneath Cainozoic cover, and the late Jurassic Kumbarilla Beds within the EPC. In borehole "Bora Creek 1"; approximately 15km to the North-west of the tenement, the Walloon Coal Measures

were intersected at a depth of 11m and were 230m thick. There was 6.3m net coal intersected within the Walloon Coal Measures in Bora Creek-1. Commodore open-cut mine, located 15km north of EPC 1761, mines three banded seams: Kooroongarra – up to 3m thick; Commodore – 5.2m average thickness; and bottom Rider – 0.5-0.9m thick.

According to Millmerran Coal’s maps of previous drilling there is “major coal development” in boreholes; 115, 117, and 118, with “minor coal development” in boreholes 120 to 123. English logs of borehole logs were not provided with the company report therefore depth of cover, seam thickness and total borehole depths are not available. The regional strike is north-south and the strata dip 1-2 degrees to the west. Figure 4 shows this westerly dip which implies the lower Walloon Coal Measures should near the surface in the eastern portion of EPC 1702 (the northernmost EPC in Blackwood’s Millmerran Project area). Drilling in this section of the tenement will verify the extent of coal development within the lower Walloon Coal Measures, and allow for interpretation of any local structures.

The local geology of EPC 1761 is shown in Figure 5. The tenement is covered by Jurassic sandstone and Quaternary alluvium which most likely overlies the Marburg Subgroup given Millmerran Coal Pty Ltd’s drilling results from boreholes 14, 109, 111, and 113. These boreholes were drilled to the east of the “Main Seam” sub-crop in the lower Walloon Coal Measures to depths of between 45-55m, returning no coal. Quaternary overburden is reported to probably be at least 45m thick in this area with any underlying Walloon Coal Measures being stratigraphically lower than the target seams given the regional strike is north-south and the strata dip gently to the west south-west (figure 4). Further drilling to more significant depths is needed to verify this conclusion.

Bringilly South deposit is located 5km west of EPC 1761. Historic drilling has identified a potential deposit of 10-100 Mt.

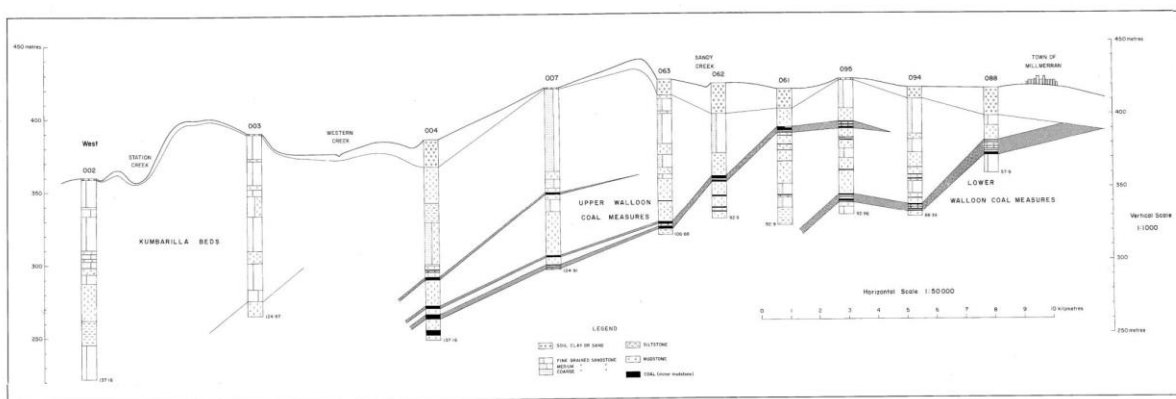


FIGURE 4: WALLOON COAL MEASURES CROSS-SECTION (after Amax-Mitsui 1980)

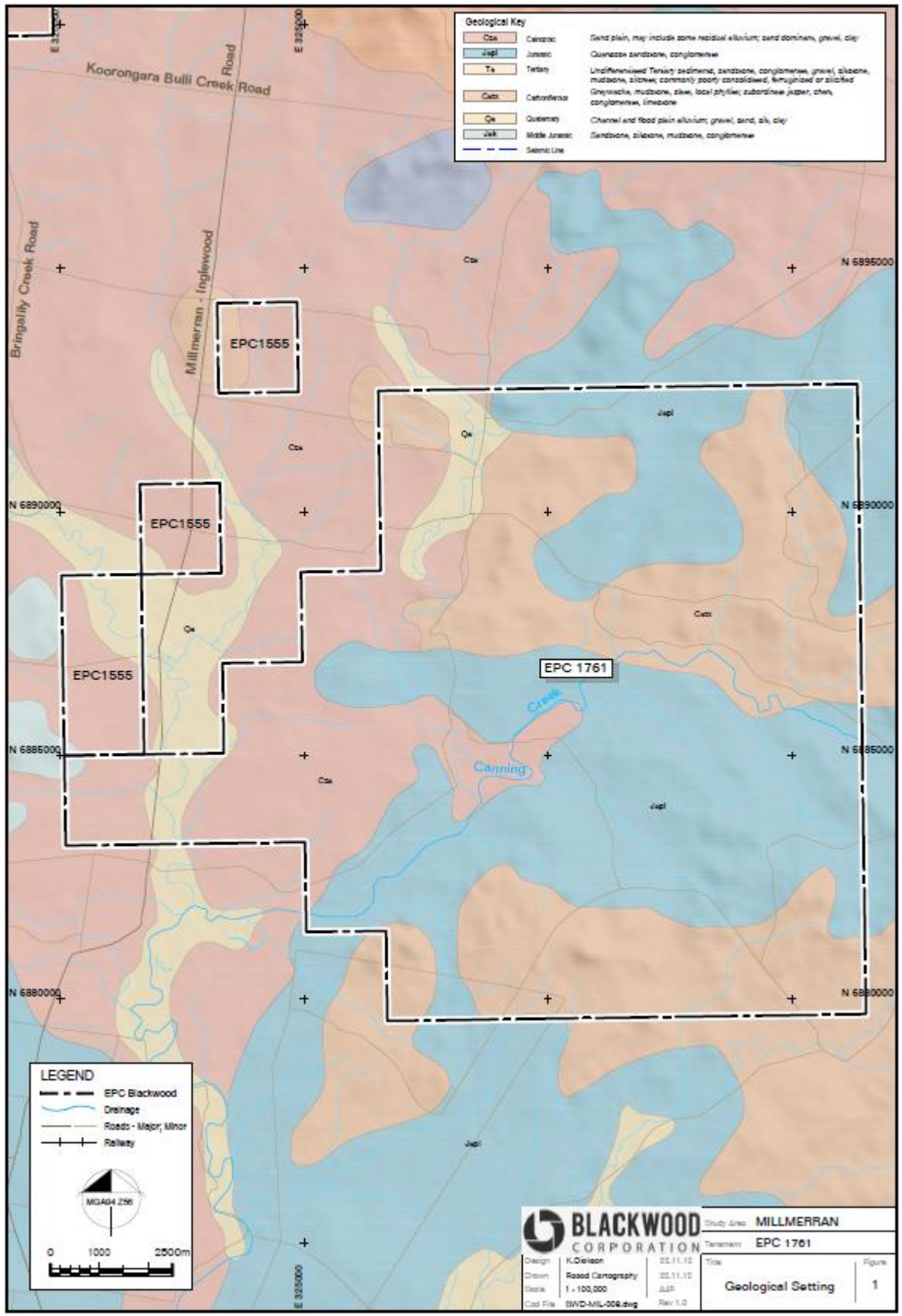


FIGURE 5: EPC 1761 LOCAL GEOLOGY
 (Note: Figure 5 was drafted prior to 25 sub-block relinquished in December 2013)

The Clarence-Moreton/ Surat Basin has a fairly simple structure of horizontally bedded Triassic and Jurassic sediments. The Walloon Coal Measures are within these sediments in the Middle to Late Jurassic.

The nearby geology of EPC 1761 is shown in Figure 4. The target Walloon Coal Measures lie at shallow depth beneath Cainozoic cover, and the late Jurassic Kumbarilla beds in the north of the EPC 1474. In borehole 'Bora Creek 1'; 1.5km to the north of EPC 1474, the Walloon Coal Measures were intersected at a depth of 11m and were 230m thick. There was 6.3m net coal intersected within the Walloon Coal Measures in Bora Creek-1. The coal deposits Brigalily North and South, which are located between the two separated areas making up EPC 1555 have strata that dip gently west. Here three coal seams are present: T seam – 0.5m-1m average thickness; MU seam – 1.49m; and ML seam – 0.5-2m. Commodore mine, located just north of EPC 1555 mines three banded seams: Kooroongarra – up to 3m thick; Commodore – 5.2m average thickness; and bottom Rider – 0.5-0.9m thick. These deposits are amenable to large scale open-cut mining.

In the southern-most areas in EPC1474, the Walloon Coal Measures are sub-cropping, covered by only shallow alluvium. Trapyard-1 was drilled approximately 7km to the south-west of EPC 1555, intersecting 9.5m of net coal within the Walloon Coal Measures (though mostly at depths >140m). Based on wire line logs the seams range in thickness from 1.35m to 0.12m. It appears that the upper Jundah Measures have been eroded in this well, suggesting that in nearby areas of Walloon Coal Measures sub-crop; the upper seams may also be eroded. Arrow Energy drilled CSG Well 'Glenhaven 1' some 20km northwest of Inglewood and observed that much of the Juandah Coal Measures had been eroded by the Springbok Sandstone with only the Argyle and Taroom coals being intersected. Based on the wireline logs the coals were thin with a maximum thickness of 0.6m within the Argyle package.

Thick Taroom coals which Arrow had intersected further to the north appear to be non-existent or very thin. Oberhardt, 2005 postulated that this might be due to the fact that the southern parts of the Millmerran Project Area may be closer to the sediment source or the deposition palaeochannel environment of the meandering-braided fluvial system. 'Bora Creek-1', a CSG Well also drilled by Arrow Energy, 10km south of Millmerran/45km northeast of 'Glenhaven 1' encountered an eroded section of the Walloon Coal Measures with only the Wambo, Iona and Argyle of the Juandah Coal Measures present above the lower Taroom Coal Measures. Both Well Completion Reports comment on lateral changes in the coal measures and thinning/deterioration to the south; a comment reiterated by Agip Australia Pty Ltd.

Blackwood's Millmerran tenements include EPC 1702 and EPC 1703 which surround the 3Mtpa Commodore open-cut mine, located just south of the town of Millmerran. The mine commenced production in 2001 to supply coal to the 840MW Millmerran power station. Further significant coal resources, Bringalily South, Bringalily North and Lochbar have been delineated to the south of

Commodore and are amenable to open-cut extraction. Blackwood's Millmerran tenements EPC 1555 and EPC 1761 are situated within one kilometre of the Bringalilly North and Bringalilly South resources.

The target Walloon Coal Measures lie at shallow depth beneath Cainozoic cover, and the late Jurassic Kumbarilla Beds within EPC 1474. In borehole "Bora Creek 1"; approximately 5km to the south-west of the EPC 1474, the Walloon Coal Measures were intersected at a depth of 11m and were 230m thick. There was 6.3m net coal intersected within the Walloon Coal Measures in Bora Creek-1. Commodore open-cut mine, located 6km south-east of EPC 1702, mines three banded seams: Kooroongarra – up to 3m thick; Commodore – 5.2m average thickness; and bottom Rider – 0.5-0.9m thick.

According to Millmerran Coal's maps of previous drilling there is "major coal development" in boreholes; 115, 117, and 118, with "minor coal development" in boreholes 120 to 123. English logs of borehole logs were not provided with the company report therefore depth of cover, seam thickness and total borehole depths are not available. The regional strike is north-south and the strata dip 1-2 degrees to the west. Cross sections of the area indicate this westerly dip which implies the lower Walloon Coal Measures should near the surface in the eastern portion of EPC 1702. Drilling in this section of the tenement will verify the extent of coal development within the lower Walloon Coal Measures, and allow for interpretation of any local structures.

EPC 1474 is mostly covered by Jurassic Kumbarilla Beds sandstone and conglomerate, which most likely overlies the Marburg Subgroup given Millmerran Coal Pty Ltd's drilling results from boreholes 14, 109, 111, and 113. These boreholes were drilled to the east of the "Main Seam" sub-crop in the lower Walloon Coal Measures to depths of between 45-55m, returning no coal. Quaternary overburden is reported to probably be at least 45m thick in this area with any underlying Walloon Coal measures being stratigraphically lower than the target seams given the regional strike is north-south and the strata dip gently to the west south-west. Further drilling to more significant depths is needed to verify this conclusion.

Commodore open-cut mine, located 30km North East of EPC 1474, mines three banded seams: Kooroongarra – up to 3m thick; Commodore – 5.2m average thickness; and bottom Rider – 0.5-0.9m thick. It appears that these seams do extend further north into EPC 1702, however, this needs to be verified by drilling.

3.1.2 Regional Review

Matilda has carried out a regional review of the geology and historic exploration in the Millmerran Project area to put EPC 1761 in perspective in terms of its potential to host an economic coal deposit. This review was integrated in the 187 historic drill holes that were modelled previously by Blackwood Corporation that indicated the Bulwer subcrop trending through the western margin of EPC 1761 with the seam dipping to the west. Figure 6 summarises this review and highlights the number of MDL's in

the area and the proximity of ML50151 held by Queensland Power Company. This Mining Lease supplies coal to the 850 mega-watt Millmerran coal fired power station.

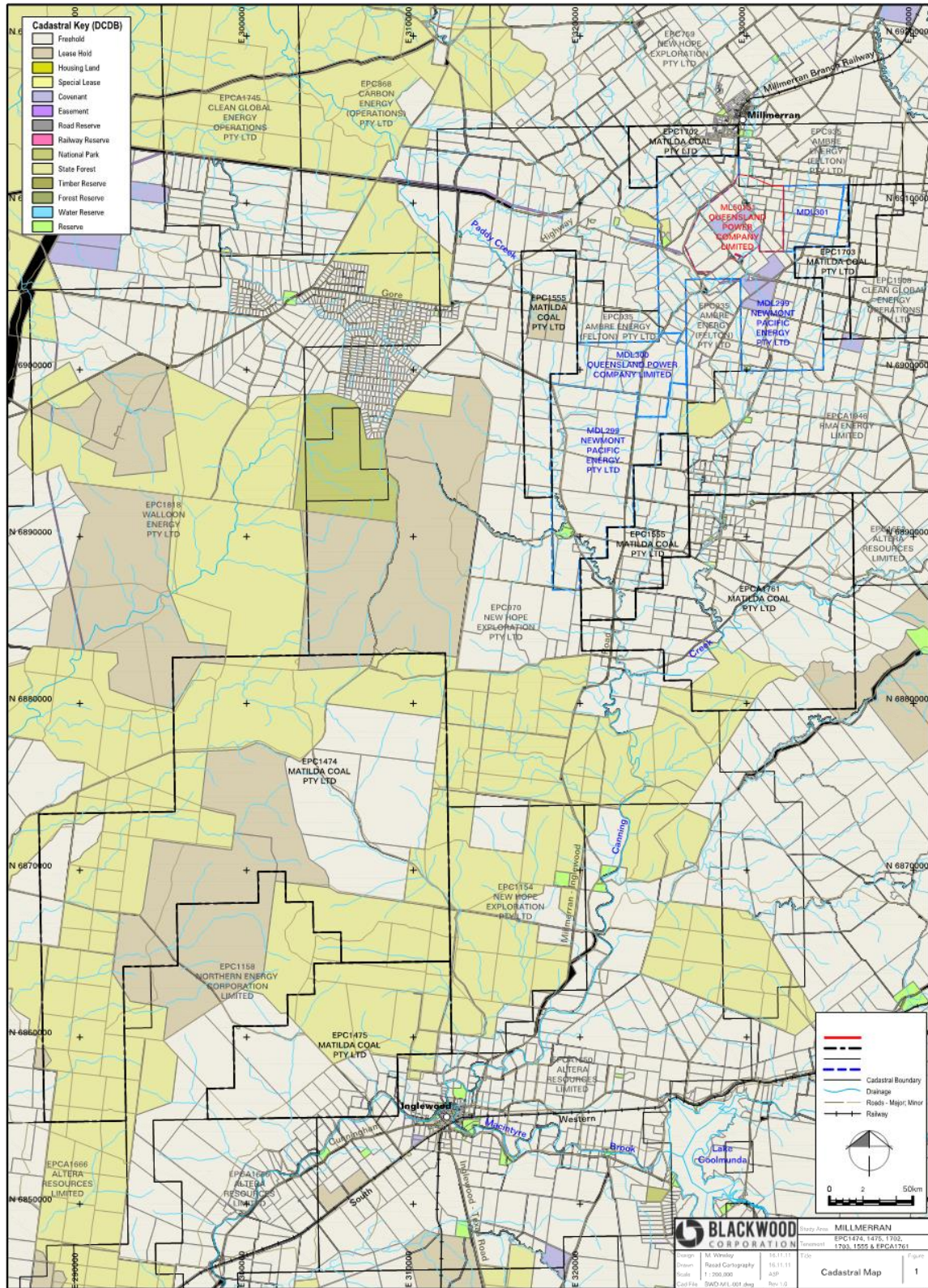


FIGURE 6: REGIONAL VIEW - MILLMERRAN & INGLEWOOD CADASTRAL WITH BLACKWOOD EPC'S AND COMPETITOR TENURE
 (Note: Figure 6 was drafted prior to 25 sub-block relinquished in December 2013)

3.1.3 Historic Exploration

There has been extensive exploration drilling around Millmerran, especially since the 1970s. Typically historical drilling for coal has been relatively shallow, averaging 50-80m. Much of the Millmerran area contains Walloon Coal Measures at shallow depths, with gently dipping strata. The largest discovery near Millmerran has been the deposit at Commodore Mine 7km to the south of the town.

In 2001 construction of the 500Mt Commodore Coal Mine began. It currently produces 3.6Mtpa, which has supplied Interger's Millmerran power station since 2002.

Previous exploration indicates the reasonable potential for coal seams within the western edge of EPC 1761. Boreholes to the west of EPC 1761 have intersected coal at shallow depths. The coalfields shown in Figure 7 neighbouring EPC 1761 indicate the potential prospectivity of this tenement, which contains the same coal bearing strata.

4.0 Exploration Rationale

The target within Matilda Coal's Millmerran exploration program is thermal coal in the Jurassic Walloon Coal Measures. Historical drilling and proximal deposits indicate this unit to be at shallow depths just west EPC 1761. Commodore mine and Lochbar coal deposit are directly north of EPC 1761. Further drilling, along with seismic where required, will test the continuity and structure of any seams within EPC 1761. Based on the modelling so far, it is unlikely that coal will be found at the necessary depth in the eastern section of the this EPC.

Coal seams hosted by the Walloon Coal Measures in the Clarence Moreton Basin are currently being mined for thermal coal at Commodore, Jeebropilly, New Ackland, and Felton mines. ROM coal has predominantly been used as feedstock for domestic mine mouth power plants but can be washed down to a 12.0-17.0% ash thermal coal product suitable for the export market.

A review of historical data including boreholes within the region, geological maps, and other historical data from surrounding tenements confirms the potential presence of an economic coal resource in EPC 1761. Further exploration, will provide a much greater understanding of EPC 1761's coal resources. The points below briefly summarise why Blackwood Corporation continuing pursue the Millmerran Project:

- Prioritisation of historic data compilation within EPC 1555 and EPC 1702. Both these tenements are interpreted to be largely unencumbered by Tertiary Basalts and analysis of the water bore data suggests the higher priority areas within EPC 1555 and EPC 1702 are relatively less affected by groundwater. There are 25 boreholes to be compiled and these are often spaced at less than 2km, providing sufficient data for prospectivity analysis. Exploration

planning would benefit from additional attribution of the database and a review of a new drilling compilation to be release by GSQ during March, 2013 is warranted.

- The spectral classification study has highlighted areas of interest warranting field follow-up and cross-reference to the Blackwood borehole database within EPC 1474 and EPC 1475. These patches (approximately 2km x 2km in extent) show clay-rich spectral characteristics similar to that of the known coal resources against an iron-rich background.
- Comparison by Blackwood of higher coal to burden ratios at Millmerran with equivalent data at Chinchilla, Dalby and Warwick. Analysis on the current Blackwood borehole database indicates the best coal to burden ratio within a Blackwood Millmerran tenement occurs in the eastern parts of EPC 1474 and EPC 1475 (1.3m in 10m).
- Literature reviews on the Bringalily North and South and Lochbar coal resources that border Blackwood tenements EPC 1555 and EPC 1761 to understand the potential for continuation of the resource into these tenements.

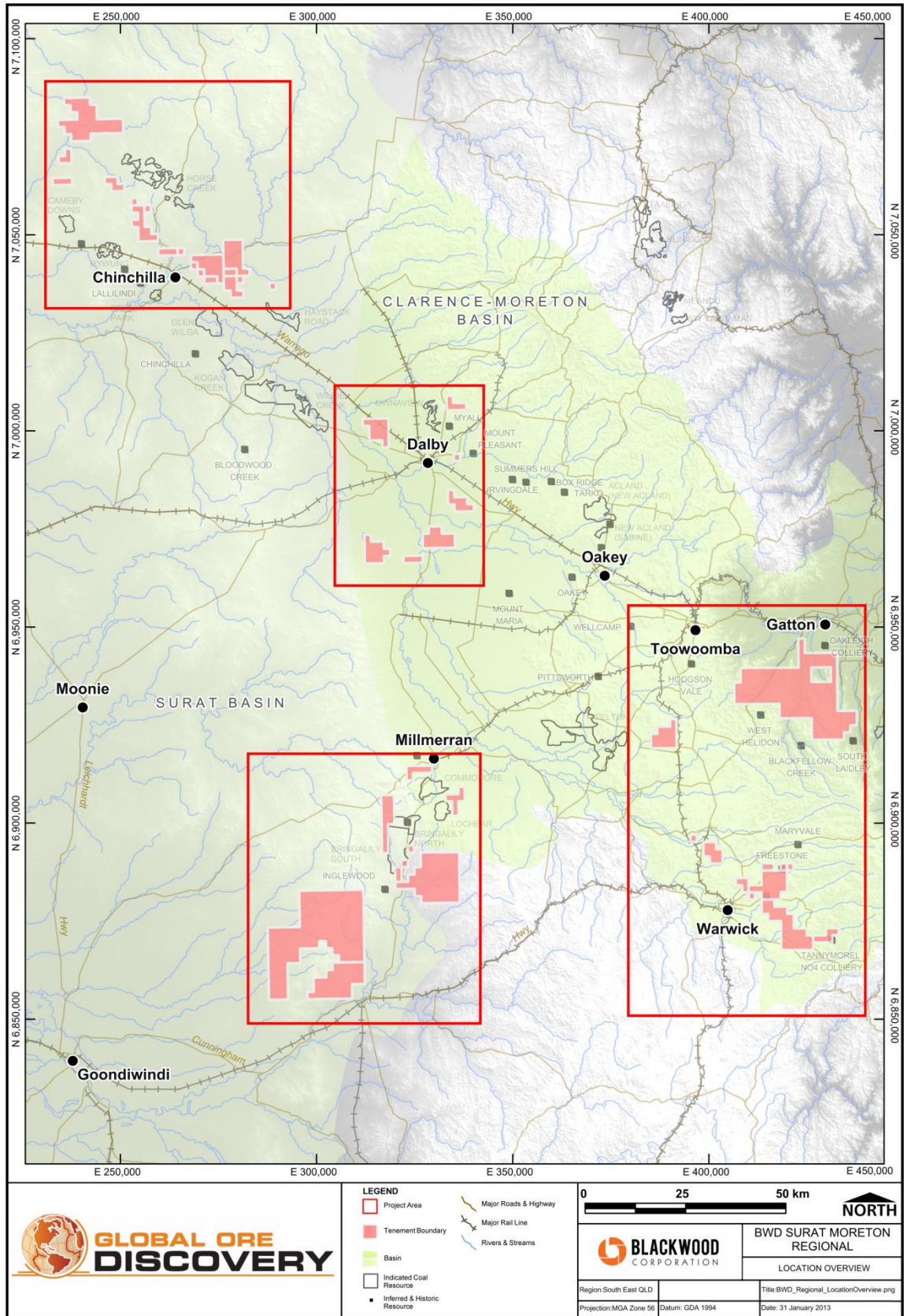


FIGURE 7: SURAT & CLARENCE-MORETON BASIN PROJECT AREAS SHOWING BLACKWOOD CORPORATION TENURE & HISTORIC COAL RESOURCES

4.1 Exploration Program

A variety of issues prevented Blackwood from drilling on EPC 1761 in Year 2. Weather and land access were the main problems. Blackwood have conducted a systematic and thorough review of geological, geophysical, remote sensing and drilling data covering the Millmerran Project Area. Results of the analysis will be used to plan an efficient exploration program for the next year of the tenement licences. Within the Millmerran Project Area, Blackwood are aiming to identify regions prospective for:

- Large areas of lower Walloon Coal Measures
- Unencumbered by thick sequences of overlying Kumbrilla Beds, in
- Structurally favourable settings
- With a favourable ratio of coal to burden

The exploration rationale is supported by historic coal resource reports described in Section 4.0 and abundant Walloon Coal Measures as shown on published geological maps (1: 250 000 scale). A review of historic reports suggests the seams within the Juandah Coal Measures and Taroom Coal Measures may be present at depth within the tenure and Blackwood's exploration will aim to define the occurrence, depth, extent and continuity of these seams where encountered. Previous explorers relinquished tenure overlapping the Millmerran Project area now held by Blackwood citing:

- High ash content in the coal measures
- High degree of stone banding of raw coal,
- Seams of thin, discontinuous or deteriorated nature (especially in the South)
- Substantial sedimentary cover

To overcome these challenges, Blackwood's work program has commenced with desktop analysis to integrate existing data, highlight the areas of Walloon Coal Measures least encumbered by thick Kumbarilla Beds and groundwater, and to build a digital exploration framework that facilitates dynamic interpretation of new geophysics and drilling data collected from the field. Blackwood's integrated remote sensing study and digital exploration framework build has been conducted in the current exploration licence year as outlined in this report.

4.2 Work Conducted

The company reports (other than Blackwood's own) that were reviewed as part of this years work are shown in Table 5.

TABLE 5: COMPANY REPORTS REVIEWED

| Report CR | Tenement | Report CR | Tenement |
|------------------|-----------------|------------------|-----------------|
| 10353 | ATP 291C | 8884 | ATP 203C |
| 9771 | ATP 291C | 8675 | ATP 330C |
| 57149 | ATP 935C | 8257 | ATP 291C |

| Report CR | Tenement | Report CR | Tenement |
|------------------|-----------------|------------------|-----------------|
| 22440 | ATP 203C | 8256 | ATP 291C |
| 11816 | ATP 349C | 8216 | ATP 287C |
| 11304 | ATP 203C | 8215 | ATP 287C |
| 10778 | ATP 349C | 7718 | ATP 203C |
| 10666 | ATP 287C | 7255 | ATP 240C |
| 10353 | ATP 291C | 7189 | ATP 230C |
| 9974 | ATP 203C | 7136 | ATP 203C |
| 9771 | ATP 291C | 7133 | ATP 203C |
| 9770 | ATP 291C | 6825 | ATP 203C |
| 9676 | ATP 349C | 6662 | ATP 225C |
| 9229 | ATP 291C | 6334 | ATP 203C |
| 9176 | ATP 287C | 6258 | ATP 72?C |
| 9175 | ATP 287C | 4962 | ATP 142C |
| 8884 | ATP 203C | 4473 | ATP 112C |
| | | 4264 | ATP 112C |

Figure 8 and Figure 9 show tenure outlines and the relative number of historic licences held over each Blackwood tenement in the Millmerran Project Area. These figures show the intensity of EPC and EPP tenures in the Blackwood Millmerran Project area.

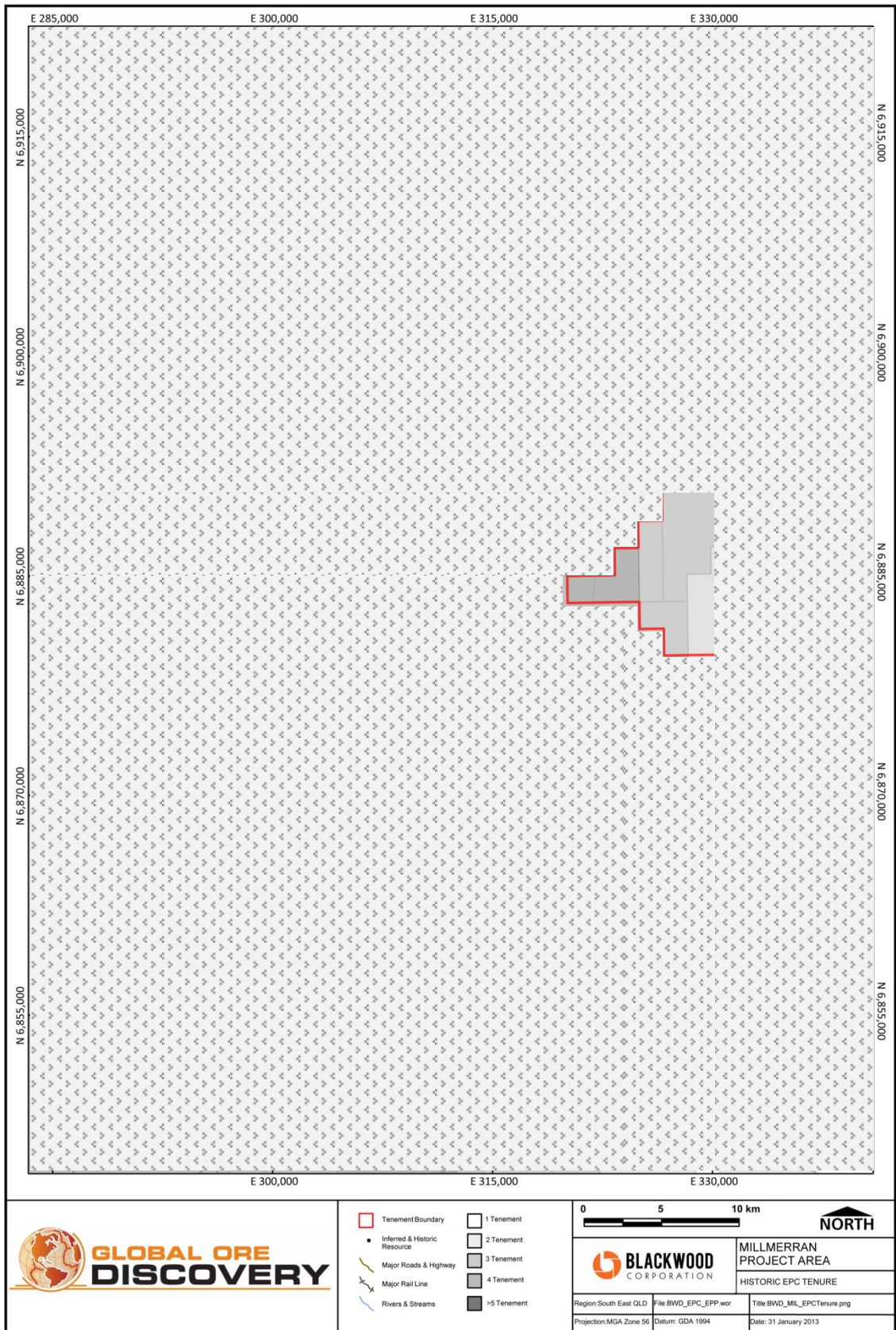


FIGURE 8: HISTORIC EPC TENURE AND BLACKWOOD TENURE, MILLMERRAN PROJECT AREA

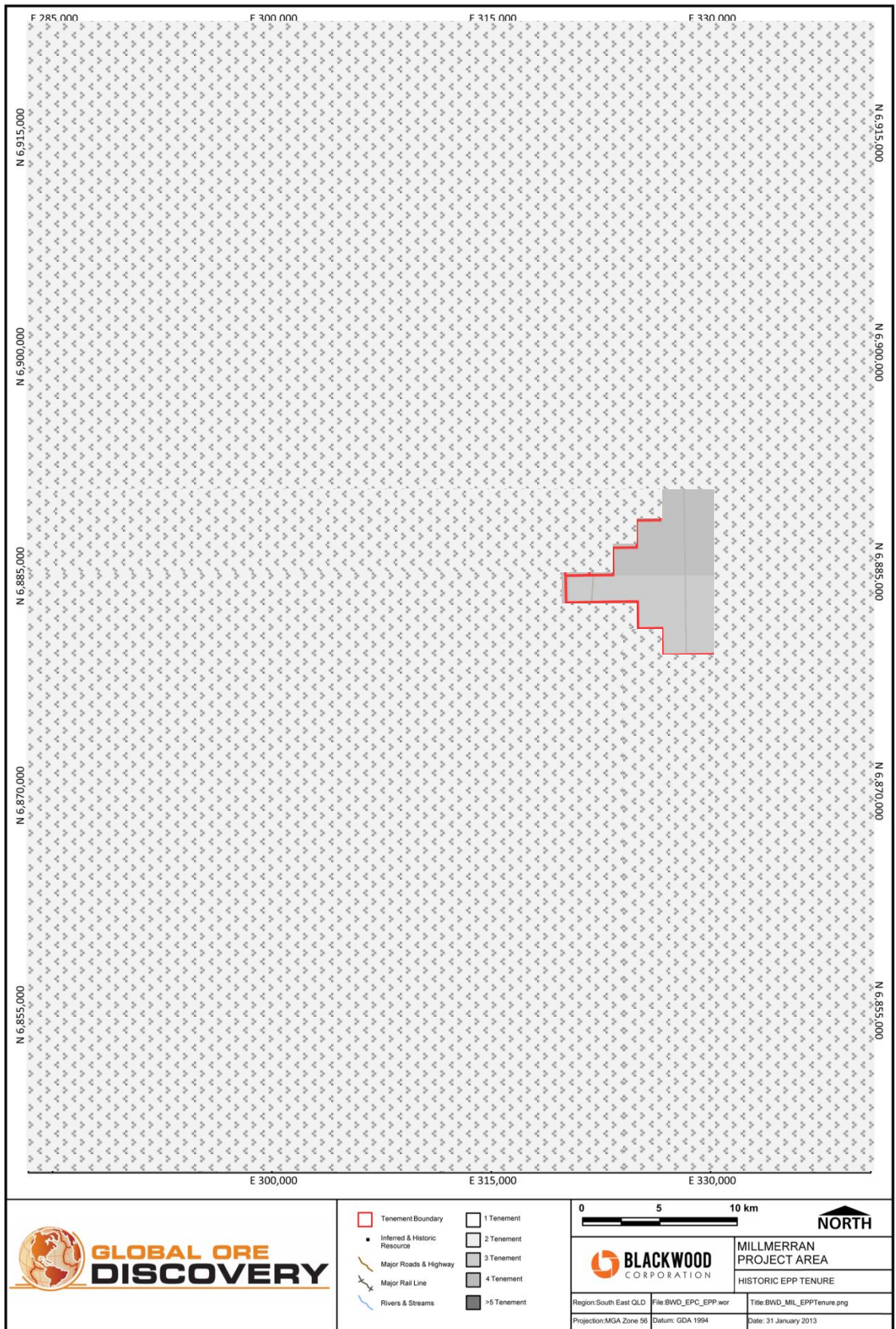


FIGURE 9: HISTORIC EPP TENURE AND BLACKWOOD TENURE, MILLMERRAN PROJECT AREA

4.2.1 Geophysics

Airborne geophysics and ground geophysics datasets compiled and were used in the study. The data includes regional open-file gravity, magnetics and radiometrics surveys and seismic reports:

Compiled airborne and magnetic surveys:

- Grafton-Tenterfield, NSW 2011, 250m, P1252 (just released)
- Bowen-Surat South, QLD 2006, 400m, P1108
- Bowen-Surat North, QLD 2006, 400m, P1107
- Texas, QLD 1996, 400m, P792
- Kingaroy-Mackay, QLD1995-6, 400m, P791
- Maryborough, QLD 2005, 400m, P1094
- Northern Moree, NSW 2001, 400m, P1037

Seismic line data that has been relevant to structural and stratigraphic interpretation within the project areas, have been hotlinked within the company GIS to open-file images of the seismic stack data (Figure 10). However, following compilation many of the lines within the Blackwood Project Areas were found to be pre-1970s and the final stack data is insufficient for stratigraphic and structural interpretation. There has been no recovery of raw data nor seismic reprocessing to highlight structural features within shallow stratigraphy.

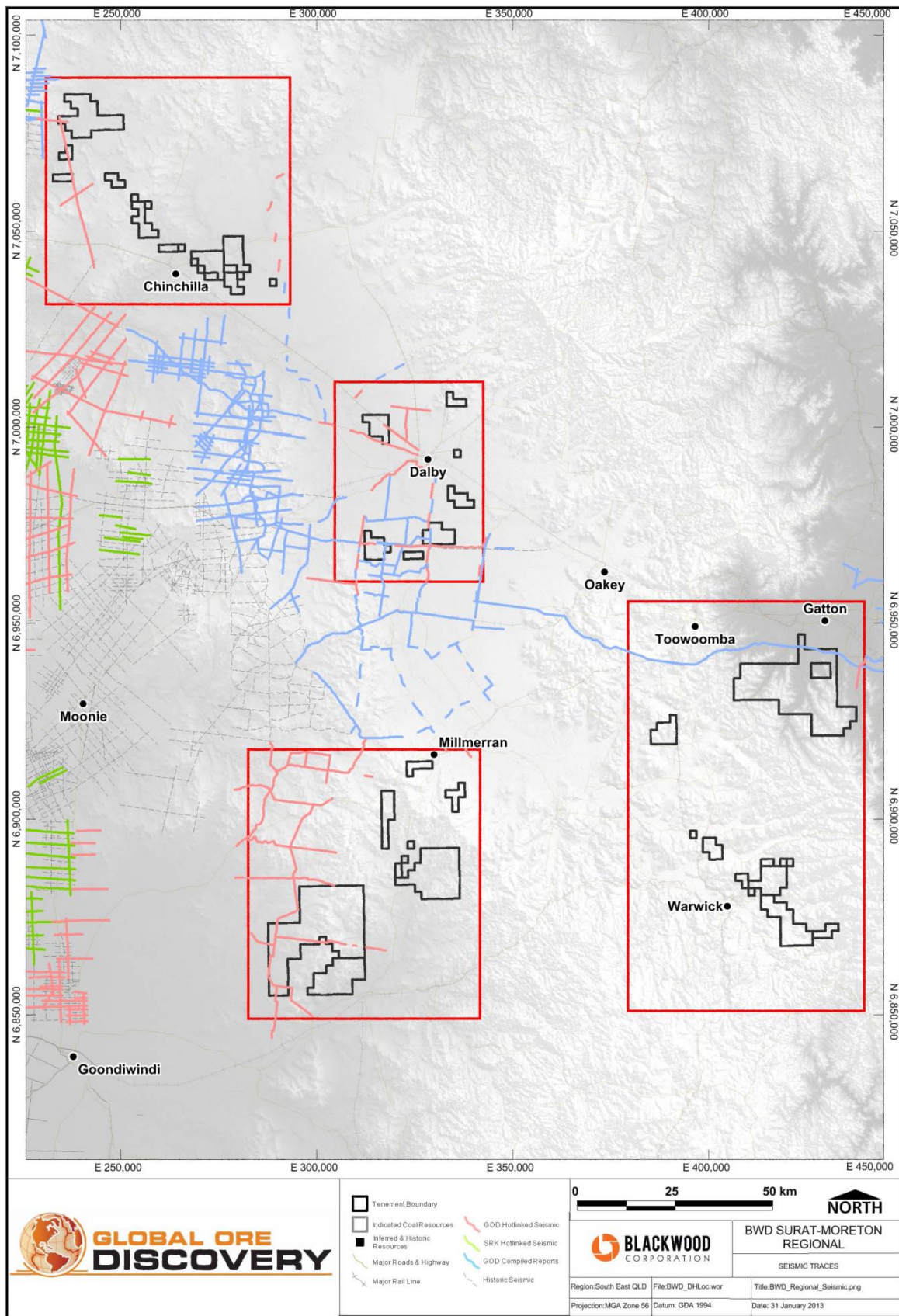


FIGURE 10: SEISMIC DATA COMPILATION AND HOTLINKING STATUS, BLACKWOOD SURAT MORETON PROJECTS

4.2.2 Remote Sensing

Satellite acquired remote sensing datasets have been compiled and used in the study:

- ASTER scenes selected and processed

| Granule ID | Global ORE Scene ID | Data Center | Acquisition Date | Center Point | Cloud Coverage |
|---------------------------|---------------------|-------------|----------------------------|----------------------------|----------------|
| SC:AST_L1A.003:2017871732 | AST535 | LPDAAC_ECS | 09 Oct 2003, 00:05:35.0990 | -27.2600 Lat, 151.8071 Lon | 0 |
| SC:AST_L1A.003:2017871729 | AST543 | LPDAAC_ECS | 09 Oct 2003, 00:05:43.0960 | -27.7925 Lat, 151.6726 Lon | 0 |
| SC:AST_L1A.003:2028644454 | AST1130 | LPDAAC_ECS | 12 Apr 2005, 00:11:30.0380 | -27.4066 Lat, 151.3025 Lon | 0 |
| SC:AST_L1A.003:2028644549 | AST1139 | LPDAAC_ECS | 12 Apr 2005, 00:11:39.0250 | -27.9398 Lat, 151.1736 Lon | 0 |
| SC:AST_L1A.003:2038622503 | AST458 | LPDAAC_ECS | 18 Nov 2006, 00:04:58.0510 | -26.6764 Lat, 151.5898 Lon | 0 |
| SC:AST_L1A.003:2038622558 | AST507 | LPDAAC_ECS | 18 Nov 2006, 00:05:07.0370 | -27.2086 Lat, 151.4547 Lon | 0 |
| SC:AST_L1A.003:2038622555 | AST516 | LPDAAC_ECS | 18 Nov 2006, 00:05:16.0240 | -27.7407 Lat, 151.3184 Lon | 0 |
| SC:AST_L1A.003:2038622561 | AST525 | LPDAAC_ECS | 18 Nov 2006, 00:05:25.0100 | -28.2726 Lat, 151.1813 Lon | 0 |
| SC:AST_L1A.003:2041778223 | AST1204 | LPDAAC_ECS | 17 Mar 2007, 00:12:04.0850 | -26.8205 Lat, 151.0477 Lon | 0 |

- Landsat scenes selected and processed

| Granule ID | Global Ore Scene ID | Acquisition Date | Time | Centre Point | Cloud Coverage |
|-----------------------|---------------------|------------------|----------|----------------------------|----------------|
| LE70900792003137ASN00 | LS0079 | 17/05/2003 | 23:36:59 | -27.4239 Lat, 151.7066 Lon | 0 |
| LE70900802003105ASN00 | LS0080 | 15/04/2003 | 23:37:27 | -28.9133 Lat, 151.3251 Lon | 0 |
| LE70910782003144ASA00 | LS1078 | 24/05/2003 | 23:42:46 | -25.9888 Lat, 150.5249 Lon | 0 |

- 1 second SRTM v1.0 digital elevation model (DEM-H)
- Astrium geo-information services SPOT base map imagery
- CSIRO ASTER data acquired is referenced as Australian ASTER Geoscience Product Notes, Version 1, 7th August, 2012 – CSIRO ePublish No. EP-30-07-12-44. The 1 second SRTM v1.0 DEM is referenced as Geocat 72759 Australian Government Geoscience Australia, 2011.

Multispectral ASTER and Landsat 7ETM+ data, as well as SPOTMaps and digital elevation imagery has been compiled, processed and incorporated into the GIS database for use in the integrated interpretation and as a basis for Blackwood's coal exploration program. These imagery types exploit lithological and mineral composition variations and are useful for reviewing spectral properties over large areas of stratigraphy. In this study, high vegetation areas have been mapped to create a masking layer which excludes regions where spectral properties may be inaccurate due to vegetation mixing or poor surface reflectance.

Key products and applications of the ASTER and Landsat TM processing included

- Iron oxide mapping aimed at basalt outcrop and subcrop interpretation
- Clay occurrence and composition for fined grained stratigraphy mapping
- Silica occurrence mapping, to assist quartzose stratigraphy interpretation

4.2.2.1 Magnetism

Seven 400m or better line-spaced state airborne magnetic surveys from Queensland and New South Wales were identified within a greater Area of Interest (AOI) selected for Gravity and Magnetism processing. Re-levelling was not found to be necessary except in a small part of one of the survey

areas. This new grid was then remerged with the national 80m Geoscience Australia grid, containing mainly 1600m historical data, to fill the remaining AOI and create a new 80m-grid of Total Magnetic Intensity (TMI). Standard interpretative transforms of the magnetics data were then computed using Fast Fourier transforms in Intrepid software. These included Reduction to Pole (RTP), 1st and 2nd Vertical Derivative (1vd and 2vd), Analytical Signal Amplitude (ASA) and Tilt Angle (TA). These grids were used solely or in combination to create a variety of images suitable for magnetics interpretation.

Two open-file company magnetics surveys containing 100m line data were identified as being viable for interpretation at higher resolution within the greater AOI. An area surrounding the two surveys was subsectioned from the greater AOI and resampled to 25m grid cell spacing. This grid was then merged using Intrepid software with the two higher resolution 25m cell company grids. After performing wavelength matched filtering on this new grid, standard interpretative transforms were re-created and identical ranges of images created for this higher resolution area.

The imagery products selected for basalt, stratigraphic and structural interpretation were predominately the total magnetic intensity reverted to pole (tmi-vrtp), the analytical signal amplitude (asa), first vertical derivative (1vd) (Figure 11 - Figure 14) and tilt angle (ta). Where surveys of different resolution were merged, excellent amplitude matching across the survey boundary showed the processing conducted in this study was effective. Magnetic character of mapped basalts are shown in Figure 14. As a preliminary product to the integrated basalt interpretation a magnetic intensity map was created, highlighting areas of similar magnetic character for comparison to the mapped geology.

Coal prospectivity is typically downgraded where basalts and igneous intrusions subcrop. Depending on thickness, orientation and degree of weathering, basalts can affect the efficiency of drilling operations and the economics of extracting any discovered resource. Tertiary mafic flows are not particularly common in the Dalby Project Area with the exception of the area covered by EPC 1691. In general, the Tertiary basalts can be distinguished in the magnetic imagery by their textural form and magnetic intensity including those basalts that occur under shallow alluvial cover. In general, the Tertiary basalts can be distinguished in the magnetic imagery by their textural form and magnetic intensity including those basalts that occur under shallow alluvial cover.

Analysis of RTP magnetic imagery indicates that the basalts can be remanently magnetised and give discrete low features. By contrast, Analytical Signal processing of the magnetics highlights all basalts as clusters of small highs even those remanently magnetised. This feature makes Analytical Signal the preferred method of defining areas of covered basalt however defining the true outcropping distribution of the basalt units is more precisely interpreted through an interpretation of the DEM, 1VD magnetics and processed ASTER data (Ferric Oxide Content, Opaque index and Vegetation index).

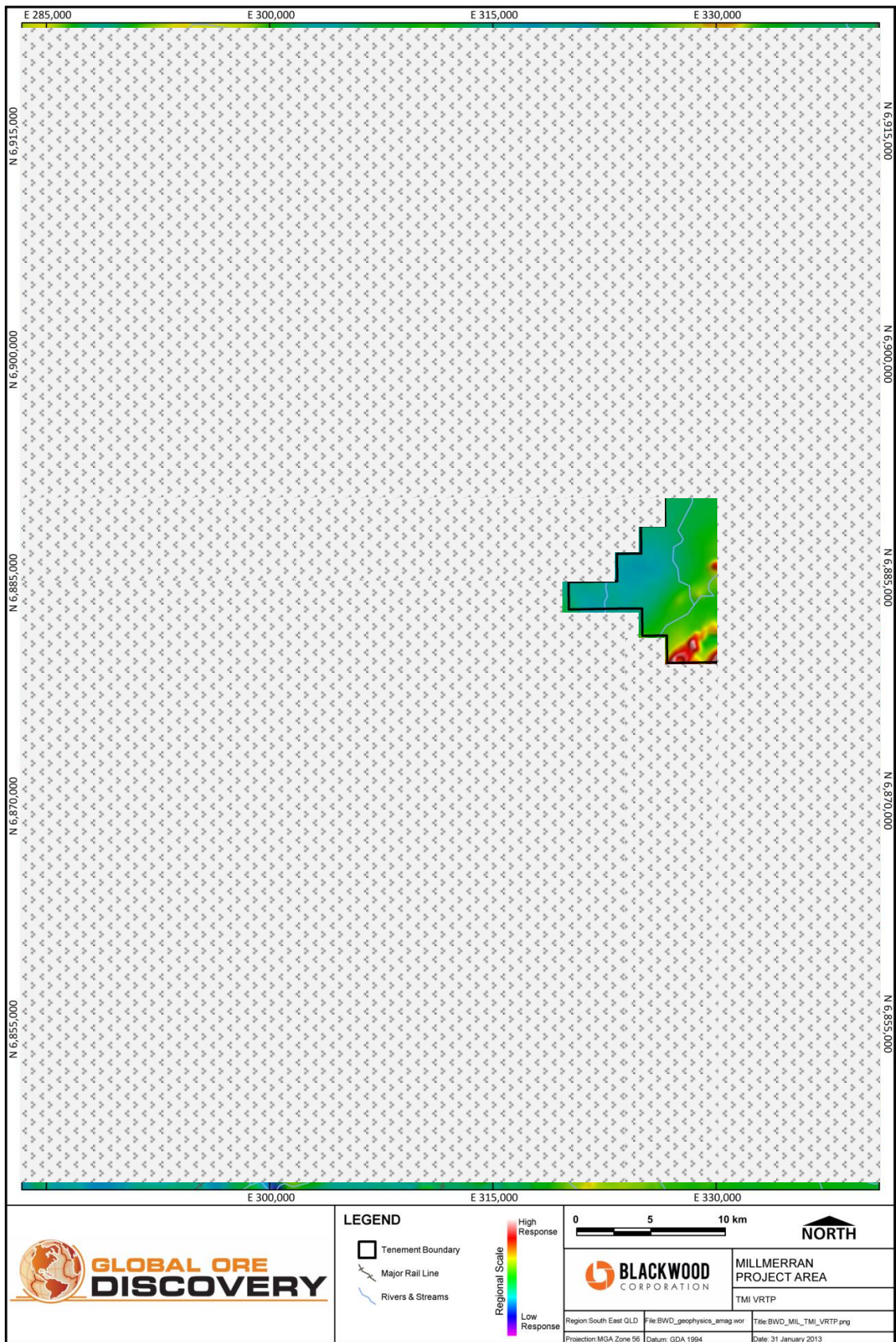


FIGURE 11: VRTP PROCESSED TOTAL MAGNETIC INTENSITY(TMI), MILLMERRAN PROJECT

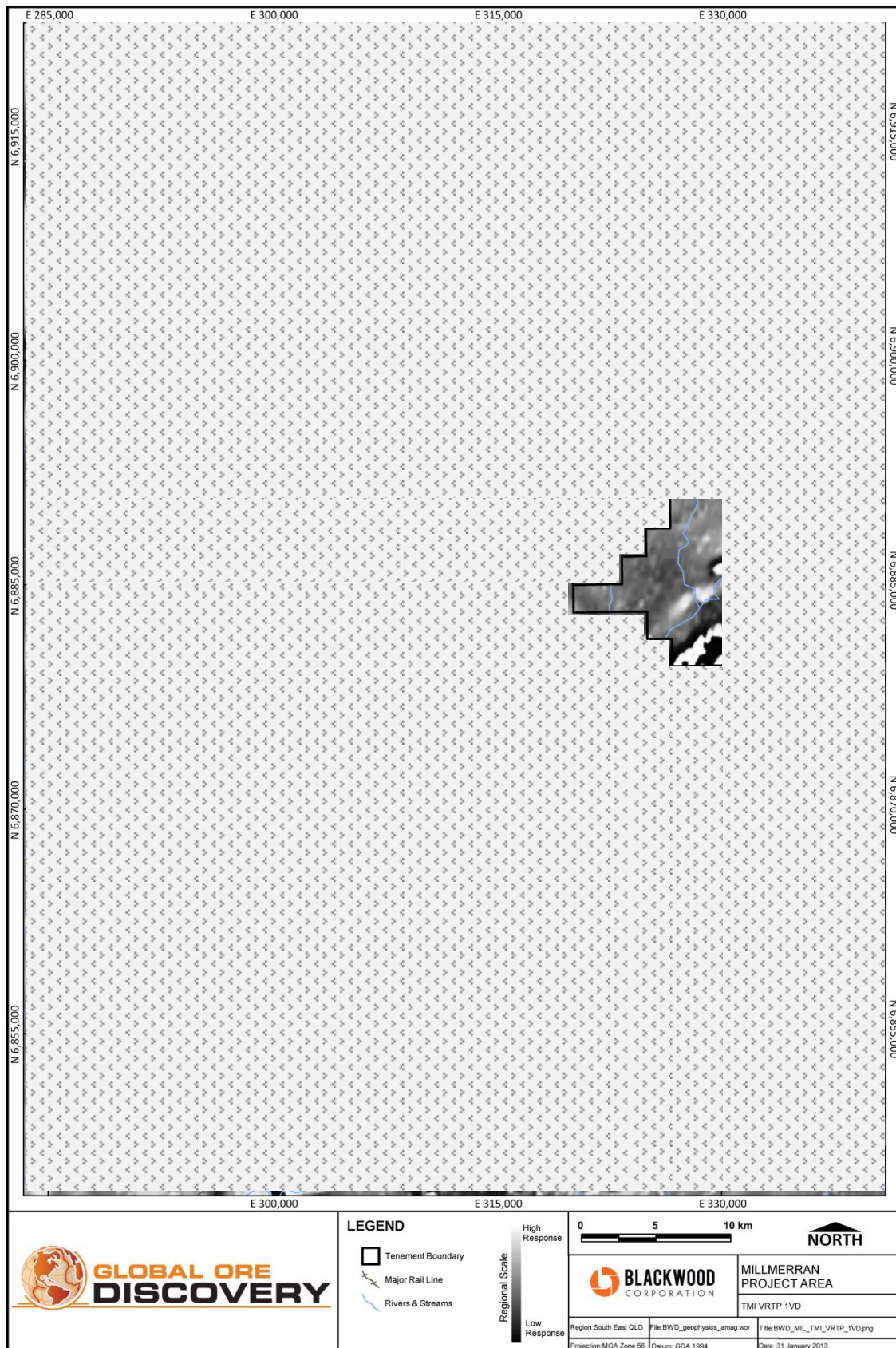


FIGURE 12: VRTP FIRST VERTICAL DERIVATIVE (1VD) OF TMI, MILLMERRAN PROJECT

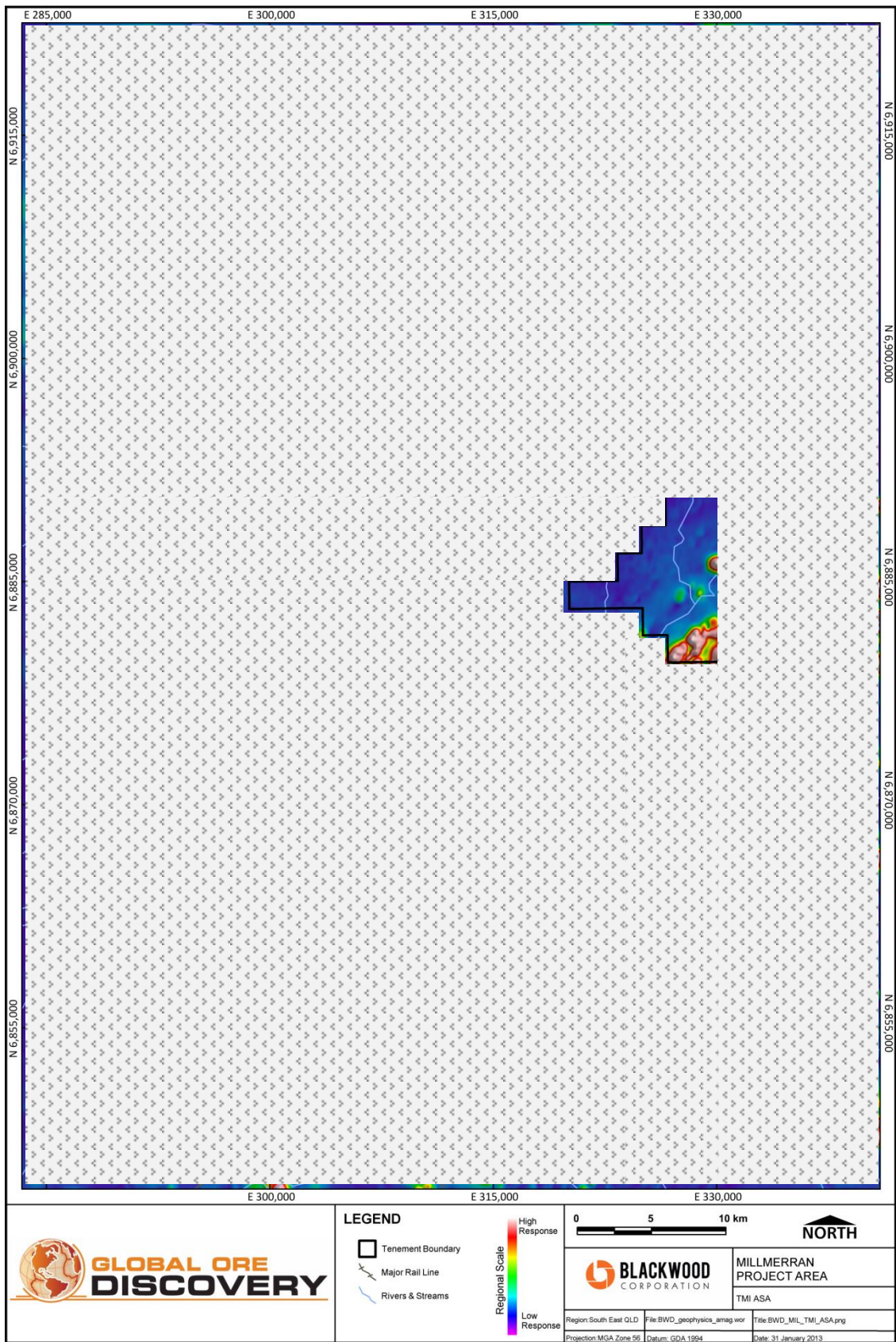


FIGURE 13: ANALYTICAL SIGNAL AMPLITUDE (ASA) OF TMI, MILLMERRAN PROJECT

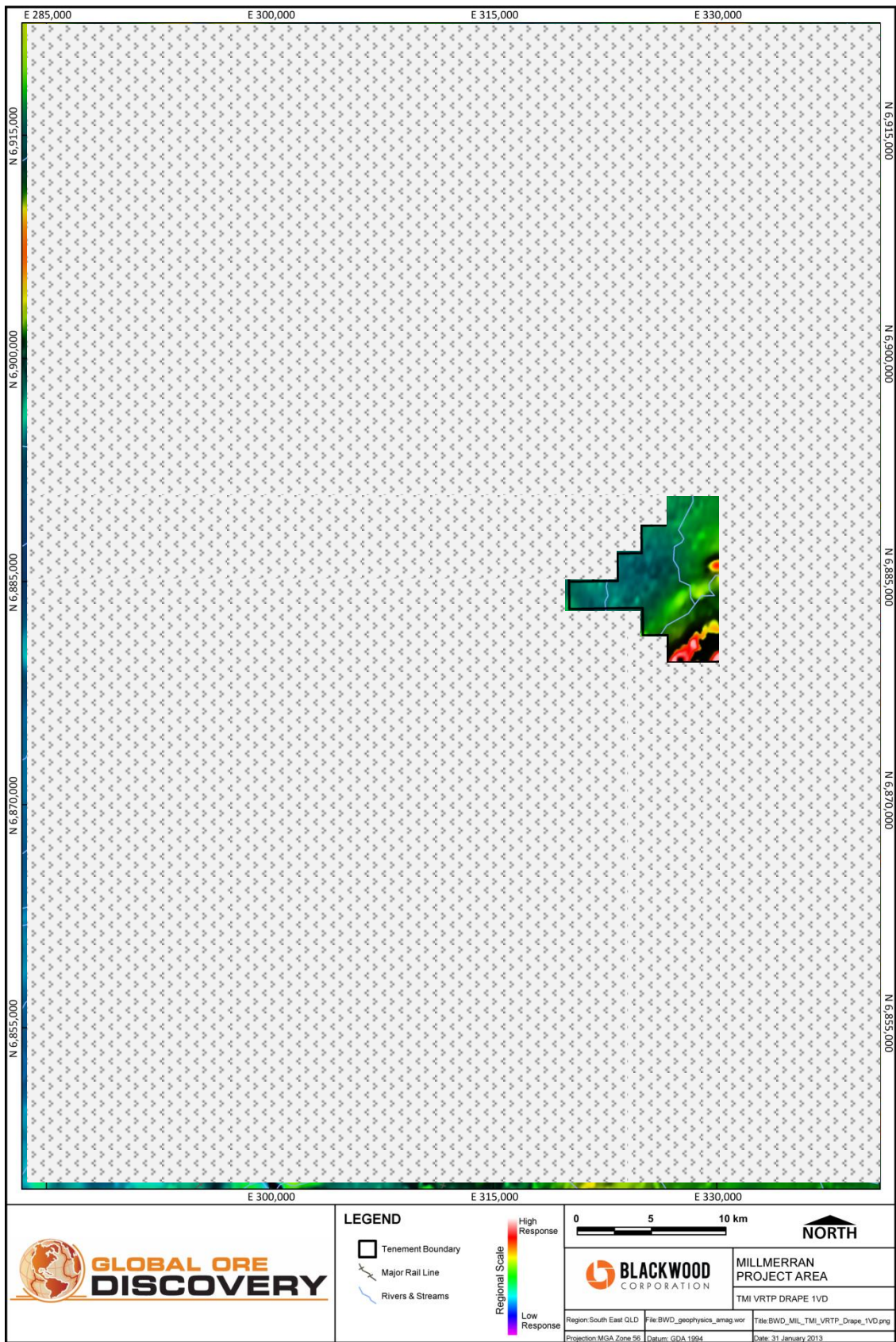


FIGURE 14: DRAPE OF 1VD OVER TMI VRP, MILLMERRAN PROJECT.

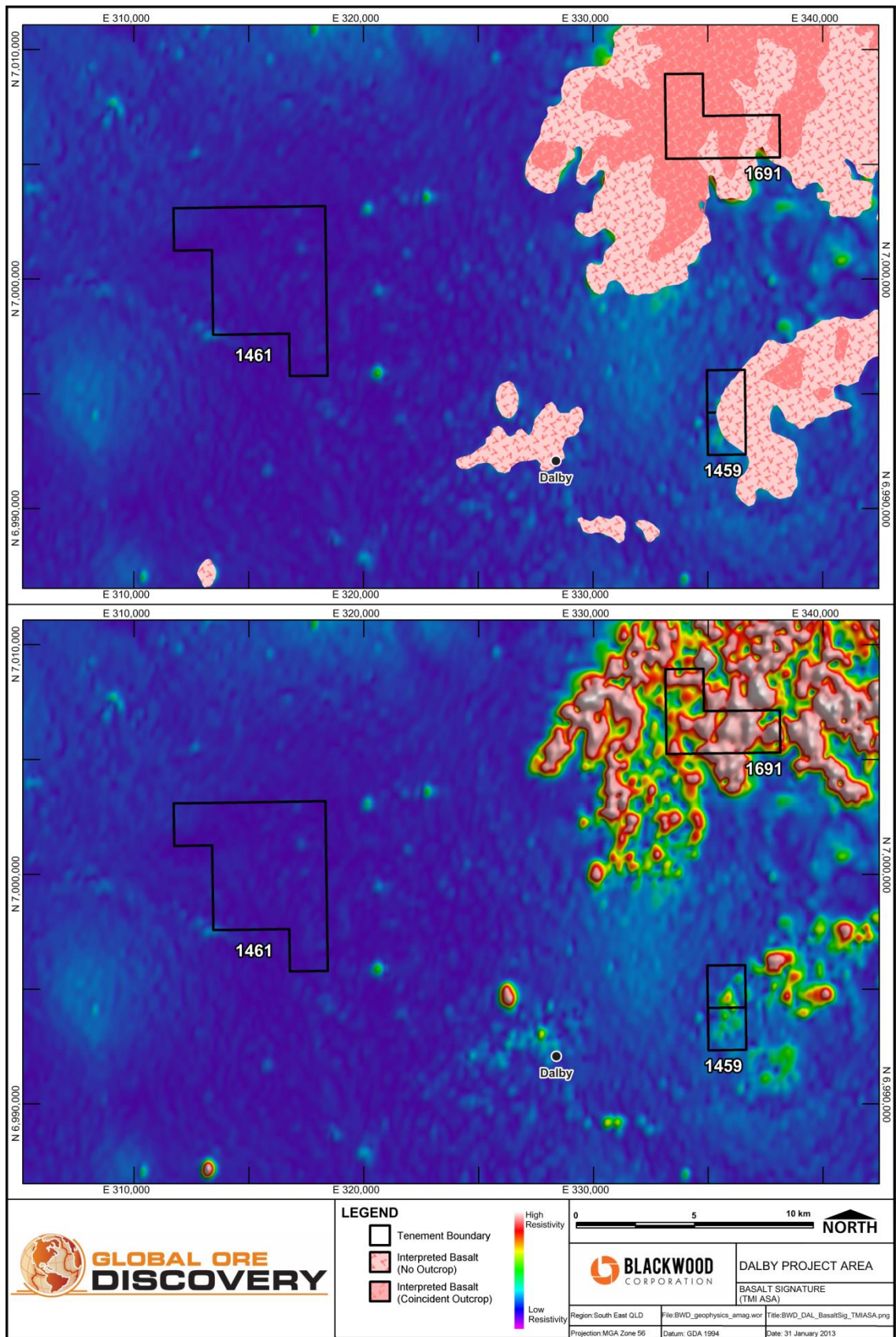


FIGURE 15: MAGNETIC CHARACTER OF BASALTS IN THE MAGNETICS FIRST VERTICAL DERIVATIVE, EXAMPLE FROM DALBY SHOWN

4.2.2.1 Radiometrics

The contact between the Kumbarilla Beds and the Walloon Coal Measures is important for exploration planning and borehole targeting in the Surat Basin. In some parts of the Moreton Basin, these units potentially can be distinguished by a variation in radiometric texture and signal intensity (K, U, Th).

This study has drawn upon Geoscience Australia's compilation of regional radiometric surveys (RADMAP 2010) in which merges and equivalent concentration processing has already been conducted. Using Geoscience Australia's Radmap 2010 radiometric point data the following outputs have been generated:

- an RGB product (K-U-Th),
- an RGB drape product (RGB draped over the total count),
- a total count product and
- a series of radioelement and ratio products, all supplied as GIS layers, e.g. Figure 14

The features mapped were in the radiometric character of the RGB (K, U, Th), total count and ratio layers as preliminary products to the integrated interpretation. Within the Dalby Project Area, data quality is good with line spacing of 250-400m, and radiometric character is interpretable.

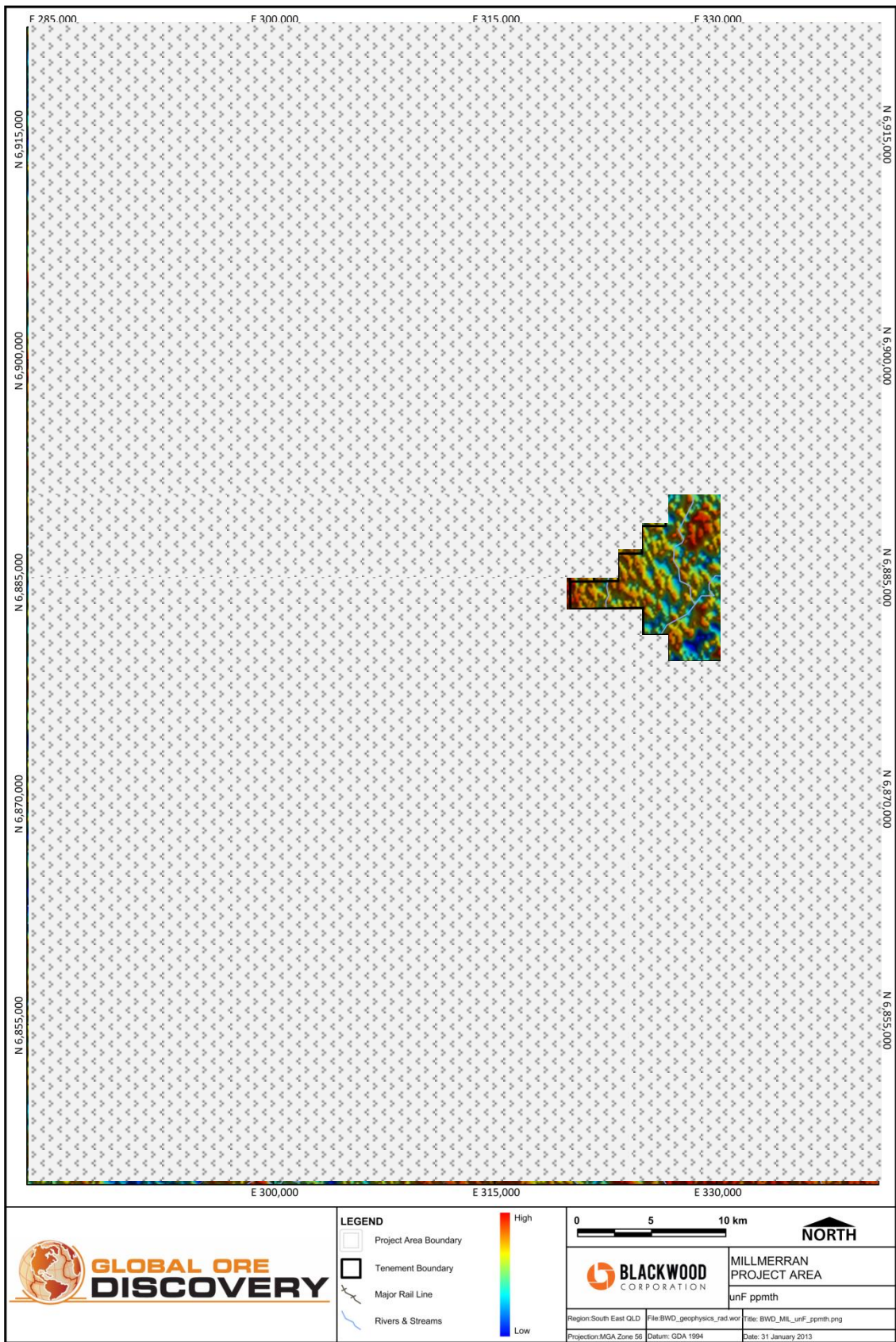


FIGURE 16: SUNSHADED RADMAP 2010 FILTERED (F) THORIUM (TH)

4.2.3 Geology

The 1: 250 000 GSQ and 1: 1 000 000 scale Geoscience Australia data was merged to create a base geology map. The base geology map created covers the entire extent of the Blackwood southeast Queensland tenements and was modified by integrated interpretation in the project areas. Colour look-up tables have been used to group the stratigraphy into 'exploration units', highlighting the distribution of Walloon Coal Measures, basalts, basement, pre-Walloon sedimentary rocks, post-Walloon sedimentary rocks, hard cover and Quaternary sediments. Also, Regional fault data and stratigraphic surfaces for the main units of the Surat Basin have been compiled from both Healy et al. 2008 and GSQ (Dixon, 2011). Additional local dip data has been digitised from 1:100k GSQ geology maps. Fault architecture was interpreted from mapped geology and mapped structure both in the basin and within the immediate Surat Basin basement and combined with structural interpretations of the reprocessed magnetic and gravity data for the region.

4.2.4 Drill Data Processing and Manipulation

A GIS database has been created and include (but is not restricted to) the following features:

- Thematic map of aggregate coal thickness
- Thematic map of coal to burden (non-coal material) ratios to 100m and total hole depth
- Grids of depth to first coal (Figure 18)
- Gridded ratio of coal to burden
- Percentage pies that pictorially show both the hole depth and the proportion of each hole assigned to a particular stratigraphic unit
- A validated MapInfo drillhole project to facilitate the construction of downhole geology logs and cross-sections from the supplied Blackwood database

All visualisation of the drilling data queries has been undertaken within the MapInfo GIS system. This includes locations plots, thematics and gridded products. A relatively new yet powerful thematic is the utilisation of percentage pies, Figure 17. For percentage pies the overall diameter of the pie represents the total hole depth and the pie portion reflects the % of a given formation's abundance. For instance a very shallow hole will be a very small pie, and pie representations of the formation might show the % of Upper Walloons, Tangalooma and Lower Walloons as portions.

A coal to burden ratio (CTBR) analysis was undertaken within the Millmerran Project Area after applying a 100m depth limit. Comparisons between CTBR for coal less than 100m and the CTBR total borehole depth show no differences, reflecting the observed absence of significantly thicker coal accumulations at depth.

There are ten holes within the Millmerran Project with CTBRs exceeding 1 in 10 within the Lower Walloon Coal Measures. Only one occurrence has a ratio exceeding 1.8 in 10, which does not have a

sequence allocated in the database and occurs above the Auburn at 1-2 m depth within the weathered zone. This occurrence is between EPC 1555 and EPC 1474 where there are several high CTBRs but reasonably extensive drilling ~ 1.5 km spacing. Within EPC 1474 there is poor drilling coverage with conceptual potential for both Upper and Lower Walloon coal packages. Previous explorers have noted coal seams thin and deteriorate in this part of the Millmerran Project Area relative to the seams that occur at the Commodore Mine and examination of historic borehole data not currently in the Blackwood database could be used to validate that observation and determine the priority for exploration.

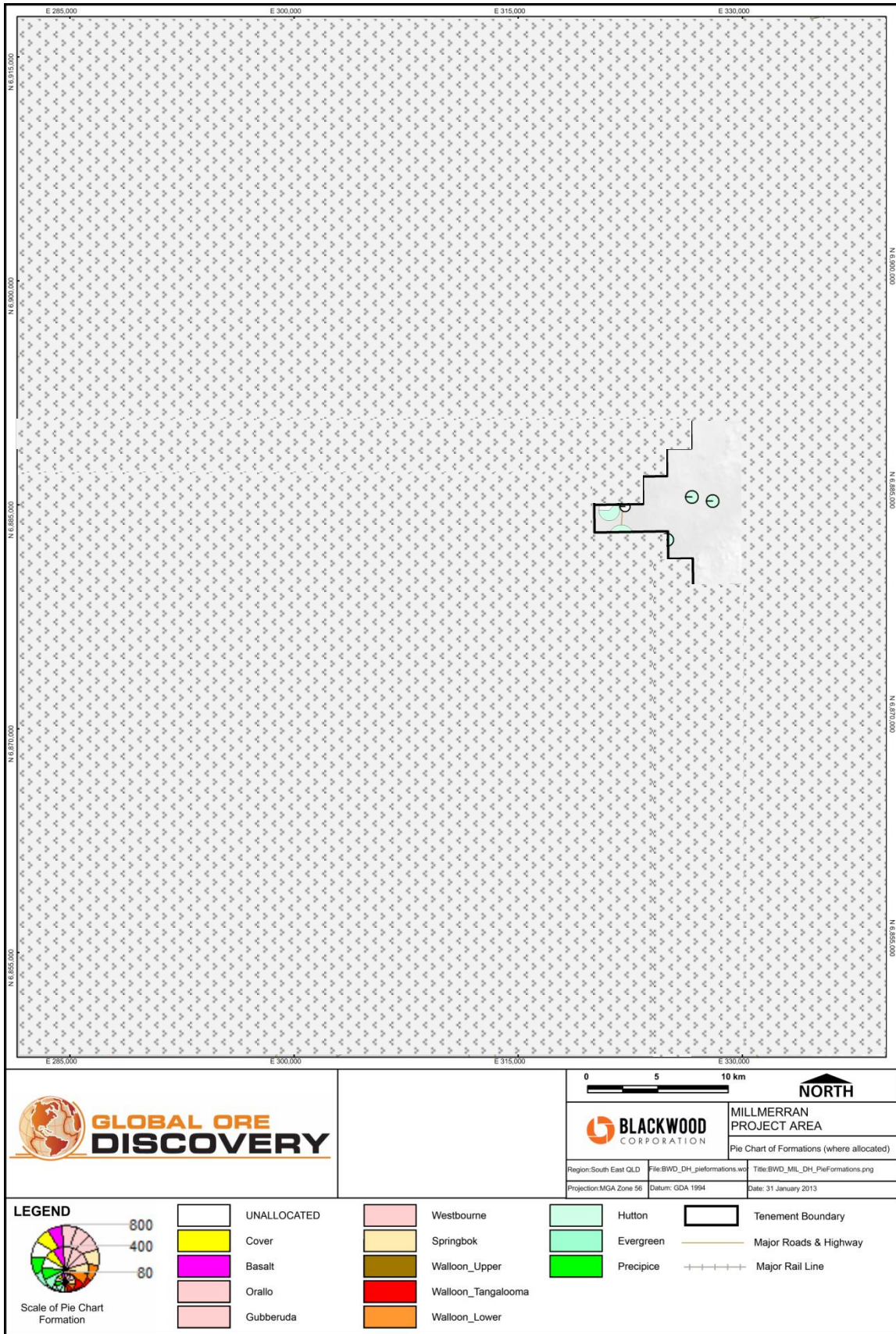


FIGURE 17: FORMATION SUMMARY PIE CHARTS, MILLMERRAN PROJECT

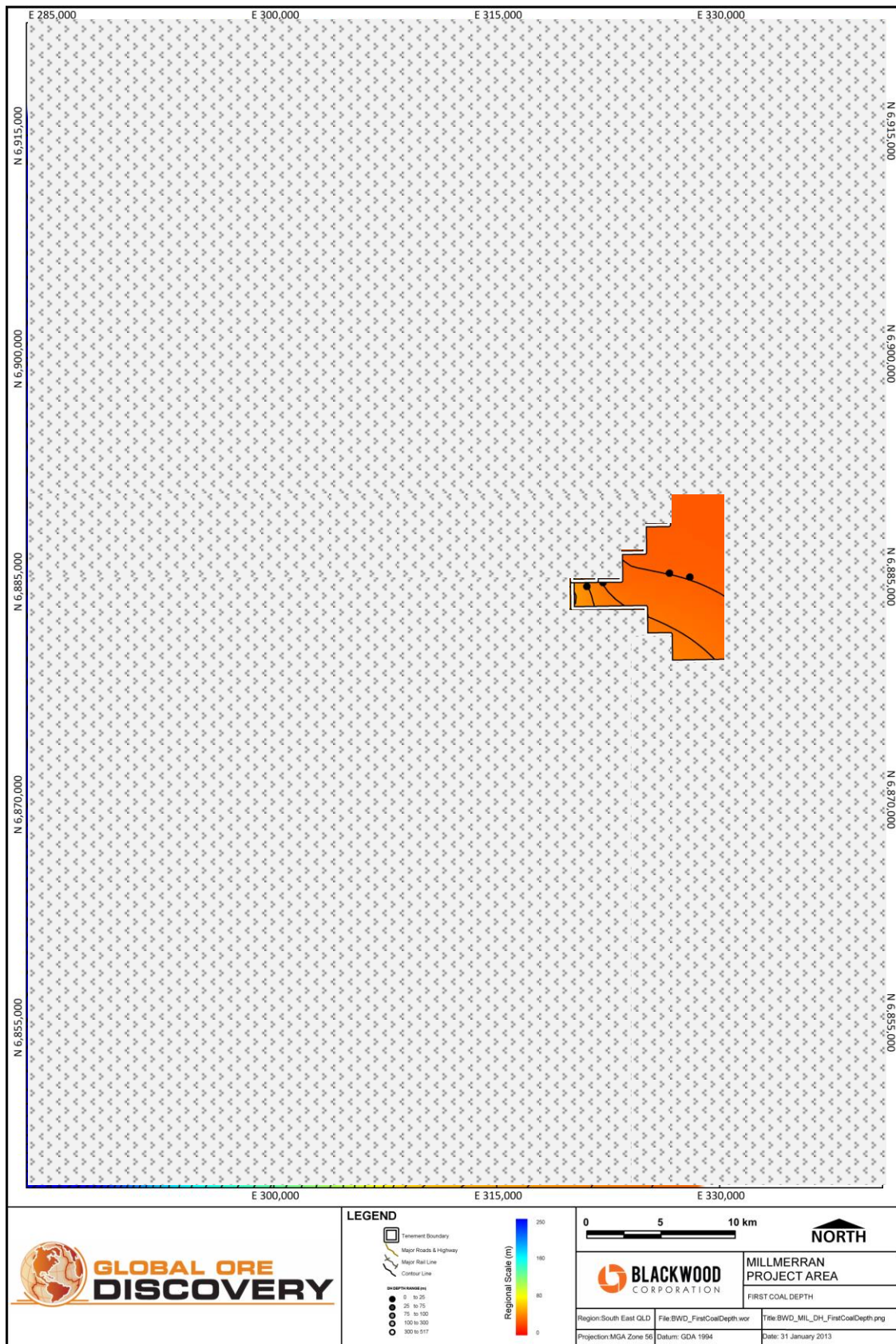


FIGURE 18: DEPTH TO FIRST COAL MENTION, BLACKWOOD BOREHOLE DATABASE, MILLMERRAN PROJECT

4.2.5 Waterbore data for preliminary groundwater analysis

To understand the distribution of drilled water-bearing horizons, both laterally and in the sub-surface, publically available waterbore data was compiled (DNRM 2010 and 2012). Downhole descriptions of intersected stratigraphy and lithological metadata, clipped to the Blackwood southeast Queensland Project Areas, were subjected to database queries in MapInfo to identify holes that reported water intersections.

Interpretations drawn on this data need to take into account that this information is not complete for every drillhole, and that in many cases descriptions were made by non-technical field staff. Waterbore data has not been used in its entirety for the main coal related interpretations in this study due to concerns about waterbore logging reliability. However the huge quantity of data available in the dataset provides a powerful overview of the groundwater system. In this study, a series of queries were built to

- Classify bores as having intersected dry, 'general' water-bearing and major water-bearing horizons
- Obtain an indicative aggregate aquifer thickness above the coal-bearing horizon

In order to determine whether a waterbore intersected major water, 'general' water or was dry the lithological descriptions were reviewed for suitable search terms. These search terms were grouped into three categories to distinguish 'general' and major water in each waterbore.

The categories and search terms of that category were:

1. Major Water: including terms such as 'swl' (standing water level), 'l/s' (litres per second), 'water at XXm', 'water sample taken';
2. General Water: including terms such as 'water-bearing', 'some water', 'water bed', 'water soak'
3. Dry: all other holes that did not return any of the search queries above.

Note that spelling and grammatical variations of the search terms above were also searched.

The aquifers of the Surat and Moreton Basin exist as confined intervals and comprise a complex multi-layered sedimentary sequence of fluviially-deposited sandstone units (confined aquifers) interspersed with marginal-marine mudstone and siltstone units (confining beds). In all the aquifers the groundwater is largely stored in inter-granular pore spaces with fracture porosity being generally unimportant (Exon, 1973 in Worley Parsons, 2010). Groundwater recharge dominantly occurs across the northern and eastern margins of the Basin where the sandstone units are exposed (outcrop) or subcrop below belts of overlying alluvium and sandy soil.

A report by Worley Parsons, 2010, identifies alluvial sediments, Kumbarilla Beds, Walloon Coal Measures and Marburg Formation as the important aquifers within the Dalby Project Area.

Regional groundwater flow is dominantly from the topographically elevated recharge zones around the Basin margins towards the lower part of the landscape. Within the Great Artesian Basin, groundwater flow is predominantly sub-horizontal, with limited flow occurring perpendicular to the bedding plane of the aquifers (i.e. in the vertical direction). Significant inter-aquifer flow may, however, occur locally in areas of direct aquifer connectivity, for instance, in locations where intervening aquitards are narrow, particularly, around the margins of the basin. The potential for inter-aquifer connectivity and groundwater transfer may also be enhanced where aquifers are connected by faults. However, fault gouge or secondary mineral precipitation within the spaces generated by the rock movement can effectively create a seal and limit significant movement of groundwater between aquifers (Worley Parsons, 2010).

Figure 19 shows waterbore with the classified data showing clustering of 'water' and 'major water' intersections, suggesting geological controls. The majority of major water intersections aligned east-west around EPC 1475.

The Well Completion Report for CSG well 'Bora-Creek 1' mentioned that no significant water was encountered until Hutton Sandstone was penetrated (Oberhardt & Scott, 2001), however the Walloon Coal Measures at the Commodore Mine are known to be water bearing.

In order to further understand how water is controlled by the geology, this dataset should be combined with the main borehole database and reviewed in the context of major Geoscience Australia reports and studies underway at publically funded Universities. Global Ore have approached both these institutions as part of this study and found neither party to be immediately forthcoming, however Geoscience Australia do anticipate the release of some data related to their studies in later 2013.

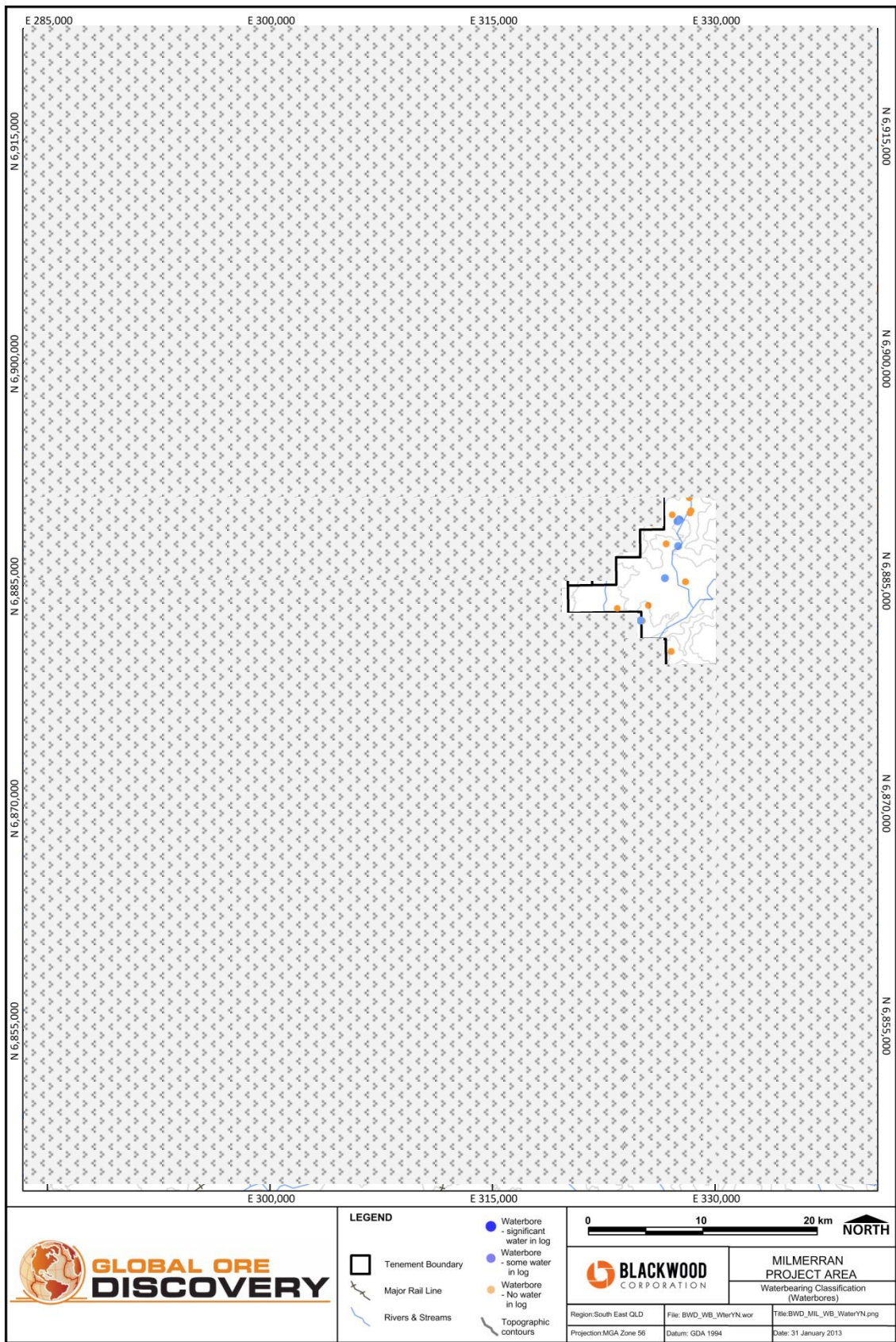


FIGURE 19: DISTRIBUTION OF WATER-BEARING AND “DRY” WATERBORES, MILLMERRANPROJECT AREA

4.2.6 Interpreted Walloon Coal Measures

The Walloon Coal Measures comprise shale, siltstone, sandstone and coal and host economic coal deposits in the Surat and Moreton Basins. To the east of the Texas Beds Block, (Blackwood's Warwick Project Area) the Walloons have very similar spectral response to the Hutton equivalent in the RGB KUTH and also have similar response the Th/K ratio imagery.

The key to identifying and mapping the Walloons in this area appears to be the presence of higher AIOH Content and Ferric Oxide being spatially coincident with high Th/K ratios. This suggests that unlike the Hutton equivalent the Walloons are clay rich, however the low K content indicates that the Walloons are dominated by K poor clays such as montmorillonite. The observation is consistent with reports in historic relinquishments of montmorillonitic clays within the Walloon Coal Measures.

In the Millmerran Project Area, west of the Texas Beds block, the lower coal packages in the Walloons have a similar signature to that described above, however upper units appear light redish in the radiometrics, indicating elevated K (K rich clays). This signature is repeated to the northwest of Chinchilla where it is mapped in 1:1M scale geology as the Injune Creek Group. It is interpreted that this radiometric character may represent a clay compositional variation of the upper Walloon's (higher proportions of K rich clay than the lower Walloons). It should be noted that the radiometric character is not evident along the total length of the western Walloons which may be due to limited outcrop rather than a true change in character.

It is important to note that the known coal resources are generally spatially associated with a low Th/K ratio in the Walloons with Hutton like signatures which indicates less sand (monazite) and/or higher K clay content at those locations. Figure 20 shows the outcome of a spectral classification study of outcrop overlying known resources and mapped Walloon Coal Measures. The Bringally and Commodore resource is profiled and shows patterned clay-silica and iron-silica components.

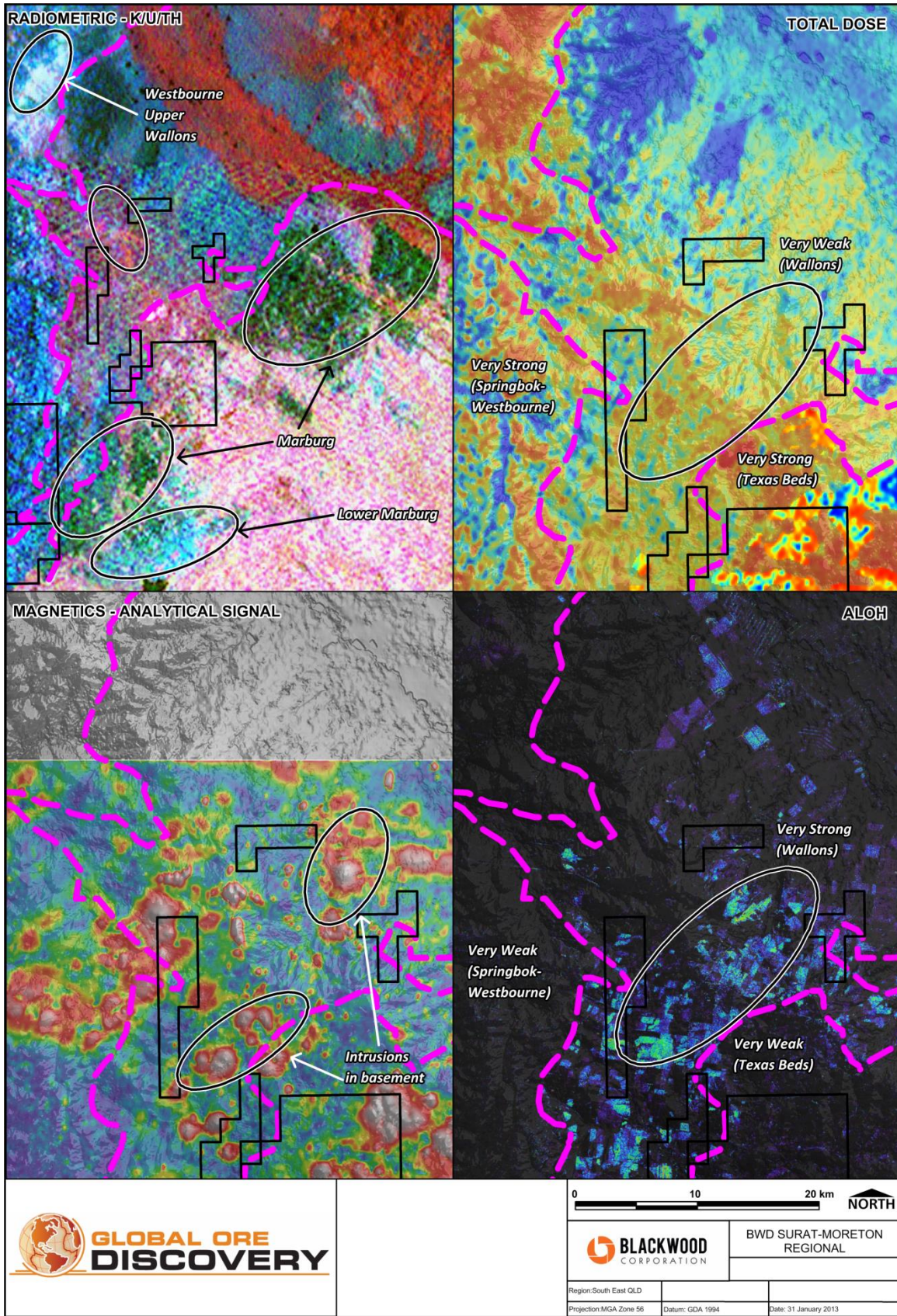


FIGURE 20: WALLOON COAL MEASURES STRATIGRAPHIC SIGNATURES IN RADIOMETRIC AND SPECTRAL DATA

Integrating the remote sensing data has interpreted the shallow-covered base and top contact of the Walloon Coal Measures in the Millmerran Project Area. It should be noted that an optimistic approach to mapping the extent of Walloon Coal Measures and Basalt with the aim identifying unrecognised exploration potential. The contact interpretation considered

- Changes in radioactivity and AIOH content compared to the surrounding lithology.
- 1 second SRTM DEM
- Published outcrop geology maps
- Global Ore generated working sections derived from the borehole database

Figure 21 shows the surficial geology map updated with interpreted lesser-covered Walloon Coal Measures. This has been overlain with regionally interpreted structures. Key advantages of the interpretation is the incorporation of processed ASTER imagery and 1 second SRTM DEM. The interpretation was conducted in parallel with other parts of this study and requires cross-reference with the drilling data.

Quaternary cover dominantly occurs as red/red orange hues in the radiometric indicating high K rich clay content. AIOH and Kaolinite indices confirm this however as discussed a number of other units in the sequence have elevated AIOH signature.

By far the best method of mapping the quaternary cover is to utilise the radiometrics in conjunction with the high resolution SRTM. The high resolution SRTM is particularly useful in identifying slight topographic rises in the quaternary that may signify subcrop to outcrop. Additionally the kaolinite index is particularly useful in mapping areas of crystalline kaolinite (red in the Kaolinite Index ASTER image) that are likely to be due to outcrop rather than weathering products which produce poorly crystalline kaolinites.

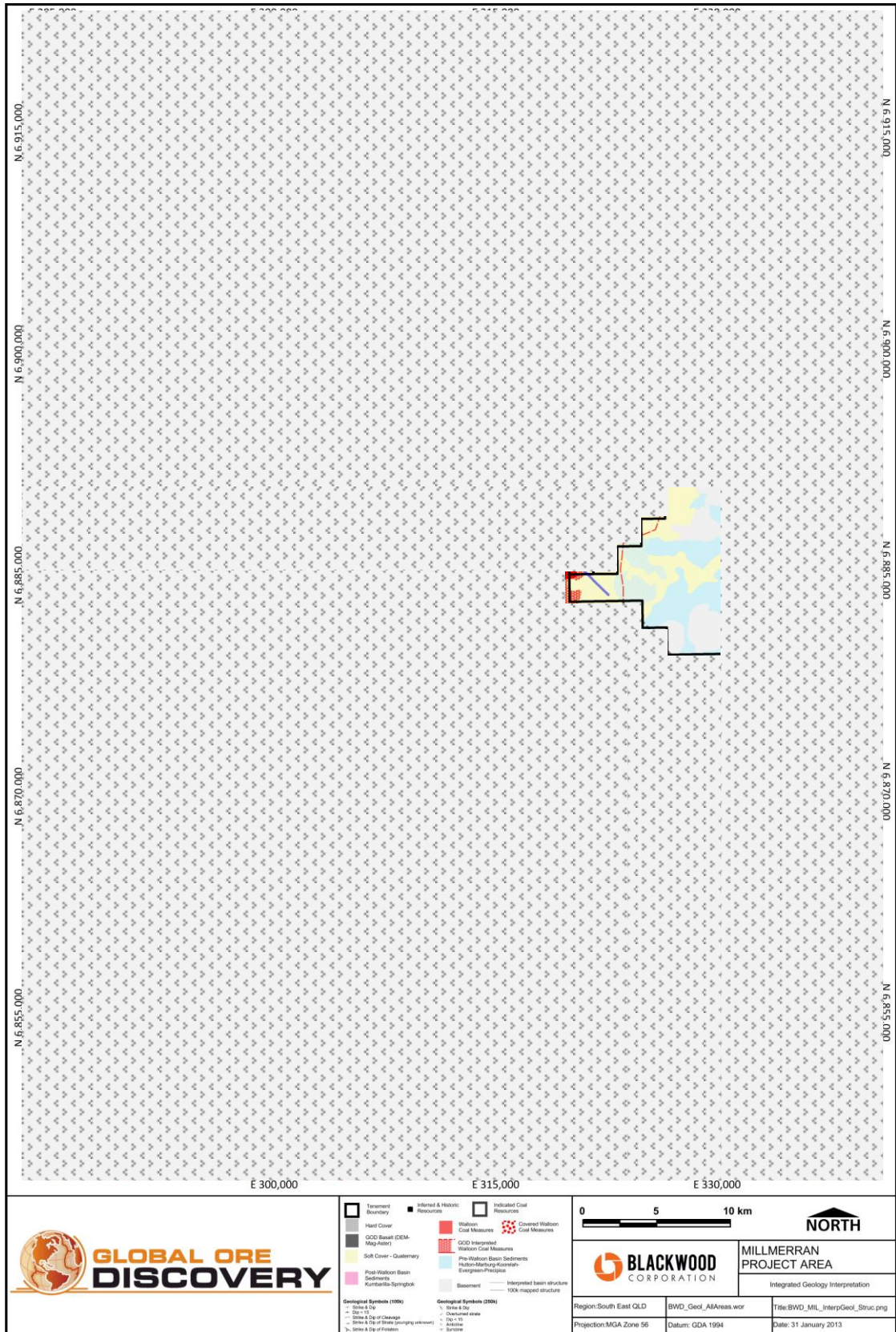


FIGURE 21: INTEGRATED INTERPRETATION SHOWING INTERPRETED CONTACT WALLOON COAL MEASURES (TOP AND BASE), TERTIARY BASALTS, AND INTERPRETED REGIONAL STRUCTURES.

4.2.7 DEM/DSM

Polygons were supplied and imported into the Flight Management System , “TrackAir”, and with the required resolution parameters set, produced flight lines and required photo centre positions based on an 80% forward and 50% overlap geometry. The system is coupled with a medium format digital camera comprised of a 40 mb Leaf Aptus II sensor back, attached to a Contax 645 camera body capturing RGB imagery. The planned resolution required flying with clear sky conditions at 11000 ‘ AGL, but due to operational requirements most was done at an average of 9000 ‘ AGL which gave average resolutions of around 47 cm per pixel.

The ‘raw’ image files were imported to “Capture 6” software and processed to JPEG digital files. These were checked for colour and exposure and aligned with the recorded photo centre positions. The images were then ortho-rectified in blocks generally to match the target polygons, using software from PIX4D. A DEM was produced in the same programme from these images, with grid points calculated at no more than 100 cm apart. In most cases image coverage resulted in 3D points matching over 2,000,000 times in 2-3 images, over 200,000 in 4-5 images, and over 15,000 in 10-11 images. An example ‘screen scrape’ of the output can be seen in Figure 22, with the undulating cropping fields looking north. Schwartetns Rd can be seen in the middle distance, with the outskirts of town visible in the hills in the top right of the picture. This DEM will significantly improve the geological models that have been run previously as we now have extremely accurate detail of the surface topography, which also helps of base of weathering which trends off the surface topography.

The results/ output from this were:

- The ortho mosaic is composed from 141 out of 141 original images.
- The ortho mosaic covers an area of 130.68 sq. km / 13068ha / 50.48 sq. mi.
- The mean GSD (size of a pixel on the ground) of the original images is computed at 47.8296 cm.

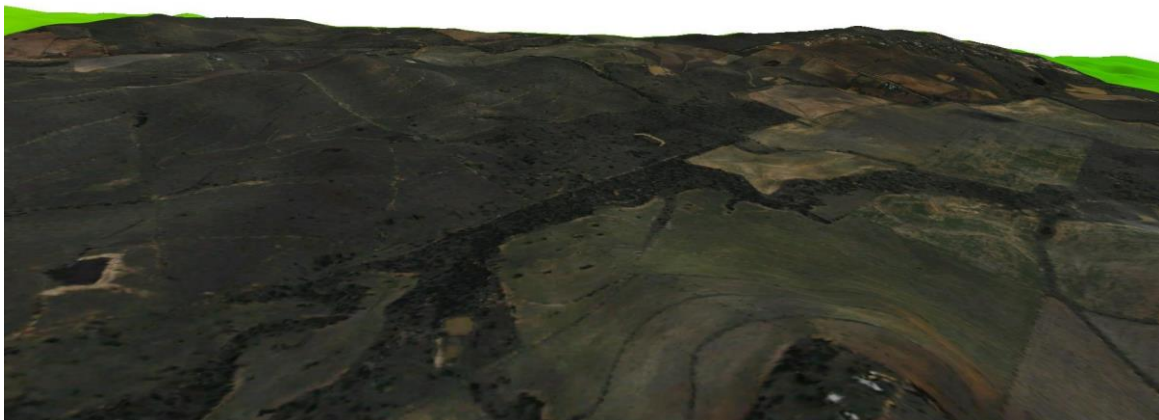


FIGURE 22: EXAMPLE OF DIGITAL SURFACE MODEL OF EPC 1702 IN MILLMERRAN AREA WITH VERTICAL EXAGGERATION.

4.3 Access

Drill plans have been cross referenced with cadastral data to identify the current landholders of land Blackwood hopes to access. Blackwood is currently negotiating landholder compensation and conduct agreements with the relevant landholders.

5.0 CONCLUSION

A review of historical data relevant to EPC 1761 including boreholes within the region, regional geological maps, and other historical data was integrated with a remote sensing study to deliver 4 key objectives. These being to build a digital framework for Blackwood's ongoing exploration program; to identify remote sensing and geophysical signatures of the Walloon Coal Measures and Tertiary basalts; to define the distribution of Tertiary basalt and igneous intrusions and determine the distribution of water-bearing units. Blackwood also commissioned the acquisition of 50cm GSD (Ground Sample Distance) colour RGB digital imagery and a DEM/DSM (Digital Elevation Model/Digital Surface Model) from the acquired imagery.

Blackwood will need to compare the data and interpretations supplied in this report and the same from reports on the Millmerran, Warwick and Chinchilla Project Areas to Blackwood's internal commercial criteria in order to rank tenure for exploration prioritisation.

This years work program has

- Provided a regional geological context for comparing Blackwood's coal tenure.
- Developed new exploration concepts that ground-truthing studies can evaluate such as interpretation of stratigraphic horizons from radiometric data.
- Provided a set of new products, supplied in a GIS framework that allows the products to be readily accessed, overlaid, compared, interrogated and updated dynamically during project scale field mapping, drilling and geophysical program iterations.
- Identified at least 25 boreholes relevant to the exploration of Blackwood's Millmerran Project Area that require incorporation into the borehole database.
- Identified areas mapped as Kumbarilla Beds that are potentially Walloon Coal Measures within EPC 1702 and EPC 1555 for ground-truthing.
- Defined clay-rich parts of the Walloon Coal Measures within EPC 1474 and EPC 1475 with similar spectral characteristics to the known coal resources at Bringalily and Lochbar.
- Provided a first-pass indication of relative groundwater encumbrance.

This study showed remote sensing and geophysical datasets have potential application to tenure scale exploration in the Surat-Moreton Basin. Features in remote sensing and geophysical data

correlate with lithological variations within the basin sediments and basement volcanics and the characteristics identified have the potential to aid geological mapping at the tenement scale.

It is clear from this year's work that there is a high potential for the presence of coal resources within the Middle to Upper Jurassic Walloon Coal Measures. The proximity of EPC 1702 to an existing coal mine is a good indication of the presence of coal in the EPC, however Blackwood existing models indicate the coal sub crops north west of EPC 1761. It is possible that the coal sub crops in the extreme west of the tenement and the majority of the EPC sits outside the basin all together. That is why a significant portion of the EPC has been dropped from the eastern section of the tenement.

6.0 REFERENCES

Agip Australia Pty Ltd. 1982. Inglewood ATP291C Report of Exploration for period 9/11/81 -27/2/82 and Final Exploration Report.

Bergman, M. & Ensor, A. 2009. EPC963 'Killarney', Partial Relinquishment Report for the period ended 20 June 2009.

Brooks P J, 1982, ATP 203C Relinquishment Report 2/10/1982. QDEX cr_11304

B.N.G Pty Ltd. 2004. ATP 643 Clarence Moreton Basin, Final Report to 31 December 2004.

Bubendorfer P, 2006, ATP 643P Partial Relinquishment Report 14 Blocks Relinquished 28/2/2006. QDEX cr_42717.

Clifford, N. 2008. EPC 899 – Wilkie, Partial Relinquishment Report for the period ending 4th August 2008.

Cadman, S.J. and Pain, L. 1998. Bowen and Surat Basins, Clarence-Moreton Basin, Gunnedah Basin, and other minor onshore basins, Queensland, NSW and NT. Australian Petroleum Accumulations Report 11, Bureau of Resource Sciences, Canberra.

Cook, A.C. 1975. The Spatial and Temporal Variation of the Type and Rank of Australian Coals. AusIMM Illawarra Branch A.B.C Symposium, pp. 63-84.

Department of Environment and Heritage Protection. (2009). Available: http://www.ehp.qld.gov.au/licences-permits/maps_of_environmentally_sensitive_areas.php#tenure. Last accessed 29th August 2013.

Department of Natural Resources and Mines. (2012). Interactive resource and tenure maps. Available: <http://mines.industry.qld.gov.au/geoscience/interactive-resource-tenure-maps.htm>. Last accessed 5th February 2014.

Department of Natural Resources & Mines QLD, 2005, *MILLMERRAN Queensland*, Australia 1:100,000 geological series, Sheet 9142. Department of Natural Resources, Mines and Water, Queensland.

- Department of Natural Resources & Mines QLD, 2005, *INGLEWOOD Queensland*, Australia 1:100,000 geological series, Sheet 9141. Department of Natural Resources, Mines and Water, Queensland.
- Dixon, McKillop and Hodgkinson, 2011, Seismic horizon mapping in the Surat Basin — refinement of key stratigraphic surfaces as a foundation for subsurface fluid flow modelling, Queensland Geological Record 2011/06
- Exon, N.F., Mond, A., Reiser, R.F. 1968. BMR Australia 1:250000 Geological Series, Dalby.
- Geary, G.C. 1983. Relinquishment Report, ATP315P, Moreton Basin Queensland.
- Global Ore Discovery, 2013, Blackwood Corporation Millmerran Project – Integrated Remote Sensing Study & Exploration Framework Build, 31st January 2013. Internal Report.
- Haites T B, A-P 112c Millmerran Coal Pty Ltd Report on Area Relinquished, 1st October 1972. CR 4264.
- Healy et al. 2008, Bowen and Surat Basins Regional Structural Framework Study, SRK Consulting
- Hodgkinson J, 2008, *Queensland Coal Inventory*, Geological Survey of Queensland. Queensland Government Dept. Mines and Energy.
- Jones GD, & Patrick RB, 1981 'Stratigraphy and Exploration Geology of the North-eastern Surat Basin', *Journal of the Coal Geology Group of the Geological Society of Australia – Surat Moreton Basin Symposium*, vol 1 part 4.
- Leblang G, 2000, Annual Report EPC 681 12 months Ending 26 May 2000 And Final Report. QDEX 32430.
- Matheson, S.G. 1991. Exploration and Coal Resources of the Moreton Basin, Queensland. Queensland Coal Symposium, pp. 105-116.
- Millmerran Coal Pty Ltd, Summary Report for Department of Mines – ATP 400C, 31st March 1983. CR 11784.
- Mutton, A.J. 2003. Queensland Coals, 14th Edition. Queensland Department of Natural Resources and Mines; Brisbane.
- Oberhardt, M. 2005. Glenhaven-1 Well Completion Report.
- Oberhardt, M. & Scott, A. 2001. Bora Creek-1 Well Completion Report.
- Oberhardt M, A-P 689P ARM Trapyard 1, Well Completion Report. 27th October 2005. CR39811.
- Oberhardt M, A-P 683P Bora Creek 1, Well Completion Report. October 2001. CR33564.
- Scott S, Anderson B, Crosdale P, Dingwall J, & Leblang G. (2007) 'Coal Petrology and Coal Seam Gas Contents of the Walloon Subgroup – Surat Basin, Queensland, Australia'. *International Journal of Coal Geology*, vol. 701.

Silwa, R & Esterle, J. 2008 Re-evaluation of the structure and sedimentary packages in the eastern Surat Basin. Third Eastern Australasian Basins Symposium Petroleum Exploration Society of Australia. Poster.

Whitaker, W.G. & Green, P. M. 1978. GSQ Published Maps 1:500000 Moreton Geology.

Worley Parsons. 2010. Healthy Head Waters Coal Seam Gas Water Feasibility Study, Spatial Analysis of Coal Seam Water Chemistry, Literature Review.

Young, D. 2005. Exploration Permits for Coal Number 813 - Dogwood Creek Project, Report for the Area Relinquished 16th April 2005.