

1 August 2013

Grant of Mineral Development Licence MDL453 “Cooroorah Project”

AUSTRALIAN PACIFIC COAL LIMITED (ASX:AQC) is pleased to report that the Company’s 100% owned subsidiary Area Coal Pty Ltd has been granted Mineral Development Licence No. 453. The date of the grant is 22 July 2013 with the commencement date being 1 August 2013.

MDL 453 covers the company’s exploration tenement EPC 1827 “Cooroorah”.

About the “Cooroorah” project

The “Cooroorah project covers an area of 1,666 hectares approximately 20km North of Blackwater in Queensland’s Bowen Basin. The project is surrounded by producing coal mines owned and operated by major mining companies and has well developed infrastructure with links to all major port facilities.

As initially announced on 11 February 2011, the company’s exploration program has identified 106.5Mt of coal resource (54.9Mt Indicated and 51.6Mt Inferred) within the southern half of the tenement. Prepared by Salva Resources, the complete report is attached to this announcement.

A Desktop Concept Study of the project has been commissioned to provide scoping information for a pre-feasibility study and the next steps to be taken in development of the resource.

About Australian Pacific Coal

Australian Pacific Coal Limited (ASX:AQC) is an ASX-listed company focused on the exploration and development of metallurgical and thermal coal projects. With interests in 33 coal tenements strategically located in south-east Queensland’s Bowen and Surat Basins, AQC has joint venture agreements in place with mining major Rio Tinto and Cuesta Coal.

Australian Pacific Coal

EPC1827 - Cooroorah

SALVA  RESOURCES

Mineral Resources Group

Volume 01
Mineral Resource Estimate Report



Authors : Tony Shellshear, Sonik Suri, John Boardman, Raj Annapureddy

Phone : (07) 3211-9911

Fax : (07) 3221-5725

ABN :

Email : anthony.shellshear@salva.com.au

Client : **Australian Pacific Coal**

Project : EPC1827 - Cooroorah

Volume # : 1

Volume Title : Mineral Resource Estimate Report

Revision : 2.0

Date : 11 February 2013

Filename : Document2

Australia | India | Indonesia | Singapore

International Head Office
Level 11, 82 Eagle Street,
Brisbane, QLD 4000, Australia

For more information visit www.salvaresources.com
Or call +61 (0) 7 3211 9911



TABLE OF CONTENTS

Table of Contents	3
1 Executive Summary	4
Introduction.....	6
1.1 Scope of Work	6
1.2 Qualified Person Statement.....	6
Location and Tenure	8
1.3 Location.....	8
1.4 Tenement Ownership.....	8
Geology.....	11
1.5 Regional Geology	11
1.6 Local Geology	11
1.7 Economic Geology	11
1.7.1 Aries Seam.....	12
1.7.2 Castor Seam	13
1.7.3 Pollux Seam	13
1.7.4 Pisces Seam	14
Exploration History.....	16
1.8 Historical Drilling	16
1.9 Bow Drilling	16
1.9.1 Coal Quality Data	18
Current Exploration	19
1.10 Drilling.....	19
1.11 Geological Data Management	19
1.12 Geophysical Logging	19
1.13 Structural Model.....	19
1.14 Coal Quality Model.....	19
1.14.1 Standard Moisture Basis	20
1.14.2 In-situ Moisture and Density	20
Resource Estimate.....	21
1.15 Current Estimate and Future Potential.....	21
1.16 JORC Requirements	21
1.17 Points of Observation.....	23
1.18 Confidence Levels	24
1.19 Limits to Resource Areas.....	25
Cooroorah Resource Statement - November 2012	27
1.20 Comparison with Previous Estimates	28
1.21 Model Audit	28
References.....	29



1 EXECUTIVE SUMMARY

Salva Resources has updated the Cooroorah project geological model incorporating all drillhole data acquired from the drilling programs to date. The model has been interrogated and Indicated and Inferred Coal Resources have been estimated:

- The Cooroorah Project's resources are within Australian Pacific Coal's EPC1827.
- The resource estimate follows an earlier estimate by O'Reilly in November 2010, and builds on that work.
- The target mineralisation is Late Permian Rangal Coal Measures coal within the Bowen Basin.
- While coal is found in several seams within the Rangal Coal Measures, the project is targeting coal from the Aries, Castor, Pollux and Pisces Seams.
- Three 2D seismic lines were performed by Velseis in August 2011, providing additional structural data.
- Coal quality data is provided by GSQ core holes, with additional coal quality data has been gained from one of the CSG holes drilled in the tenement, along with a new hole completed recently by APC.
- As at December 14th 2012, the Cooroorah project is estimated to contain 106.5Mt of coal resource, of which 54.9Mt is Indicated, and 51.6Mt Inferred. The narrow shape of the tenement accounts in part for the higher percentage in Indicated coal ([Table 1](#)).
- The four coal seams are located at a depth of between 180m and 520m, with no subcrop within the tenement.
- All seams exhibit a low to moderate ash, with a generally high yield. Sulphur ranges between 0.4% and 0.6%, with Phosphorus between 0.06% and 0.08%. Ash ranges between 10% and 19% and Volatile Matter between 14% and 18%. Specific Energy falls between 25 and 32 Mj/kg. While the CSN values are generally low, between 1 and 3, values in the lower parts of both the Pisces and Pollux seam rise significantly in places.
- Data from the BOW coal seam gas holes has demonstrated that gas drainage would be required prior to mining of the coal.
- This estimate report agrees with the previous report that the coal should readily produce a PCI product, with potential for a coking coal fraction from these seams in places.



Table 1 : Resource Classification in Accordance with JORC Code (2004)

Australian Pacific Coal EPC1827 - Cooroorah Coal Resources – 14th December 2012 Resource Classification in Accordance with JORC Code (2004)							
Resource Category	Measurement		Seam Group				
			Aries	Castor	Pollux	Pisces	Total
Measured	Volume	(Mm ³)	-	-	-	-	-
	Area	(Ha)	-	-	-	-	-
	Thickness	(m)	-	-	-	-	-
	Insitu Density	(t/m ³)	-	-	-	-	-
	Tonnes	(Mt)	-	-	-	-	-
Indicated	Volume	(Mm ³)	3.1	11.5	9.4	13.7	37.7
	Area	(Ha)	381.6	410.3	410.3	410.3	1612.5
	Thickness	(m)	0.8	2.8	2.3	3.3	9.3
	Insitu Density	(t/m ³)	1.44	1.45	1.45	1.47	-
	Tonnes	(Mt)	4.4	16.7	13.7	20.1	54.9
Inferred	Volume	(Mm ³)	6.5	7.6	8.4	12.9	35.4
	Area	(Ha)	413.1	383.2	407.2	407.2	1610.7
	Thickness	(m)	1.2	2.4	2.2	3.2	9.1
	Insitu Density	(t/m ³)	1.44	1.45	1.45	1.47	-
	Tonnes	(Mt)	9.4	11.0	12.2	18.9	51.6
Total	Total Tonnes	(Mt)	13.8	27.7	25.9	39.0	106.5

Notes:

* Volumes, areas and tonnages have been rounded and may not total.

* Coal masses are in-situ estimates based on the application of a default in-situ moisture of 14.5% and the Preston Sanders formula to adjust the in-situ density.



INTRODUCTION

This report presents the current resource estimate for EPC1827 Cooroorah, held by Australian Pacific Coal (APC) at December 20th 2012. A previous resource estimate was undertaken by Ken O'Reilly of Minserv in 2010; this report builds on that initial base, and has retained elements of that report that required no additions or modification. The author acknowledges the high standard of the work done by Ken.

New data added to the basis for this report includes coal quality analysis from the BOW CSG Pty Ltd core hole (BW1), and geophysical logs for this core hole, and the five chip holes drilled in or near the southern end of the tenement, facilitating interpretation and correlation of seams with high degree of accuracy.

A new core hole, DDHoo8, has also drilled recently by APC, providing additional coal quality data.. Further drilling is being undertaken at the present time.

1.1 SCOPE OF WORK

Salva Resources Pty Ltd (Salva) was commissioned by Australian Pacific Coal to update the existing resource model with the inclusion of the 2010-2011 exploration data, geostatistical review results, 2D seismic results, aeromagnetic study results and report the JORC compliant resources.

This report provides a summary of the work undertaken and the results of the resource estimate based on the following scope of work:

- Review and collate borehole data provided with the latest drilling completed as of November 2012.
- Construct a geological model incorporating the borehole and coal quality data and assess the model.
- Determine seam limits and extents based on the modelling.
- Provide a JORC compliant resource estimate based on the updated data and geological modelling.
- Provide a resource estimate report on the geology and resources of the Cooroorah Project.

1.2 QUALIFIED PERSON STATEMENT

Tony Shellshear (BSc. Applied Geology, Grad. Dip. Comm. Comp., AusIMM) is a geologist with more than 35 years experience in exploration, mining and resource development, and has been a Member of the Australian Institute of Mining and Metallurgy for 30 years.

Tony is the Principal Resource Geologist, and a full time employee, of Salva Resources Pty Limited. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration (coal) and to the activity (resource estimation) which he is undertaking, to



qualify as a Competent Person as defined in the 2004 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” and the 2003 Coal Guidelines.

The report has been peer reviewed by Aldo Van Heeswijck, Principal Geologist with Salva, who also holds qualifications and experience sufficient to qualify him as a Competent Person for this work.



LOCATION AND TENURE

1.3 LOCATION

The Cooroorah coal project is located to the north-east of the town of Blackwater, in Central Queensland. (See Fig. 3-1) The EPC sits between the Curragh mine to the south-west, and the Jellinbah mine to the north-east.

1.4 TENEMENT OWNERSHIP

EPC 1827 comprises seven sub-blocks and is located in the Central Bowen Basin between Curragh Mine and Jellinbah Mine (Figure 3-1). The EPC was granted to Area Coal Pty Ltd, a fully owned subsidiary of Pacific Enviromin Limited, for a term of five years on 25 November 2009. The northeastern sub-block is almost totally overlain by three mining leases (MLs) that are part of Jellinbah Mine; and two adjacent sub-blocks are also heavily impacted by the MLs. The parts of the EPC overlain by the MLs are excluded from the EPC.

Figure 0-1 : EPC1827 Location and Tenements (O'Reilly)

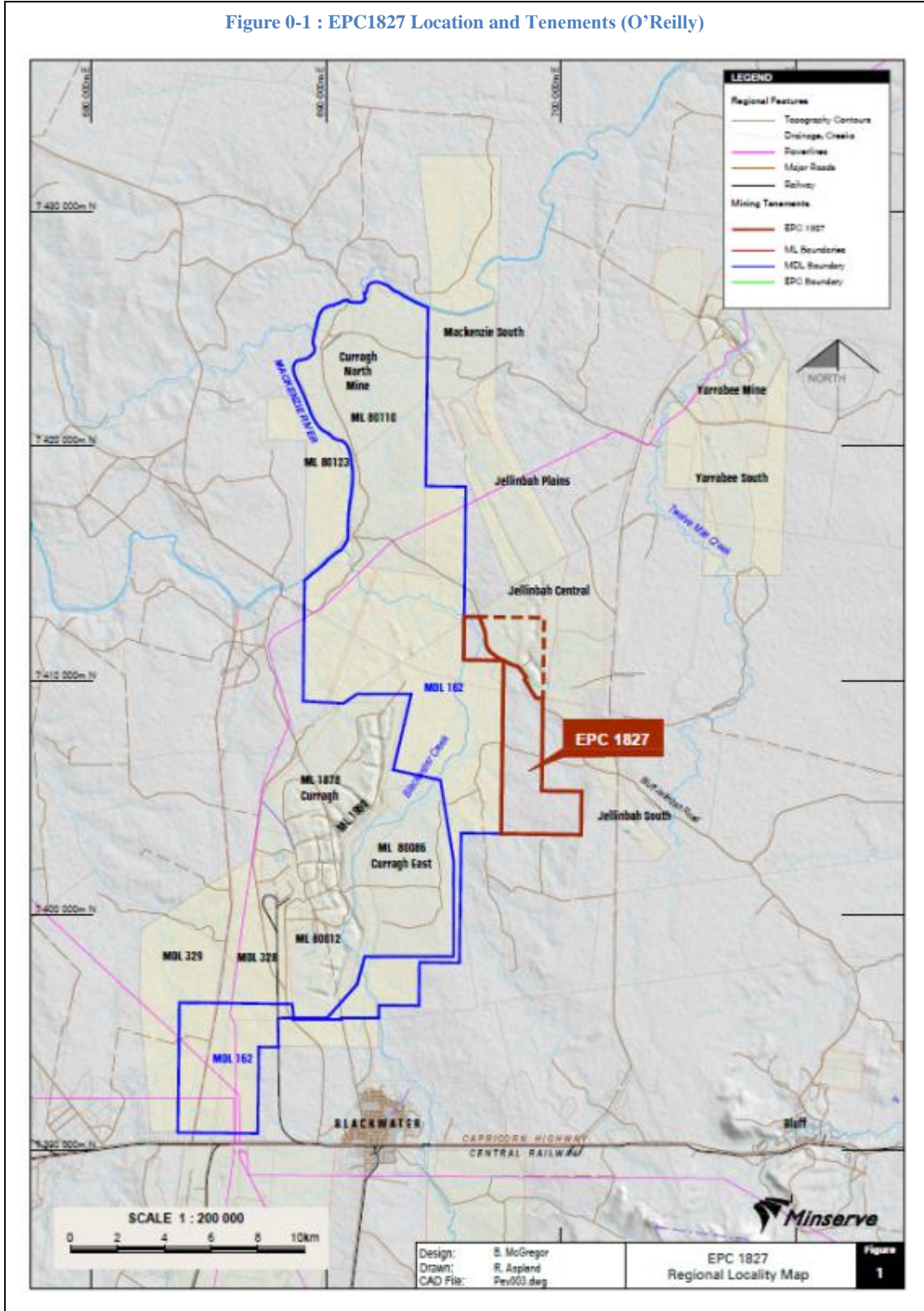
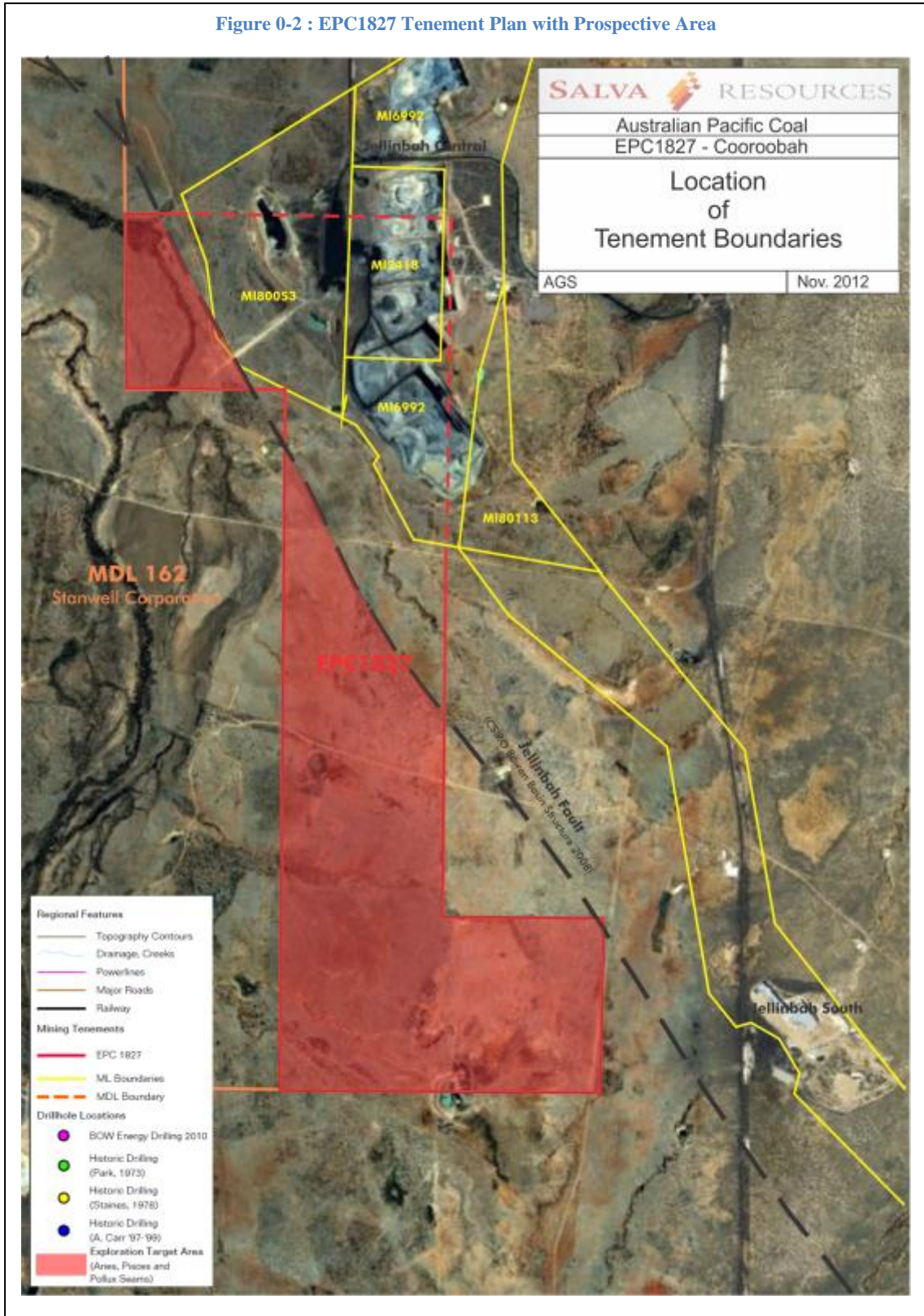




Figure 0-2 : EPC1827 Tenement Plan with Prospective Area





GEOLOGY

1.5 REGIONAL GEOLOGY

Three Permo-Triassic units occur within the EPC. These are, in descending stratigraphic order, the Triassic Rewan Group, the Late Permian Rangal Coal Measures (RCM) and the Late Permian Burngrove Formation, an upper unit of Blackwater Group. The RCM in the Bowen Basin provide some high quality hard coking coal, but dominantly supply semi-hard to semi-soft coking, high quality PCI and thermal coal for export, and lower quality thermal coal for domestic power generation. The Burngrove Formation contains a number of thick, high inherent ash, heavily tuff banded coal seams, that until now have not had any commercial potential because of their very low yields at high ashes. However, because of their excellent coking properties, seams of the Burngrove Formation are actively being explored by several companies in the area between Curragh and Ensham, to the west of EPC 1827.

1.6 LOCAL GEOLOGY

The deposit is divided into two by the northwest trending Jellinbah Fault, which has a throw of 400m to 500m.

To the west of the fault (downdip of Curragh), the upper seams of RCM occur, below sediments of the Rewan Group, at depths ranging from approximately 225m east of HU1/2R and HU7 to more than 370m in BW1. Depth to the Aries seam, the uppermost potentially economic seam in the RCM, in the southeast corner of the deposit exceeds 400m.

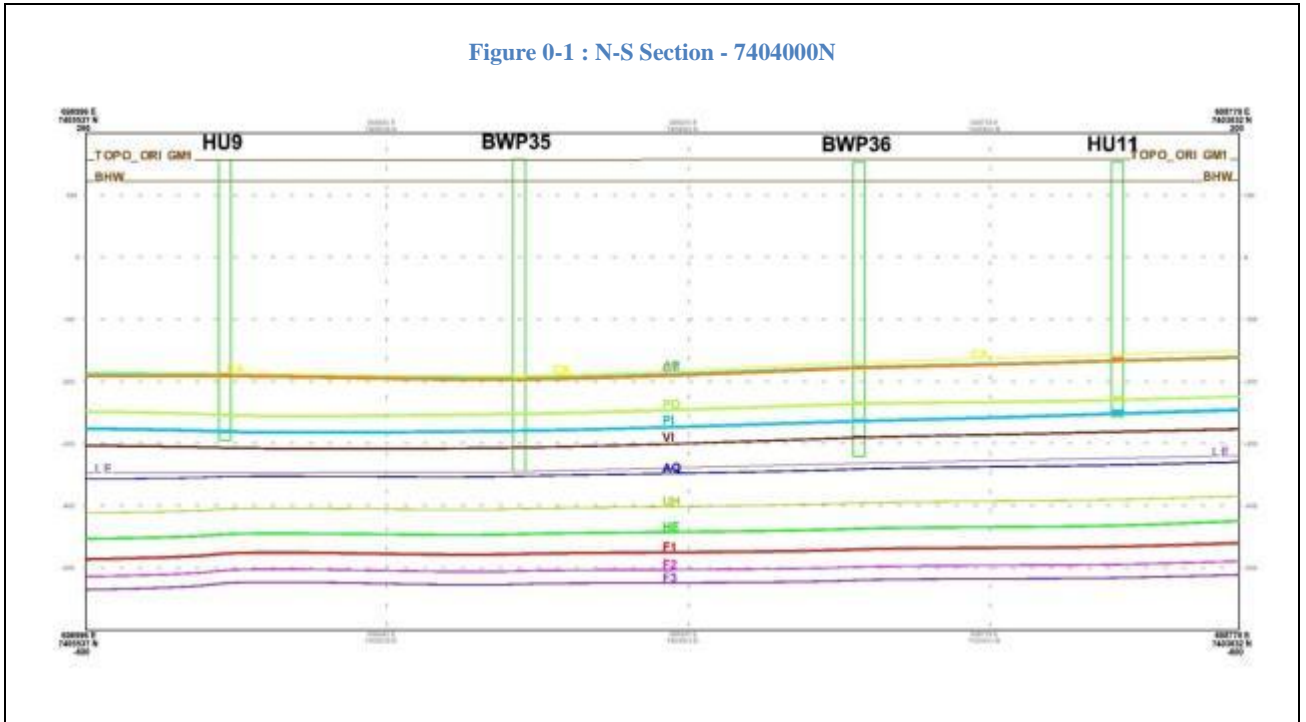
To the east of the fault, high ash seams of the Burngrove Formation have been thrust over the Rangal and Rewan Group sediments. The only seam of apparently clean coal to the east of the fault was intersected in NC9906, close to the eastern boundary of the EPC. It is highly likely that the 2m thick seam intersected at 31m depth in NC9906 was the Pisces seam, the basal seam of the RCM, which occurs at 387m in HU5, some 2km W of NC9906.

1.7 ECONOMIC GEOLOGY

The Rangal Coal Measures (RCM) contain a number of coal seams of variable thickness and quality. Appendix B below lists the seam intersections encountered in the drilling within EPC 1827. Four potentially economic seams are present: these being the Aries, Castor, Pollux, and Pisces seams.

Three of the seams (the Castor, Pollux and Pisces) have suitable thickness to host underground coal resources in parts of the EPC. The topmost Aries seam is generally too thin to potentially support this, however in places the interburden between the Aries and Castor is very thin, perhaps offering some potential for joint removal.

The following north-south section shows the flat lying relationship of the various seams.



1.7.1 ARIES SEAM

The uppermost seam, the Aries seam is the thinnest seam, typically 0.6m to 1.5m thick. The seam thickens towards the north, however insufficient data exists in this area to include this coal in the current resource.





1.7.2 CASTOR SEAM

The Castor seam is located generally less than 10m below the Aries seam. The Castor seam maintains a relatively consistent thickness of 2.5m to 3m through the southern part of the EPC, but thins to less than 1m through the central part of the EPC (BL177 and HU5) before thickening to between 2m and 3m in the north-west corner of the EPC.

Photos below show representative coal from the seam.

Figure 0-3 : Castor Seam - Hole HU7

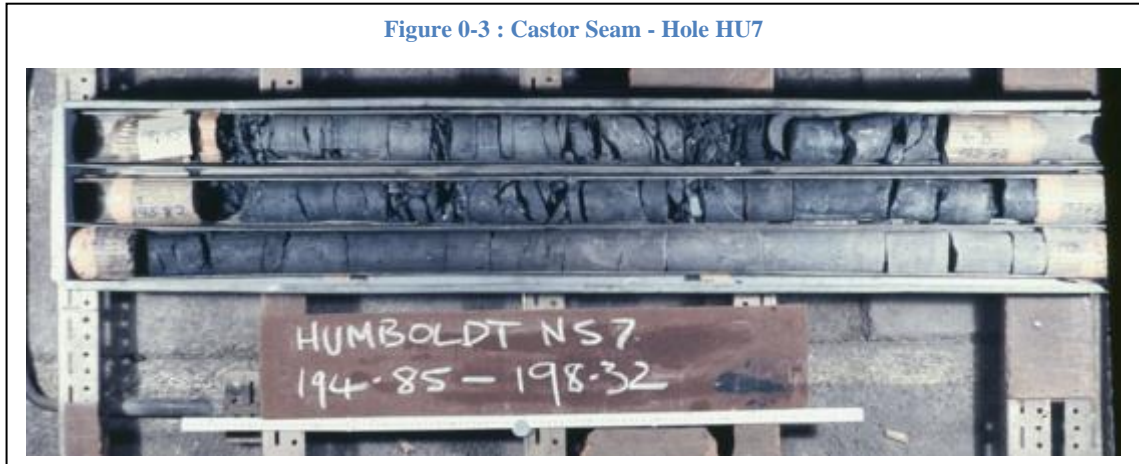


Figure 0-4 : Part of the Castor Seam - Hole DDH008



1.7.3 POLLUX SEAM

The Pollux seam is located around 50m to 60m below the Castor seam over the southern half of the EPC, but the interburden thins to less than 30m in BL184R in the north. The Pollux seam maintains a consistent thickness of 2m to 2.5m through the southern part of the EPC, but thins to less than 1m through the central part of the EPC (BL177 and HU5) before thickening to between 3m and 4m in the north-west corner of the EPC.



Figure 0-5 : Pollux Seam - Hole HU7



Figure 0-6 : Part of the Pollux Seam - Hole DDH008



1.7.4 PISCES SEAM

Sitting some 20m to 30m below the Pollux seam, the Pisces seam is typically 2m to 3m thick in holes drilled in the south of the EPC, The seam thins to less than 1m in in hole HU2R near the north-western corner of the EPC).

Figure 0-7 : Pisces Seam - Hole BW1

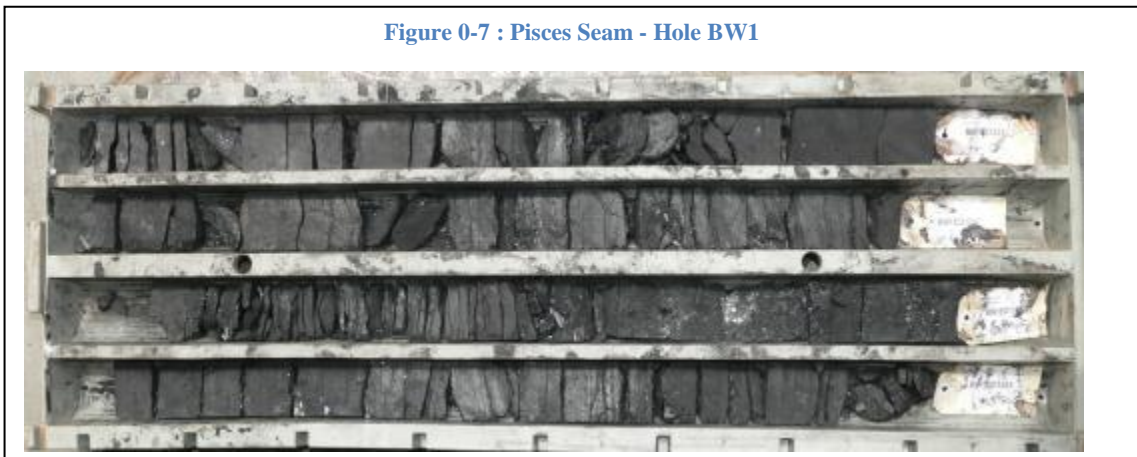




Figure 0-8 : Parts of the Pisces Seam - Hole DDH008





EXPLORATION HISTORY

1.8 HISTORICAL DRILLING

Eight deep stratigraphic holes were drilled in or adjacent to the EPC by the Geological Survey of Qld (GSQ) in the 1970s as part of the Department's regional stratigraphic drilling program. These holes intersected seams of the RCM at depths ranging from approximately 200m to in excess of 400m.

A list of the holes used for the estimation are presented in Appendix A.

Fourteen shallow holes (NC9704-NC9707, NC9710-NC9713, and NC9901-NC9906,) were drilled in or adjacent to the EPC between 1997 and 1999 to depths ranging from 27m to 72m, in an unsuccessful attempt to find shallow RCM in up-thrown fault blocks. The eight holes drilled in the south, and NC9901, intersected sediments of the Rewan Group below unconsolidated Tertiary cover. The remaining five holes intersected mainly tuffaceous, banded seams of the Burngrove Formation.

Although not intersecting coal seams of any economic interest, holes NC9901 to NC9906 have been useful in refining the location of the Jellinbah Fault through the central part of the EPC.

1.9 BOW DRILLING

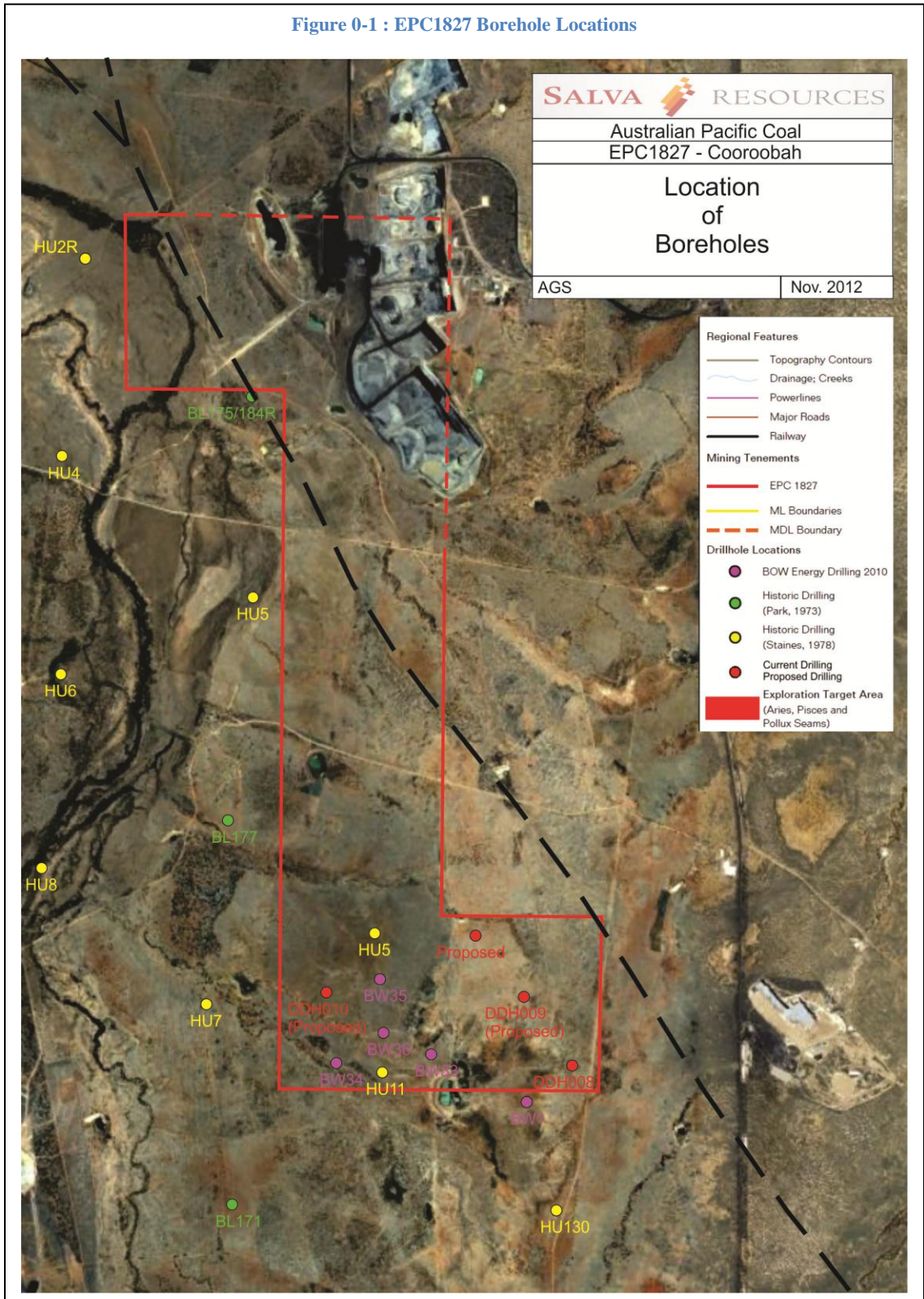
In the period 2009 to 2010, BOW CSG Pty Ltd drilled one HQ corehole (BW1) and four open holes (BW33 to BW36, Figure 5-1) in the southern part of the EPC 1827 during exploration for coal seam gas in EPP 1025, which overlies EPC 1827. Seam intersection data for each hole can be found in Appendix B.

In addition to providing the hole summary data, BOW also provided access to the downhole geophysics of the holes and to the coal seam gas results from BW1. The downhole geophysics indicate that the thicker intersections of the Aries seam in BW33 and BW35 result from minor reverse faulting rather than genuine seam thickening.

Recently, core from the BW1 hole was made available for analysis, the results of which are included in the coal quality analysis table in Appendix C.



Figure 0-1 : EPC1827 Borehole Locations





1.9.1 COAL QUALITY DATA

Coal quality analyses are available from the historical GSQ drilling, the recent BOW hole BW₁, and now the new hole DDHoo8.

The coal quality analysis data can be found in the Appendix C.

This data comprises raw coal analyses and analyses of coal material <1.60 relative density (F1.60). While the data are still limited, we now have some Stage 2 & 3 washability data available from BW₁, and will shortly receive the same from the new hole, DDHoo8.

The data now available continues to indicate a coal with PCI characteristics, and potential in some places for a coking product.



CURRENT EXPLORATION

1.10 DRILLING

A new core hole, DDHoo8, was completed recently in the south eastern corner of the tenement, and a further hole is currently in progress to the west.

1.11 GEOLOGICAL DATA MANAGEMENT

For the purpose of the resource estimate Salva has used Mincom's GDB database for the Cooroorah coal prospect..

GDB links into Stratmodel, Mincom's stratigraphic modelling system. This minimises any potential for creation of errors in the transfer of data from the database to the modelling software. Mincom provides a standard coal database template of tables and a dictionary, which can be tailored to suit the characteristics of a particular deposit.

1.12 GEOPHYSICAL LOGGING

The early GSQ holes do not have geophysical logs. The BOW holes, and the new APC hole have been geophysically logged, providing minimum gamma, density, caliper and deviation logs.

1.13 STRUCTURAL MODEL

The structural model has been built using only the selected suite of reliable holes - that is, those that have a 'Point of Observation' of type 1 to 3, as described in Section 7. Contour and isopach diagrams of the seams within EPC 1827 are presented in Appendix C.

1.14 COAL QUALITY MODEL

Quality data stored in GDB has been composited on a seam basis. Since some of the samples were analysed on a parent seam rather than split basis, the data has been further processed to assign the parent seam quality to each of its splits, in order to create a quality model on the same basis as the structural model. Modelling parameters for quality are:

- Models – Raw, Product
- Model type – Minescape Table
- Interpolator – Inverse distance, Power 2, radius 20,000 metres.

Inverse distance is commonly used as the interpolator for modelling coal quality, as it tends to be conservative and does not allow ample extrapolation. In this case, experimenting with the Cooroorah model indicated that a power value of two and a search radius of 20,000 metres are the most suitable inverse distance interpolation parameters for modelling the Cooroorah project. The



relatively large interpolation distance reflects the data spacing in the Inferred resource area and is immaterial to areas with higher drilling densities.

1.14.1 **STANDARD MOISTURE BASIS**

As the coal quality results were reported as air dried, a representative moisture level was derived for standardisation of the data to allow comparison and consistency.

1.14.2 **IN-SITU MOISTURE AND DENSITY**

Coal quality data and modelling was conducted on an air dried basis with a number of quality parameters (ash, volatile matter, fixed carbon, relative density, total sulphur, specific energy) corrected to a project standard of 8% inherent moisture. Coal in the ground has an in-situ moisture and an in-situ relative density. Neither can be reliably measured in a coal quality laboratory. The in-situ moisture adopted for the Cooroorah Project was 14.5%. This value was determined by a review of the ACARP C10041 and C10042 formulas.

The in-situ density has been estimated using a two-step process:

- Using the representative default in-situ moisture – estimated to be 14.5% (see above).
- Application of the Preston Sanders equation (Preston & Sanders 2004) to return an estimate of in-situ density.

In-situ density value was queried with the resource volume calculations and this value of density used to estimate in-situ resource tonnage.



RESOURCE ESTIMATE

1.15 CURRENT ESTIMATE AND FUTURE POTENTIAL

The current resource estimate is presented in the Resource Statement on page 26. It presents Indicated and Inferred resources within the southern half of the tenement. At present the drilling is insufficient in the northern section to enable a resource calculation, however the existing drilling indicates that potential coal targets could certainly extend into the northern area to the west of the Jellinbah fault.

East of the fault, shallow upthrusted Burngrove Fm seams have been intersected in historical drillholes and drilling completed by AQC in 2011. Preliminary assessment of these seams has shown potential for low to moderate yields of PCI coal and possible coking coal product. Further testing of these seams is required to determine the full potential and suitability of these seams to alternative / non-traditional coal beneficiation processes.

1.16 JORC REQUIREMENTS

The JORC Code provides minimum standards for public reporting of Resources and Reserves to the investment community. For coal deposits, the JORC Code refers to the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (“the Guidelines”).

The Code and the Guidelines provide a methodology which reflects best industry practice to be followed when estimating the quality and quantity of Coal Resources and Reserves. A Coal Resource is defined as that portion of a coal deposit in such form and quantity that there are reasonable prospects for economic extraction. The location, quantity, quality, geologic characteristics and continuity of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge. Coal Resources are subdivided into three categories:

- Measured - for which quantity and quality can be estimated with a high degree of confidence. The level of confidence is such that detailed mine plans can be generated, mining and beneficiation costs, and washplant yields and quality specifications, can be determined;
- Indicated - for which quantity and quality can be estimated with a reasonable degree of confidence. The level of confidence is such that mine plans can be generated and likely product coal quality can be determined; and
- Inferred - for which quantity and quality can be estimated with a low degree of confidence. The level of confidence is such that mine plans cannot be confidently generated.

Resources are estimated based on information gathered from Points of Observation. Points of Observation include surface or underground exposures, bore cores, geophysical logs, and/or drill



cuttings in non-cored boreholes. It should be noted that Points of Observation for coal quantity estimation need not necessarily be used for coal quality estimation.

The estimate is calculated using the area, thickness and in-situ density of the coal seam. The basis from which the in-situ density is derived should be clearly stated. It is important to note that in-situ density is not the same as the density reported by the standard laboratory measurement.



The Guidelines suggest distances between Points of Observation that may be supported by interpretive data, which should be used when estimating resources:

- Measured - Points of Observation no more than 500 metres apart (spacing between points of observation);
- Indicated - Points of Observation no more than 1,000 metres apart (spacing between points of observation); and
- Inferred - Points of Observation no more than 4,000 metres apart (spacing between points of observation).

1.17 POINTS OF OBSERVATION

The 2010-2011 drilling program has built on the March 2010 database of both structure and quality. The geological model has also had the addition of 2D seismic data to help support structural interpretation. Any old holes for which the data was considered to be unreliable or invalid, have been excluded from the geological model and thus the resource estimate. The Points of Observation used to define the Coal Resources at Cooroorah are those drillholes with a reliability type of 1, 2 or 3, as shown in Table 7.2.

Table 7.2 Australian Pacific Coal EPC1827 - Cooroorah Points of Observation Categorisation					
Type	Point of Observation Description	Value and Use of Point of Observation			
1	Cored and analysed intersection of seam with wireline log, may or may not have lithology log	TYPES 1 – 3 Reliable for structure and thickness		TYPES 1 – 2 Required for quality confirmation	
2	Cored and analysed intersection of seam without wireline log, may or may not have lithology log				
3	Non-cored intersection of seam with wireline log, may or may not have lithology log				Type 3 May support quality
4	Non-cored intersection of seam without wireline log, may or may not have lithology log		Type 4 Supportive of structure and thickness		



1.18 CONFIDENCE LEVELS

The Cooroorah coal resource has been classified as containing Indicated and Inferred Coal Resources based on the assessment of the input data, geological interpretation, 2D seismic and coal quality data. The key criteria assessed as part of the resource categorisation is set out in Table 7.3.

Table 7.3 Australian Pacific Coal EPC1827 - Cooroorah Confidence Levels of Key Criteria		
Items	Discussion	Confidence
Drilling Techniques	Combination of open hole and core (4" air core, HQ and NQ) – Industry standard approach.	Moderate - high
Logging	Recorded codes match those that have been defined; codes are fitting the deposit and in line with industry practise. Downhole logging is completed on all suitable holes and LAS/graphic output provided. Logs are corrected to downhole geophysical levels as is standard practice.	Moderate - high
Drill Sample Recovery	Core logs generally record recovery and core loss where field geologist identifies recovery issues.	Moderate - high
Sampling Techniques and Sample Preparation	Samples are well identified and recorded with geological logs; sample sheets included in log data	Moderate-high
Coal Quality Data	Coal quality analysis is conducted in experienced, long time established coal labs, with various NATA certification and Australian Standards, ISO Standards applied.	Moderate - high
Location of Sampling Points	Borehole survey ranges in quality from high precision DGPS to set out collars with hand held standalone GPS. The lack of survey for some holes with DGPS causes small reduction in confidence; set out locations are available for all holes. Downhole survey is available for recent drilling.	Moderate - high
Data Density and Distribution	Drilling density supports or exceeds required intervals for the resource allocated	Moderate-high
Audits or Reviews	Several resource estimates have been completed by other parties and reviews have been carried out. .	Moderate - high
Database Integrity	All historic data was captured from the available reports and was validated before use. Database verification and confirmation drilling undertaken in 2012.	Moderate-high
Geological Interpretation	There is a good understanding of the stratigraphy and structural elements and sufficient data to construct a robust geological model. Coal quality data is adequate to allow definition of product quality.	Moderate-high
Density	Resource density has been calculated using in-situ moisture default estimate derived from quality data and Preston-Sanders formula.	Moderate
Estimation and Modelling Techniques	Stratigraphic model has been generated using industry standard software and techniques and cross checked with manual samples.	Moderate - high



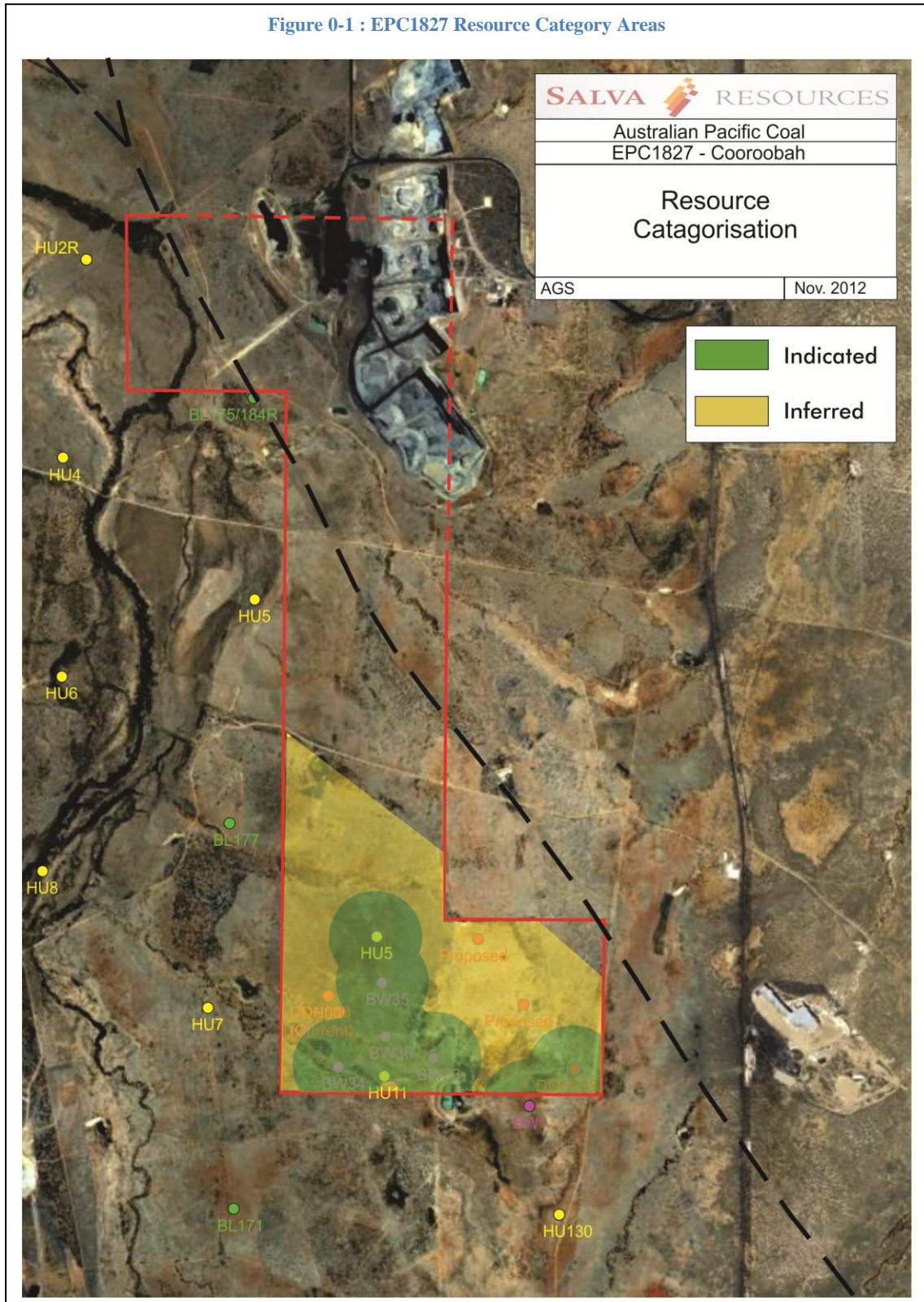
1.19 LIMITS TO RESOURCE AREAS

In addition to the data requirements identified in Section 6, the following limits/restrictions have been placed on the resource areas:

- Only within EPC1827 Cooroorah granted tenure.
- Sub crop limits all seams set at base of weathering modelled surface. The coal seams in the tenement however do not approach the weathered profile.
- The Cancer Seam, and seams below the Pisces seam have been excluded due to failure to meet thickness, quality or geometry criteria required to be considered for future economic extraction under current mining methods.



Figure 0-1 : EPC1827 Resource Category Areas





COOROORAH RESOURCE STATEMENT - NOVEMBER 2012

The Cooroorah Project resource estimate is outlined in the following table. It is estimated that for all seams considered, total resources are **106.5Mt**, of which **54.9 Mt** are **Indicated** and **51.6 Mt** **Inferred**.

Table 7.4 - Australian Pacific Coal EPC1827 - Cooroorah Coal Resources – 14th December 2012 Resource Classification in Accordance with JORC Code (2004)							
Resource Category	Measurement		Seam Group				
			Aries	Castor	Pollux	Pisces	Total
Measured	Volume	(Mm ³)	-	-	-	-	-
	Area	(Ha)	-	-	-	-	-
	Thickness	(m)	-	-	-	-	-
	Insitu Density	(t/m ³)	-	-	-	-	-
	Tonnes	(Mt)	-	-	-	-	-
Indicated	Volume	(Mm ³)	3.1	11.5	9.4	13.7	37.7
	Area	(Ha)	381.6	410.3	410.3	410.3	1612.5
	Thickness	(m)	0.8	2.8	2.3	3.3	9.3
	Insitu Density	(t/m ³)	1.44	1.45	1.45	1.47	-
	Tonnes	(Mt)	4.4	16.7	13.7	20.1	54.9
Inferred	Volume	(Mm ³)	6.5	7.6	8.4	12.9	35.4
	Area	(Ha)	413.1	383.2	407.2	407.2	1610.7
	Thickness	(m)	1.2	2.4	2.2	3.2	9.1
	Insitu Density	(t/m ³)	1.44	1.45	1.45	1.47	-
	Tonnes	(Mt)	9.4	11.0	12.2	18.9	51.6
Total	Total Tonnes	(Mt)	13.8	27.7	25.9	39.0	106.5

Notes:

* Volumes, areas and tonnages have been rounded and may not total.

* Coal masses are in-situ estimates based on the application of a default in-situ moisture of 14.5% and the Preston Sanders formula to adjust the in-situ density.



1.20 COMPARISON WITH PREVIOUS ESTIMATES

The previous resource estimate for Cooroorah was by Ken O'Reilly (2010) which estimated an Inferred Resource of 107Mt.

The difference between the November 2010 and December 2012 resource estimates is explained and supported by several factors:

- Addition of new coal quality analyses from the CSG hole BW₁
- Addition of geophysical logs for the 6 BOW holes, allowing confident identification of seams, particularly the Castor and Aries.
- Addition of a new core hole DDHoo8.
- Additional structural data from the Velseis seismic survey completed recently.

1.21 MODEL AUDIT

No audit has been performed on the model or resource estimation at this stage.



REFERENCES

O'Reilly, K. 2010. EPC1827 Resource Statement, Nov. 2010, Minserve.

Peterson, M S & Barrett, L. 2009. Geology and resources of MDL285 Alpha and MDL333 Kevin's Corner, Report 8303 Runge Limited.

Velseis 2010. Cooroorah Project 2D seismic study report. Velseis Pty Ltd.