Spur Hill Coal Project
Geological Report
And Resource Statement
EL7429

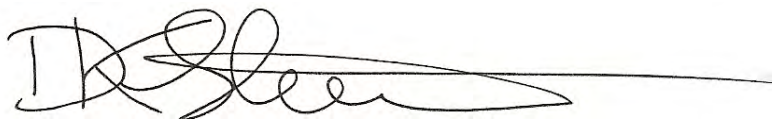
Geological and Mining Services

Australia Pty Ltd

08 November 2013

The Spur Hill Geological Report and Resource Statement was prepared for the Spur Hill Joint Venture (Spur Hill U.T. Pty Ltd and Spur Hill No.2 Pty Limited) by Darryl Stevenson, Principal Geologist, Geological and Mining Services Australia Pty Ltd.

Neither Darryl Stevenson nor Geological and Mining Services Australia Pty Ltd have any financial interest in this project.



Darryl Stevenson

B.Sc. (Hon), M.AusIMM

Front Cover: Spur Hill Area

Contents

Figures

Tables

SUMMARY

Geological and Mining Services Australia Pty Ltd (GMSA) was contracted by Spur Hill Management Pty Ltd (SHM) on behalf of the Spur Hill Joint Venture (SHJV, Spur Hill U.T. Pty Ltd and Spur Hill No.2 Pty Limited - a wholly owned subsidiary of Malabar Coal Limited) to prepare a JORC compliant resource statement for the Spur Hill Coal Project at Denman, NSW. The project area is covered by EL7429.

The geological model was completed by McElroy Bryan Geological Services Pty Ltd (MBGS) in September 2013. MGBS used historical geological and coal quality data as well as geophysical, geological and quality data obtained during the current exploration programme carried out by SHM within the licence area. This report was completed by Mr. D. Stevenson B.Sc. (Hon), M.AusIMM, Principal Geologist, GMSA.

It has been calculated, using Vulcan Geological and Mine Planning software, that the following resources are present within the Newcastle Coal Measures WL1 and WL2 seams and the Jerrys Plains Subgroup Whybrow to Mount Arthur seam interval within EL 7429, to a depth of cover < 600 m.

Indicated	Inferred	Total
394.4 Mt	231.5 Mt	625.9 Mt

This is an overall increase of 0.53 % in the resource estimates from the July 2013 JORC Report to this report. A small change was expected due to the addition of only four (4) new boreholes within the western resource area and minor changes to seam correlations within the eastern resource area and outside the licence area. A new topographic surface was also used.

The seams identified in this report as having resource status or potential as an Exploration Target are in stratigraphic order from youngest to oldest: Wollombi 2 (WL2). Wollombi 1 (WL1), Whybrow (WB), Redbank Creek Upper (RCU), Redbank Creek Middle (RCM), Redbank Creek Lower (RCL), Wambo (WM), Whynot (WN), Glen Munro (GM), Woodlands Hill (WHL), Arrowfield (AR), Bowfield (BF), Warkworth (WW), Mount Arthur (MA).

Table 1 presents a comparison between the July 2013 JORC Report and this report.

	July 2013 JORC Report						November 2013 JORC Report						Differences between the July 2013 and November 2013 JORC Reports		
	Western Zone			Eastern Zone	Total	Exploration Target	Western Zone			Eastern Zone	Total	Exploration Target	Western Zone	Western + Eastern	Comments
Seam	Indicated (Mt)	Inferred (Mt)	Total (Mt)	Inferred (Mt)	Mt	Mt	Indicated (Mt)	Inferred (Mt)	Total (Mt)	Inferred (Mt)	Mt	Mt	Mt	Mt	
WL2	0.0	43.9	43.9	0.0	43.9		0.0	46.8	46.8	0.0	46.8		2.9	2.9	A 6.6% increase due to a slight increase in the resource area, seam thickness and RD.
WL1	0.0	20.0	20.0	0.0	20.0		0.0	22.0	22.0	0.0	22.0		2.0	2.0	Increased tonnage due to an increased resource area and thickness as well as the new DTM changing strip ratios
WB	45.2	16.4	61.6	1.8	63.4		58.5	1.2	59.7	1.8	61.5		-1.9	-1.9	A 3% decrease in tonnes primarily due to a slight decrease in average seam thickness
RCU	0.0	0.0	0.0	3.0	3.0		0.0	0.0	0.0	3.8	3.8		na	0.8	Variation due to refining seam correlations on eastern side of Mt Ogilvie fault and new DTM changing strip ratios
RCM	0.0	0.0	0.0	3.3	3.3		0.0	0.0	0.0	3.7	3.7		na	0.4	Variation due to refining seam correlations on eastern side of Mt Ogilvie fault and new DTM changing strip ratios
RCL	39.9	12.0	51.9	6.0	57.9		51.3	0.7	52.0	6.2	58.2		0.1	0.3	No material change
WM	38.8	5.6	44.4	14.6	59.0		38.1	4.3	42.4	16.0	58.4		-2.0	-0.6	No material change
WN	98.5	13.6	112.1	22.2	134.3		104.5	5.3	109.8	23.0	132.8		-2.3	-1.5	No material change
GM	5.9	7.6	13.5	1.7	15.2		14.7	0.5	15.2	1.6	16.8		1.7	1.6	Due to a slight increase in average seam thickness and RD
WHL						80.0 at 45% max' raw ash						68.9 at 45% max' raw ash			Two (2) recent boreholes SHD25 and SHD26 were 49.2 and 50.7 raw ash respectively
AR	14.5	0.0	14.5	0.0	14.5		14.6	0.0	14.6	0.0	14.6		0.1	0.1	No material change
BF	28.0	8.4	36.4	19.8	56.2		34.0	2.5	36.5	21.7	58.2		0.1	2.0	3.6 % increase primarily due to refined stratigraphy in eastern resource area
WW	62.7	40.4	103.1	22.7	125.8		78.7	26.6	105.3	23.4	128.7		2.2	2.9	No material change
MA	0.0	12.3	12.3	13.8	26.1		0.0	9.3	9.3	11.1	20.4		-3.0	-5.7	Due to refining seam correlations throughout the EL
Total	333.5	180.2	513.7	108.9	622.6	80.0	394.4	119.2	513.6	112.3	625.9	68.9	-0.1	3.3	0.53 % increase in resources

Table 1. Comparison between July 2013 and November 2013 JORC Reports

INTRODUCTION

The Spur Hill Coal Project is located in the northern part of the Hunter Coalfield about 3.0 km east of the Township of Denman and about 15 km southwest of the Township of Muswellbrook (Figure 1). It is traversed by the Golden Highway which links Jerrys Plains to the southeast with Denman to the west. No other roads intersect the licence area.

The project is located entirely within Exploration Licence No.7429, which comprises an area of 33.43 km^2. EL 7429 was granted to Spur Hill U.T. Pty Ltd & Spur Hill No.2 Pty Limited on the 18th of December 2009 for a period of five (5) years.

Topography within the Spur Hill Coal Project area is dominated by a prominent ridge that trends southwards through the area from near Ogilvies Hill through Denman Gap to the south of Spur Hill (Figure 2). Another less prominent ridge trends north-south through the eastern parts of the licence area. The ridges give way to a series of valleys and gently sloping hills. The Hunter River flood plain covers a very small section of the south east corner of the licence area.

Land use within EL7429 is predominantly cattle grazing. There is also a small irrigated area on the eastern edge and a small vineyard on the northwest edge. Land holdings are generally large and there are few houses within the licence area. BHP and Anglo Coal hold exploration and mining titles over the neighbouring areas to the north through to the east. Intensive farming is carried out on the lower slopes and river flats from the southeast through to the west of the licence area. These neighbouring activities include irrigated pastures, dairying, horse studs, vineyards and fish farming.

In 2010 GMSA completed a resource assessment of the Spur Hill Project Area, which culminated in a report "Spur Hill Coal Project Geological Report and Resource Statement EL7429" dated 26 July 2010. This report identified an estimated 589.1 Mt of Inferred resources within the Jerry Plains Subgroup within EL7429.

In 2012 GMSA completed a resource assessment of the Spur Hill Project Area, which culminated in a report "Spur Hill Coal Project Geological Report and Resource Statement EL7429" dated 03 September 2012. This report identified an estimated 585.7 Mt of resources within the Jerry Plains Subgroup within EL7429. These resources comprised 117.1 Mt Indicated and 468.6 Mt Inferred.

In July 2013 GMSA completed a resource assessment of the Spur Hill Project Area, which culminated in a report "Spur Hill Coal Project Geological Report and Resource Statement EL7429" dated 05 July 2013. This report identified an estimated 622.6 Mt of resources within the Jerry Plains Subgroup within EL7429. These resources comprised 333.5 Mt Indicated and 289.1 Mt Inferred.

Since the completion of the July 2013 report an additional four (4) boreholes SHD23, SHD24, SHD25 and SHD26 have been completed. These additional boreholes have been included in the latest MBGS structural and coal quality model.

The SHJV first stage drilling programme has now provided an additional twenty six (26) boreholes to the Spur Hill geological database. Boreholes SHD01 to SHD24 inclusive have raw and washed analyses on the majority of the quantified seams. SHD25 has raw quality data and SHD26, which is currently undergoing gas desorption studies, has some completed raw quality analyses.

This report summarises the structure, quality and resource estimates of selected seam horizons developed within the Spur Hill area.

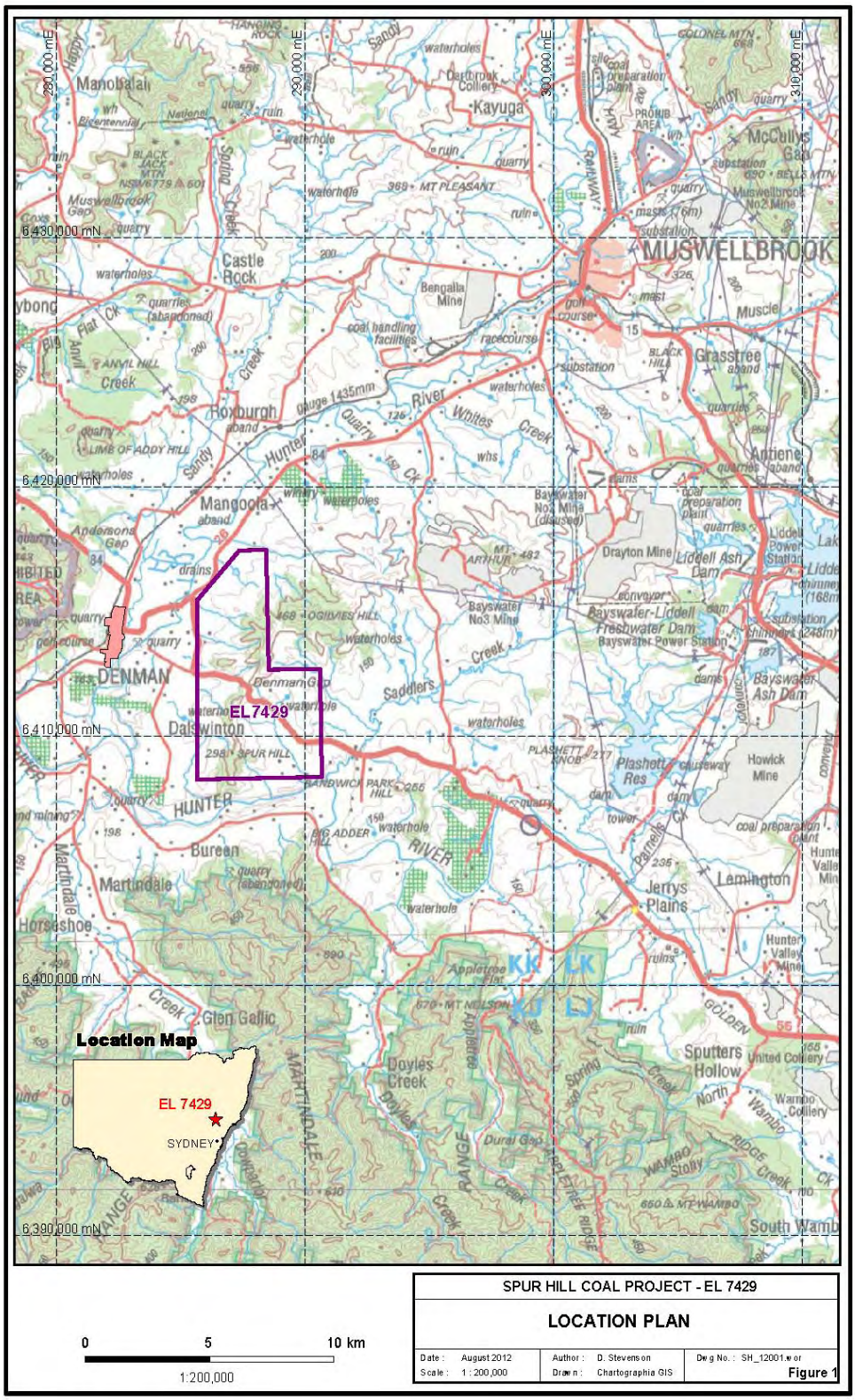


Figure 1. Location Plan

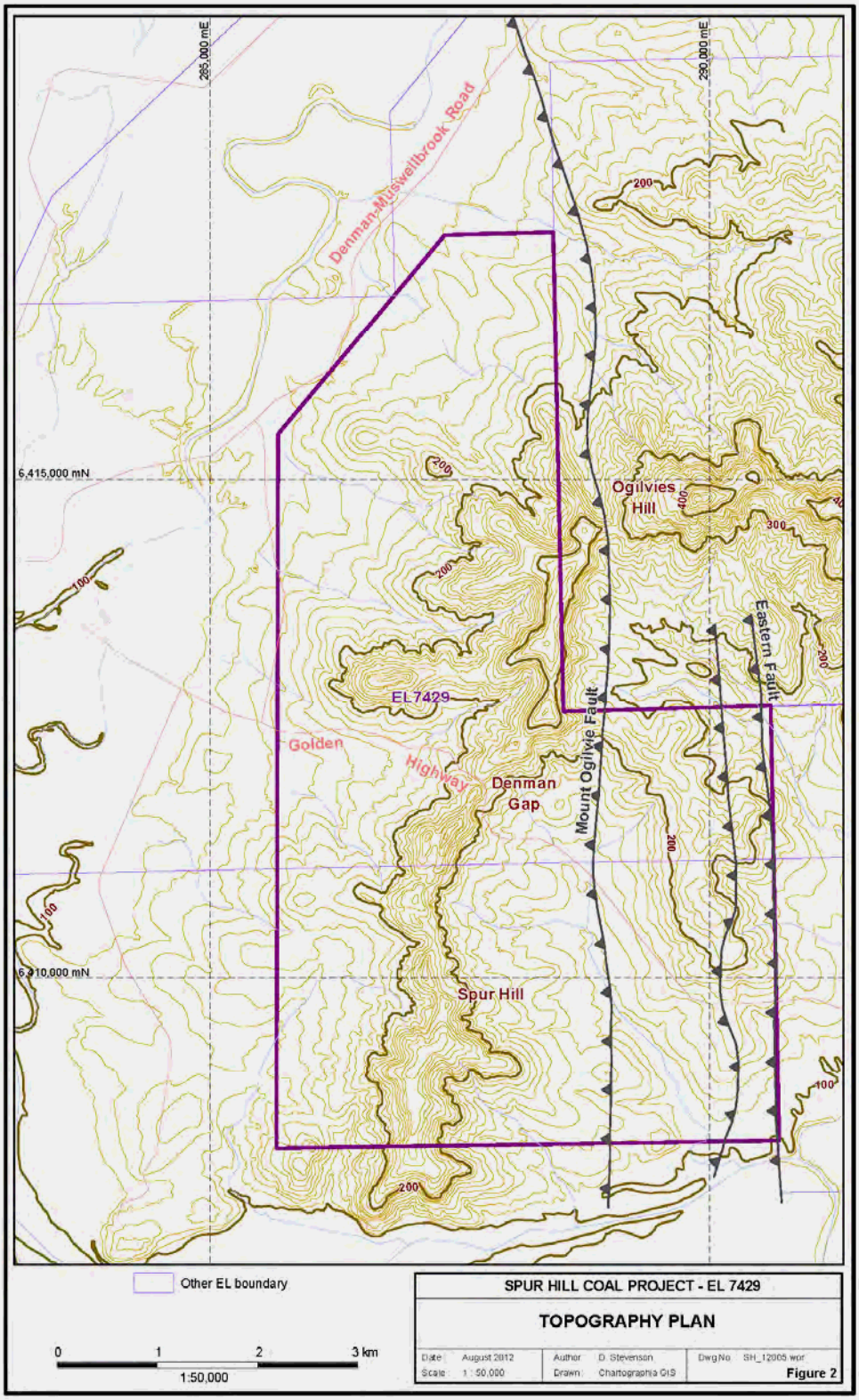


Figure 2. Topography

GEOLOGY

Regional Geology

The Spur Hill Coal Project is located within the Hunter Coalfield in the northern part of the Sydney Basin, which is the southernmost part of the Sydney-Gunnedah-Bowen Basin system. The Hunter Coalfield is one of the major coal mining areas of Australia and has been continuously mined for well over 100 years.

Rocks ranging in age from Carbonaceous to Tertiary crop out throughout the Hunter Valley, with the majority comprising Permian and Triassic lithologies. Tertiary volcanics are present at a number of locations and Quaternary sediments associated with the Hunter River and its tributaries are also present.

Three coal measures sequences are developed within the Hunter Coalfield, which are in chronological order, the Greta, Wittingham and Newcastle Coal Measures (Table 2).

The Wittingham Coal Measures are the age equivalent of the Tomago Coal Measures currently being mined in the Newcastle Coalfield, near East Maitland. The Newcastle Coal Measures are extensively mined in the Newcastle Coalfield and proposed to be mined at other locations within the Hunter Coalfield. The Newcastle Coal Measures within the Hunter Coalfield were previously termed the Wollombi Coal Measures.

Local Geology

Wittingham Coal Measures and Newcastle Coal Measures rock units comprise the majority of surface and subsurface lithologies within EL7429 (Figure 3). West of the Mount Ogilvie Fault the surface mostly comprises the lower parts of the Newcastle Coal Measures underlain by a complete intersection of the Wittingham Coal Measures. East of the Mount Ogilvie Fault, surface rocks mostly comprise Wittingham Coal Measures with minor quaternary sediments in the southeast corner of EL7429.

A number of igneous intrusions have also been recorded in borehole intersections and surface mapping.

The strata have a general trend of dipping to the west. On the western side of the Mt Ogilvie Fault the strata dip ranges from about 1° to 2°. On the eastern side of the licence area the strata are down-folded / down-faulted to the west.

The Mount Ogilvie Fault is now known to comprise a combination of faulted and folded morphology. The outline of the fault shown on Figure 3 is considered to be the approximate western boundary of an intensely folded / faulted zone that is thought to be about 600 m wide. Other faults are also interpreted to occur within the eastern parts of the licence area. The combined folding and faulting combines to down-throw the strata to the west by between about 100 m to 250 m.

AGE	STRATIGRAPHY		LITHOLOGY
Quaternary			silt, sand, gravel
Tertiary			basalt
Jurassic			basalt
Triassic	Hawkesbury Sandstone		massive quartz sandstone with minor siltstone
Permian	Narrabeen Group		interbedded conglomerate, sandstone and siltstone
	Singleton Super Group	Newcastle Coal Measures	coal, conglomerate, tuff, sandstone, siltstone
		Watts Sandstone	medium to coarse grained sandstone
		Denman Formation	sandstone-siltstone laminite
		Wittingham Coal Measures	coal, sandstone, siltstone, conglomerate, tuff
	Maitland Group	Mulbring Siltstone	siltstone, claystone, minor fine grained sandstone
		Muree Sandstone	fine to coarse grained sandstone, conglomerate
		Branxton Formation	siltstone, sandstone, conglomerate
	Greta Coal Measures		coal conglomerate, sandstone, siltstone
	Dalwood Group	Farley Formation	silty sandstone
		Rutherford Formation	siltstone, minor sandstone
		Allandale Formation	conglomerate, lithic sandstone
		Lochinvar Formation	volcanics, siltstone, sandstone
Carboniferous			tuff, ignimbrite, sandstone, siltstone, shale

Table 2. Stratigraphy of the Hunter Coalfield. Exploration target highlighted

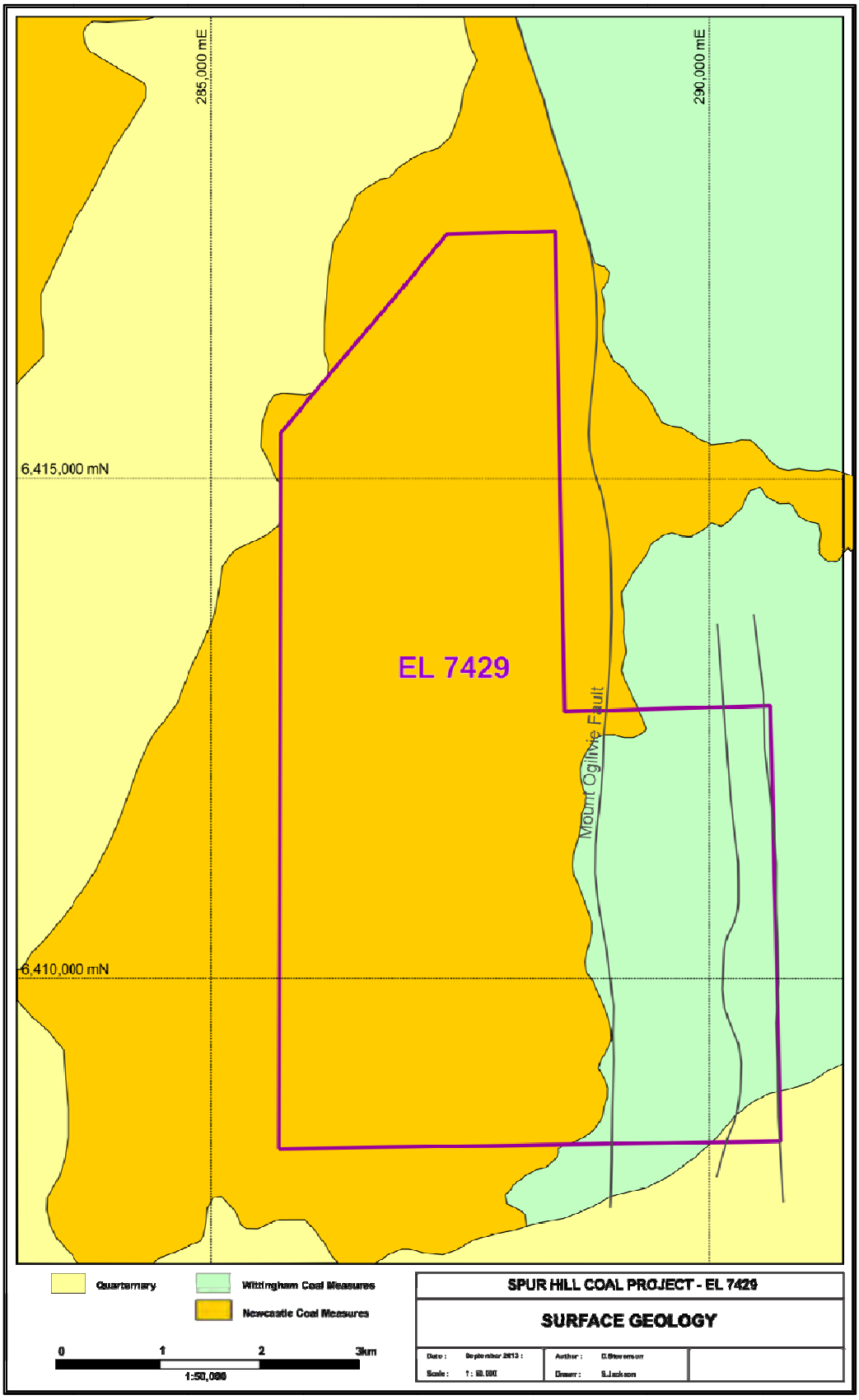


Figure 3. Surface Geology

Newcastle Coal Measures

The Stratigraphy of the Newcastle Coal Measures and the now superseded Wollombi Coal Measures nomenclature are shown in Table 3. Highlighted units such as the Awaba / Nalleen Tuff horizon are excellent chrono-stratigraphic markers that can be easily identified in boreholes throughout the Newcastle and Hunter Coalfields. Wollombi Coal Measures nomenclature is no longer formally applicable, however, the terminology is well entrenched in the literature and will continue to be widely used.

There are five (5) Newcastle Coal Measures seams identified within the licence area. They have been informally named WL1 to WL5. These names predate the formal redefinition of the Wollombi Coal Measures to the Newcastle Coal Measures. Detailed analysis of the stratigraphy within EL7429 will allow the correct nomenclature to be used in the future.

The coal horizons developed within this area are likely to be from the basal Lambton Formation and the overlying Adamstown Formation. Of the five (5) identified seam horizons only WL1 and WL2 have sufficient data to be discussed and quantified with any degree of certainty.

Wittingham Coal Measures

The Wittingham Coal Measures has been subdivided into five (5) major units, the Denman Formation, Jerrys Plains Subgroup, Archerfield Sandstone, Vane Subgroup and Saltwater Creek Formation (Table 4). The Vane and Jerrys Plains Subgroups are further subdivided into formations.

Drilling intersections within the Spur Hill Coal Project area include strata from the upper seams of the Jerrys Plains Subgroup to the Foybrook Formation Arties Seam. However, the majority of subsurface data are from the Jerrys Plains Subgroup.

Work to this stage has identified mineable working sections within the Whybrow, Redbank Creek Upper, Redbank Creek Middle, Redbank Creek Lower, Wambo, Whynot, Glen Munro, Arrowfield, Bowfield, Warkworth and Mount Arthur seams.

Newcastle Coal Measures		Previous Wollombi Coal Measures Nomenclature		
Moon Island Beach Formation	Vales Point seam			
	Wallarah seam	Glen Gallic Subgroup	Greigs Creek Coal	
			Redmanvale Creek Formation	
	Great Northern seam		Dights Creek Coal	Hillsdale Coal Member
Awaba Tuff				Nalleen Tuff Member
Boolaroo Formation	Fassifern seam			Hobden Gully Coal Member
	Upper Pilot seam			
	Mount Hutton tuff	Doyles Creek Subgroup	Waterfall Gully Formation	
	Lower Pilot seam		Pinegrove Formation	Hambledon Hill Sandstone Member
				Wylies Flat Coal Member
				Glengowan Shale Member
		Horseshoe Creek Subgroup	Lucernia Coal	Eyriebower Coal Member
				Longford Coal Member
	Hartley Hill seam			Rombo Coal Member
Warners Bay Tuff				Hillside Claystone Member
Adamstown Formation	Australasian seam (upper)			Carramere Coal Member
			Strathmore Formation	
	Australasian seam (lower)		Alcheringa Coal	
	Stockrington tuff		Clifford Formation	
	Montrose seam			
	Wave Hill seam			
	Edgeworth tuff			
	Fern Valley seam			
	Victoria Tunnel seam	Apple Tree Flat Subgroup	Charlton Formation	Stratford Coal Member
Nobbys Tuff				Monkey Place Creek Tuff M.
Lambton Formation	Nobbys seam		Abbey Green Coal	
	Dudley seam			
	Yard seam			
	Borehole seam			

Table 3. Stratigraphy of the Newcastle Coal Measures

Newcastle Coal Measures				
Wittingham Coal Measures	Denman Formation			
	Jerrys Plains Subgroup	Mount Leonard Formation		Whybrow seam
		Althorpe Formation		
		Malabar Formation		Redbank Creek seam
				Wambo seam
				Whynot seam
				Blakefield seam
		Mount Ogilvie Formation		Saxonvale Member
				Glen Munro seam
				Woodlands Hill seam
		Milbrodale Formation		
		Mount Thorley Formation		Arrowfield seam
				Bowfield seam
				Warkworth seam
		Fairford Formation		
		Burnamwood Formation		Mount Arthur seam
				Piercefield seam
				Vaux seam
				Broonie seam
				Bayswater seam
	Archerfield Sandstone			
	Vane Subgroup	Bulga Formation		
		Foybrook Formation	Lemington Seam	Wynn Coal Member
			Pikes Gully Seam	Edderton Coal Member
			Arties Seam	Clanricard Coal Member
			Liddell Seam	Bengalla Coal Member
			Barrett Seam	Edinglassie Coal Member
			Hebden Seam	Ramrod Creek Coal Member
	Saltwater Creek Formation			
Maitland Group				

Table 4. Stratigraphy of the Wittingham Coal Measures

EXPLORATION HISTORY

Exploration within the Spur Hill area commenced in 1949 with the JCB Ellis Denman Drilling Programme. Seventeen (17) shallow boreholes ranging in depth from 15 m to 48 m were drilled in the Spur Hill area. Eleven (11) of these boreholes are located within the southeast corner of the title area (Figure 4). These boreholes only intersected the Wambo to Whynot seams interval. During 1949 a further six (6) shallow boreholes, Ellis Denman PDH 1A to 6A inclusive, were drilled a few hundred metres south of the JCB boreholes.

The next phase of exploration within the Spur Hill area was carried out in 1953, with the Bureau of Mineral Resources (BMR) drilling the Andersons Gap and Blakefield series of boreholes. Both series were drilled in the north and northwest of the Spur Hill area. Only BMR Andersons Gap DDH S4 is located within the current title area. BMR Andersons Gap S4 comprised a stratigraphic interval from the lower seams of the Newcastle Coal Measures to the Redbank Creek seam.

Between 1971 and 1973 the Department of Mines Denman and Jerrys Plains drilling programmes included some boreholes located within the Spur Hill area. DM Jerrys Plains DDH 1, DM Jerrys Plains DDH 8 and DM Denman DDH 11 are located within the title area. DM Jerrys Plains DDH 1 intersected the Wambo to Woodlands Hill seams interval. DM Jerrys Plains DDH 8 intersected the basal Newcastle Coal Measures to the Redbank Creek seam. DM Denman DDH 11 intersected the basal Newcastle Coal Measures to near the base of the Foybrook Formation.

In 1981 Bridge Oil Limited was granted title to Exploration Permit No. 6, an area to the west of the current licence area. The company drilled thirteen (13) boreholes, including redrills during their tenure. This drilling programme was carried out to investigate the Wollombi and Wittingham Coal Measures. The results were not encouraging and Bridge Oil relinquished their title in 1983. The results of this drilling programme are summarised in several reports held by the NSW Department of Industry & Investment. There are no Bridge Oil boreholes located within the title area.

From 1976 to 1983 Carpentaria Exploration Company Limited drilled one hundred and nineteen (119) boreholes within the Denman area. The drilling area ranged from about 1.5 km west of the western boundary of EL7429, about 1 km south of the northern boundary, 4 km south of the southern boundary and about 2.5 km east of the eastern boundary. The results of the Carpentaria drilling programme are also summarised in several reports held by the NSW Department of Industry & Investment. A large number of these boreholes intersected the entire Jerrys Plain Subgroup.

SHM commenced an exploration drilling programme in February 2012. To date twenty six (26) boreholes have been completed (SHD001 to SHD026). SHD001 to SHD024 have completed and reported coal analyses SHD025 and SHD026 have partially completed analyses.

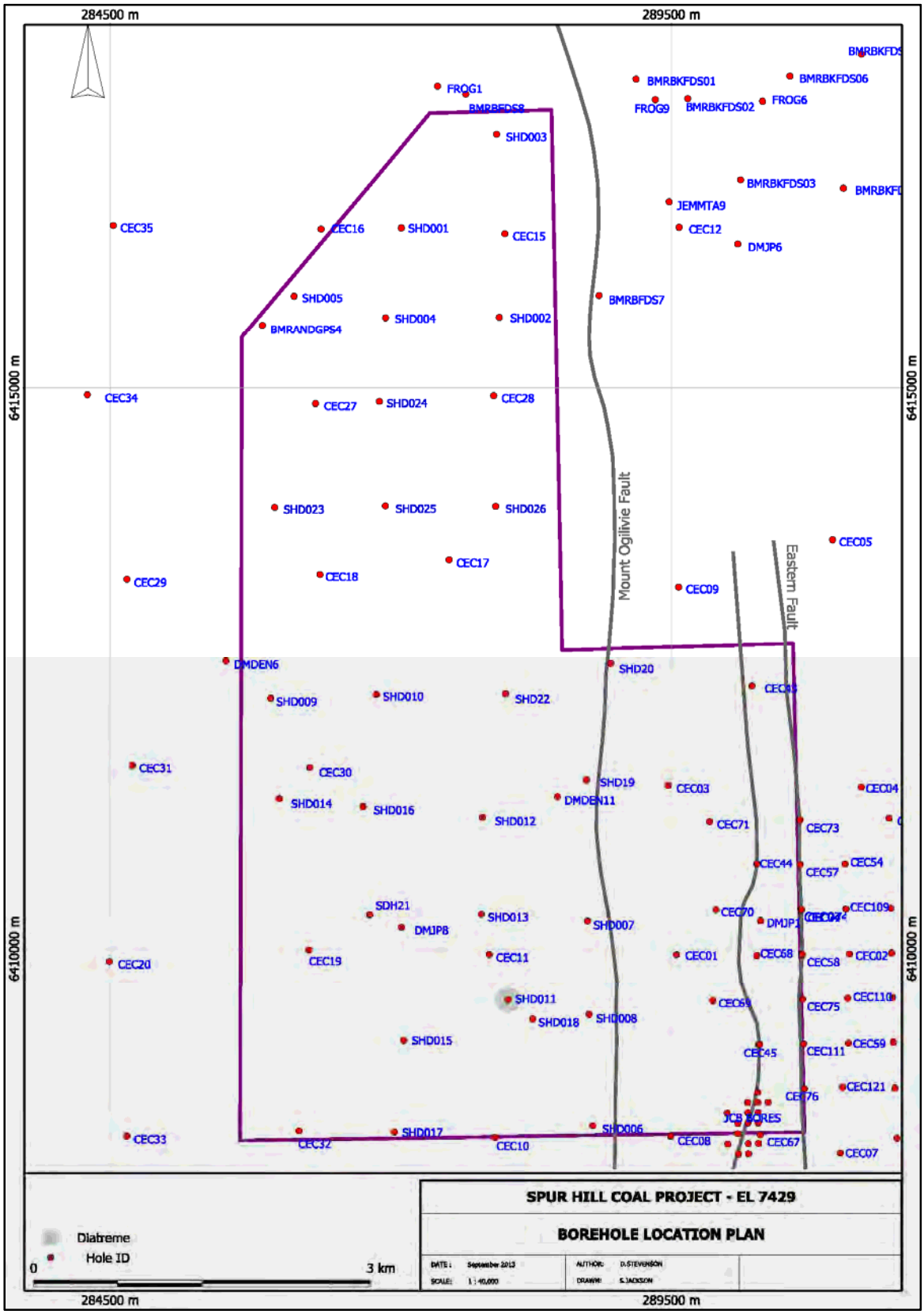


Figure 4. Borehole Location Plan

POINTS OF OBSERVATION

There were eighty seven (87) boreholes (Points of Observation) used to model the structure and quality of the coal seams. Of these, forty seven (47) are located within the boundaries of EL7429 (Figure 4). In the geological model used for the July 2013 report there were forty two (42) POI located within the boundaries of EL7429. In September 2013 MBGS added the four (4) recently drilled boreholes, SHD0023 to SHD026 inclusive, as well as a re-drill CEC45B which had previously been omitted. Additional boreholes are identified as being located within the exploration licence, however, they have been removed from the dataset due to perceived poor data quality and doubts as to location accuracy.

Borehole total depth ranges from 61.40 m to 609.74 m and intersects strata from the Newcastle Coal Measures to the Foybrook Formation. Stratigraphic points of observation within the database range from twenty seven (27) intersections of the Mount Arthur seam to seventy eight (78) intersections of the Woodlands Hill seam. Raw quality points of observation within the database range from seven (7) intersections of the WL1 seam to fifty one (51) intersections of the Whynot seam. Washed quality points of observation within the database range from four (4) intersections of the WL1 seam to forty nine (49) intersections of the Whynot seam

The recently drilled boreholes SHD001 to SDH026 all have downhole geophysics.

Table 5 shows the stratigraphic and quality Points of Observation for seams with quantified resources.

DATABASE

The Spur Hill database includes structural and coal quality data obtained from several drilling programmes carried out between 1949 and 2013. These data include English and graphic logs, downhole geophysics, seam correlations, laboratory analyses, company reports and Government reports.

The historic drillhole database was obtained by Maptek from the NSW Department of Industry & Investment. Maptek work initially comprised transferring all the available structural and coal quality data into spreadsheets and subsequently uploaded into a Vulcan ISIS database. Borehole locations, which were in either AMG or ISG, were converted into GDA. Borehole collar heights were compared to the topographic levels and in a few cases adjusted to fit the surface contours. Data obtained during field mapping were also incorporated into the database.

Points of Observation	Stratigraphic	Raw Quality	Washed Quality
WL2	31	14	14
WL1	31	7	4
Whybrow	52	29	27
Redbank Creek Upper	52	22	19
Redbank Creek Middle	54	20	7
Redbank Creek Lower	55	38	39
Wambo	66	44	42
Whynot	69	51	49
Glen Munro	75	22	13
Woodlands Hill	78	29	28
Arrowfield	69	24	27
Bowfield	62	42	40
Warkworth	58	38	40
Mount Arthur	27	13	9

Table 5. Stratigraphic and quality points of observation

During the final stages of the Maptek assessment, GMSA audited the database and geological model. The ISIS database was compared to original English logs and coal analyses. Some minor errors and discrepancies were found and reported to Maptek. Maptek adjusted the ISIS database and re- generated the model.

At the time of the 26th July 2010 Resource Statement it was thought that some miscorrelations may be present, particularly in the Bowfield seam in the south of the licence area. Some large variations in quality values between the widely spaced boreholes, although probably correct, also needed to be confirmed by closer spaced drilling. The available data, however, were sufficient to allow robust structural and quality models to be generated.

Until recently it was considered that all the historical borehole locations appeared to be correctly identified and were unlikely to vary by more than a few metres from the reported coordinates. However, it was recommended that it would be beneficial to verify the borehole locations in the field. With the increased number of geophysically logged and

analysed boreholes it has now been possible to omit a number of very old non-geophysically logged boreholes that appear to be located incorrectly.

The recent drilling by SHM has added greatly to the structural and coal quality databases. This recent drilling has also given sufficient confidence to elevate an increased number of resources from Inferred to Indicated Status. The drilling has also enabled the addition of three (3) more quantified seams, WL1, WL2 and Mount Arthur and removal of the Inferred resource status of the Woodlands Hill seam.

As of the writing of this report there are eighty eight (88) boreholes within the MBGS Spur Hill database containing some coal quality data in one or more of the modeled seams. Quality data generally comprises both raw and CF1.60 washed data.

GEOLOGICAL MODEL

Prior to the grids being generated, GMSA reviewed the dataset including the historic boreholes. GMSA asked MBGS to make some changes to previous seam picks. These changes were made before re-running the model.

Geological modeling was carried out by MBGS using Minex Geological and Mine Planning Software. The Minex grids were then converted to Vulcan grids and forwarded to GMSA. The supplied grids included seam roof, floor, thickness, depth of cover, raw quality and CF1.60 quality. MBGS also provided GMSA with text files showing the borehole locations, seam picks and quality data.

The model is considered to be of a high standard and robust within the licence area on the western side of the Mount Ogilvie Fault. However, the geology on the eastern side of the fault will continue to require re-interpretation as additional boreholes are drilled within the licence area.

SEAM STRUCTURE AND QUALITY

On the western side of the Mount Ogilvie Fault the strata have a general trend of dipping to the west and southwest at < 2° (Figure 5). The eastern side of the fault comprises what is probably a complex series of folded and faulted strata. Within this region the strata is progressively down thrown to the west by between about 80 and 150 m. In locations where the drop in elevation is due to folding alone, this equates to a seam dip of up to about 20°.

Previous work by Maptek and GMSA identified another two large faults located on the eastern side of the Mount Ogilvie Fault. The un-named middle fault was thought to down-throw the strata to the west by between about 15 m to 50 m. The named Eastern Fault was thought to down-throw the strata to the west by between about 10 m and 50 m.

Until further drilling is carried out on the eastern side of the Mount Ogilvie Fault the exact structural interpretation of this area cannot be confirmed with any accuracy.

An igneous intrusion intersected in SHD011 has been interpreted to be a diatreme. According to MBGS this diatreme is similar in morphology to other examples found in this part of the Hunter Valley and is likely have a similar extent. MBGS determined that a 200 m diameter grid polygon around SHD011 would be of a sufficient distance to mask out the resources within all seams quantified in this report. Its relatively small extent appears to be confirmed by SHD018 which was drilled about 270 m to the southwest of SHD011. However, its exact extent cannot be confirmed until closer spaced drilling is carried out near this borehole.

Table 6 presents seam structure coal quality data from the entire Licence area and hence includes data from outside the quantified resource areas. Cross-section plans are located in the appendices.

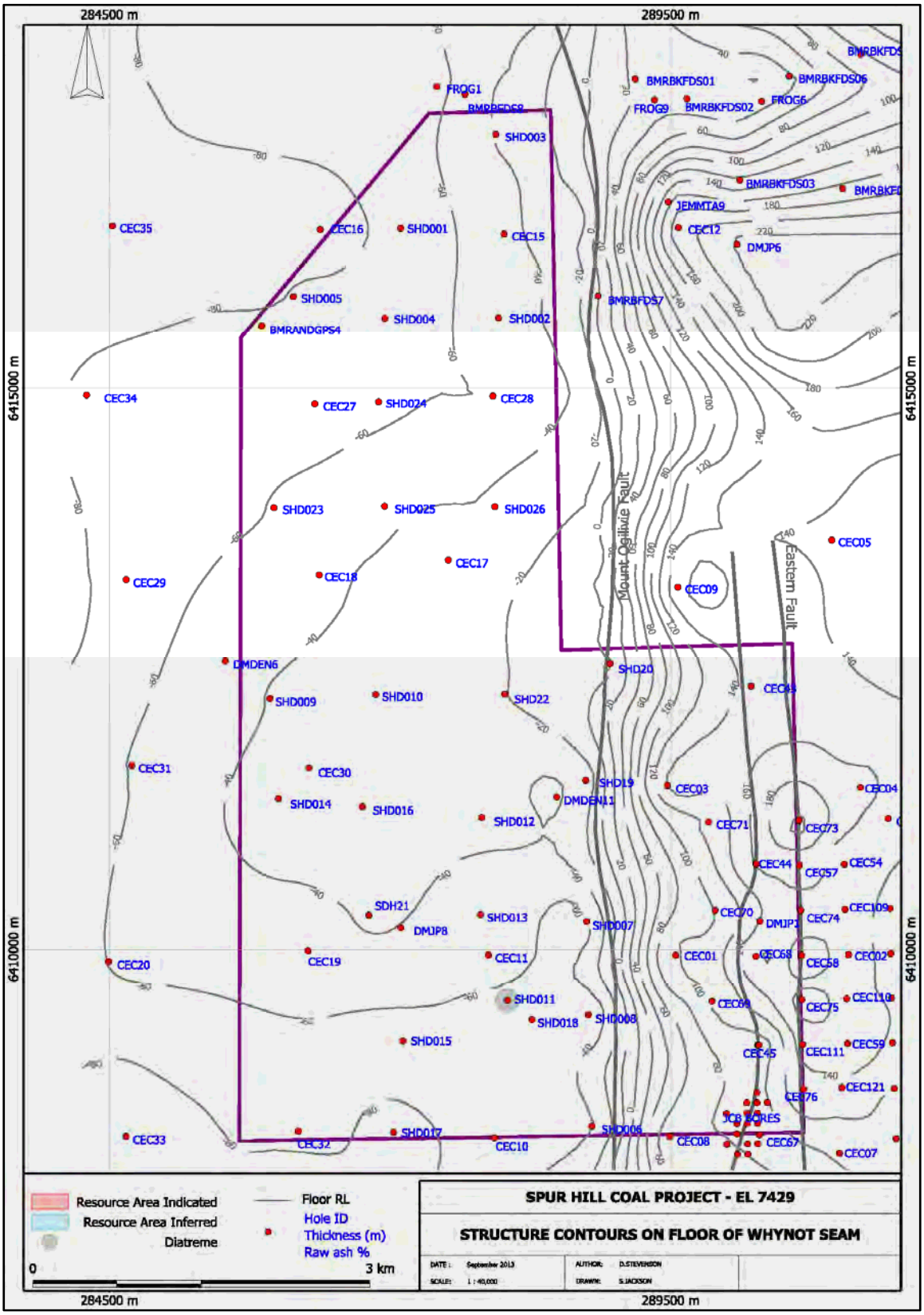


Figure 5. Structure contours on floor of Whynot seam

							Raw (ad)			Float 1.60 (ad)																	
Seam	**Thickness (m)**			**Depth of Cover**			**Ash %**			**Ash %**			**Moist %**			**Yield %**			**Energy (Mj\kg)**			**CSN**			**Sulphur %**		
	min	max	**ave**	min	max	**ave**	min	max	**ave**	min	max	**ave**	min	max	**ave**	min	max	**ave**	min	max	**ave**	min	max	**ave**	min	max	**ave**
WL2	0.30	2.05	1.64	sc	180	57	27.4	38.9	33.8	15.3	27.6	20.7	4.2	5.8	4.9	54.9	85.3	72.3	24.0	26.5	24.8				0.48	0.56	0.52
WL1	0.30	1.54	1.09	sc	198	65	32.5	42.0	37.3	13.1	18.4	15.6				42.7	72.5	59.4									
Whybrow	0.30	3.13	2.21	sc	263	135	17.5	49.1	30.4	7.8	16.2	10.9	3.7	5.6	4.4	50.5	74.1	65.4	26.6	29.7	28.6	2.0	5.0	3.5	0.44	0.57	0.49
RCU	0.30	1.73	1.31	sc	307	153	26.1	47.0	34.8	15.4	23.3	19.0	3.8	4.7	4.2	14.5	76.5	58.2				2.0	3.0	2.6	0.36	0.45	0.41
RCM	0.31	1.39	0.94	sc	308	145	21.3	43.1	34.3	13.2	24.8	20.5	3.8	4.7	4.3	50.8	79.5	63.2				2.0	3.5	2.7	0.36	0.49	0.41
RCL	0.32	2.58	1.83	sc	309	157	20.5	39.2	27.0	9.9	16.9	13.2	3.1	6.6	4.6	52.7	85.3	72.1	26.8	28.6	27.8	1.5	5.5	2.9	0.39	0.52	0.44
Wambo	0.34	2.86	2.18	sc	351	180	6.0	23.7	12.1	4.1	14.1	6.0	3.1	5.4	4.2	61.7	96.5	85.9	30.2	31.4	30.9	1.9	6.0	4.3	0.34	0.59	0.42
Whynot	1.50	4.02	3.04	sc	357	202	7.4	26.2	16.4	3.8	7.5	5.3	3.2	5.4	4.3	66.3	92.3	81.7	30.3	31.5	31.0	2.1	6.0	4.5	0.34	0.59	0.42
Glen Munro	0.37	2.49	1.35	43	448	265	12.5	47.7	27.4	6.6	9.5	8.1	3.5	4.9	4.2	60.9	88.9	71.2	29.8	30.7	30.3	4.0	5.0	4.6	0.39	0.54	0.48
Woodlands Hill	1.08	4.56	2.82	70	485	301	27.7	50.6	41.1	8.5	15.9	12.1	1.8	4.2	2.9	34.7	65.6	51.6	27.5	30.4	29.4	0.0	4.7	2.6	0.37	0.54	0.47
Arrowfield	0.30	3.35	2.26	105	549	351	7.6	23.3	13.1	4.1	8.7	6.0	2.2	4.1	3.2	73.3	92.4	85.6	30.3	32.3	31.4	3.1	6.5	5.5	0.23	0.48	0.38
Bowfield	0.31	3.84	2.12	144	576	373	9.4	23.6	15.0	6.1	10.8	7.9	2.0	4.1	3.0	53.6	96.0	84.5	30.0	31.7	30.7	0.0	6.5	4.1	0.3	0.53	0.42
Warkworth	1.16	4.98	3.23	159	600	418	12.2	44.5	21.5	7.6	16.9	10.2	2.0	4.0	2.8	49.5	91.2	78.4	28.0	31.1	30.2	0.1	7.0	4.2	0.33	0.53	0.43
Mount Arthur	0.32	2.35	1.63	196	642	435	14.1	32.2	21.4	8.8	13.5	11.5	2.3	3.7	3.1	68.8	89.0	78.5	29.5	29.9	29.7	1.5	4.0	2.9	0.27	0.43	0.38

Table 6. Seam structure and quality within EL7429

RESOURCE SUMMARY

A Vulcan Version 8.2 Block Model was populated with the MBGS grids and the Advanced Reserves Function used to calculate the resources. To confirm the results, Polygon Volumes were also completed for all resource areas.

Resources within the Spur Hill Coal Project have been divided into western and eastern regions separated by the Mount Ogilvie Fault. Criteria used to determine the resource estimates are as follows:

- For underground resources within the Wittingham Coal Measures seams - a working section > 1.50 m and a raw ash content of < 35.0 %.

- For underground resources within the WL2 seam - a working section >1.50 m and a raw ash content of < 40.0 %. The use of a higher raw ash cut-off for this seam is due to the seam having an average CF1.60 ash and yield of 20.7 % and 72.3 % respectively at the 40 % raw ash cut-off.

- For shallow, potentially open cut resources - a working section > 0.30 m, cumulative strip ratio < 10:1 and raw ash content of < 40.0 %.

- Where igneous sills or cindered coal were identified in a seam, the resource polygons stopped half way between non intruded boreholes and intruded boreholes.

- Potential resources were not given any status where an intrusive zone cut off and isolated a smaller potential resource area. For example, the Warkworth seam in the southeast corner of the EL, where the isolated and small resource volume probably precludes mining within that area.

- Resource polygons were stopped at the base of weathering, which has been determined to be 18 m depth of cover.

- No resource estimates were calculated within a 200 m diameter mask centered on SHD011 which is interpreted to have intersected a diatreme.

The criteria used to determine the status of resources were as follows:

- Indicated Resources - 650 m radius polygons were centered on seam intersections that comprised apparently accurate structure and quality data as well as a requirement that the majority of the boreholes were to be from the geophysically logged SHD series. This is an increase, compared with the 2012 Resource Report, in the extrapolation / interpolation distance from 500 m to 650 m. This increase in distance was determined in consultation with MBGS and is considered to reflect the increased confidence in the continuity of seam structure and quality within the project area due to the additional drilling.

- Inferred Resources were estimated to between 1.0 km and 1.5 km from Points of Observation and cut-off by the licence boundary.

Due to the structurally complex nature of the eastern side of the Mount Ogilvie Fault all resources within this area are given Inferred status.

Based on the borehole spacing, quality intersections, the presence of major fault structures, igneous intrusions and the diatreme, resource estimates have been determined and are presented in Table 7 (Indicated Resources), Table 8 (Inferred Resources Western Area) and Table 9 (Inferred Resources Eastern Area).

Figures 6 to 16 show the resource areas for each currently quantified seam as well as the Woodlands Hill seam, which is now not considered to contain any economically mineable resources. Each figure shows the working section isopachs with thickness and raw ash labels where coal quality analyses are available and relevant to the resource area.

It should be noted that only the WL2 to Mount Arthur seams interval has been assessed for resource potential. It is likely that there is further resource potential in the upper seams of the Newcastle Coal Measures and other coal intervals within the Jerrys Plains Subgroup.

WESTERN AREA INDICATED				Raw (average) air dried			F1.60 (average) air dried								
Seam	**Area (km^2)**	**DOC ave (m)**	**Thickness ave (m)**	**RD**	**Ash %**	**Moist %**	**Ash %**	**Moist %**	**Yield %**	**Energy (Mj\kg)**	**FC %**	**Vol %**	**CSN**	**Sulphur %**	**Mt**
Whybrow	16.24	138	2.31	1.56	30.0	4.9	10.9	4.4	65.4	28.6	51.0	33.8	3.6	0.50	58.5
RCL	18.46	165	1.83	1.52	27.5	4.7	13.3	4.6	71.0	27.8	50.3	32.0	3.2	0.44	51.3
Wambo	12.67	212	2.14	1.40	12.1	3.8	5.7	4.1	86.8	30.9	54.8	35.8	4.3	0.42	38.1
Whynot	24.52	225	2.98	1.43	16.3	4.4	5.2	4.2	81.8	31.0	55.3	35.3	4.5	0.42	104.5
Glen Munro	6.10	308	1.62	1.49	22.8	3.8	8.0	4.1	75.3	30.5	56.0	32.5	4.4	0.47	14.7
Arrowfield	4.28	365	2.47	1.38	12.0	3.3	5.4	3.1	88.9	31.8	58.6	33.0	6.2	0.38	14.6
Bowfield	10.80	411	2.19	1.44	15.5	2.9	8.3	2.9	85.1	30.6	59.3	29.6	4.6	0.43	34.0
Warkworth	17.91	464	2.95	1.49	22.2	2.4	10.4	2.6	77.3	30.3	62.1	25.2	4.4	0.44	78.7
		275	**18.49**	**1.47**	**20.6**	**3.9**	**8.6**	**3.8**	**77.9**	**30.1**	**55.8**	**32.0**	**4.2**	**0.44**	**394.4**

Table 7. Indicated Resources

WESTERN AREA INFERRED				Raw (average) air dried			F1.60 (average) air dried								
Seam	**Area (km^2)**	**DOC ave (m)**	**Thickness ave (m)**	**RD**	**Ash %**	**Moist %**	**Ash %**	**Moist %**	**Yield %**	**Energy (Mj\kg)**	**FC %**	**Vol %**	**CSN**	**Sulphur %**	**Mt**
WL2	19.11	66	1.65	1.60	33.8	5.7	20.7	4.9	72.3	24.8	46.4	29.1	1.0	0.52	46.8
WL1	24.50	40	1.10	1.63	37.0	6.0	15.6		59.4						22
Whybrow	0.36	198	2.07	1.55	29.4	5.2	10.1	4.4	65.8	28.8	52.1	33.7	2.7	0.50	1.2
RCL	0.25	253	1.90	1.51	28.0	5.0	13.6	4.9	70.2	27.8	49.8	32.2	3.1	0.43	0.7
Wambo	1.30	212	2.32	1.44	14.7	3.9	6.8	4.0	81.9	30.9	55.3	35.2	4.0	0.43	4.3
Whynot	1.48	230	2.47	1.45	17.0	4.3	5.7	4.2	81.1	30.7	55.7	34.3	3.9	0.40	5.3
Glen Munro	0.18	395	1.60	1.57	30.1	3.7	8.2	4.4	67.1	30.0	54.9	32.9	4.7	0.50	0.5
Arrowfield															
Bowfield	0.99	511	1.67	1.54	17.3	2.6	8.2	2.6	81.9	30.7	67.0	22.3	3.2	0.43	2.5
Warkworth	6.03	487	2.95	1.50	20.7	2.4	10.2	2.6	79.2	30.5	64.8	22.6	4.0	0.44	26.6
Mount Arthur	3.11	471	1.99	1.50	20.0	2.4	11.5	2.9	78.6	29.7	57.0	28.6	3.2	0.38	9.3
		212	**19.72**	**1.56**	**28.5**	**4.6**	**15.1**	**3.9**	**72.8**	**27.7**	**54.0**	**27.8**	**2.4**	**0.47**	**119.2**

Table 8. Inferred Resources Western Area

EASTERN AREA INFERRED				Raw (average) air dried			F1.60 (average) air dried								
Seam	**Area (km^2)**	**DOC ave (m)**	**Thickness ave (m)**	**RD**	**Ash %**	**Moist %**	**Ash %**	**Moist %**	**Yield %**	**Energy (Mj\kg)**	**FC %**	**Vol %**	**CSN**	**Sulphur %**	**Mt**
Whybrow	0.57	68	2.03	1.57	32.2	6.2	10.2	4.3	62.4	28.7	52.2	33.9	3.0	0.51	1.8
RCU	2.17	54	1.14	1.62	37.4	4.6	20.2	4.1	58.7	na	46.5	31.0	2.5	0.40	3.8
RCM	2.26	52	1.02	1.58	35.0	4.5	22.8	4.2	68.4	na	47.0	31.7	2.5	0.40	3.7
RCL	2.37	57	1.73	1.50	27.0	5.5	13.5	4.8	73.7	27.7	50.2	31.6	2.2	0.43	6.2
Wambo	5.42	74	2.14	1.38	9.5	4.2	4.9	4.5	90.4	30.9	55.0	35.5	4.3	0.42	16.0
Whynot	6.35	83	2.53	1.43	16.8	4.5	5.5	4.7	81.0	30.7	54.6	35.2	4.6	0.41	23.0
Glen Munro	0.77	208	1.29	1.60	33.1	4.2	8.3	4.3	62.8	29.9	54.7	32.7	4.9	0.50	1.6
Bowfield	7.18	265	2.10	1.44	13.8	3.1	7.0	3.3	85.1	30.8	59.6	32.3	4.1	0.39	21.7
Warkworth	4.28	321	3.72	1.47	22.4	2.7	10.3	2.9	76.6	30.1	58.1	28.6	3.4	0.43	23.4
Mount Arthur	3.58	303	2.04	1.51	20.6	2.9	11.8	3.3	78.8	29.7	56.3	28.6	2.5	0.40	11.1
		186	**19.74**	**1.46**	**19.1**	**3.7**	**9.0**	**3.8**	**79.9**	**30.3**	**55.7**	**32.1**	**3.7**	**0.41**	**112.3**

Table 9. Inferred Resources Eastern Area

Newcastle Coal Measures

Resources exist within the Newcastle Coal Measures throughout the majority of the Western area and a small section of the eastern area (Figure 6). All resources are presented in Table 8 although a small area is located near SHD20 on the eastern side of the fault (Figure 6). It is estimated that 22.0 Mt and 46.8 Mt respectively are present within the WL1 and WL2 seams between subcrop and about 180 m depth of cover. There is also resource potential within the upper seams of the Newcastle Coal Measures, however, at this stage there are insufficient data to make any estimates.

Whybrow Seam

The western area Whybrow seam resource is confined by the 1.5 m seam thickness contour (Figure 7). It is estimated that 58.5 Mt Indicated and 1.2 Mt Inferred resources are present between about 60 m and 260 m depth of cover.

The eastern area comprises an estimated 1.8 Mt between the base of weathering and about 135 m.

Redbank Creek Upper (RCU)

The Redbank Creek Upper seam reaches a thickness > 1.5 m within two small isolated areas on the western side of the Mount Ogilvie Fault. Its small extent and considerable depth of cover render it unlikely to be mined by either open cut or underground methods. It is therefore not given any resource status within this area.

The eastern area comprises an estimated 3.8 Mt Inferred resources between the base of weathering and about 150 m depth of cover above the Redbank Creek Lower seam (Figure 8).

Redbank Creek Middle (RCM)

The Redbank Creek Middle seam does not reach a consistent mineable underground seam thickness with the licence area. However, a small Inferred resource estimated to comprise 3.7 Mt is present above the Redbank Creek Lower seam on the eastern side of the Mount Ogilvie Fault (Figure 8). The depth of cover ranges from the base of weathering to about 160 m.

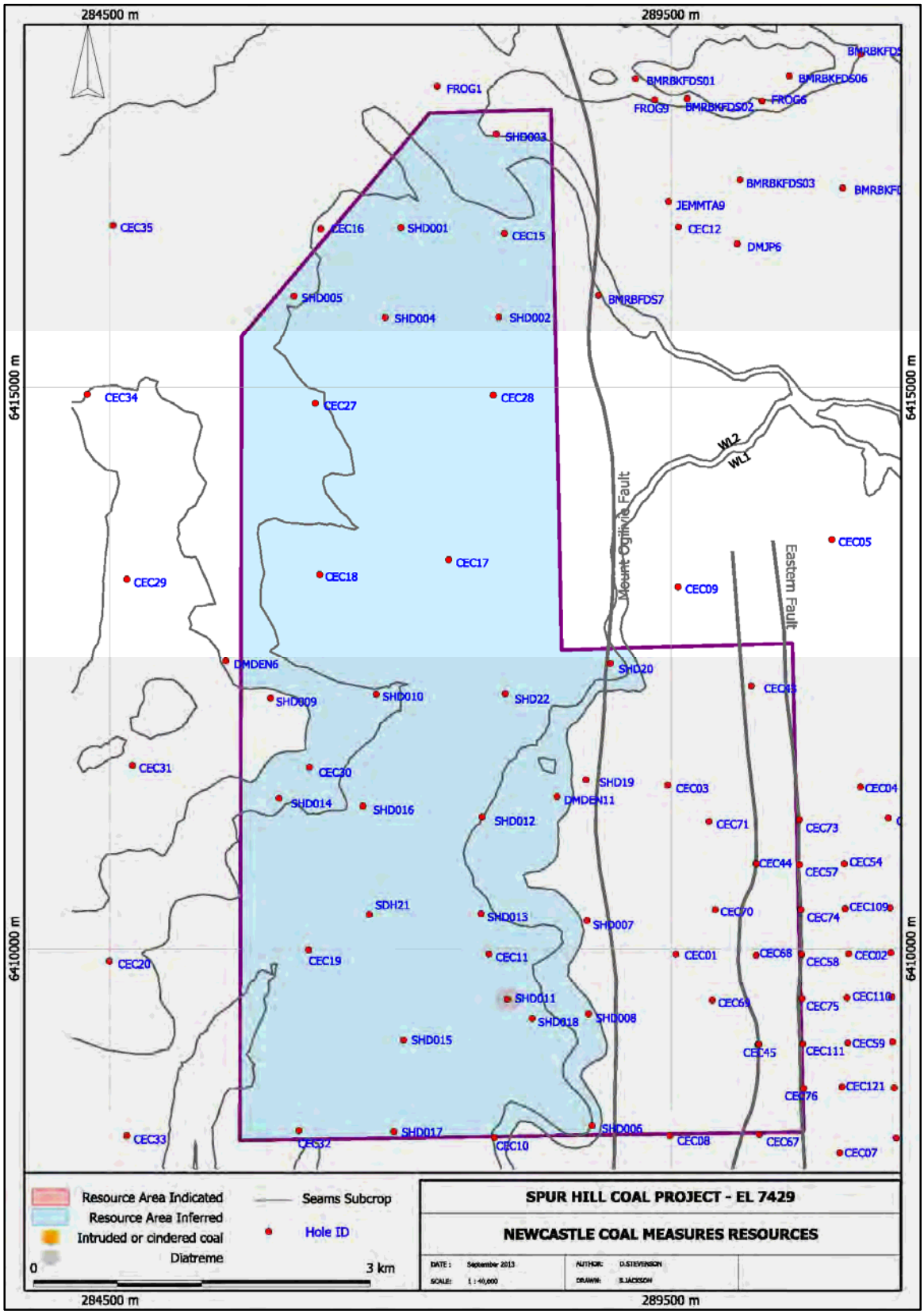


Figure 6. Newcastle Coal Measures Resources

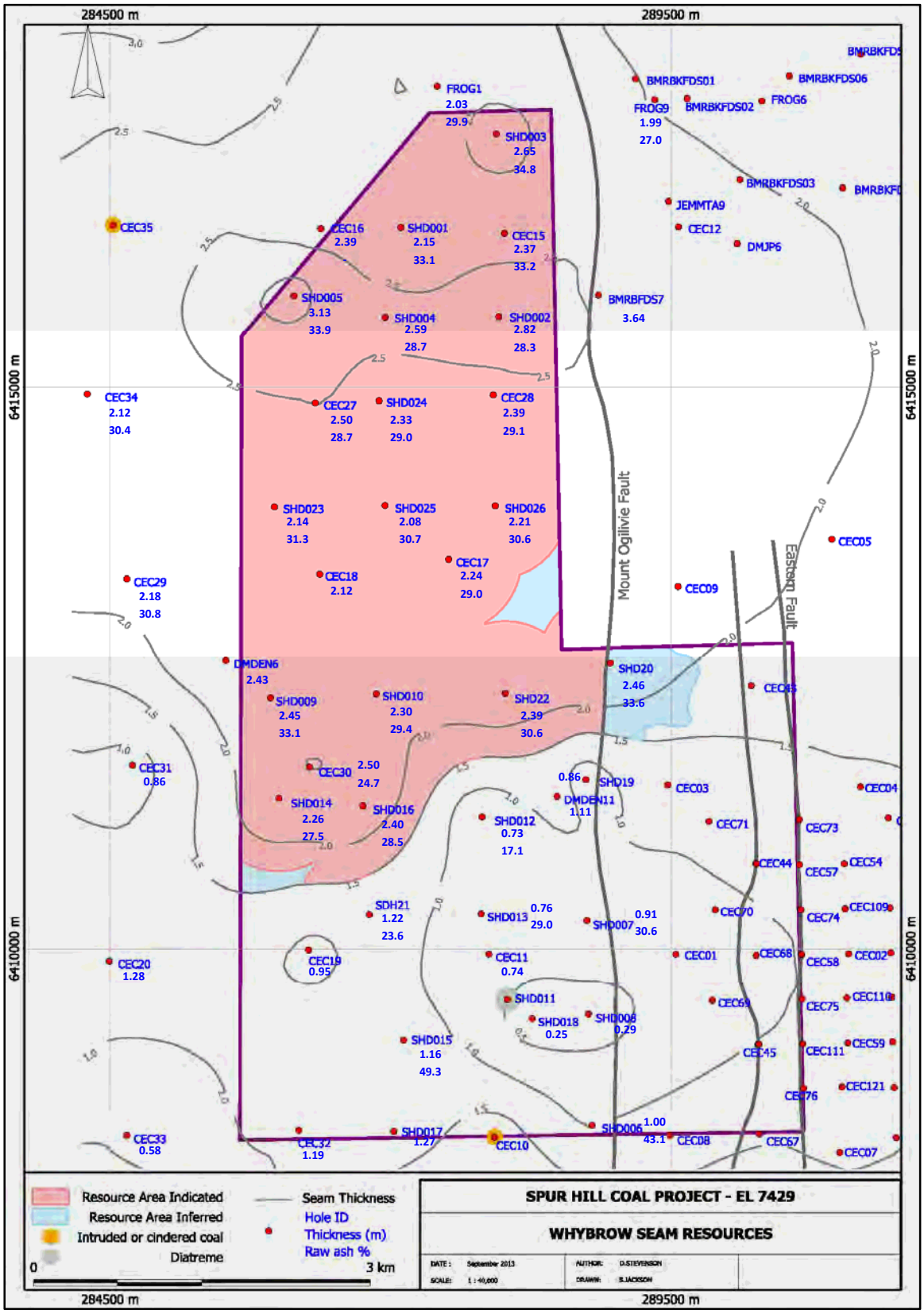


Figure 7. Whybrow Seam Resources

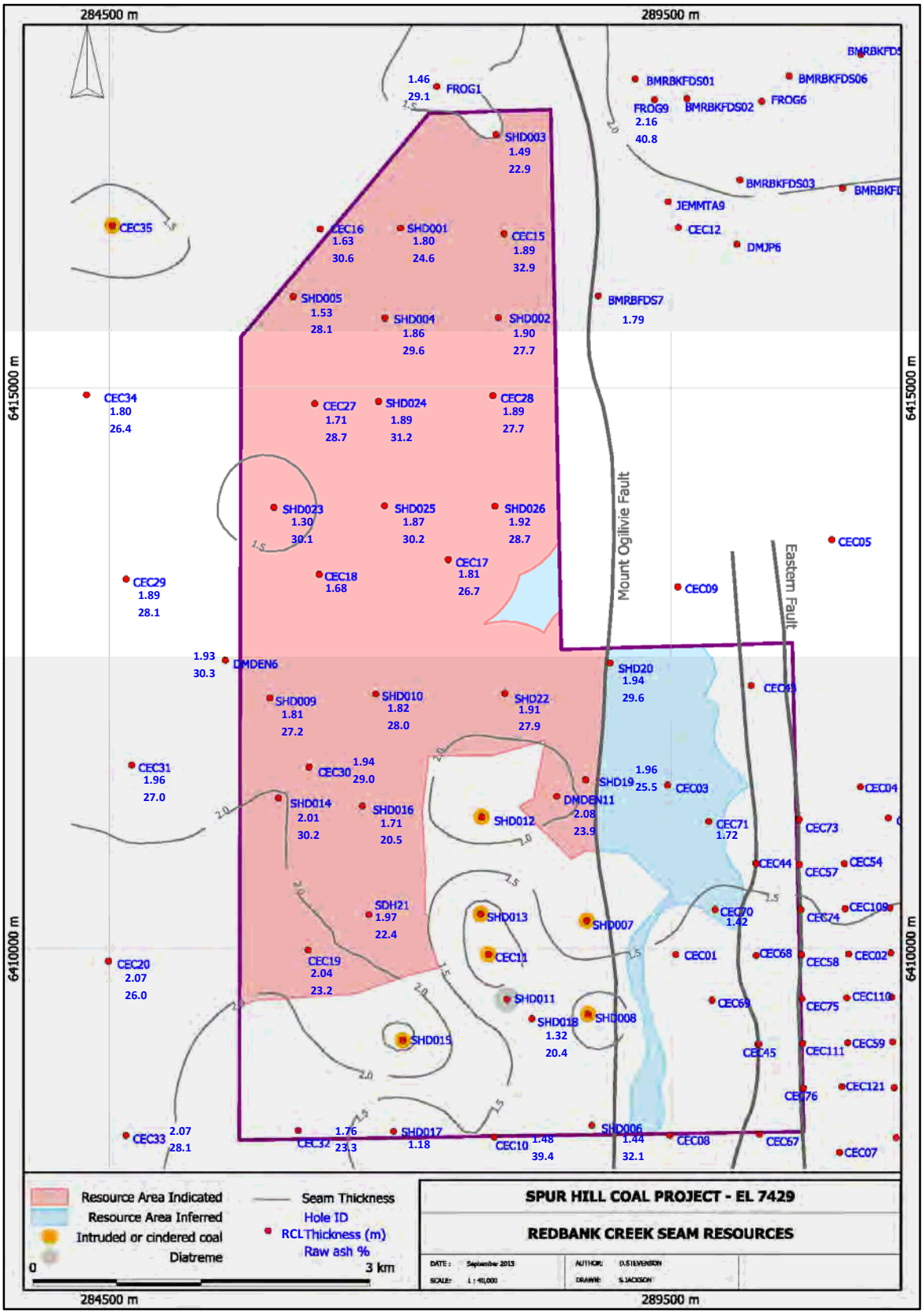


Figure 8. Redbank Creek Seam Resources

Redbank Creek Lower (RCL)

The western area Redbank Creek Lower seam resource is bounded by the 1.5 m thickness contour in the north and igneous intrusions in the south (Figure 8). It is estimated that 38.1 Mt Indicated and 0.7 Mt Inferred resources are present between about 80 m and 295 m depth of cover.

The eastern area comprises an estimated 6.2 Mt Inferred resources between the base of weathering and about 170 m depth of cover.

Wambo Seam

The western area Wambo seam resource is bounded by 1.5 m thickness contours in the north and west and igneous intrusions in the southwest (Figure 9). It is estimated that 38.1 Mt Indicated and 4.3 Mt Inferred resources are present between about 110 m and 335 m depth of cover.

The eastern area comprises an estimated 16.0 Mt Inferred resources between the base of weathering and about 210 m depth of cover.

Whynot Seam

The entire EL from the base of weathering to about 355 m depth of cover is thought to contain coal resources within the Whynot seam (Figure 10). The western area is estimated to contain 104.5 Mt Indicated and 5.3 Mt Inferred. The eastern area is estimated to contain 23.0 Mt Inferred resources.

Glen Munro Seam

The western area Glen Munro Seam resource is entirely bounded by 1.5 m thickness contours Figure 11). It is estimated that 14.7 Mt Indicated and 0.5 Mt Inferred resources are present between about 230 m and 420 m depth of cover.

The eastern area Glen Munro Seam is bounded by the 1.5 m seam thickness contour, and the 10:1 strip ratio contour and igneous intrusions in areas where the seam thickness is < 1.5 m. It is estimated that 1.6 Mt Inferred resources are present between about 100 m 300 m depth of cover.

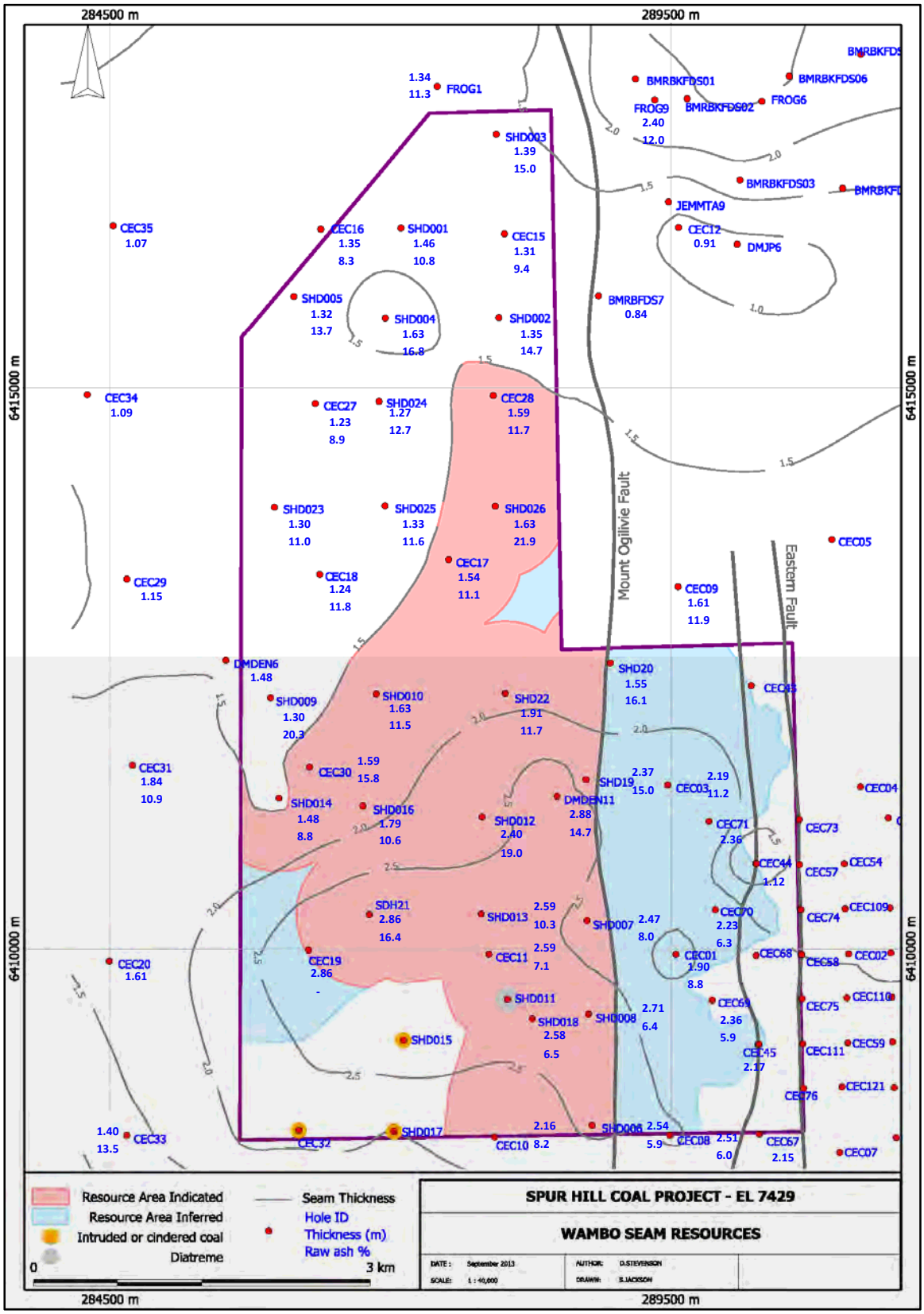


Figure 9. Wambo Seam Resources

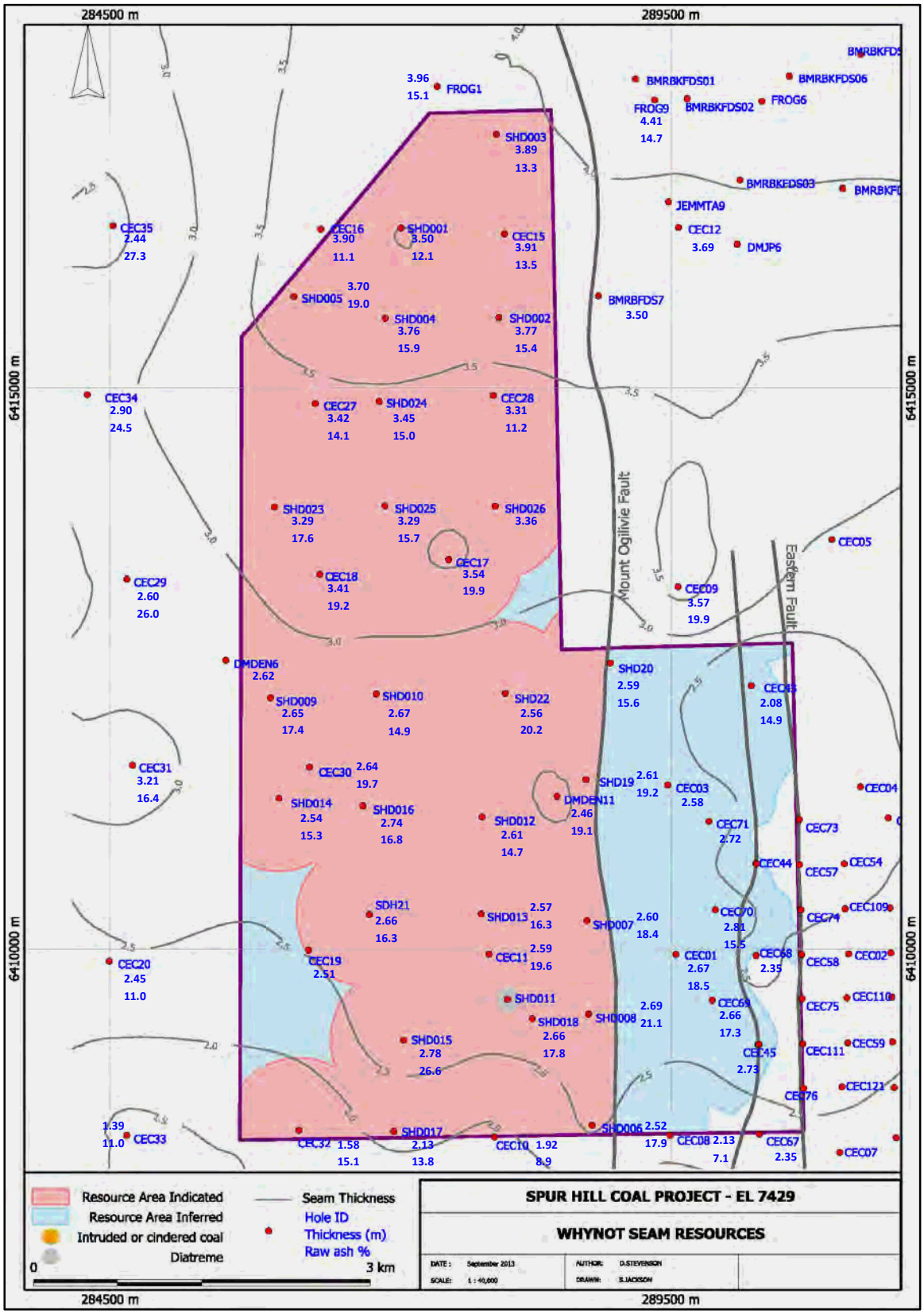


Figure 10. Whynot Seam Resources

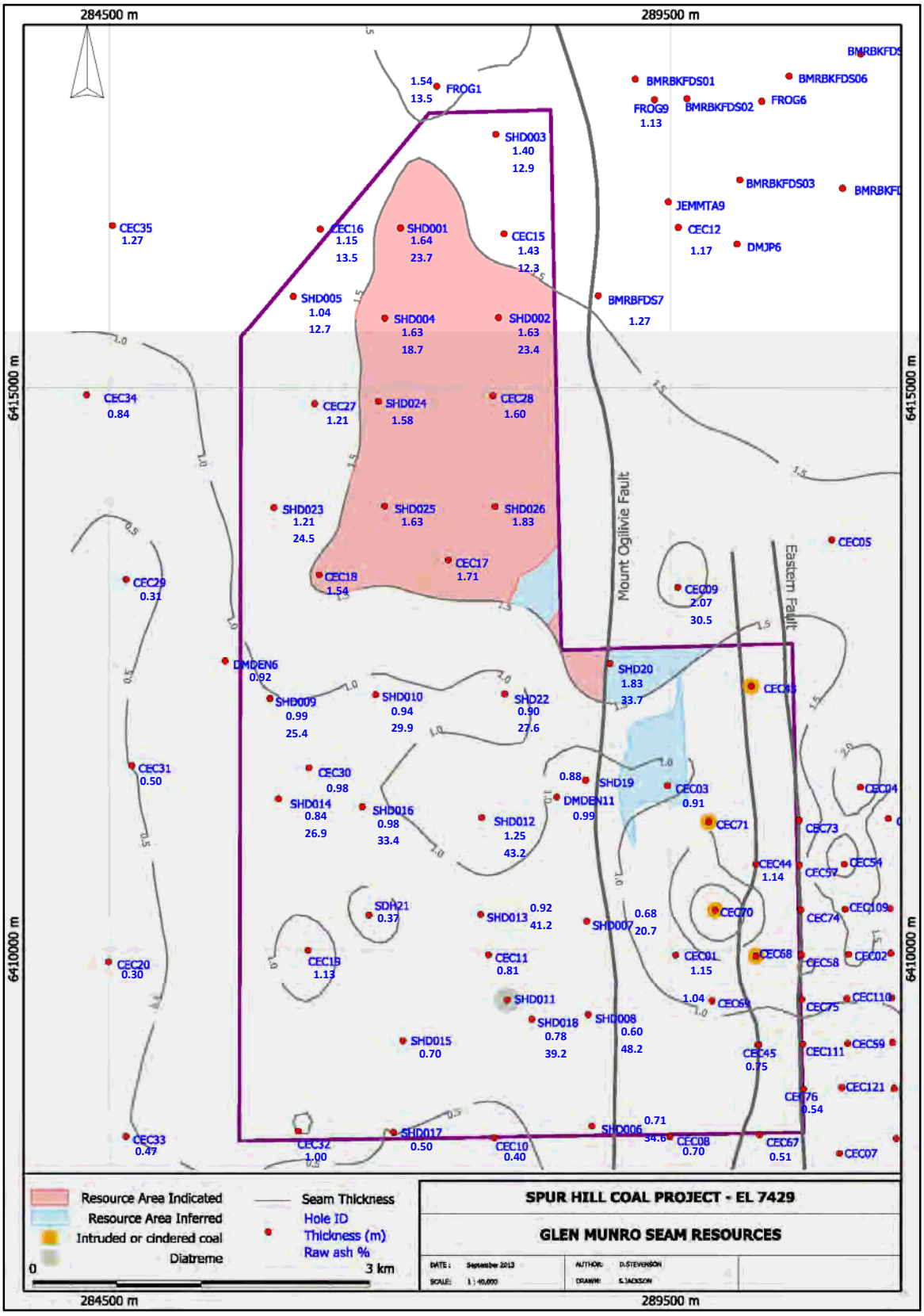


Figure 11. Glen Munro Seam Resources

Woodlands Hill Seam

The recent drilling within EL7429 has resulted in a reassessment of the resource potential of the Woodlands Hill seam (Figure 12).

At the time of the 2012 geological model and resource assessment, the Woodlands Hill seam was defined by sixty eight (68) stratigraphic and sixteen (16) quality Points of Observation. Of these quality intersections only four (4), including CEC30, recorded raw ash values < 35 %. The Woodlands Hill seam intersected in CEC30 comprised a thickness and raw ash of 2.28 m and 26.6 % respectively.

The data when modeled, identified an area, approximately centered on CEC30, where seam thickness was > 1.50 m and the raw ash < 35.0 %. Based on these results it was estimated that 37.4 Mt of Inferred resources were present within the Woodlands Hill seam at between 285 m and 449 m depth of cover.

Recent drilling has provided an additional thirteen (13) coal quality intersections within the potential resource area. Of these additional drillholes all were > 35 % raw ash, ten (10) were > 40 % raw ash, four (4) were > 45 % ash and one (1) was >50 % raw ash.

Tonnages within the Woodlands Hill seam have been calculated using a 45 % raw ash cut-off. It was necessary to use 45 %, because at a lower ash cut-off the potential resource area started to break up into multiple separate areas. At the 45 % raw ash cut-off the seam averaged a raw ash, CF1.60 ash, yield and tonnage of 41.6 %,12.1 %, 50.8 % and 68.9 Mt. Because of the low yield the Woodlands Hill seam cannot be given a resource status at this time.

The Woodlands Hill seam is developed throughout the area to the west of the Mount Ogilvie Fault, excluding the southern parts where the seam is intruded. A small area is also continuous across the Mount Ogilvie Fault to the east between CEC03 and SHD020. These regions contain large areas, with widely spaced drillholes, that are still to be explored. Therefore until further drilling and investigation is carried out the Woodlands Hill seam will remain as an Exploration Target.

Arrowfield Seam

Due to extensive igneous intrusion intersections identified in the Arrowfield seam, coal resources are confined to the north of the EL (Figure 13). In this area there are estimated to be 14.6 Mt Indicated resources between about 325 m and 445 m depth of cover.

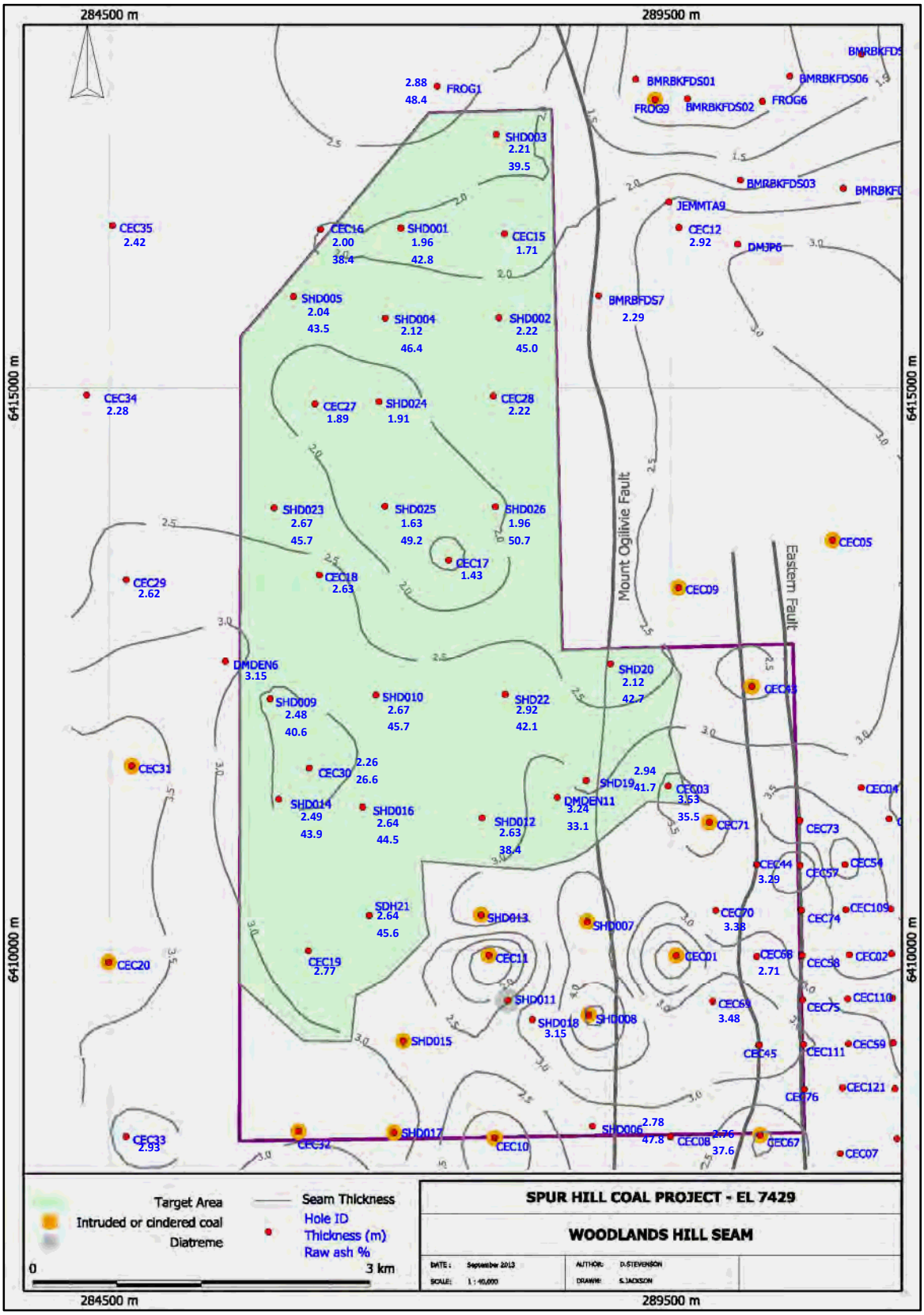


Figure 12. Woodlands Hill Seam

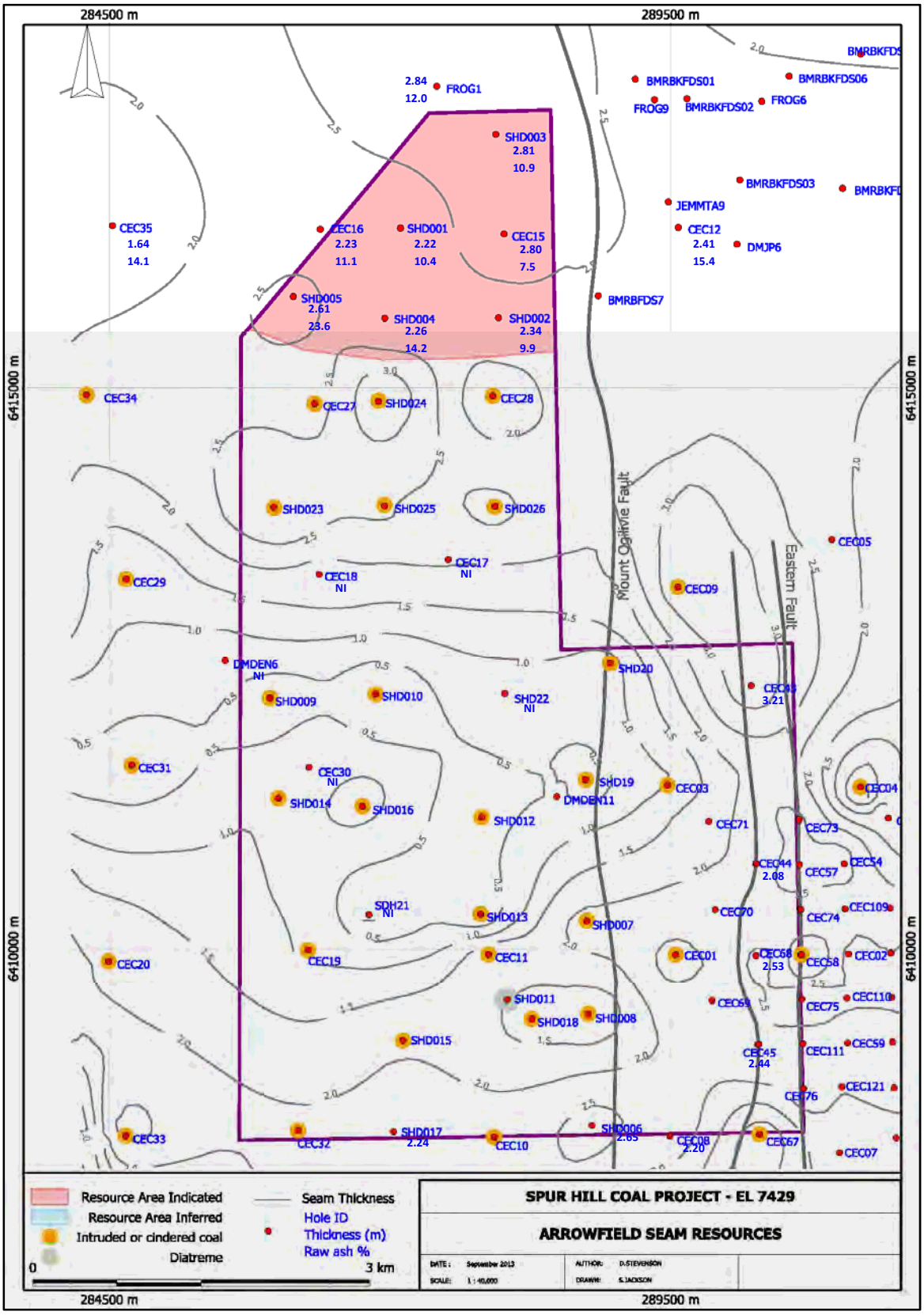


Figure 13. Arrowfield Seam Resources

Bowfield Seam

The Bowfield seam resource area is bounded by the 1.5 m seam thickness contour and an igneous intrusion to the east of the EL (Figure 14).

On the western side of the Mount Ogilvie Fault it is estimated that 34.0 Mt Indicated and 2.5 Mt Inferred resources are present between about 320 m and 575 m depth of cover.

On the eastern side of the fault it is estimated that 21.7 Mt of Inferred resources are present between about 145 m and 460 m depth of cover.

Warkworth Seam

The western area Warkworth seam resource is bounded by the 1.5 m thickness contour and 35 % ash contour in the north and igneous intrusions in the west and southwest (Figure 15). It is estimated that 78.7 Mt Indicated and 26.6 Mt Inferred resources are present between about 360 m and 590 m depth of cover.

The eastern area resource is bounded by igneous intrusions striking approximately northeast to southwest. It is estimated that 23.4 Mt Inferred resources are present between about 185 m and 485 m depth of cover.

Mount Arthur Seam

A mineable resource is considered to exist within a middle split of the Mount Arthur seam.

The western area Mount Arthur seam resource is bounded by the 1.5 m thickness contour and a 1 km radius polygon from Points of Observation (Figure 16). It is estimated that 9.3 Mt Inferred resources are present between about 380 m and 600 m depth of cover.

The eastern area resource is bounded by the 1.5 m seam thickness contour. It is estimated that 11.1 Mt Inferred resources are present between about 195 m and 435 depth of cover.

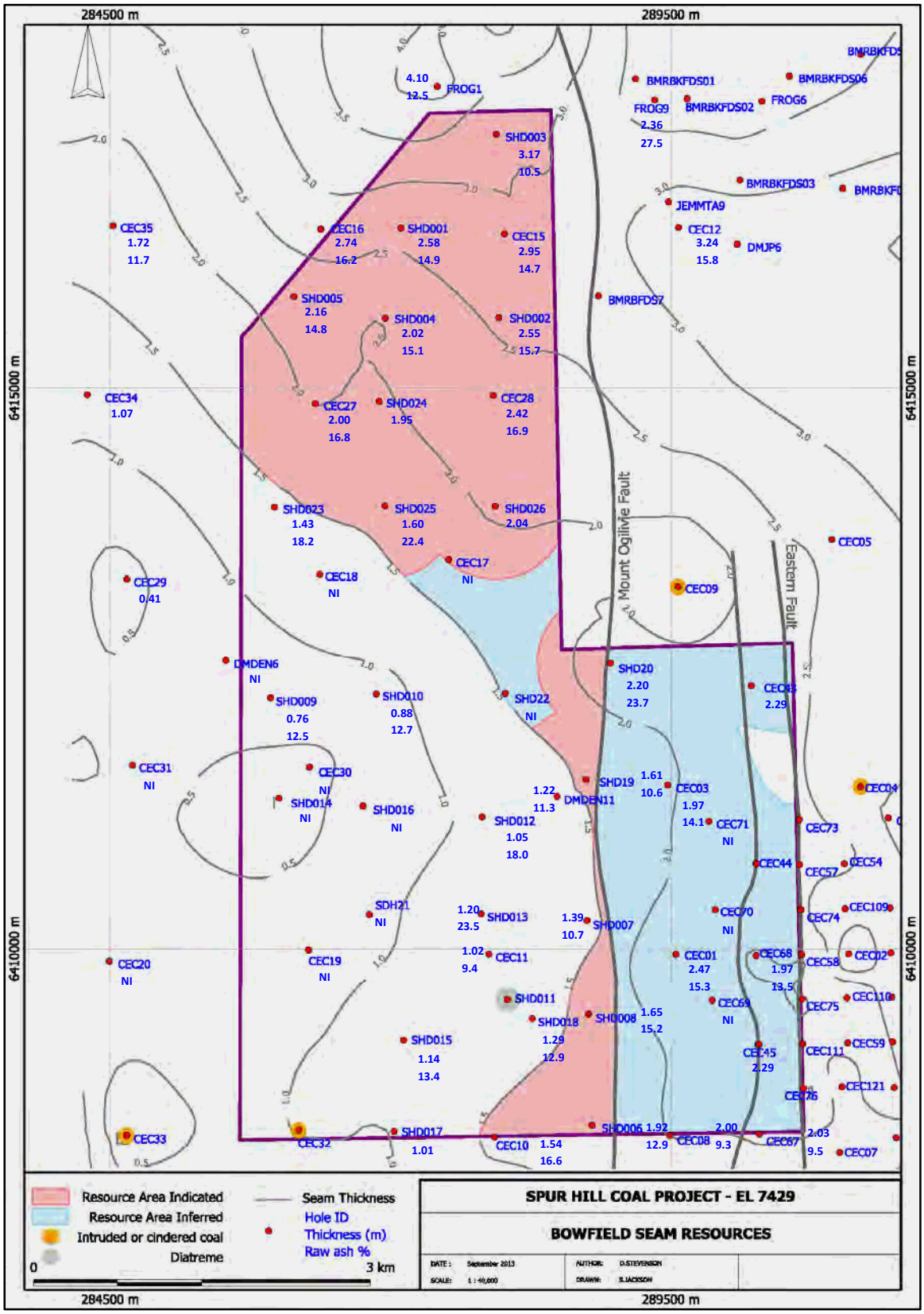


Figure 14. Bowfield Seam Resources

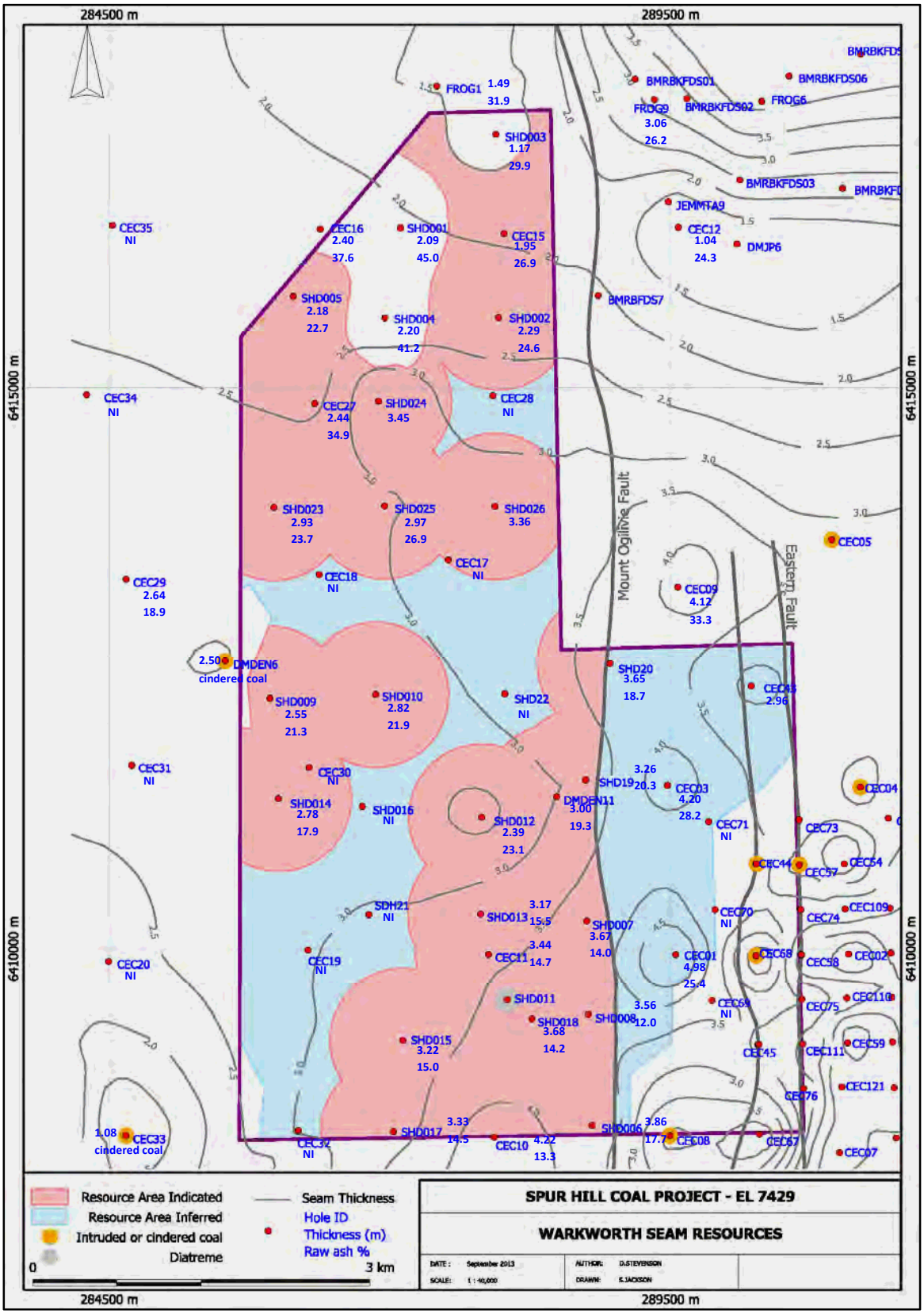


Figure 15. Warkworth Seam Resources

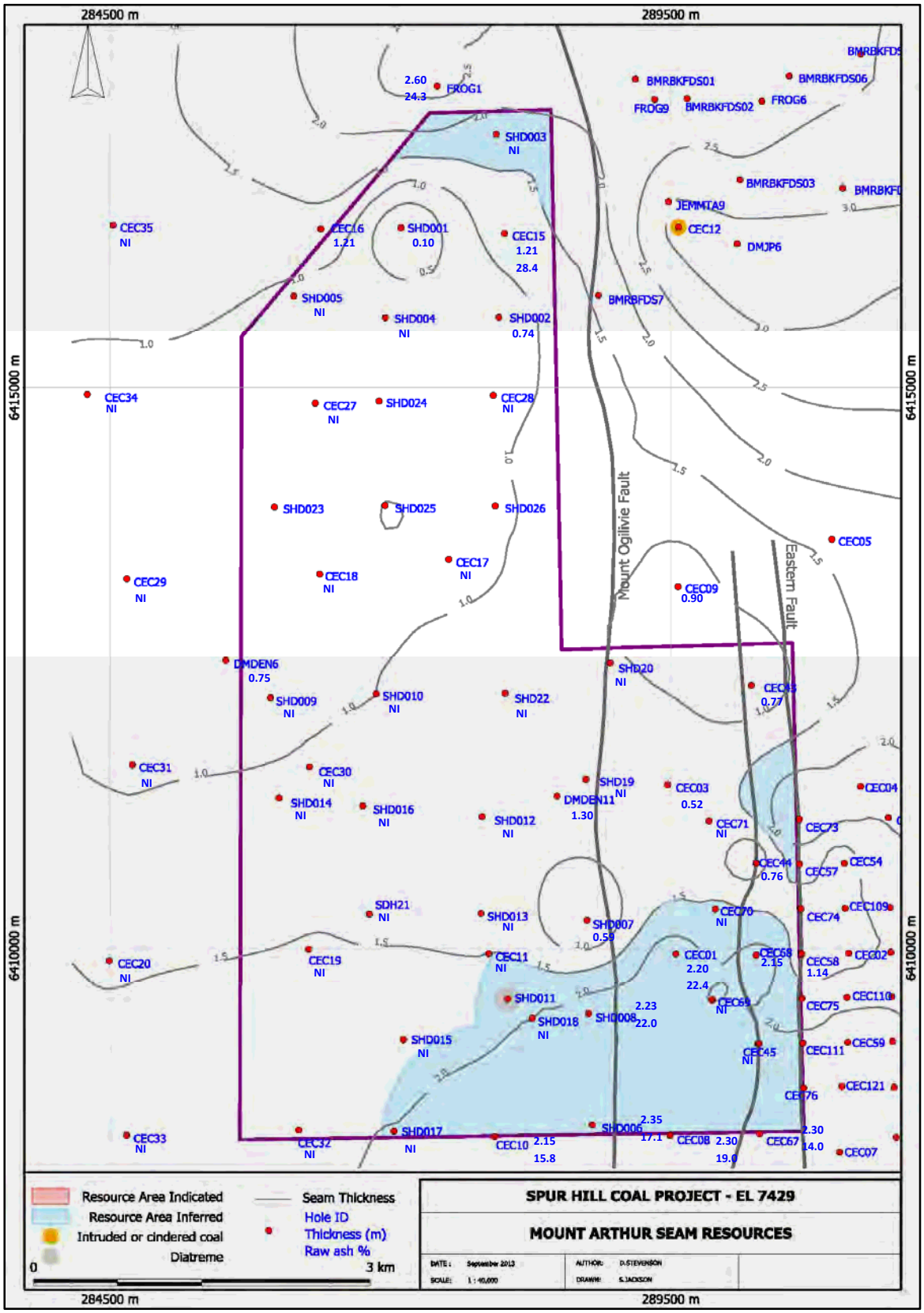


Figure 16. Mount Arthur Seam Resources

JORC CODE COMPETENCY DECLARATION

The information presented in this report is based on a geological model that was produced by MBGS in September 2013. Mr. D. Stevenson M.AusIMM, Principal Geologist with Geological and Mining Services Australia Pty Ltd has determined resource estimates for EL 7429.

Mr. Stevenson has over 18 years experience in modeling and assessing coal resources, which is sufficient relevant experience for the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Stevenson consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

APPENDIX 1 - JORC Table 1 Guidelines

Table 1 Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques - historical drill holes	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	Maptek obtained the historical pre-SHJV quality data from information held by the NSW Department of Mineral Resources. The coal quality data comprised sheets presenting analysed ply and composite data. The data on these sheets were transposed into electronic format by Maptek. The sampling method appears to follow the modern technique of dividing the seam into coal and non-coal plies, which were then analysed separately. The ply samples were then combined either through compositing the ply samples and analysing the composite or by determining the composite quality by calculation.
Sampling techniques - 2012 / 2013 drill holes		The potential working sections (mineable interval) of coal seams were sampled in the 2012 / 2013 drill holes. All coal seams thicker than 1.0 m were sampled, and only where core recovery exceeded 90 % was sampling undertaken for analysis of the coal and/or stone partings. Some coal seams were sampled in several plies where this would enable alternate working sections to be accessed.
Drilling techniques - historical drill holes	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	The majority of the drill holes were cored. Some of the older shallow drill holes appear to be open holes, although the English logs often don't specify either way. The core size is not always specified, however, when it is, NQ is the size stated. The orientation is not always specified, however, when it is, the orientation is either described as 90 degrees or vertical.

Criteria	JORC Code explanation	Commentary
Drilling techniques - 2012 / 2013 drill holes		The 2012 / 2013 drill holes were mostly HQTT fully cored drill holes, except for the weathered zone and strata above the target seams which was non cored and cased. Two holes (SHD008 and SHD012) were cored in PQTT down to the main Target Seam, and then HQTT from there to the total depth. Due to drilling difficulties SHD024 was only cored to 219 m and then non-cored to TD (528 m). The drill holes were drilled vertically.
Drill sample recovery - historical drill holes	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	When the recovery is stated it is generally between 95 % and 100 %. There does not appear to be any analyses used in the modelling that have poor recoveries.
Drill sample recovery - 2012 / 2013 drill holes		The drill core recovery for coal seams was generally more than 95 %, for 2012 / 2013 drill holes. The core recovery was determined using density logs, and only coal seams with more than 90 % core recovery were sampled for analysis during the 2012 / 2013 exploration programme.
Logging - historical drillholes	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	The historical drill holes have generally been logged in fine detail to 1 cm definition and occasionally 1 mm definition. The logging uses the same terminology used today and therefore there is no ambiguity in recognising and understanding the data.

Criteria	JORC Code explanation	Commentary
Logging - 2012 / 2013 drill holes		All drill cores were lithologically logged by experienced geologists. All drill holes were logged using downhole geophysical logging sondes and the cores were photographed as a permanent record. Basic geotechnical logging was also undertaken. In most drill holes an acoustic scanner was used to detect and model structures, fractures, joints and other planar defects that intersect the boreholes for later interpretation.
Sub-sampling techniques and sample preparation - historical drill holes	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	From the information available it appears as if the entire seam, including coal and non-coal was sampled. The quality data in most cases is a table that has been created from the original laboratory data, however, the laboratory is mostly not specified and the original laboratory sheets are mostly not available. There are a small number of original data sheets for some of the Carpentaria Exploration Company drill holes. These show that the samples were analysed at the Thiess Brothers Limited Materials Laboratory at Archerfield, QLD, Australia.
Sub-sampling techniques and sample preparation - 2012 / 2013 drill holes		For the 2012 / 2013 drill holes the entire core of coal (and/or parting) was sampled, for each sampled interval. The core samples were analysed at a NATA registered coal laboratory (ALS Global, Maitland, NSW, Australia). All testing was done to Australian standards, and the testing involved sub-sampling by the laboratory in accordance with standard procedures.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests - historical drill holes	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	This is not determinable for the historic drill holes, apart from stating that there are some original laboratory sheets from the Thiess Brothers Limited Materials Laboratory at Archerfield QLD.
Quality of assay data and laboratory tests - 2012 / 2013 drill holes		The 2012 / 2013 coal analyses were carried out at the NATA registered laboratory of ALS Global in Maitland, NSW, to Australian standards. The samples were delivered to the laboratory within one week of completion of each drill hole and the testing was undertaken within 3 months of the samples being delivered. The analysis data are of the highest standard.
Verification of sampling and assaying - historical drill holes	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	This cannot be determined for the historical drill holes.
Verification of sampling and assaying - 2012 / 2013 drill holes		The laboratory (ALS) carries out checks of sample weights and lengths of core to verify that the sample intervals are correct. The NATA laboratory has procedures in place for internal auditing of analyses, and to ascertain repeatability of analysis results.

Criteria	JORC Code explanation	Commentary
Location of data points - historical drill holes	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	The original drill hole locations were obtained from the NSW Department of Mineral Resources. The drill hole logs also recorded the drill hole location coordinates. The location description ranges from a location identified by an angle and distance from a survey mark or Portion boundary to Surveyor measured ISG coordinates. The locations were then converted to MGA by Maptek. Maptek stated that some minor adjustments to the drill hole collars were made to align boreholes with the topography. During 2012 and 2013 Pegasus Technical Pty Ltd located and resurveyed the majority of the older boreholes. These results were then used to confirm or improve the accuracy of boreholes that could not be found. Notwithstanding this work it is likely that the true position of some of the older pre-ISG drill holes could be incorrect by up to a few tens of metres. However, these older drill holes have little or no influence on the resource estimations.
Location of data points - 2012 / 2013 drill holes		The 2012 / 2013 drill holes were surveyed by Pegasus Technical Pty Ltd to a survey accuracy of 1 cm. The grid system used was MGA.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Drill hole spacing ranges from a few metres for redrills to > 2 km. Structural Points of Observation from seams quantified and given a resource status range from 27 for the Mount Arthur seam to 78 for the Woodlands Hill seam. Raw composite quality analytical Points of Observation range from seven (7) for the WL1 seam to fifty one (51) for the Whynot seam. CF1.60 composite quality analytical Points of Observation range from four (4) for the WL1 seam to forty nine (49) for the Whynot seam. Borehole spacing is sufficient for the stated classifications of Indicated and Inferred.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	All drill holes were drilled vertically from the surface and intersected the seams at close to perpendicular. This is considered to be the optimal intersection orientation in coal exploration; therefore it is considered that no sampling bias has occurred.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	For the 2012 / 2013 drill holes, the sampling of coal cores was undertaken by the Supervising Geologist, and delivered the same day to the laboratory. At the laboratory the samples were received and placed in a secure cool room for subsequent testing. The coal samples were safe and secure at all times. It is not possible to determine sample security for the historical drill holes.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The sampling and testing of coal samples from the 2012 / 2013 drilling programme has been reviewed at two workshops attended by experienced coal quality experts and mining engineers. The testing of the coal cores has involved extensive testing of a very wide range of coal quality parameters, and the sampling and test work has been endorsed by the review workshops. With regard to the historical drill holes, the quality data entered into the Vulcan modelling database has been selectively checked against the original data supplied by the Department of Mineral Resources. This has taken place several times during the iterative modelling process. Some errors were detected and adjusted by Maptek in 2010, by GMSA in 2012 and by MBGS and GMSA in July and September 2013. Further drilling is needed on the eastern side of the Mt Ogilvie Fault before the stratigraphy can be given any increased resource status in that area. Uncertainty increases to the east of the fault and will remain so until further drilling takes place. It should be noted that the data used in areas given Indicated status are considered to be very accurate.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The SHJV currently holds EL7429. The Tenement was granted in December 2009. The Tenement has a five year term, which will be up for renewal in December 2014. SHJV has acquired two properties within the EL boundary. These properties account for approximately 13 % of the EL area. With the exception of a small state-owned 'travelling stock reserve', the properties within the EL boundaries are privately owned. Existing land uses within the EL area are predominantly cattle grazing with some irrigated pastures on the south east and south west margins and a small vineyard owned by SHJV on the north western edge on the corner of Denman Road and the Golden Highway. There are no known impediments to obtaining a Mining Lease to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Previous exploration was carried out within the Spur Hill area between 1949 and 1983. The main contribution to the dataset was from Carpentaria Exploration Company which drilled 119 cored holes between 1976 and 1983. This exploration and subsequent studies identified a considerable resource potential within the Wittingham Coal Measures.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The deposit comprises a Coal Measures sequence that developed within the northern Sydney Basin during the Permian. Peat swamps formed during terrestrial to brackish periods during a time of increased tectonic activity in the New England Fold Belt. Three Coal Measures sequences formed during this period of which the Newcastle and Wittingham Coal Measures are represented within the Spur Hill area.

Criteria	JORC Code explanation	Commentary
Drill hole information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	See table below.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	The cut-off parameters are the method used to estimate a resource. For example the 35 % or 40 % ash contours, the 0.3 m or 1.5 m thickness contours and the presence of igneous intrusions.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	The geometry of the deposit is essentially flat lying on the western side of the Mount Ogilvie Fault, dipping at < 2 degrees. All depths stated are downhole depths not true depths. However, as the bores are vertical and the seam is almost horizontal the difference between apparent and true depth is minimal. The eastern side of the fault is structurally complex, comprising a combination of faulting and folding. Data to date indicate that the maximum dip on the eastern side of the fault is about 20 degrees.

Criteria	JORC Code explanation	Commentary
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Diagrams comprising both plan and section view are presented in the Appendix.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All relevant data have been reported. Some data are missing from the historical information; however, there are sufficient data to build a robust geological and coal quality model. It should be noted that where a resource has been given Indicated status, this resource is only present in areas where boreholes have been drilled during the 2012 / 2013 SHJV Coal Drilling Programme.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	A seismic survey was carried out by the NSW Department of Industry and Investment in 2010. The results of this survey were further analysed and interpreted by Velseis Pty Ltd in September 2011. An earlier seismic survey was undertaken by AGL in 2007.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	The SHJV has now completed the first phase of its exploration programme within EL7429. To date, twenty six (26) boreholes have been drilled and sampled.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Maptek transcribed the original Spur Hill data from information obtained from the NSW Department of Mineral Resources in 2010. Maptek then created a Geological model from these data. GMSA and Spur Hill personnel spot checked the data and found a few minor errors. These were relayed to Maptek which adjusted the data and re-modelled the deposit. After Maptek completed the modelling GMSA reviewed the model, estimated the resources and produced the 2010 JORC report. In 2012 the SHJV commenced a drilling programme within EL7429. McElroy Bryan Geological Services (MGBS) were the supervising Geological company and provided GMSA with English logs and graphic logs from nine (9) boreholes and quality data from five (5) of these boreholes. These data were added to the Geological database, the deposit remodelled and resources estimated.
		In 2013 SHJV contracted MBGS to take control of the database and modelling. This was logical, as MBGS is supervising the exploration programme and acquiring the data. This also separates the modelling from the resource estimates, thereby adding an additional level of quality assurance. At the conclusion of this work, twenty six (26) drillholes from the 2012/2013 programme had been added to the database.
		GMSA received the MBGS database and modelled grids in June 2013. Some errors were identified and relayed to MBGS. MBGS made the changes and re-generated the grids. In September 2013 MBGS remodelled the data after the completion of the last four (4) drillholes in the first phase of the drilling programme. It is believed that some seam pick errors are still likely to be present on the eastern side of the Mount Ogilvie Fault as some contour" bullseyes" are present in the easternmost parts of that region. This zone is structurally complex and cannot be reinterpreted with any degree of certainty without further drilling taking place. This zone is not targeted for underground mining.
		It is not possible to verify if the original historical company data are correct, and it is not possible to guarantee that there are no errors in the entire Spur Hill dataset. However, it is considered unlikely that anything other than very minor errors would be present on the western side of the Mount Ogilvie Fault which is the target mining area.

Criteria	JORC Code explanation	Commentary
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Competent Person visited the licence area on three occasions. On one visit the Competent Person worked with the Supervising Geologist to ensure that stratigraphic logging and gas testing methods being used were correct. The work carried out by the Supervising Geologist was of a high standard.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	It is considered possible that some mis-correlations and minor working section errors may be present in the dataset; however, this is thought to be mainly confined to the eastern parts of the EL, where all resources have been given Inferred status. This, however, cannot be confirmed until further drilling takes place within or close to those areas. It is the recent drilling which includes downhole geophysics that allows verification of seam picks and working sections within an area. MBGS identified a diatreme in SHD011 and decided on a 200 m diameter mask. MBGS stated that the morphology was similar to other diatremes present in the Hunter Coalfield and were confident of its limited extent. Their reasoning was strengthened up by the drilling of SHD018 about 270 m to the southeast of SHD011. For resources that have been given Indicated status there is a very high confidence in seam correlations. Given the dataset there is no other possible general interpretation for this typical Hunter Valley coal sequence.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The underground resource has an east-west north-south extent of about 3 km by 9 km respectively. The lower limit of the resource is about 600 m depth of cover

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The deposit was modelled by MBGS using Minex Geological and Mine Planning Software. Ten (10) dummy boreholes were placed just outside the northeast EL boundary to control the structure as it approached the Mount Ogilvie Fault. A 100 m grid cell size was chosen as appropriate for the data spacing. MBGS provided the resultant structural and quality grids to GMSA. These grids were used to build a Vulcan Version 8.2 Block Model. The Vulcan Advanced Reserves Function was then used to estimate the resources. The Block Model cell size used was also 100 m so that it was coincident with the grid cell size. In order to validate the resource values from the Block Model the Vulcan Polygon Volumes method was also used. The resultant volumes were the same.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	All modelling and results are based on Air Dried Moisture. Air Dried Moisture content has been determined by a NATA registered laboratory using AS 1038.3 “Proximate analysis of higher rank coal”.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	Cut-off parameters for resources included a minimum seam thickness of 1.5 m (underground) and 0.3 m (open cut), the 35% or 40% raw ash contours, 18 m depth of weathering, 10:1 strip ratio contour for potential opencut resources, barriers around intruded drill holes and the EL borders. However, it is noted that it is SHJV's stated intention to develop solely an underground mine. The boundary between an intruded drill hole and a non-intruded drill hole was placed half way between the two drill holes. There is also a 200 m diameter barrier around a diatreme identified in SHD011.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Early stage conceptual mine planning has been carried out. At this stage it is envisaged that a high productivity longwall producing potentially up to 8 Mtpa ROM can commence in late 2017 or early 2018.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Malabar Coal Limited commissioned MinAxis Pty Ltd to provide an independent market report on the Spur Hill Underground Coal Project. MinAxis concluded that the underground project will produce three (3) products over the mine life. Namely: 1. An ultra-low ash, premium Soft Coking Coal principally from the Whynot seam. 2. A standard/typical semi-soft coking coal ("SSCC") from other seams. 3. A benchmark export thermal coal "Spur Hill Thermal Coal".

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	It is expected that the project will be processed as a State Significant Development under Division 4.1 of Part 4 of the NSW EP&A Act. This process entails several steps including the preparation of an EIS which will identify and address any environmental issues.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Bulk density is generally not applicable to an underground mine. Relative Density (RD) has been determined in the laboratory for every sampled interval in the 2012 / 2013 programme. These laboratory measured RD results were used to generate density grids for all the potentially mineable coal seams. For historical data the quoted RD's have been used as inputs to the density grids.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The criteria used to determine the status of the resources were as follows: Indicated Resources having structural and quality Points of Observation <1.3 km apart, extrapolated a maximum distance of 650 m, the majority of boreholes required to be from the 2012 / 2013 programme, and cut-off by the licence boundary. Inferred Resources were estimated to approximately 1 km and cut-off by the licence boundary. In converting volumes to tonnage, laboratory determined Relative Density results were used to generate density grids. These density grids were then used to calculate the resource tonnages. It is considered that all relevant factors have been taken into account when determining the resource classification.

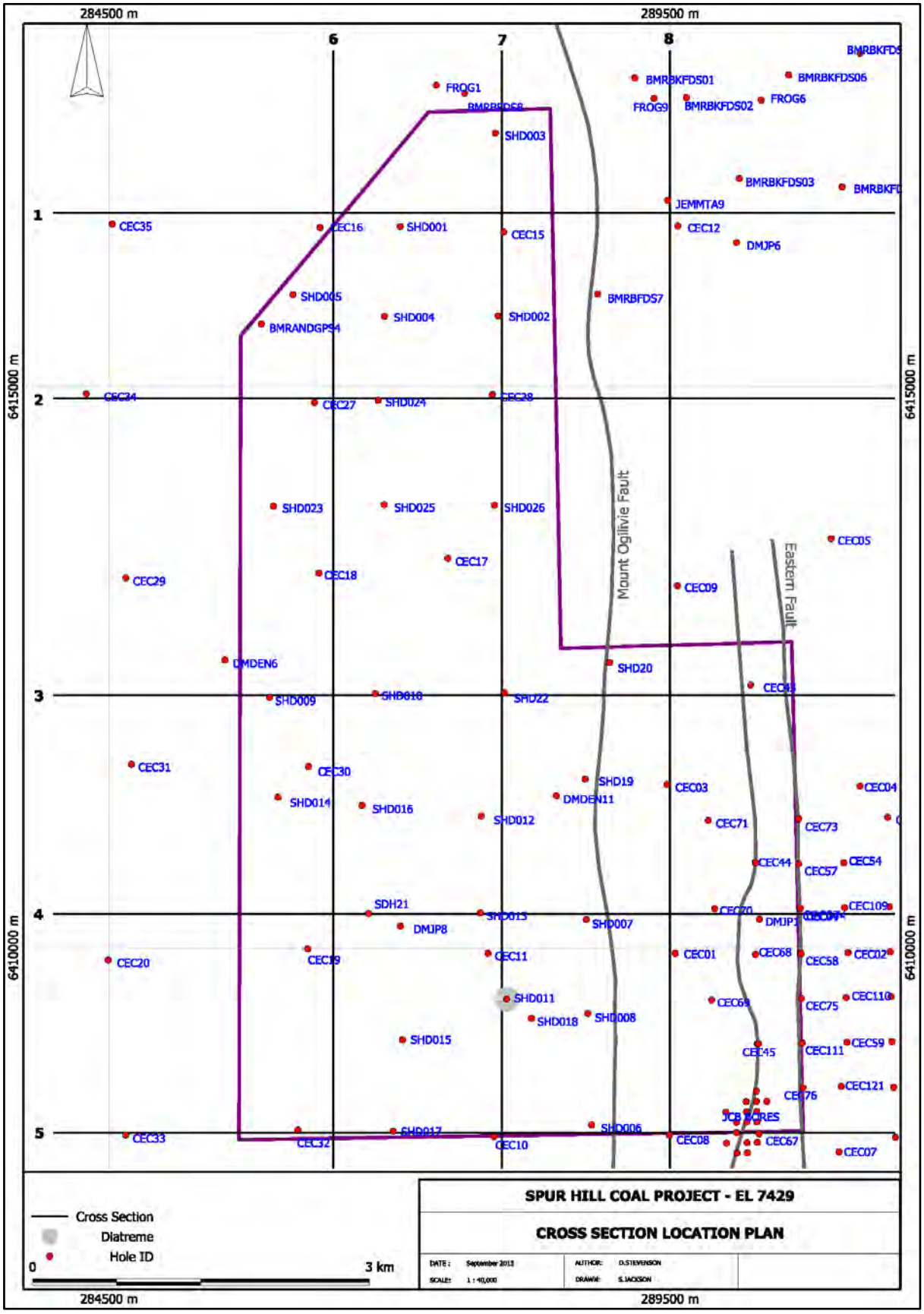
Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	BehreDolbear Australia Pty Limited reviewed the Project and authored an Independent Technical Report for the purpose of inclusion in the Malabar Coal prospectus of March 2013. Since that time, reviews have been carried out by project staff, MBGS, and MineCraft (the latter in preparing the maiden JORC Reserves Estimate).
Discussion of relative accuracy/confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The Resource Estimate is based on a Minex geological model produced by MBGS from both historical and recent data. MBGS converted the Minex grids to Vulcan grids and forwarded them to GMSA. These grids were loaded into Vulcan, contoured and viewed. Inaccuracies can come from several sources: incorrect logging and sampling by the field geologist, errors in laboratory analyses, transcribing errors from the field and laboratory sheets to the final logs and transcribing errors from the final logs to the Minex database. The historical pre 2012 data cannot be verified, however, the work undertaken and processes appear to be industry standard. It also appears that the data obtained from the NSW Department of Mineral Resources has been transcribed correctly into the Maptek database and subsequently to the MBGS Minex database. As discussed very minor errors may still be present on the western side of the Mount Ogilvie Fault, however, this is becoming considerably less likely as more data are acquired. There are likely to be some errors on the eastern side of the Mount Ogilvie Fault, an area which is structurally complex and for this reason potential resources have only be given Inferred Status. The stratigraphy has been checked and in some cases adjusted by Maptek in 2010. MBGS identified the stratigraphy in the recent 2012 / 2013 drill holes. GMSA checked and in some cases adjusted the stratigraphy based on the 2012 / 2013 drill holes. During the creation of the 2010 Maptek model, 2012 GMSA model, June 2013 MBGS model and the September 2013 MBGS model a small number of suspect boreholes were selected out of the modelling process to minimise errors. Finally the resource status is based on data confidence. Indicated resources are only present where recent 2012 / 2013 drill holes are present; therefore the Indicated resource tonnages are given a high confidence level. The Inferred resources are present primarily in areas where the majority of the data are historical; hence they are given a lower confidence level.

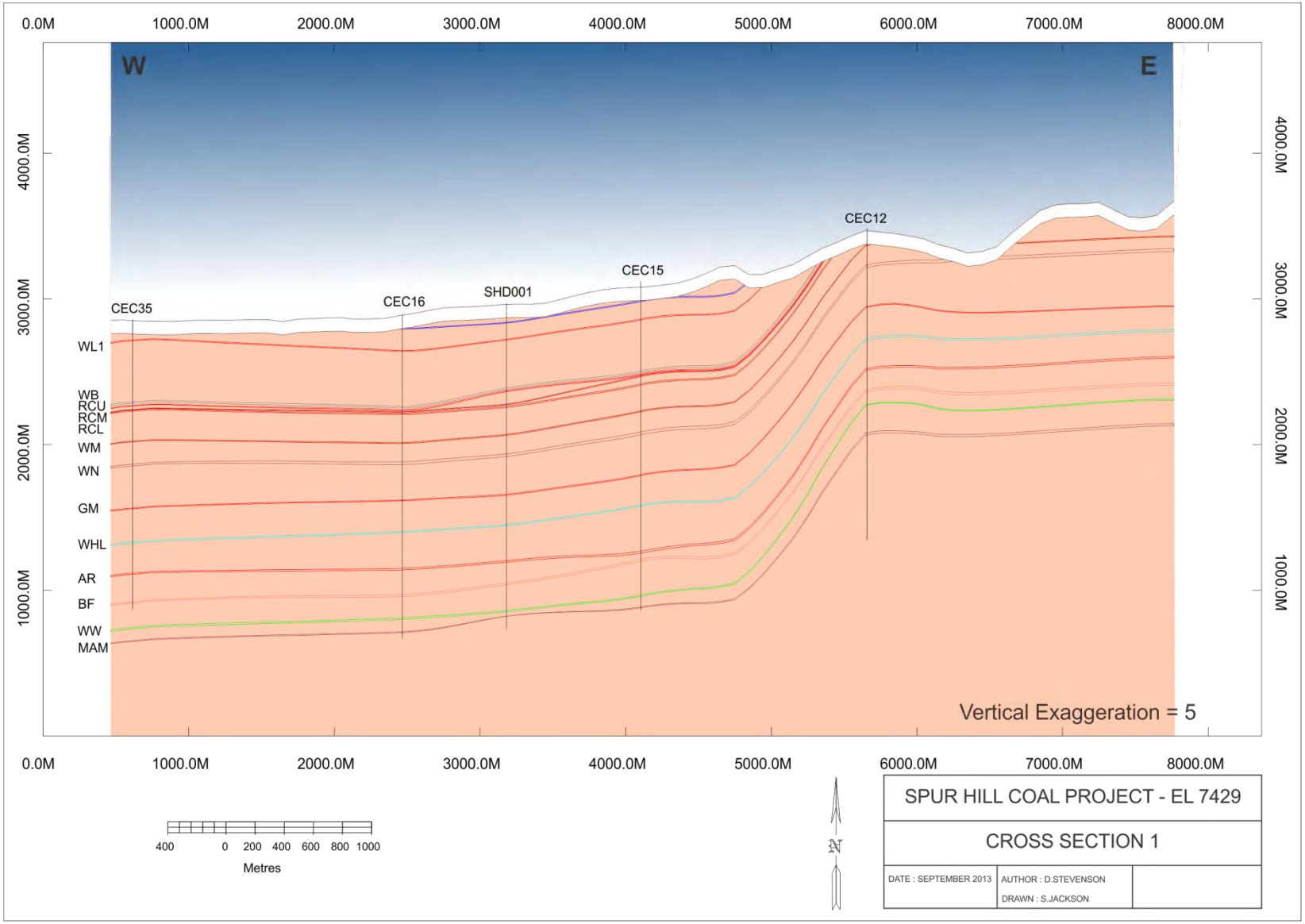
Drill hole	Easting	Northing	Collar RL	Orientation	Hole Size	Total Depth	Year
BMRBFS7	288850	6415830	200.00			245.57	1953
CEC1	289546.57	6409949.73	153.80	vertical	NQ	430.21	1976
CEC2	291086.34	6409954.66	142.00			426.50	1976
CEC3	289473.14	6411456.52	186.70			500.10	1976
CEC4	291192.65	6411441.49	141.90			410.30	1976
CEC7	291006.27	6408178.82	95.40	vertical	NQ	450.32	1976
CEC8	289493.91	6408328.24	132.70	vertical	NQ	441.00	1976
CEC9	289565.52	6413228.22	207.10	vertical	NQ	443.08	1976
CEC10	287929.06	6408316.14	138.50			546.00	1976
CEC11	287878.02	6409951.00	168.80			455.62	1976
CEC12	289569.76	6416435.18	238.89	vertical	NQ	428.28	1976
CEC15	288017.21	6416379.74	165.28		NQ	451.48	1977
CEC16	286379.02	6416420.74	120.55	vertical	NQ	445.60	1977
CEC17	287519.91	6413471.14	189.87	vertical	NQ	405.12	1977
CEC18	286369.63	6413339.87	202.90	vertical	NQ	400.39	1977
CEC19	286271.10	6409988.73	158.13	vertical	NQ	396.92	1977
CEC20	284493.13	6409890.81	129.67	vertical	NQ	368.49	1977
CEC24	287770.00	6406600.00	100.00			429.70	1977
CEC25	286110.23	6405239.2	146.60			424.12	1977
CEC26	284597.94	6405169.43	109.10			483.63	1977
CEC27	286329.86	6414861.41	131.90			431.60	1977
CEC28	287917.35	6414931.72	198.30	vertical	NQ	446.68	1977
CEC29	284649.64	6413297.58	107.90		NQ	399.59	1977
CEC30	286277.97	6411614.79	155.80	vertical	NQ	393.54	1977
CEC31	284699.59	6411633.86	116.90		NQ	361.68	1977
CEC32	286183.10	6408374.17	140.50		NQ	381.19	1977
CEC33	284647.71	6408330.38	135.30	vertical	NQ	449.40	1977
CEC34	284297.00	6414939.64	109.90		NQ	406.98	1977
CEC35	284528.10	6416452.75	112.90		NQ	397.98	1977
CEC36	284545.61	6407292.47	99.70			400.50	1978
CEC43	290218.26	6412341.59	184.13		NQ	454.18	1979
CEC44	290259.28	6410759.27	195.70		NQ	429.40	1979
CEC45A	290278.17	6409141.54	137.90			61.40	1979
CEC45B	290283.14	6409143.63	137.80			411.30	1979
CEC47	291818.27	6412371.54	187.50			227.39	1979
CEC54	291048.22	6410756.55	139.80			379.65	1979
CEC57	290648.21	6410749.06	156.20	vertical	NQ	205.60	1981
CEC58	290663.19	6409949.04	157.70	vertical	NQ	397.60	1980
CEC59	291078.18	6409156.52	104.10			391.60	1979
CEC67	290293.16	6408341.52	96.30		NQ	346.00	1980
CEC68	290262.59	6409941.44	168.70		NQ	397.70	1980
CEC69	289870.67	6409534.05	139.40		NQ	179.00	1980
CEC70	289898.33	6410348.77	202.20		NQ	247.00	1980
CEC71	289840.71	6411134.08	229.60		NQ	247.20	1980
CEC73	290640.72	6411149.06	169.60	vertical	NQ	205.00	1981
CEC74	290655.70	6410349.04	162.10	vertical	NQ	205.00	1981

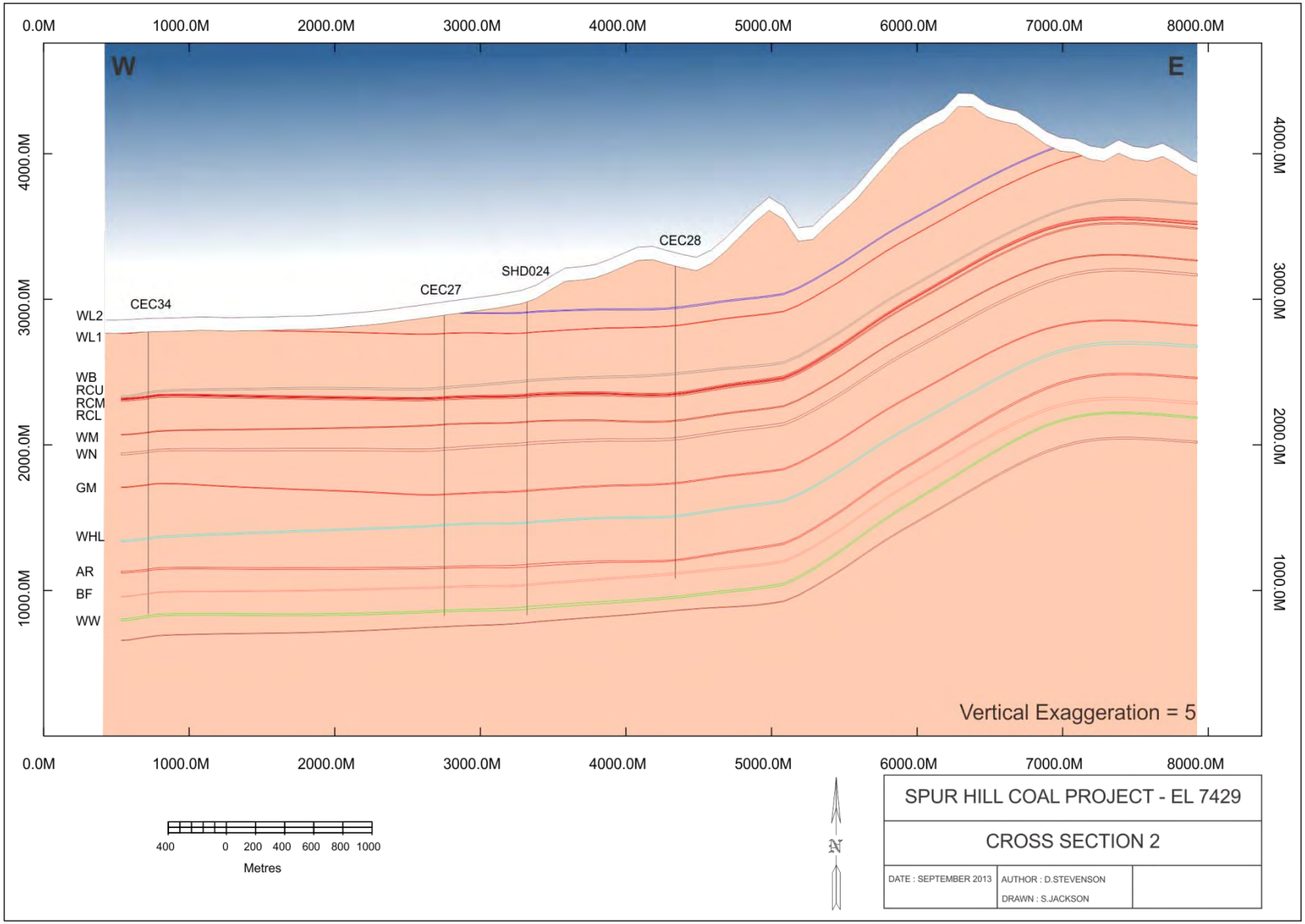
Drill hole	Easting	Northing	Collar RL	Orientation	Hole Size	Total Depth	Year
CEC75	290670.68	6409549.03	124.50	vertical	NQ	201.00	1981
CEC76	290685.67	6408749.03	101.10	vertical	NQ	211.00	1981
CEC77	291440.73	6411164.04	130.00			187.45	1981
CEC100	291463.20	6409964.02	106.40			202.40	1982
CEC101	291877.35	6409574.53	106.40			205.60	1982
CEC109	291055.71	6410356.53	135.10			192.00	1982
CEC110	291070.69	6409556.52	118.40			205.60	1982
CEC111	290678.18	6409149.03	115.20			208.60	1982
CEC121	291026.63	6408763.97	93.77			205.00	1983
DMDEN11	288486.07	6411354.82	139.04			609.74	1971
DMDEN6	285532.62	6412565.00	134.47			609.58	1971
DUM01	288900	6413000	213.24				
DUM02	288800	6413500	228.32				
DUM03	288750	6414000	265.7				
DUM04	288650	6414500	308.57				
DUM05	288600	6415000	262.72				
DUM06	288650	6415500	206.59				
DUM07	288600	6416000	201.64				
DUM08	288600	6416500	188.59				
DUM09	288300	6417000	175.38				
DUM10	288100	6417700	142.84				
FROG1	287417.18	6417691.22	131.07			575.64	1977
FROG9	289357.15	6417571.43	193.80			435.96	1978
MANG01	284780	6418590	116.00			229.20	1970
SHD001	287094.65	6416430.82	135.61	vertical	HQ	447.80	2012
SHD002	287967.53	6415633.07	180.71	vertical	HQ	468.20	2012
SHD003	287943.68	6417264.55	140.75	vertical	HQ	416.80	2012
SHD004	286954.37	6415629.20	162.40	vertical	HQ	471.10	2012
SHD005	286139.44	6415822.02	128.34	vertical	HQ	443.86	2012
SHD006	288799.98	6408420.01	130.83	vertical	HQ	456.63	2012
SHD007	288753.83	6410251.13	122.06	vertical	HQ	456.40	2012
SHD008A	288766.97	6409413.75	125.14	vertical	HQ	474.46	2012
SHD009	285931.46	6412231.25	142.60	vertical	HQ	453.77	2012
SHD010	286873.74	6412265.34	169.52	vertical	HQ	474.11	2012
SHD011	288044.57	6409541.42	160.44	vertical	HQ	227.39	2012
SHD012	287817.24	6411173.41	171.15	vertical	HQ	464.79	2012
SHD013	287808.73	6410309.65	155.52	vertical	HQ	452.58	2012
SHD014	286006.94	6411340.24	167.10	vertical	HQ	456.26	2012
SHD015	287116.28	6409180.07	295.62	vertical	HQ	594.04	2012
SHD016	286754.71	6411269.29	184.61	vertical	HQ	422.03	2012
SHD017	287032.47	6408365.04	275.70	vertical	HQ	595.07	2012
SHD018	288264.59	6409370.91	154.31	vertical	HQ	467.61	2012
SHD019	288744.82	6411504.51	149.77	vertical	HQ	429.00	2013
SHD020	288961.73	6412542.36	233.76	vertical	HQ	498.00	2013
SHD021	286812.38	6410304.56	183.14	vertical	HQ	424.50	2013
SHD022	288024.17	6412271.63	287.35	vertical	HQ	517.26	2013

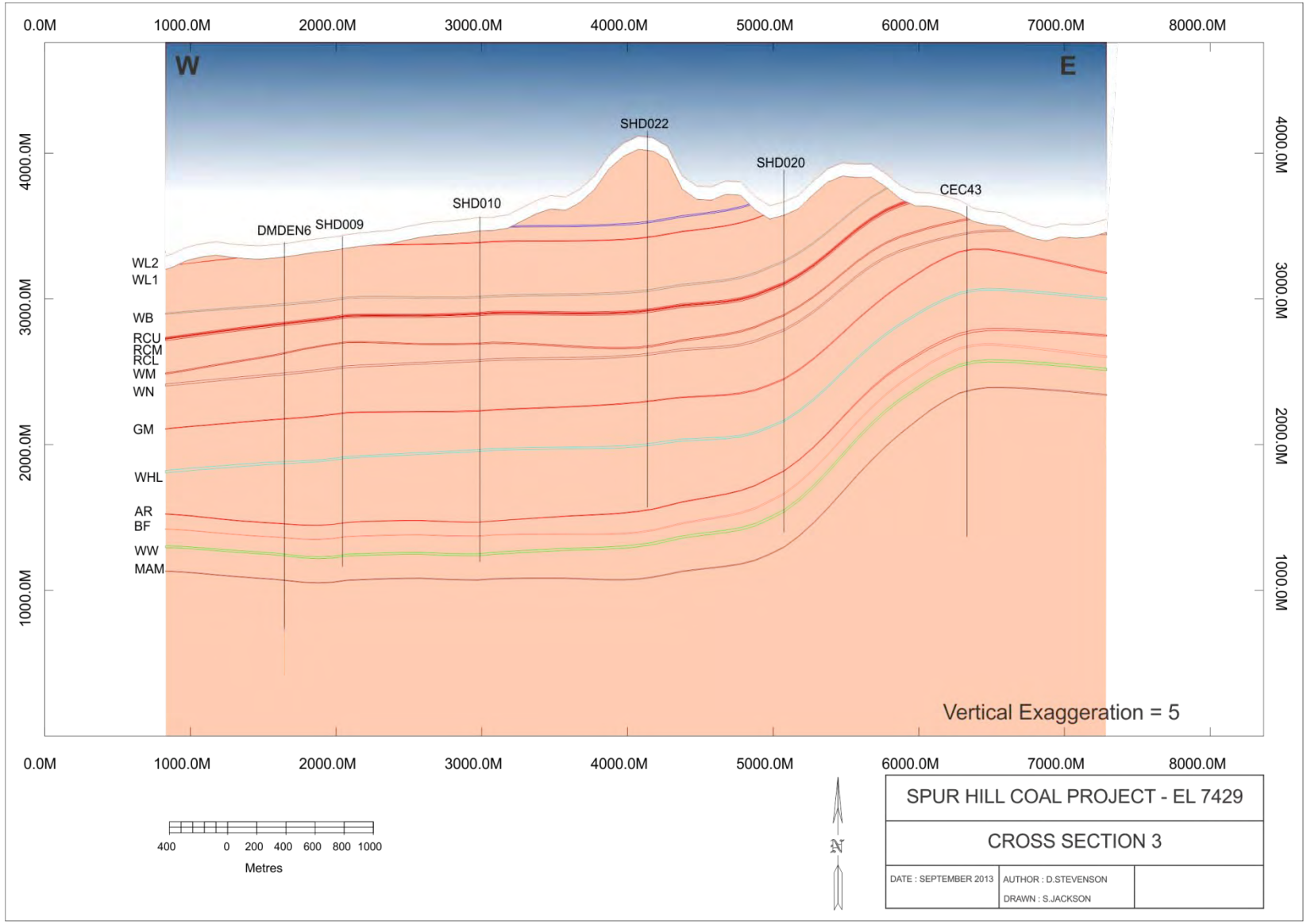
Drill hole	Easting	Northing	Collar RL	Orientation	Hole Size	Total Depth	Year
SHD023	285966.00	6413935.41	138.30	vertical	HQ	445.01	2013
SHD024	286898.94	6414880.01	148.28	vertical	HQ	447.00	2013
SHD025	286952.03	6413949.93	193.22	vertical	HQ	486.50	2013
SHD026	287935.14	6413945.57	275.29	vertical	HQ	564.50	2013

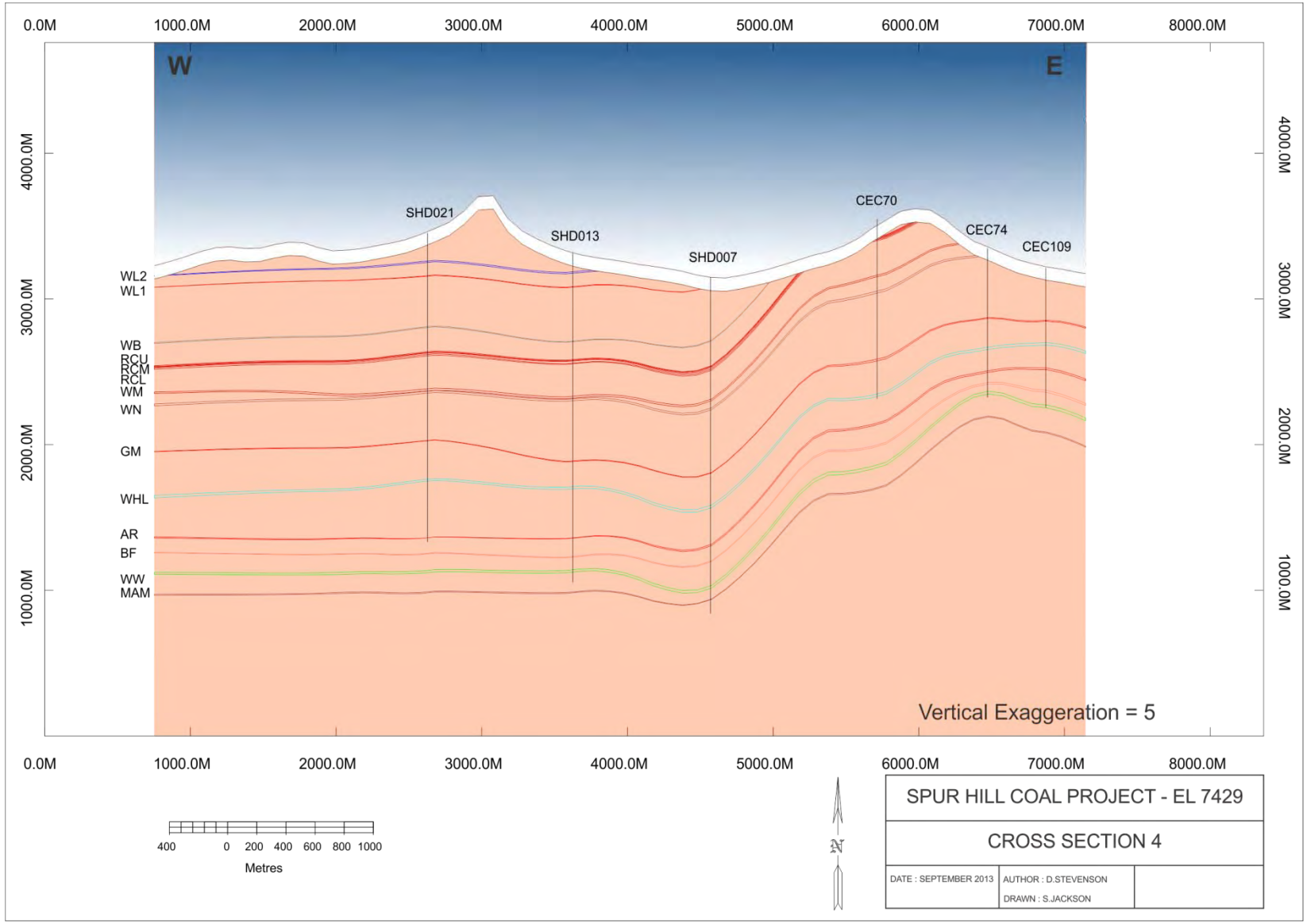
These are the drillholes used by MBGS to produce the geological model
Drill Hole information - data entered when available
Re orientation - the drillholes will all be vertical
Re size - the historical holes are probably all NQ

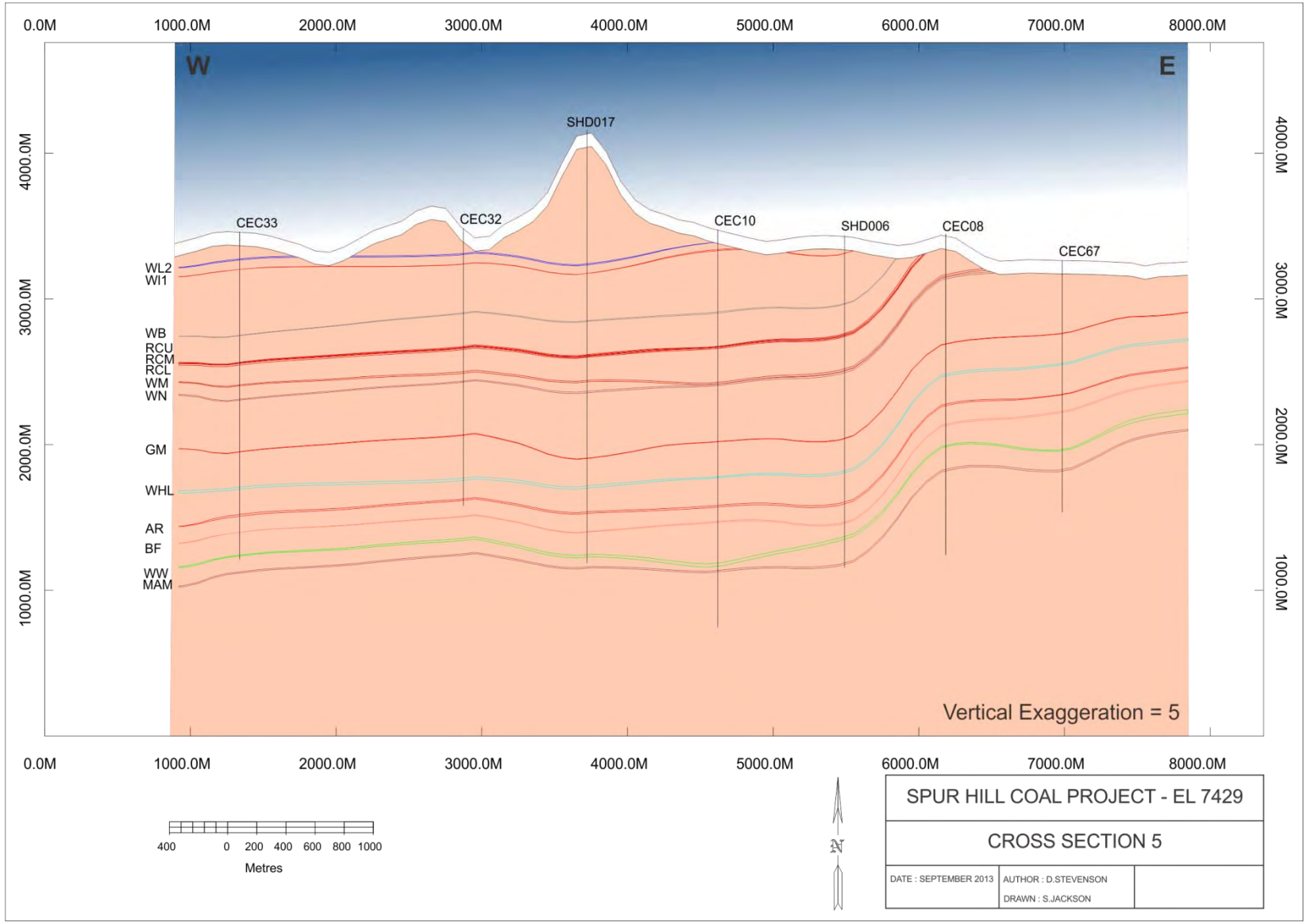

284500 m
289500 m
6
7
8
1
2
3
4
5
6415000 m
6410000 m
FROG1
BMRBKFDS01
BMRBKFDS06
FROG9
BMRBKFDS02
FROG6
SHD003
BMRBKFDS03
JEMMTA9
CEC35
CEC16
SHD001
CEC15
CEC12
DMJP6
SHD005
BMRBFDS7
SHD004
SHD002
BMRANDGPS4
CEC34
CEC27
SHD024
CEC28
SHD023
SHD025
SHD026
Mount Ogilvie Fault
Eastern Fault
CEC05
CEC17
CEC29
CEC18
CEC09
DMDEN6
SHD20
SHD009
SHD010
SHD22
CEC31
CEC30
SHD19
CEC03
CEC04
SHD014
SHD016
DMDEN11
SHD012
CEC71
CEC73
CEC44
CEC57
CEC54
SDH21
SHD013
SHD007
DMJP8
CEC20
CEC19
CEC11
CEC01
CEC68
CEC58
CEC02
SHD011
CEC69
CEC75
CEC110
SHD018
SHD008
SHD015
CEC45
CEC111
CEC59
CEC121
CEC76
JCB BORES
SHD017
SHD006
CEC33
CEC32
CEC10
CEC08
CEC67
CEC07
Cross Section
Diatreme
Hole ID
0
3 km
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION LOCATION PLAN
DATE : September 2013
AUTHOR: D.STEVENSON
SCALE: 1 : 40,000
DRAWN: S.JACKSON

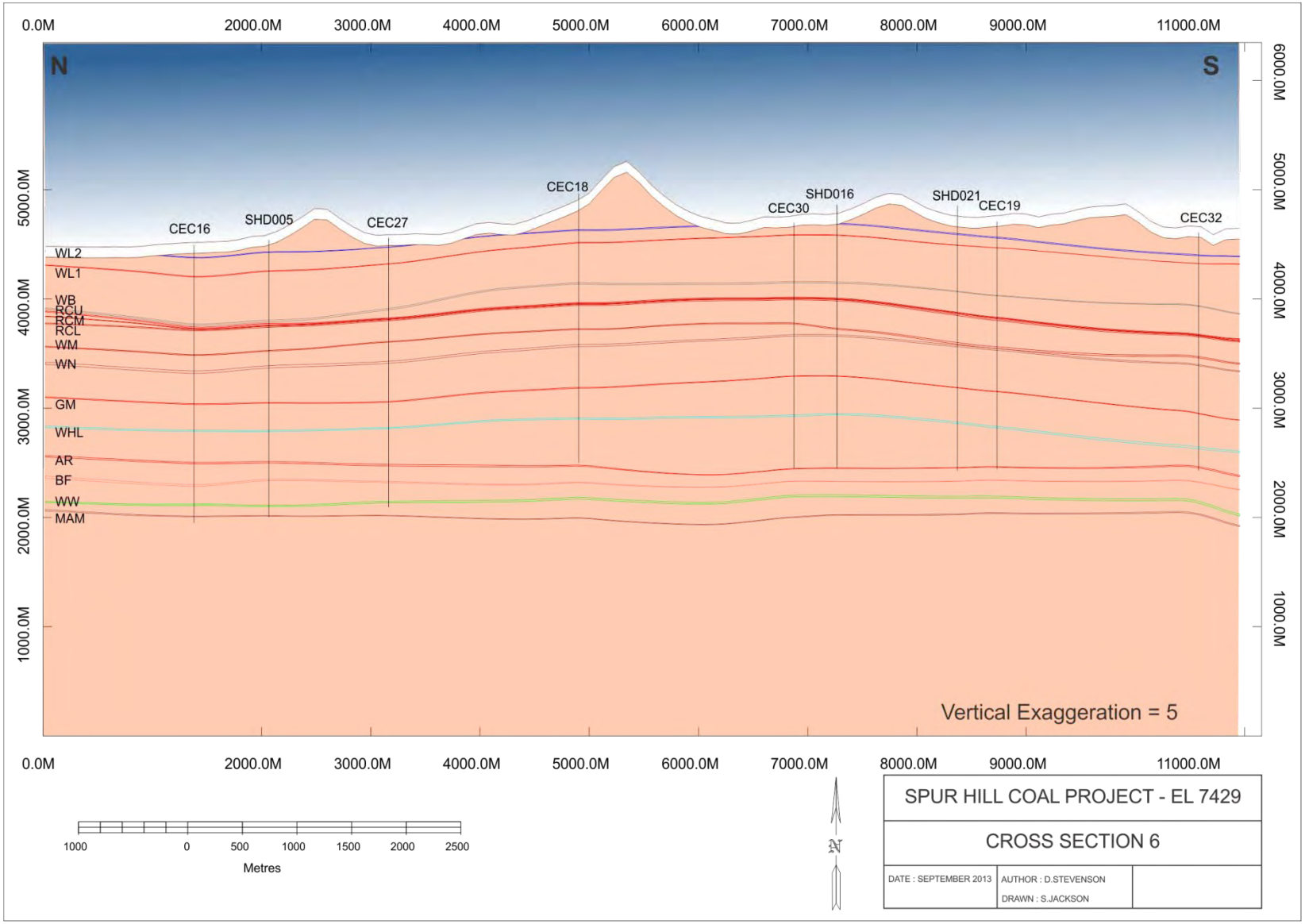

0.0M
1000.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
W
E
4000.0M
3000.0M
2000.0M
1000.0M
CEC35
CEC16
SHD001
CEC15
CEC12
WL1
WB
RCU
RCM
RCL
WM
WN
GM
WHL
AR
BF
WW
MAM
Vertical Exaggeration = 5
400 0 200 400 600 800 1000
Metres
N
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 1
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON

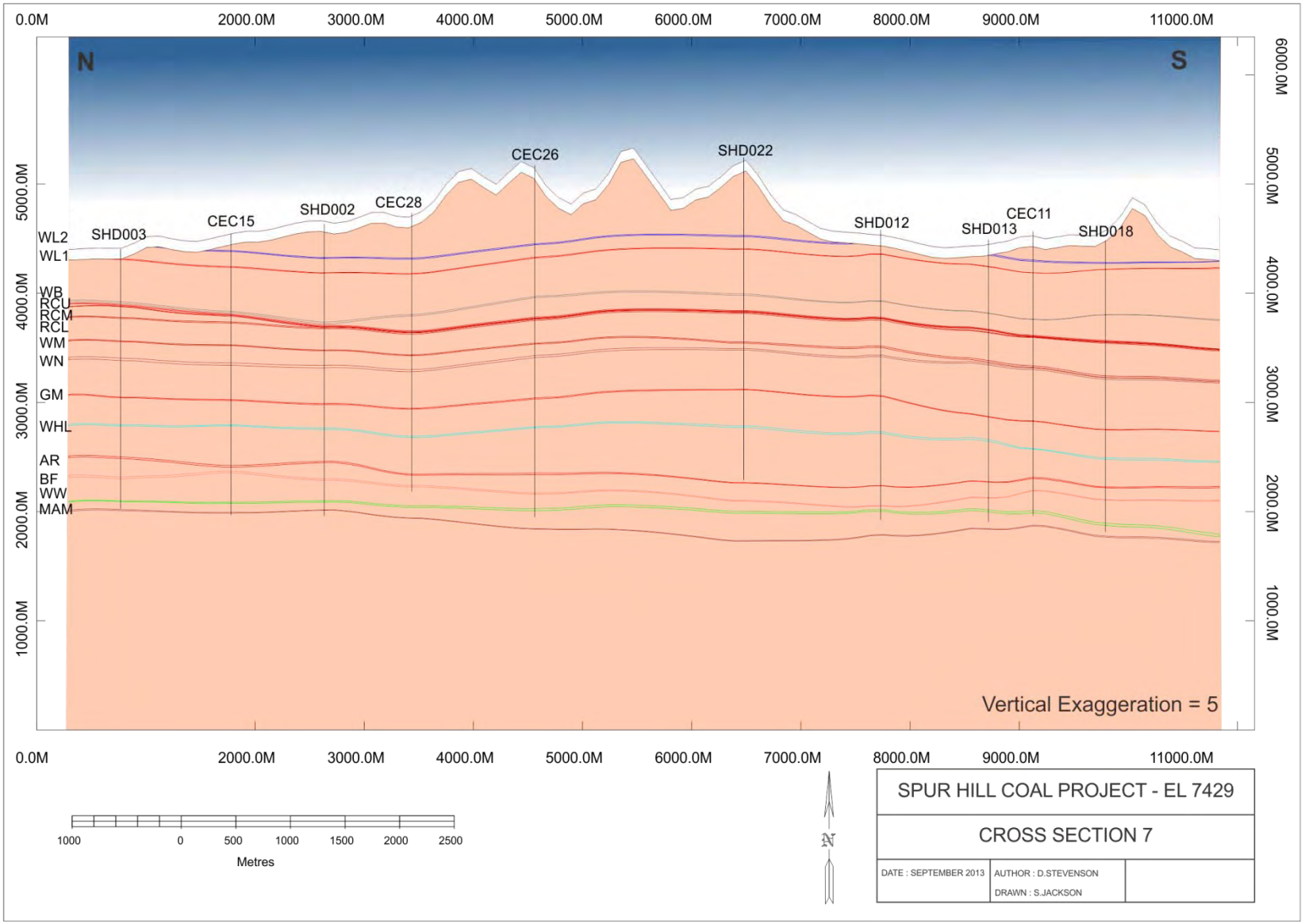

0.0M
1000.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
W
E
CEC34
CEC27
SHD024
CEC28
WL2
WL1
WB
RCU
RCM
RCL
WM
WN
GM
WHL
AR
BF
WW
Vertical Exaggeration = 5
400 0 200 400 600 800 1000
Metres
N
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 2
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON

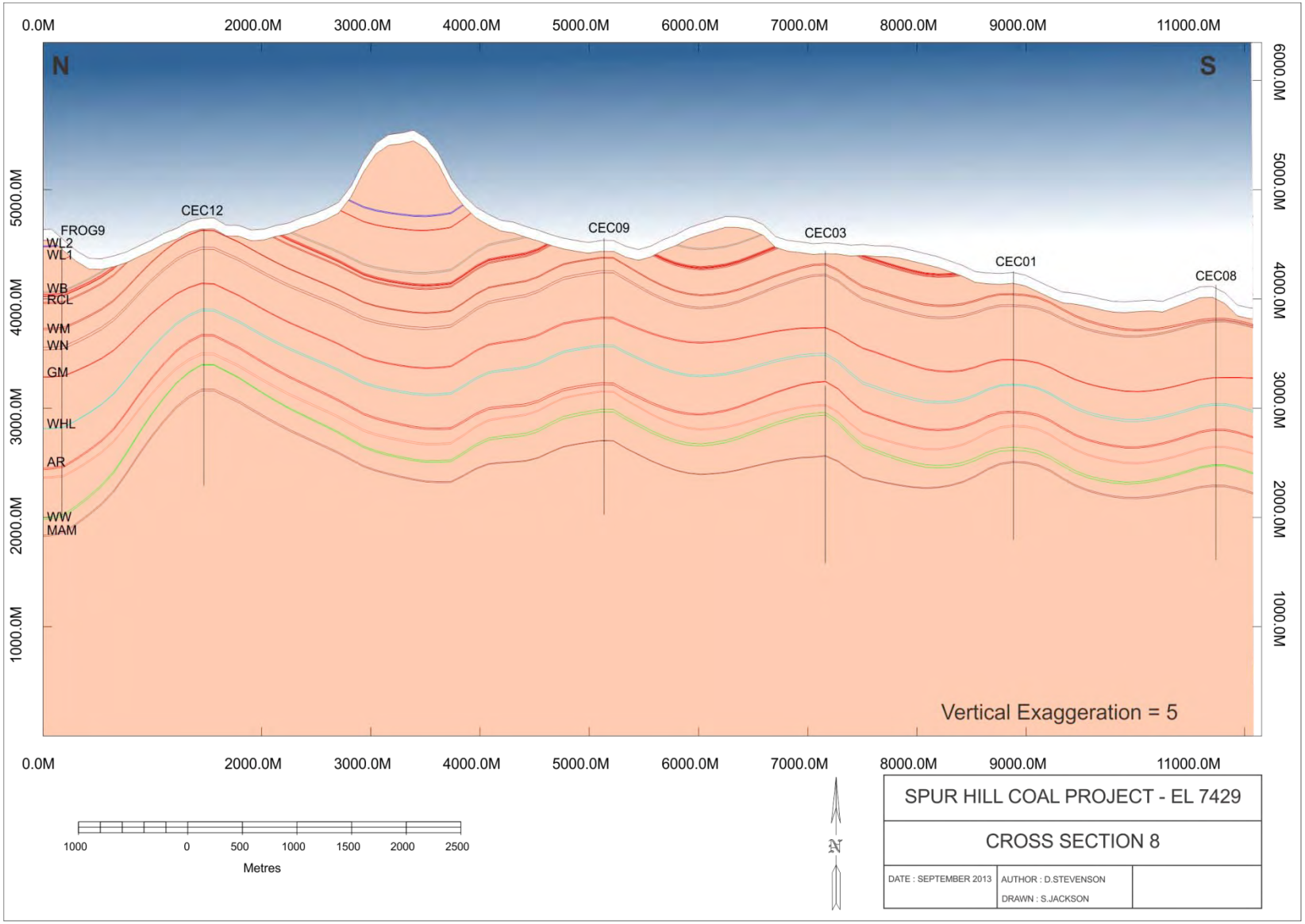

0.0M
1000.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
W
E
SHD022
SHD020
SHD010
CEC43
DMDEN6
SHD009
WL2
WL1
WB
RCU
RCM
RCL
WM
WN
GM
WHL
AR
BF
WW
MAM
Vertical Exaggeration = 5
400 0 200 400 600 800 1000
Metres
N
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 3
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON


0.0M
1000.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
W
E
SHD021
SHD013
SHD007
CEC70
CEC74
CEC109
WL2
WL1
WB
RCU
RCM
RCL
WM
WN
GM
WHL
AR
BF
WW
MAM
Vertical Exaggeration = 5
400 0 200 400 600 800 1000
Metres
N
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 4
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON


0.0M
1000.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
W
E
SHD017
CEC33
CEC32
CEC10
SHD006
CEC08
CEC67
WL2
WI1
WB
RCU
RCM
RCL
WM
WN
GM
WHL
AR
BF
WW
MAM
4000.0M
3000.0M
2000.0M
1000.0M
Vertical Exaggeration = 5
400
0
200
400
600
800
1000
Metres
N
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 5
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON


0.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
9000.0M
11000.0M
N
S
CEC16
SHD005
CEC27
CEC18
CEC30
SHD016
SHD021
CEC19
CEC32
WL2
WL1
WB
RCU
RCM
RCL
WM
WN
GM
WHL
AR
BF
WW
MAM
6000.0M
5000.0M
4000.0M
3000.0M
2000.0M
1000.0M
Vertical Exaggeration = 5
1000
0
500
1000
1500
2000
2500
Metres
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 6
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON


0.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
9000.0M
11000.0M
N
S
SHD003
CEC15
SHD002
CEC28
CEC26
SHD022
SHD012
SHD013
CEC11
SHD018
WL2
WL1
WB
RCU
RCM
RCL
WM
WN
GM
WHL
AR
BF
WW
MAM
1000.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
Vertical Exaggeration = 5
1000
0
500
1000
1500
2000
2500
Metres
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 7
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON


0.0M
2000.0M
3000.0M
4000.0M
5000.0M
6000.0M
7000.0M
8000.0M
9000.0M
11000.0M
N
S
6000.0M
5000.0M
4000.0M
3000.0M
2000.0M
1000.0M
CEC12
CEC09
CEC03
CEC01
CEC08
FROG9
WL2
WL1
WB
RCL
WM
WN
GM
WHL
AR
WW
MAM
Vertical Exaggeration = 5
1000
0
500
1000
1500
2000
2500
Metres
SPUR HILL COAL PROJECT - EL 7429
CROSS SECTION 8
DATE : SEPTEMBER 2013
AUTHOR : D.STEVENSON
DRAWN : S.JACKSON