11th October 2019

MMAMABULA WEST COAL RESOURCES INCREASED TO 2.9 BILLION TONNES

Highlights

- **An updated resource estimate for Mmamabula West has been completed using additional data from holes drilled by African Energy.**
- **The updated Coal Resource estimate contains 2,935Mt in all resource categories hosted in three coal seams (K, A, E) at the Mmamabula West Project.**
- **Average calorific value of 20.3MJ/kg (4,850 kcal.kg) on an air-dried basis, with higher quality coal in the measured and indicated categories (see table below).**
- **A prefeasibility study for an export coal mine extracting a portion of the Indicated resource for the higher quality A-Seam was published in May 2014. This study will now be updated to include the 17Mt measured resource block and updated indicated resource block for the study area, and to reflect current capital and operating cost estimates.**
- **The prefeasibility study demonstrated that A-Seam can produce either RB3 export quality coal or "Eskom" power station specification coal at attractive yields (75% and 90% respectively).**

Mmamabula West Project: 2019 Coal Resource Summary: Raw coal reported on an air-dried basis								
Resource Category	**In-Situ Tonnes***	**CV (MJ/kg)**	**CV (kcal/kg)**	**Ash %**	**IM %**	**VM %**	**FC %**	**S %**
MEASURED	17 Mt	22.2	5,300	19.6	7.3	24.8	48.2	1.6
INDICATED	1,061 Mt	20.4	4,875	24.4	6.1	26.5	43.1	1.5
INFERRED	1,858 Mt	20.3	4,850	24.7	5.8	26.2	43.4	1.6
TOTAL (all seams)	**2,935 Mt**	**20.3**	4,850	**24.5**	**5.9**	**26.3**	**43.3**	**1.6**

1. SUMMARY

African Energy Resources Limited ('African Energy' or 'the Company') owns two prospecting licences for coal and has a 33% interest in the Sese Coal Project in Botswana (Diagram 1).

The Company has completed an updated resource estimate for the Mmamabula West Coal Project in Botswana, where a 2.9 billion tonne Measured, Indicated and Inferred Resource has been defined at an

average calorific value of 20.3 MJ/kg. This Resource occurs approximately 100km north of Gaborone. (Diagram1).

The addition of the resource tonnes at Mmamabula West increases African Energy's total inventory of in-situ coal (Appendix 1).

2. RESOURCE ESTIMATE AND COAL QUALITY

The Measured, Indicated and Inferred Resource estimate at Mmamabula West is based on data collected from 179 vertical diamond drill holes (Diagram 2 and Appendix 2). A summary of the Mmamabula West Resource is given in the table below, and plans showing the breakdown of each seam by resource classification are presented as Diagrams 3-5 inclusive:

Seam	Category	TTIS[1] (Mt)	GTIS[2] RAW Tonnes (Mt)	ST (m)	CV (MJ/kg)	Ash %	TS %	FC %	IM %	VM %
SK	Measured	-	-							
	Indicated	524.3	582.5	5.8	20.1	26.0	1.8	39.7	5.7	28.7
	Inferred	936.7	1,102.0	6.2	19.8	27.0	1.9	39.5	5.5	28.0
	Sub-total	**1,461.0**	**1,684.5**	**6.0**	**19.9**	**26.6**	**1.9**	**39.6**	**5.6**	**28.2**
SA	Measured	16.6	17.5	4.0	22.2	19.7	1.7	48.2	7.3	24.8
	Indicated	536.6	596.2	4.3	20.6	22.8	1.3	46.4	6.4	24.4
	Inferred	814.0	957.7	4.3	20.3	23.3	1.2	46.8	6.0	23.9
	Sub-total	**1,367.2**	**1,571.3**	**4.3**	**20.4**	**23.0**	**1.2**	**46.7**	**6.2**	**24.1**
SE	Measured	-	-							
	Indicated	-	-							
	Inferred	106.9	125.8	1.2	24.2	14.8	1.7	51.7	5.8	27.7
	Sub-total	**106.9**	**125.8**	**1.2**	**24.2**	**14.8**	**1.7**	**51.7**	**5.8**	**27.7**
Grand Total		**2,935.1**	**3,381.6**	**5.0**	**20.3**	**24.5**	**1.6**	**43.3**	**5.9**	**26.3**

[1] Total Tonnes In-Situ (TTIS) have been derived by applying a further geological loss factor of 5% (Measured), 10% (Indicated) and 15% (Inferred) to the Gross Tonnes In-Situ (GTIS)

[2] Gross Tonnes In-Situ (GTIS) have been derived by:

- *Applying a resource boundary limited to the minimum 4 km by 4km average drillhole spacing within the bounds of the Mmamabula West licence;*
- *Removing volumes for modelled dolerite dykes and intrusions, burnt coal and weathered coal;*
- *Applying cut-offs to:*
  - *Seam thickness (>= 1m);*
  - *Calorific Value (>= 8 MJ/kg); and*
  - *Ash content <= 50%).*

Washability studies of Mmamabula West coals were released in the May 2014 ASX release which reported results from the mining and coal processing prefeasibility study which assessed conventional underground mining of a portion of the A-Seam. This demonstrated that A-Seam raw coal could be washed to produce an RB3 specification export coal at theoretical yields of 74.6%.

Further studies of large diameter cores have developed power station fuel specifications suitable for use in South African power stations and demonstrated that a single wash of the A-Seam at an RD of 1.9 produced a suitable fuel at a 90% yield.

3. SUMMARY OF RESOURCE ESTIMATION AND REPORTING CRITERIA

As per ASX Listing Rule 5.8 and the 2012 JORC reporting guidelines, a summary of the material information used to estimate the Mmamabula West Coal Resource is included below (for more detail please refer to Table 1, Sections 1 to 3 included in Appendix 3).

Geology and geological interpretation

The Mmamabula West coal deposit occurs in the southern belt of the Central Kalahari sub-basin, one of several Permo-Carboniferous Gondwana depositional sub-basins in the region. The coal resource occurs within Lower Karoo aged sediments and is typified by a relatively thick coal zone occurring in close proximity to the basal unconformity between the Karoo Supergroup and the Precambrian Basement. Sediments are relatively flat-lying with very gentle dips (<3°, average 0.5-1°) towards the north.

The coal zone is the principal interval of economic interest and comprises a number of sub-zones or "seams" and a series of "plies" that can be recognised across the deposit. The principal seams which can be recognised are the SK, SA and SE seams (refer Diagram 6). The SK and SA units are separated by geological units containing minimal coal development which is regarded as "waste" in any mining recovery operation. In general, the coal rank ranges from medium- to low-volatile bituminous coal.

Key stratigraphic contacts were interpreted and correlated ("wireframed") in 3D software modelling packages. The seams and plies were correlated across the entire deposit area. Partings were selected using a minimum interval of 0.5m between coal plies.

Drilling techniques and hole spacing

The Mmamabula West deposit has been drilled by African Energy Resource (AFR) using diamond core drilling (DD) with Polycrystalline Diamond open-hole rotary mud drilling (PCD) for pre-collars. Only the most recent 2015 and 2016 holes in the licence area (Diagram 2) were drilled by African Energy (totalling 19 holes) and used PCD for pre-collars with HQ or PQ sized diamond core collected through the coal zones. Shell Coal Botswana Pty Ltd (Shell) drilled in the licence area in 1976 as part of a regional exploration program. This was followed by Charbonnages de France (CdF) with 83 boreholes in the area in the early 1980's and then Aquila and Asenjo with 110 holes between 2007 and 2011.

Within the licence area, and including the historic Shell, CdF, Aquila and Asenjo holes, there are 149 drill holes (points of observation) for 24,270m. Drill hole spacing within the reported resource area is typically 1km by 1km with a small area of 500m by 500m (Measured) and wider 2.5km by 2.5km spacing in the northern Inferred area (Diagram 2).

Logging and Sampling

AFR and Aquila/Asenjo core holes were geologically logged for lithology, stratigraphy, oxidation, grain size and colour. In addition, intervals were logged for sorting, roundness, clast size, clast sorting, clast roundness, cement and mica where appropriate. PCD chips were collected at 1 metre intervals at the rig and logged for lithology, stratigraphy, oxidation, grain size and colour. All accessible boreholes were geophysically logged using a combined density/gamma sonde with the objective of describing coal seam depth, thickness and quality. Lithological logging was verified against downhole geophysical logs. The Shell and CdF holes were logged for lithology only.

AFR and Asenjo submitted whole core for coal quality analyses at either ALS Global's Witbank Coal Laboratory or BV's Inspectorate Coal Laboratory, both located near Johannesburg, South Africa. No information is available for the sampling methodology used for the Shell and CdF holes.

Sample analysis method

All African Energy core samples were analysed by either ALS Global's Witbank Coal Laboratory or BV's Inspectorate Coal Laboratory at their SANAS ISO 17025 accredited laboratories. Coal analyses were conducted on air-dried core samples to determine the Apparent Relative Density, Proximate Analysis, Calorific Value and Total Sulphur. The Shell and CdF holes samples were also analysed on an air-dried basis for Apparent Relative Density, Proximate Analysis, Calorific Value and Total Sulphur although no information is available regarding the laboratory at which they were analysed.

Estimation Methodology

The estimate was resolved into a 2-D block model with 50m (E) x 50m (N) blocks and where the elevation was set to 1m.

Coal structure (seam roof, floor and thickness) was modelled on seam composites using Seequent Leapfrog® Geo software. The 50m x 50m block model grid was draped over each of the surfaces to determine an elevation or thickness at each grid point. This information was then imported into a Geovia Surpac™ "structure" block model.

Coal qualities were estimated by Inverse Distance Squared ("ID^2") on seam composites using GEOVIA Surpac™ software.

Classification criteria

The Mmamabula West Coal Resource has been classified as a mix of Measured, Indicated and Inferred according to the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves guidelines (JORC 2012). Drill hole spacing within the reported resource area is typically 1km by 1km with a small area of 500m by 500m (Measured) and wider 2.5km by 2.5km spacing in the northern Inferred area. The confidence in the understanding of geological and coal seam model (for the purposes of reporting a Measured, Indicated and Inferred Resources) is high when considering the available drillhole data from within the Mmamabula West licence itself and adjacent areas (Diagram 2).

Cut-off grades

All seams were reported using the following cut-off parameters:

1. Minimum composited seam thickness of 1m.
2. Minimum Calorific Value of 8 MJ/kg.
3. Maximum Ash of 50%.

A resource boundary limit was created within the bounds of the Mmamabula West licence using the minimum 4 km by 4km drillhole spacing as a guide and is shown in Diagrams 3 to 5 inclusive.

No dolerites dykes appear to affect the coal in the resource area – all coal Dry Ash Free Volatiles, lithological logs and available geophysics were checked to confirm this.

In addition, a further reduction in the reported resource has been applied for potential geological losses. The reported resource is thus stated as Total Tonnes In-Situ (TTIS). The percentage reductions include:

- Measured – 5%.
- Indicated – 10%.
- Inferred – 15%.

Mining and metallurgical methods and parameters

Based on the depth to seam roof and the seam thickness modelled, the potential mining methods considered to date are underground mining. This was confirmed in May 2014 via a prefeasibility study to evaluate conventional bord-and-pillar mining of a section of the A-Seam. This study will be updated to reflect the new resource modelling, and to update capital and operating costs estimates to 2019 values.

For any further information, please contact the Company directly on +61 8 6465 5500.

For and on behalf of the board.

COMPETENT PERSONS STATEMENT

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The information contained in this announcement has been presented in accordance with the JORC Code (2012 edition) and references to "Measured, Indicated and Inferred Resources" are to those terms as defined in the JORC Code (2012 edition).

The information in this report relating to the Mmamabula West Project exploration results and coal resources is based on information compiled by both Dr Frazer Tabeart (Executive Director of African Energy Resources Limited) and Mr Lauritz Barnes (a consultant to African Energy Resources Limited). Dr Tabeart and Mr Barnes are members of the Australian Institute of Geoscientists. Dr Tabeart and Mr Barnes are both qualified geologists and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Tabeart and Mr Barnes consent to the inclusion in the ASX release of the matters based on their information in the form and context in which it appears.

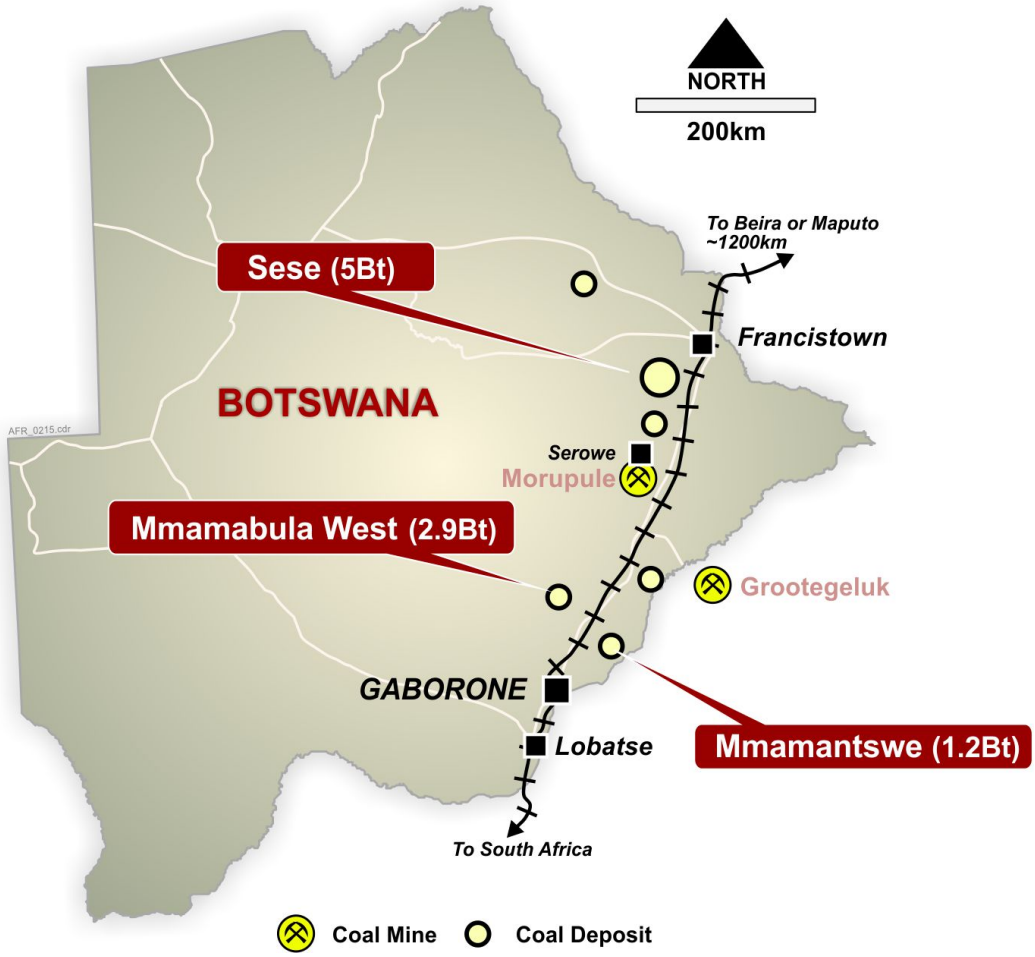

Diagram 1 – Location Map showing the location of the Mmamabula West Project and the Company's other coal deposits in Botswana.

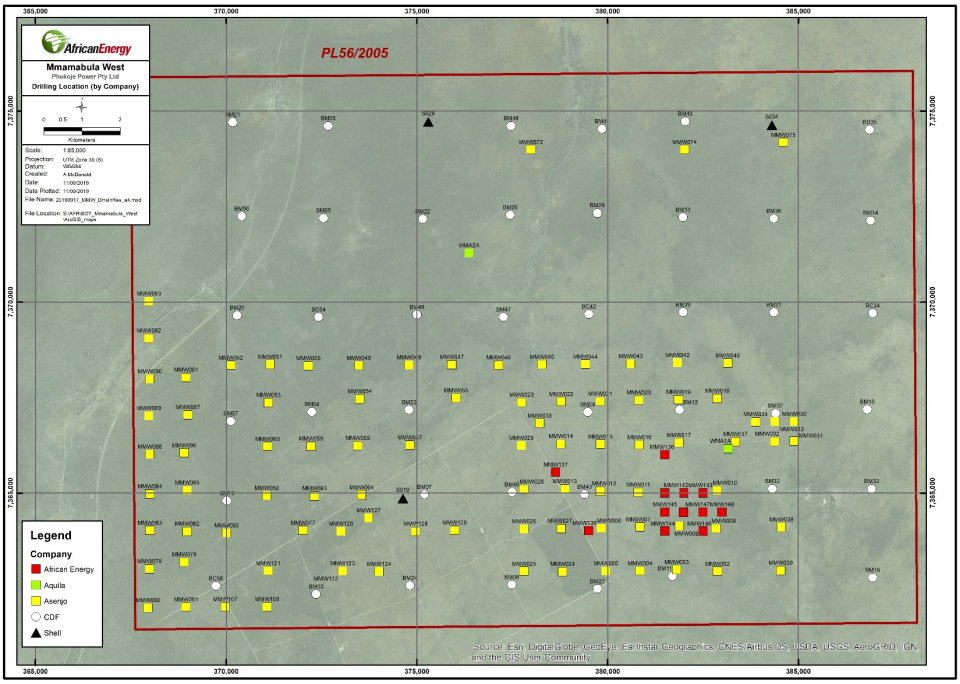

Diagram 2 – Plan showing Mmamabula West drill hole collar locations

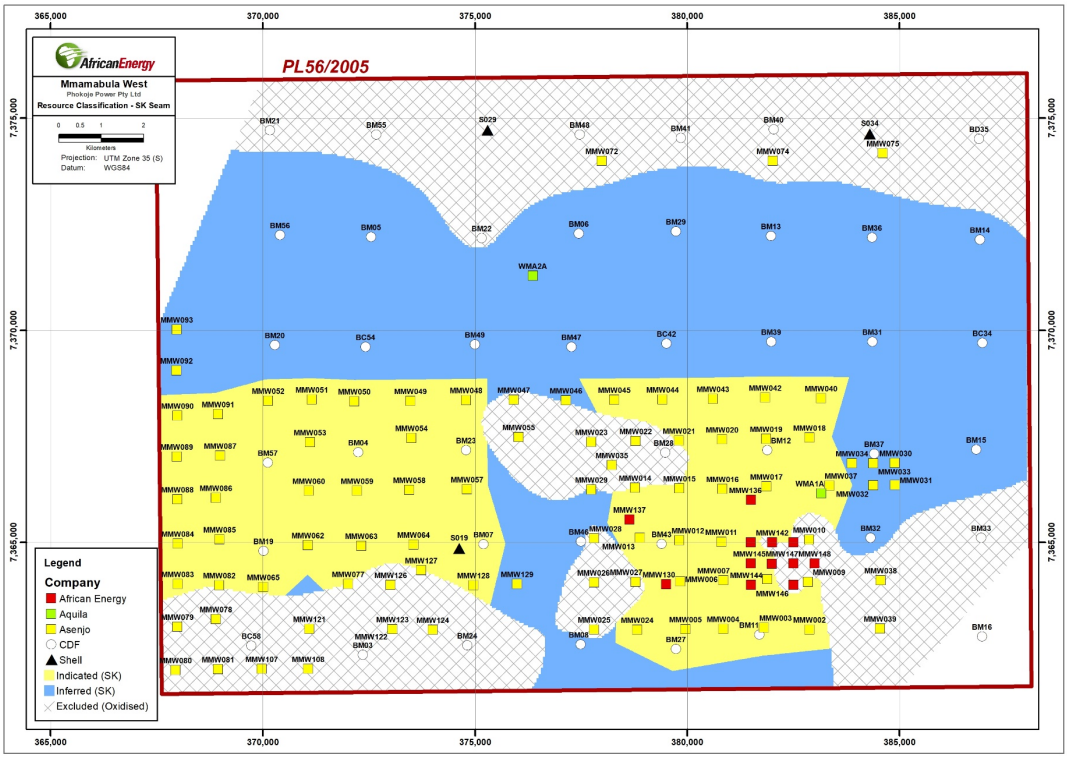

Diagram 3 – Plan showing Mmamabula SK seam resource classification

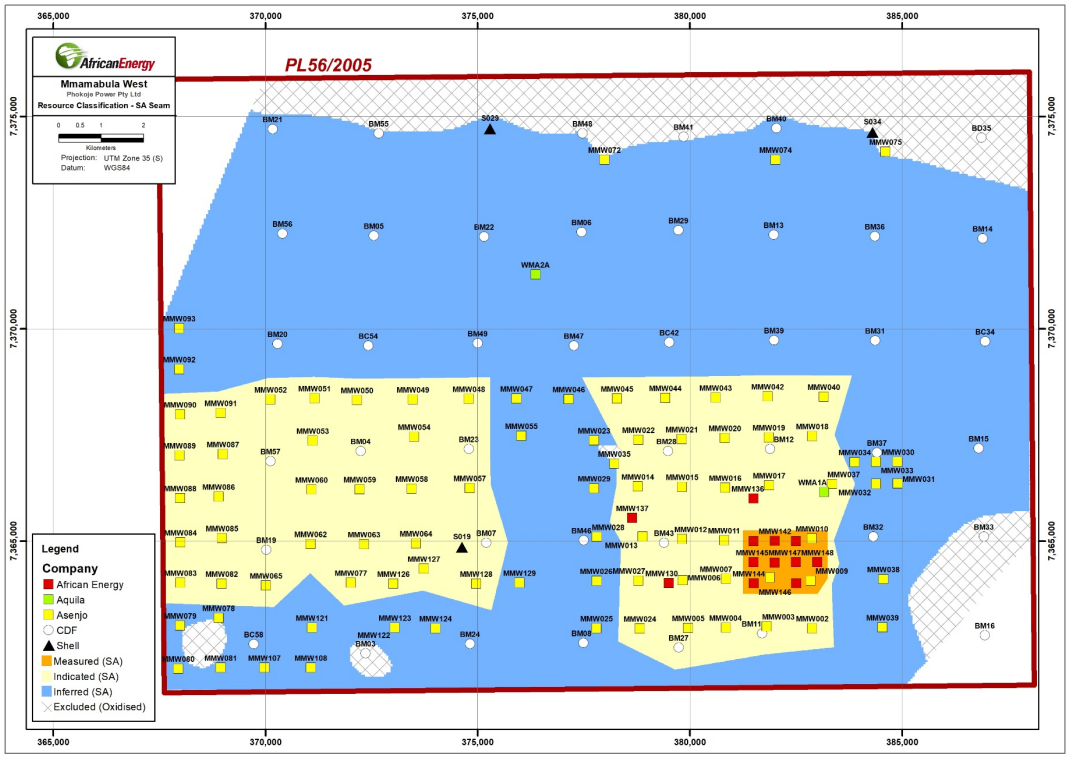

Diagram 4 – Plan showing Mmamabula SA seam resource classification

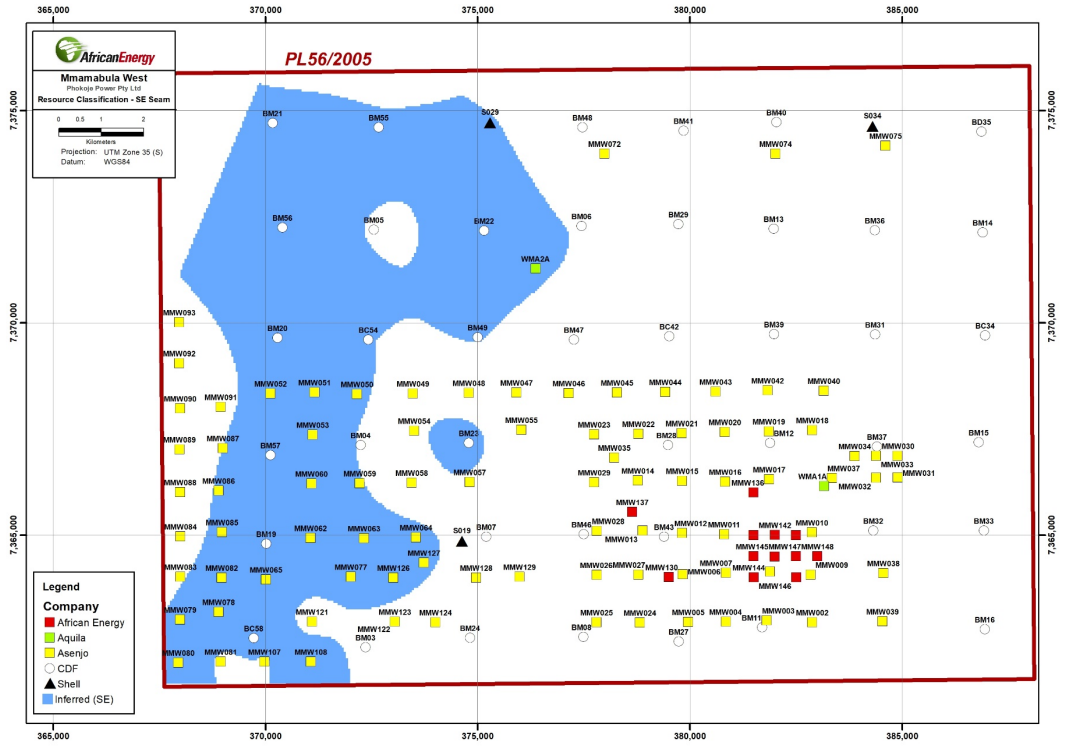

Diagram 5 – Plan showing Mmamabula SE seam resource classification

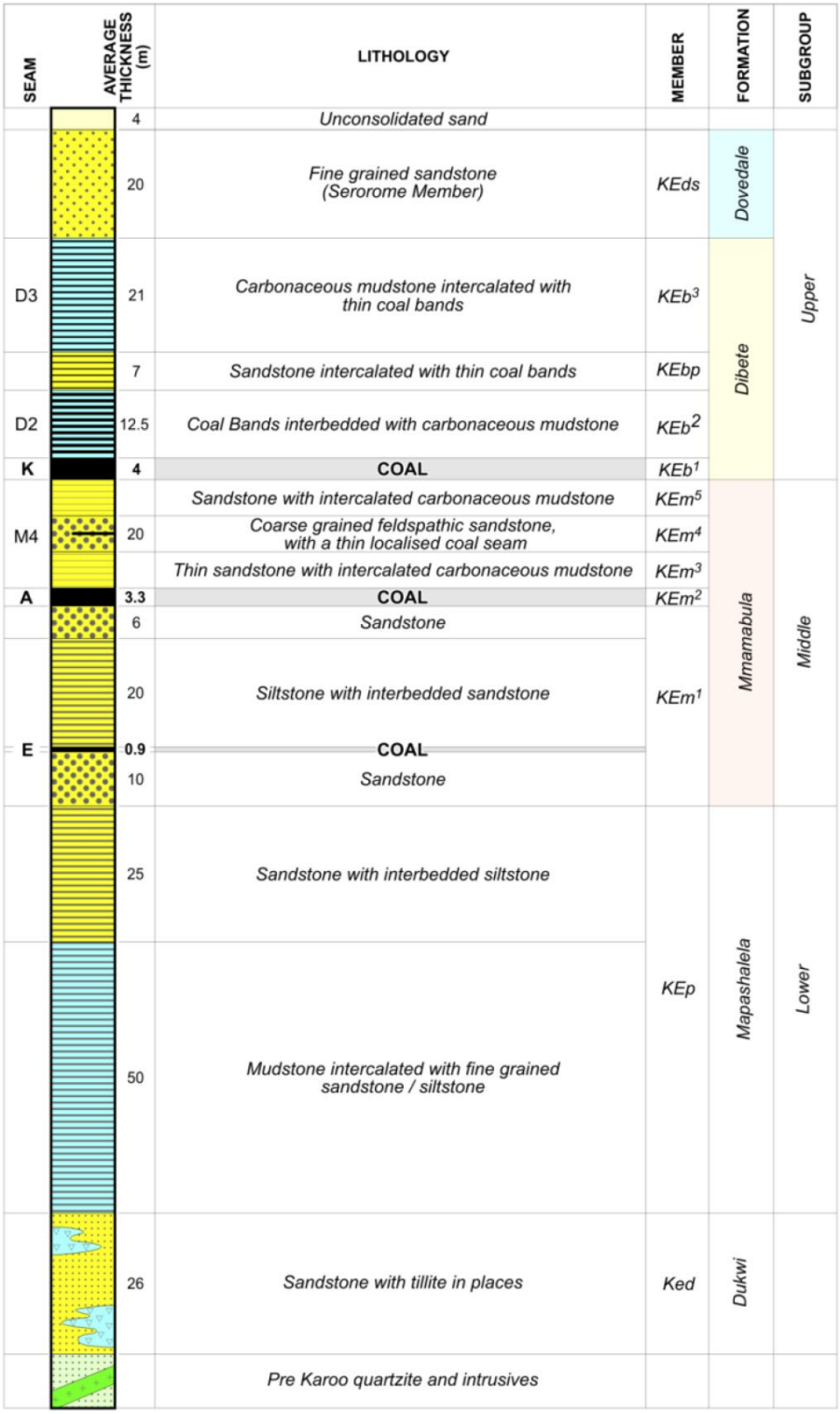

Diagram 6 – Stratigraphy of Mmamabula West geology including positions of SK, SA and SE coal seams

APPENDIX 1: Global Coal Resources for African Energy's Coal Projects in Botswana

Sese JV Project (AFR 33%, FQML 67%): Resource Summary (Raw coal on an air-dried basis)								
Resource Zone	**In-Situ Tonnes***	**CV (MJ/kg)**	**CV (kcal/kg)**	**Ash %**	**IM%**	**VM%**	**FC%**	**S %**
MEASURED (Bk-C)	325 Mt	17.6	4,200	30.1	7.9	20.6	41.5	2.1
MEASURED (Bk-B)	304 Mt	16.0	3,820	34.8	7.4	20.3	37.6	1.6
INDICATED	1,663 Mt	15.4	3,700	38.4	6.8	18.7	34.1	2.0
INFERRED	126 Mt	14.2	3,400	41.4	6.4	18.8	31.2	2.2
TOTAL	**2,418 Mt**							

Sese West Project (AFR 33%, FQML 67%): Resource Summary (Raw coal on an air-dried basis)								
Resource Zone	**In-Situ Tonnes***	**CV (MJ/kg)**	**CV (kcal/kg)**	**Ash %**	**IM%**	**VM%**	**FC%**	**S %**
INFERRED	2,501 Mt	14.6	3,500	40.2	6.1	19.8	31.9	2.0
TOTAL	**2,501 Mt**							

Mmamabula West Project (AFR 100%): Resource Summary (Raw coal on an air-dried basis)								
Resource Zone	**In-Situ Tonnes***	**CV (MJ/kg)**	**CV (kcal/kg)**	**Ash %**	**IM%**	**VM%**	**FC%**	**S %**
MEASURED	**17 Mt**	**22.2**	**5,300**	**19.6**	**7.3**	**24.8**	**48.2**	**1.6**
INDICATED	**1,061 Mt**	**20.4**	**4,875**	**24.4**	**6.1**	**26.5**	**43.1**	**1.5**
INFERRED	**1,858 Mt**	**20.3**	**4,850**	**24.7**	**5.8**	**26.2**	**43.4**	**1.6**
TOTAL	**2,935 Mt**							

Mmamantswe Project (AFR 100%): Resource Summary (Raw coal on an air-dried basis)								
Resource Zone	**In-Situ Tonnes***	**CV (MJ/kg)**	**CV (kcal/kg)**	**Ash %**	**IM%**	**VM%**	**FC%**	**S %**
MEASURED	978 Mt	9.5	2,270	56.5	3.9	15.8	21.8	2.0
INDICATED	265 Mt	7.9	1,890	62.3	3.3	14.2	18.1	2.1
INFERRED	N/A							
TOTAL	**1,243 Mt**							

** In-Situ tonnes have been derived by removing volumes for modelled intrusions, burnt coal and weathered coal and then applying geological loss factors to the remaining Gross In-Situ Tonnes*

The Coal Resources quoted for the Mmamantswe Project in the table above have been defined in accordance with the practices recommended by the Joint Ore Reserves Committee (2004 edition of the JORC Code). The coal resources quoted for Sese, Sese West and Mmamabula West are reported as per the 2012 edition. There have been no material changes to any of the Sese, Sese West and Mmamantswe resources since they were first announced.

APPENDIX 2: List of drillholes and associated coal seam intercepts

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
BC34	386950	7369703	1127	165.3	SK	98.5	6.8	N/S	N/S
					SA	134.3	4.7	N/S	N/S
					SE	155.8	0.2	N/S	N/S
BC42	379510	7369683	1119	246.6	SK	176.6	7.0	N/S	N/S
					SA	214.0	5.3	N/S	N/S
					SE	230.3	0.8	N/S	N/S
BC54	372419	7369605	1115	234.3	SK	160.9	6.7	N/S	N/S
					SA	197.4	4.9	N/S	N/S
					SE	211.1	1.0	N/S	N/S
BC58	369726	7362568	1130	180.3	SK	55.0	5.0	N/S	N/S
					SA	89.6	3.7	17.7	29.5
					SE	104.2	1.2	21.9	19.7
BD35	386869	7374505	1117	150.0	SK	30.0	5.0	N/S	N/S
					SA	61.5	5.0	N/S	N/S
					SE	80.0	1.0	N/S	N/S
BM02	372241	7356782	1140	267.3	SE	246.3	1.0	N/S	N/S
BM03	372355	7362353	1129	138.5	SK	69.0	5.0	N/S	N/S
					SA	104.6	4.3	18.9	26.7
					SE	118.3	0.9	N/S	N/S
BM04	372245	7367122	1121	186.4	SK	118.8	7.6	19.8	27.0
					SA	158.0	3.6	20.6	23.3
					SE	171.3	1.0	24.5	13.5
BM05	372549	7372196	1102	249.4	SK	170.6	6.6	N/S	N/S
					SA	204.7	5.3	19.6	25.9
					SE	218.5	0.9	N/S	N/S
BM06	377445	7372277	1104	183.5	SK	123.0	5.6	20.8	25.2
					SA	158.3	4.7	21.7	19.3
					SE	170.6	0.9	N/S	N/S
BM07	375197	7364959	1127	132.2	SK	99.2	4.5	20.6	21.8
BM08	377486	7362599	1130	153.0	SK	89.1	5.7	20.2	26.1
					SA	129.8	5.3	20.6	22.0
					SE	141.9	0.3	N/S	N/S
BM09	377077	7356852	1141	219.2	SE	205.3	1.6	N/S	N/S
BM11	381696	7362824	1134	159.4	SK	98.3	4.6	20.3	26.8
					SA	137.8	5.3	21.0	20.7
					SE	157.6	0.4	N/S	N/S
BM12	381888	7367174	1128	173.2	SK	121.4	5.2	21.6	22.3
					SA	155.9	6.0	20.4	23.3
BM13	381973	7372215	1111	216.2	SK	157.4	6.8	20.0	27.8
					SA	193.7	2.7	N/S	N/S
					SE	203.6	0.1	N/S	N/S
BM14	386894	7372129	1124	186.1	SK	121.6	5.6	20.9	22.9
					SA	152.6	1.7	20.1	27.9
					SE	174.7	0.3	N/S	N/S
BM15	386804	7367188	1129	188.4	SK	130.6	4.6	19.5	27.3
					SA	169.5	3.4	21.6	18.5
BM16	386947	7362783	1131	117.2	SK	55.0	2.0	N/S	N/S
					SA	77.0	2.0	N/S	N/S
					SE	103.4	2.3	11.2	54.6
BM19	370015	7364795	1125	184.4	SK	130.4	6.3	21.3	23.0
					SA	170.4	2.0	19.4	25.8
					SE	183.2	1.1	23.7	15.5

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
BM20	370285	7369649	1097	216.3	SK	148.8	5.2	19.6	29.9
					SA	184.8	4.7	20.6	23.5
					SE	200.3	1.5	24.3	16.0
BM21	370169	7374705	1084	123.2	SK	46.0	5.0	N/S	N/S
					SA	76.8	3.6	18.4	29.3
					SE	89.2	1.2	25.1	11.8
BM22	375153	7372169	1110	144.4	SK	77.0	7.0	N/S	N/S
					SA	112.7	4.9	21.1	21.7
					SE	125.3	1.2	25.6	10.6
BM23	374791	7367173	1124	180.3	SK	114.4	5.1	19.1	28.4
					SA	148.9	2.9	20.0	24.0
					SE	163.1	1.2	21.4	23.5
BM24	374817	7362577	1130	153.4	SK	75.0	4.0	N/S	N/S
					SA	116.5	4.9	20.4	21.6
					SE	133.1	0.8	N/S	N/S
BM25	374535	7356838	1141	246.2	SE	220.4	0.5	N/S	N/S
BM27	379733	7362491	1133	165.4	SK	103.2	6.0	19.8	27.1
					SA	141.9	4.5	22.4	17.5
					SE	154.8	0.5	N/S	N/S
BM28	379479	7367118	1125	183.3	SK	111.3	7.3	18.5	30.5
					SA	145.2	5.0	20.6	21.7
					SE	160.0	0.1	N/S	N/S
BM29	379729	7372326	1109	237.1	SK	171.8	7.9	19.4	28.0
					SA	210.0	4.3	21.4	20.0
					SE	221.0	0.5	N/S	N/S
BM31	384362	7369727	1125	174.2	SK	103.0	6.8	19.9	27.1
					SA	138.0	1.7	18.7	27.7
					SE	162.5	1.8	N/S	N/S
BM32	384319	7365107	1132	171.1	SK	103.8	4.5	20.5	26.1
					SA	139.9	6.4	19.1	27.7
					SE	161.3	0.8	N/S	N/S
BM33	386921	7365107	1131	160.8	SK	50.0	2.0	N/S	N/S
					SA	72.0	2.0	N/S	N/S
					SE	97.5	1.7	N/S	N/S
BM36	384356	7372183	1119	204.1	SK	140.7	5.2	20.6	25.0
					SA	180.4	2.6	19.7	27.6
					SE	199.0	0.2	N/S	N/S
BM37	384404	7367085	1130	189.5	SK	127.5	7.0	19.5	26.8
					SA	167.1	4.7	21.9	22.9
					SE	186.0	0.4	N/S	N/S
BM39	381976	7369729	1124	222.3	SK	164.9	6.2	19.3	29.2
					SA	201.8	4.4	17.9	30.6
					SE	213.5	0.4	N/S	N/S
BM40	382036	7374727	1103	119.8	SK	65.0	2.0	N/S	N/S
					SA	94.9	4.7	19.5	25.4
					SE	106.0	0.1	N/S	N/S
BM41	379851	7374529	1089	129.3	SK	54.0	1.0	N/S	N/S
					SA	85.5	4.7	N/S	N/S
					SE	96.0	0.1	N/S	N/S
BM43	379391	7364963	1130	168.3	SK	120.6	7.8	19.7	27.9
					SA	157.8	3.7	21.6	20.4
BM45	376574	7359485	1137	204.6	SK	163.8	5.2	20.6	26.9
					SA	194.4	4.3	18.5	29.3
BM46	377494	7365019	1126	168.2	SK	101.5	6.3	N/S	N/S
					SA	139.0	1.3	21.5	18.9

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
					SE	150.0	0.1	N/S	N/S
BM47	377269	7369605	1114	234.5	SK	167.1	8.1	19.8	28.1
					SA	206.7	5.9	21.0	20.9
					SE	220.2	0.8	N/S	N/S
BM48	377469	7374605	1092	111.3	SK	54.0	2.0	N/S	N/S
					SA	81.3	4.9	20.6	22.0
					SE	92.4	0.6	N/S	N/S
BM49	374998	7369664	1117	214.9	SK	163.3	5.2	20.2	27.0
					SA	199.5	4.8	20.9	22.5
					SE	213.9	1.0	21.4	22.8
BM53	372143	7364796	1127	177.1	SK	108.1	2.6	19.5	28.9
					SA	147.2	2.9	20.5	23.1
					SE	161.6	1.1	24.8	12.1
BM55	372669	7374605	1086	117.3	SK	48.0	5.0	N/S	N/S
					SA	78.1	3.6	N/S	N/S
					SE	87.5	1.1	N/S	N/S
BM56	370403	7372242	1085	213.5	SK	149.3	5.1	18.8	31.1
					SA	181.4	4.0	19.5	26.6
					SE	195.9	2.0	N/S	N/S
BM57	370119	7366879	1116	162.4	SK	98.3	4.6	19.4	28.8
					SA	129.7	4.8	18.1	29.8
					SE	145.1	1.4	N/S	N/S
MMW002	382879	7362947	1132	164.9	SK	95.2	6.3	20.7	27.4
					SA	137.0	3.8	23.1	21.2
					SE	156.2	0.3	N/S	N/S
MMW003	381808	7362992	1133	155.9	SK	96.3	4.0	18.4	29.1
					SA	137.8	4.6	19.8	21.4
MMW004	380852	7362962	1133	164.9	SK	105.5	5.8	21.4	25.3
					SA	144.4	4.7	24.0	18.8
					SE	163.5	0.3	N/S	N/S
MMW005	379955	7362956	1133	164.9	SK	113.0	1.1	23.5	20.0
					SA	147.5	4.5	23.5	20.2
					SE	160.6	0.5	N/S	N/S
MMW006	379831	7364076	1132	161.9	SK	104.2	5.1	20.3	28.4
					SA	139.9	4.3	25.2	16.0
					SE	152.6	0.4	N/S	N/S
MMW007	380848	7364109	1132	155.9	SK	97.9	5.8	20.8	27.0
					SA	133.9	4.8	23.7	19.7
					SE	150.6	0.3	N/S	N/S
MMW008	381885	7364138	1133	152.9	SK	92.6	5.4	20.7	27.5
					SA	123.7	4.3	22.9	21.6
					SE	141.7	0.2	N/S	N/S
MMW009	382840	7364070	1134	148.0	SK	84.9	3.8	22.1	23.9
					SA	121.9	4.5	23.5	20.3
					SE	140.1	0.3	N/S	N/S
MMW010	382872	7365065	1132	162.8	SK	93.7	7.5	N/S	N/S
					SA	130.5	3.8	25.0	16.3
					SE	148.0	0.1	N/S	N/S
MMW011	380805	7365015	1131	179.8	SK	118.3	5.1	22.8	21.8
					SA	154.0	4.0	23.3	20.7
					SE	168.0	0.1	N/S	N/S
MMW012	379811	7365047	1132	176.9	SK	121.5	4.3	22.2	23.4
					SA	154.9	4.1	24.3	18.0
					SE	171.9	0.9	N/S	N/S
MMW013	378883	7365105	1129	182.9	SK	121.4	4.8	22.1	23.8

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
					SA	158.9	4.3	22.8	21.8
					SE	173.6	0.7	N/S	N/S
MMW014	378770	7366288	1127	188.9	SK	121.1	4.4	21.5	25.2
					SA	157.0	5.2	23.6	19.8
					SE	170.3	0.2	N/S	N/S
MMW015	379812	7366276	1126	176.9	SK	118.6	4.1	20.1	28.7
					SA	154.0	4.6	23.3	20.5
					SE	170.7	0.4	N/S	N/S
MMW016	380828	7366260	1128	179.9	SK	122.9	7.5	21.7	24.4
					SA	159.0	4.6	22.2	22.9
					SE	171.0	0.4	N/S	N/S
MMW017	381864	7366316	1130	182.9	SK	122.6	5.8	21.9	24.4
					SA	158.8	4.1	23.8	19.5
					SE	177.3	0.2	N/S	N/S
MMW018	382877	7367470	1130	179.9	SK	131.0	5.5	20.9	26.6
					SA	161.5	6.1	20.9	26.8
MMW019	381856	7367442	1128	173.9	SK	117.1	7.8	21.8	24.3
					SA	153.2	4.1	21.4	25.7
					SE	170.2	0.5	N/S	N/S
MMW020	380820	7367429	1127	155.9	SK	104.0	6.3	N/S	N/S
					SA	136.7	4.5	22.9	21.7
					SE	147.5	0.2	N/S	N/S
MMW021	379803	7367399	1125	167.6	SK	110.4	7.1	20.2	28.7
					SA	144.2	4.8	22.7	22.1
					SE	158.0	0.4	N/S	N/S
MMW022	378785	7367390	1122	146.8	SK	89.0	3.0	N/S	N/S
					SA	120.3	4.4	22.4	22.9
					SE	133.9	0.5	N/S	N/S
MMW023	377743	7367371	1120	140.6	SK	75.0	5.0	N/S	N/S
					SA	110.8	4.6	22.1	23.3
					SE	125.0	0.7	N/S	N/S
MMW024	378819	7362942	1132	164.7	SK	103.6	6.2	20.1	28.9
					SA	143.8	4.9	24.2	18.5
					SE	157.4	0.3	N/S	N/S
MMW025	377802	7362949	1131	146.7	SK	88.9	4.4	N/S	N/S
					SA	126.0	6.2	21.4	25.5
					SE	141.4	0.3	N/S	N/S
MMW026	377806	7364060	1131	137.7	SK	88.1	2.3	N/S	N/S
					SA	119.5	4.2	23.5	20.2
					SE	131.6	0.4	N/S	N/S
MMW027	378785	7364069	1132	149.8	SK	101.4	2.9	N/S	N/S
					SA	138.9	4.8	22.8	22.0
MMW028	377803	7365095	1129	158.7	SK	101.7	7.7	N/S	N/S
					SA	138.1	4.9	23.7	19.7
					SE	151.4	0.3	N/S	N/S
MMW029	377740	7366242	1125	149.8	SK	97.8	7.0	N/S	N/S
					SA	133.1	4.7	24.1	18.5
					SE	145.4	0.2	N/S	N/S
MMW030	384889	7366870	1130	173.4	SK	122.8	5.6	19.1	26.5
					SA	162.9	4.0	21.1	18.7
MMW031	384892	7366355	1132	163.6	SK	114.8	3.6	17.2	30.0
					SA	153.8	4.5	19.5	22.2
MMW032	384384	7366347	1133	153.2	SK	108.2	5.5	18.9	28.0
					SA	149.6	0.9	13.3	44.4
MMW033	384382	7366867	1130	173.6	SK	125.0	7.6	19.2	27.1

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
					SA	163.5	1.7	19.4	20.4
MMW034	383879	7366862	1128	170.7	SK	126.4	5.2	20.7	22.9
					SA	158.7	8.2	20.3	19.6
MMW035	378219	7366824	1122	212.9	SK	80.0	4.0	N/S	N/S
					SA	109.7	4.8	17.1	28.9
					SE	125.0	0.1	N/S	N/S
MMW037	383351	7366340	1129	163.6	SK	113.3	7.3	20.2	24.0
					SA	150.1	3.8	21.1	18.0
MMW038	384554	7364105	1134	136.6	SK	70.0	4.0	N/S	N/S
					SA	109.4	3.3	20.7	18.7
					SE	127.5	0.3	N/S	N/S
MMW039	384538	7362971	1131	160.7	SK	73.0	4.0	N/S	N/S
					SA	114.3	5.9	19.9	21.9
					SE	135.2	1.6	N/S	N/S
MMW040	383150	7368400	1127	185.2	SK	141.6	7.7	19.8	25.9
					SA	175.3	4.7	18.7	24.8
MMW042	381832	7368409	1127	157.4	SK	112.0	5.6	18.6	28.0
					SA	147.2	3.4	18.4	23.8
MMW043	380603	7368382	1127	172.9	SK	120.6	3.9	18.3	29.4
					SA	158.7	3.9	19.7	23.0
					SE	172.4	0.5	N/S	N/S
MMW044	379418	7368369	1122	172.5	SK	126.8	5.6	19.8	25.1
					SA	162.3	3.4	20.5	19.6
MMW045	378280	7368361	1116	178.0	SK	129.1	5.7	19.1	27.2
					SA	167.0	4.3	20.0	20.7
MMW046	377141	7368344	1119	157.7	SK	105.3	6.8	19.4	25.5
					SA	140.4	4.6	21.0	18.6
					SE	154.2	0.5	N/S	N/S
MMW047	375912	7368359	1122	146.3	SK	95.0	5.0	N/S	N/S
					SA	133.3	4.7	N/S	N/S
MMW048	374791	7368351	1123	186.0	SK	123.7	6.0	21.1	21.7
					SA	159.4	4.7	20.4	21.4
					SE	174.1	0.8	N/S	N/S
MMW049	373476	7368335	1120	202.6	SK	154.4	6.5	20.4	22.7
					SA	190.3	4.8	20.5	20.4
MMW050	372155	7368325	1119	211.5	SK	162.7	6.7	19.4	26.9
					SA	199.0	4.9	20.4	21.1
MMW051	371153	7368367	1113	199.6	SK	151.6	6.4	19.1	26.2
					SA	191.0	3.9	19.5	23.4
MMW052	370122	7368340	1102	145.5	SK	125.8	3.2	21.0	22.9
MMW053	371110	7367362	1116	173.5	SK	111.6	6.0	21.2	20.8
					SA	148.3	3.7	20.0	22.7
					SE	162.1	1.1	N/S	N/S
MMW054	373502	7367461	1124	186.0	SK	137.5	6.5	18.8	26.9
					SA	173.8	3.4	21.1	19.3
MMW055	376026	7367483	1122	157.6	SK	80.0	5.0	N/S	N/S
					SA	117.2	3.8	19.7	24.3
					SE	131.4	0.5	N/S	N/S
MMW057	374810	7366251	1126	181.6	SK	130.2	7.6	19.7	25.2
					SA	168.2	4.8	19.3	23.9
MMW058	373448	7366238	1125	178.2	SK	124.6	4.7	17.0	31.9
					SA	159.4	4.2	19.4	23.8
					SE	172.4	0.8	N/S	N/S
MMW059	372221	7366219	1122	151.4	SK	121.4	5.7	20.1	23.6
MMW060	371082	7366215	1120	137.7	SK	88.8	6.7	20.0	24.2

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
					SA	125.2	5.3	18.0	27.8
MMW062	371061	7364932	1125	169.8	SK	123.3	7.8	20.8	22.3
					SA	159.0	3.8	19.5	22.7
MMW063	372318	7364922	1127	157.6	SK	112.6	6.2	19.7	26.0
					SA	147.9	2.2	N/S	N/S
MMW064	373548	7364947	1128	160.6	SK	108.5	6.5	19.1	27.0
					SA	145.9	4.0	18.9	25.2
MMW065	370010	7363950	1126	136.5	SK	85.0	7.4	21.0	21.7
					SA	125.7	2.5	19.1	25.8
MMW072	377985	7373987	1094	137.8	SK	54.0	1.0	N/S	N/S
					SA	82.2	3.0	21.9	17.7
					SE	91.8	0.4	N/S	N/S
MMW074	382016	7373986	1102	103.8	SK	52.0	2.0	N/S	N/S
					SA	81.0	1.4	19.8	22.6
					SE	94.9	1.0	N/S	N/S
MMW075	384605	7374171	1113	130.5	SK	70.0	5.0	N/S	N/S
					SA	101.5	2.4	N/S	N/S
					SE	122.1	0.7	N/S	N/S
MMW077	372013	7364019	1129	130.6	SK	83.2	5.2	22.1	21.2
					SA	120.0	3.4	20.3	21.2
MMW078	368897	7363192	1127	92.1	SK	43.5	1.9	N/S	N/S
					SA	71.4	0.6	20.4	23.1
					SE	83.7	1.1	23.8	14.7
MMW079	367990	7363013	1125	100.5	SK	49.0	3.0	N/S	N/S
					SA	76.8	4.0	N/S	N/S
					SE	91.4	1.1	N/S	N/S
MMW080	367945	7361993	1128	103.7	SK	45.0	2.0	N/S	N/S
					SA	80.6	1.5	18.1	27.7
					SE	95.7	1.3	25.3	8.0
MMW081	368946	7362017	1129	181.5	SK	51.0	0.7	N/S	N/S
					SA	80.2	1.9	19.1	26.3
					SE	94.8	0.9	25.6	9.2
MMW082	368970	7363995	1124	136.5	SK	90.4	5.7	19.9	26.6
					SA	126.7	1.0	N/S	N/S
MMW083	367995	7364019	1121	124.7	SK	77.8	5.4	18.7	28.7
					SA	112.7	3.0	19.7	23.6
MMW084	367996	7364970	1119	136.7	SK	90.5	5.4	19.6	26.6
					SA	126.7	3.9	18.6	26.0
MMW085	368978	7365071	1121	121.5	SK	110.8	5.5	20.5	24.0
MMW086	368895	7366048	1118	147.6	SK	99.1	4.6	18.2	31.8
					SA	137.7	3.1	19.0	25.7
MMW087	368994	7367045	1115	148.7	SK	101.7	4.2	19.9	27.1
					SA	137.9	2.9	18.5	28.7
MMW088	367990	7366014	1117	136.7	SK	94.8	2.0	20.8	23.5
					SA	126.5	3.4	20.2	22.9
MMW089	367972	7367021	1114	144.1	SK	98.5	4.3	N/S	N/S
					SA	132.9	3.6	N/S	N/S
MMW090	367990	7367985	1111	157.7	SK	109.5	4.5	18.5	30.2
					SA	145.1	3.5	19.7	24.1
MMW091	368948	7368023	1109	157.7	SK	111.3	2.7	19.5	26.9
					SA	146.2	3.5	15.8	33.8
MMW092	367969	7369049	1090	166.6	SK	114.2	4.6	18.5	30.6
					SA	147.3	3.2	18.5	28.5
					SE	162.0	0.1	N/S	N/S
MMW093	367970	7370016	1094	181.8	SK	135.4	4.2	19.6	27.3

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
					SA	170.3	3.6	19.6	24.2
MMW107	369975	7362017	1129	217.7	SK	55.0	5.0	N/S	N/S
					SA	91.7	4.0	20.2	23.9
					SE	107.3	1.0	23.3	15.3
MMW108	371071	7362018	1129	131.7	SK	55.0	5.0	N/S	N/S
					SA	98.0	5.9	9.7	54.1
					SE	116.7	1.2	N/S	N/S
MMW109	371999	7361991	1130	142.5	SK	69.0	3.0	N/S	N/S
MMW121	371099	7362960	1128	136.6	SK	60.0	5.0	N/S	N/S
					SA	100.5	4.1	13.9	41.5
					SE	117.5	0.9	N/S	N/S
MMW123	373052	7362959	1129	139.5	SK	75.0	5.0	N/S	N/S
					SA	109.5	4.9	18.8	25.5
					SE	125.1	0.8	24.3	12.9
MMW124	374005	7362943	1131	121.5	SK	60.0	5.0	N/S	N/S
					SA	93.2	4.8	20.3	21.5
					SE	108.2	0.6	23.6	14.8
MMW126	373010	7363997	1129	130.3	SK	75.0	5.0	N/S	N/S
					SA	109.1	4.7	19.0	24.4
					SE	124.3	1.2	23.8	14.4
MMW127	373731	7364347	1128	133.6	SK	81.9	5.7	20.2	24.9
					SA	118.9	4.7	20.2	23.7
MMW128	374962	7363995	1129	166.8	SK	100.5	7.5	19.6	26.7
					SA	138.2	5.5	19.8	22.3
					SE	154.3	0.8	N/S	N/S
MMW129	375988	7364020	1130	142.6	SK	93.1	6.1	19.8	25.9
					SA	127.1	2.1	21.8	17.1
					SE	139.6	0.2	N/S	N/S
MMW130	379504	7364012	1130	146.7	SK	102.9	5.0	20.5	25.9
					SA	139.1	4.4	21.9	18.5
MMW133	381992	7364496	1133	137.7	SK	87.6	5.5	20.5	26.0
					SA	124.9	4.1	21.5	20.2
MMW136	381501	7366002	1133	168.8	SK	121.7	6.6	20.3	26.3
					SA	159.1	4.2	21.8	18.9
MMW137	378639	7365543	1130	161.8	SK	115.6	5.8	20.6	26.5
					SA	149.6	5.0	21.4	18.9
MMW141	381497	7365000	1132	159.7	SK	113.3	6.5	19.2	29.2
					SA	151.3	3.1	22.1	18.3
MMW142	382000	7365001	1131	136.8	SK	88.5	7.3	19.9	27.8
					SA	125.2	4.2	21.7	19.4
MMW143	382501	7365000	1132	135.2	SK	88.4	7.3	19.6	27.7
					SA	126.4	4.1	22.1	17.8
MMW144	381505	7364002	1131	139.6	SK	92.6	5.4	19.7	29.0
					SA	129.3	4.1	21.7	20.4
MMW145	381498	7364501	1132	157.7	SK	113.5	5.5	19.5	29.4
					SA	148.3	2.5	20.4	22.6
MMW146	382503	7364001	1134	137.7	SK	88.0	5.0	N/S	N/S
					SA	127.5	4.3	21.5	19.6
MMW147	382501	7364500	1133	118.7	SK	75.0	5.0	N/S	N/S
					SA	111.6	3.9	21.5	20.5
MMW148	382999	7364501	1132	118.8	SK	75.0	3.0	N/S	N/S
					SA	108.8	4.3	22.0	18.5
S016	366594	7362217	1123	161.5	SK	91.5	4.5	N/S	N/S
					SA	127.5	4.5	N/S	N/S
					SE	145.1	0.3	N/S	N/S

Hole ID[1]	Easting[2]	Northing[2]	Elevation[3]	Max. Depth (m)	Seam	Depth to Seam Roof (m)	Seam Thickness (m)	Average CV (MJ/kg)	Average Ash (%)
S017	381797	7365044	1133	135.0	SK	90.2	6.2	N/S	N/S
					SA	130.7	1.6	N/S	N/S
S019	374631	7364854	1128	165.0	SK	108.0	5.0	N/S	N/S
					SA	146.0	4.7	N/S	N/S
					SE	161.3	0.9	N/S	N/S
S020	365655	7364609	1104	148.0	SK	82.5	4.7	N/S	N/S
					SA	113.0	2.0	N/S	N/S
S029	375296	7374712	1097	268.0	SK	60.0	5.0	N/S	N/S
					SA	95.6	4.8	N/S	N/S
					SE	107.1	1.0	N/S	N/S
S034	384305	7374625	1110	166.4	SK	70.0	5.0	N/S	N/S
					SA	102.5	4.2	N/S	N/S
					SE	121.2	0.5	N/S	N/S
WMA1A	383162	7366159	1131	176.7	SK	112.7	7.1	20.7	27.3
					SA	150.4	3.8	22.0	21.3
					SE	167.1	0.3	N/S	N/S
WMA2A	376367	7371281	1113	236.8	SK	181.2	6.8	19.8	29.5
					SA	217.2	4.8	21.8	20.2
					SE	230.9	1.0	24.5	17.1

Notes: 1. African Energy and Asenjo drillholes with prefix MMW, Aquila with prefix WMA, CdF holes with prefix BC-BD-BM, Shell drillholes with prefix S.

2. All holes were drilled vertical.

3. Coordinates provided in WGS84 UTM Zone 35S

4. Elevation in metres above mean sea level

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut Faces, 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• Most recently, two methods of drilling were used in the African Energy Resources Limited (AFR) Mmamabula West drilling programmes, namely polycrystalline diamond open-hole rotary mud drilling (PCD) and diamond core drilling (DD). • PCD was used as pre-collars for diamond drilling. • AFR submitted only core samples for laboratory analysis. Sampling of core holes commenced only after receipt of the borehole's "down the hole" geophysical wire-line log. Density contrasts as indicated by the geophysical logs in combination with lithological variations as indicated from visual inspection of the core and from the geology lithological log were used as the major parameters in determining sample intervals in the coal zones. In instances where no density logs were available (i.e. due to a blocked hole), then samples were selected on lithological variations as indicated from visual inspection of the core and from the geological log. • Coal analyses were conducted on air dried core samples at ALS Global Witbank and Inspectorate coal laboratories using industry standard methods to determine the Apparent Relative Density (ARD), Proximate Analysis, Calorific Value (CV) & Total Sulphur. • Downhole geophysical wire-line logs were used to assist with the correlation of coal seams where PCD pre-collars had drilled beyond initial coal intersections. • Historical holes drilled by Shell Coal Botswana Pty Ltd (Shell) were cored from surface. Lithological logs have been obtained for the Shell holes. • Historical holes drilled by Charbonnages de France (CdF) were typically pre-collared from surface and then cored through the key coal horizons. Lithological logs, as well as proximate and washing data have been obtained for these holes. • Historical holes drilled by Aquila Coal (Africa) Pty Ltd (Aquila) were typically pre-collared from surface and then cored through the key coal horizons. Lithological logs, as well as proximate and washing data have been obtained for these holes. • Immediately prior to AFR acquiring the Mmamabula Project, two main programs were drilled by Asenjo Energy Botswana (Pty) Ltd (Asenjo). Holes were pre-collared from surface and then cored through the key coal horizons. Lithological logs, downhole geophysical wire-line logs as well as proximate and washing data have been obtained for these holes.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• AFR PCD (pre-collar) – 123mm diameter, drilled to the first indication of coal • AFR DD consisted of wire-line triple tube core drilling to produce HQ3. • AFR also completed 4 large diameter (PQ core) holes (pre-collared with PCD) to collect larger samples for "metallurgical" style testwork. In total, 7 were attempted to be drilled but 3 were abandoned due to casing issues. All PQ holes twinned PCD/HQ holes.

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
		• All DD and PCD/DD holes were drilled vertically and as a result core holes were not routinely orientated. • The Shell holes were core holes. No further information is available. • The CdF, Aquila and Asenjo holes were typically pre-collared to first indication of coal and then cored producing HQ core size.
Drill sample recovery	• *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.*	• PCD chips were not submitted for analysis and as a result assessment of recovery is not material in assessing coal quality. • For AFR drilling, the drill site geologist monitored the drilling of each core run with the driller. On completion of each drilling run, the driller would supply a depth of hole which would be recorded on a core block inserted into the core tray at the relevant position. • Core recovery and RQD measurements were completed by the geologist while the core was laid out on the drilling rack. The delivered core would be measured and a core recovery would be calculated. Where <95% recovery was achieved in a coal horizon then a re-drill of the hole would, in general, be called for. In situations where poor ground conditions prevailed then a re-drill may have been waived. • Triple tube rods were used for core drilling to maximise recovery. • No sample bias has been established. • No recovery information is available for Shell holes. • The logs reviewed for the CdF holes include recovery information for the coal intervals. • The Aquila and Asenjo logs all include recovery data.
Logging	• *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, Face, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• PCD chips were collected at 1 metre intervals at the rig and subsequently logged for lithology, stratigraphy, oxidation, grain size and colour. In addition, intervals were logged for sorting, roundness, clast size, clast sorting, clast roundness, cement and mica where appropriate. Lithological logging was verified against downhole geophysical logs. • Core holes were geologically logged for lithology, stratigraphy, oxidation, grain size and colour. In addition, intervals were logged for sorting, roundness, clast size, clast sorting, clast roundness, cement and mica where appropriate. Lithological logging was verified against downhole geophysical logs. • Core recoveries and RQD's were logged for all AFR, Asenjo and Aquila cored intervals, as well as for the coal intervals of the CdF holes. No material core recovery issues were identified. • Core photos are available for all the AFR drill core and some of the Asenjo core (although of lesser quality). No core photos exist for the Shell, CdF, or Aquila holes. • All accessible AFR boreholes were geophysically logged using a density/gamma combination sonde with the objective of describing coal seam depth, thickness and

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
		quality. Geophysical logging was completed by Gondwana Ventures (Pty) Ltd (GV) of Francistown, Botswana. • The majority of Asenjo holes were also geophysically logged using a density/gamma combination sonde. • Shell and CdF holes were logged for lithology only. • Drill holes have been logged to a level appropriate to support coal resource estimation.
Sub-sampling techniques and sample preparation	• *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.*	• AFR submitted whole core for coal quality analyses. All samples were prepared and analysed at either the ALS Global Witbank Coal Laboratory, or the Inspectorate M & L (Asenjo) / BV Inspectorate lab, both located near Johannesburg, South Africa. Both are SANAS ISO 17025 accredited laboratories. • Coal analyses were conducted on air dried core samples using industry standard methods to determine the Apparent Relative Density (ARD), Proximate Analysis, Calorific Value (CV) & Total Sulphur. • No information is available for Shell or CdF holes.
Quality of assay data and laboratory tests	• *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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• All AFR & Asenjo samples were prepared and analysed at either the ALS Global Witbank Coal Laboratory, or the Inspectorate M & L (Asenjo) / BV Inspectorate lab, both located near Johannesburg, South Africa. Both are SANAS ISO 17025 accredited laboratories. • All core samples were initially processed and analysed for Proximate Analysis, Total Sulphur, Calorific Value (CV) and Relative Density. Following reporting of this information from the laboratory, further instructions were issued to the laboratory to undertake wash tests only on a limited number of the samples. • When done, samples were composited prior to washing in order to derive an individual sample which was a maximum of 250cm long and representative of the local coal formation. This was managed by reference to geological descriptions, and the calorific values and ash content, the objective being to merge samples with similar CV's and Ash. • No information is available for Shell or CdF holes.
Verification of sampling and assaying	• *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.*	• AFR's coal quality sampling procedures and results have been reviewed by AFR's independent geological coal specialist consultants, Gemecs Pty Ltd (South Africa). • 4 AFR holes were twinned by larger diameter core (PQ). • AFR's sampling and logging processes are well documented and applied across the numerous drilling campaigns at both Mmamabula West and the adjacent Sese deposit. Field data was regularly emailed to a database administrator in Perth

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
		where information was captured to drillhole database management software (DataShed™). Regular reviews of the database were conducted by AFR consultants. • No adjustments were applied to assay data. • All geophysical logs were compared to geological logs and laboratory coal sample analyses.
Location of data points	• *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 standard coordinate system for the Mmamabula West Coal Project is Universal Transverse Mercator projection (Zone 35S) using datum WGS84. • AFR and Asenjo hole positions were surveyed using a combination of GPS and DGPS. • DGPS checks were also completed on a handful of historic holes during a 2011 DGPS survey by Asenjo. The survey confirmed collar locations as per historic maps. • Topographic information was sourced from the Shuttle Radar Topography Mission (SRTM) website from the US Geological Survey's EROS Data Centre (http://srtm.usgs.gov/index.php). • All holes were draped to the SRTM Digital Elevation Model. The difference between the draped and DGPS RL was relatively consistent. Draped collars were used in the resource estimation. • The quality and adequacy of topographical control has been deemed adequate for use for reporting Coal Resources.
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.*	• Drillhole spacing at Mmamabula West is typically 1km x 1km with the northern part of the resource 2.5km x 2.5km. A small portion is infilled to 500m x 500m. The spacing of points of observation is sufficient for the establishment of grade and geological continuity considering the style and classification of the coal resource. • Multiple samples were often taken per drill hole for individual seams. Length and density weighted sample compositing was applied to obtain overall seam quality information for the points of observation.
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.*	• The coal seams at Mmamabula West are parallel stratigraphic layers with shallow dip (less than 1°). Drill holes are all orientated vertically resulting in near true width intersections. Considering the geological and structural setting of the coal seams, the orientation of drill holes relative to the seams is likely to have achieved unbiased sampling.
Sample security	• *The measures taken to ensure sample security.*	• After collection at the field camp all AFR core samples were dispatched by vehicle to the town office in Francistown, where the required export and permit documentation were processed prior to the samples being dispatched by courier to South Africa (to ALS Global's Witbank Laboratory or to Inspectorate). A Francistown based courier collected samples at the office in Francistown and delivered them to the labs South Africa.

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Site visits were completed by senior personnel from AFR (Managing Director and CP geologist Dr Frazer Tabeart) and from their independent geological coal specialist consultants, Gemecs Pty Ltd (South Africa).

Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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* • *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.*	• Mmamabula West is located on Prospecting Licence PL56/2005 (100% owned by Phokoje Power (Pty) Ltd, a wholly owned subsidiary of AFR) which covers approximately 230 km^2. • To the best of the Company's knowledge, the project is not subject to any encumbrances (other than standard government royalties).
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• During the mid-1970's, Shell conducted a regional traverse of drilling in the Mmamabula area and completed 104 bore holes between in the area. Samples from the holes were analysed and reported but Shell considered the coal quality to not be of interest at the time. • CdF continued exploration with 83 boreholes in the area in the early 1980's. • Of the Shell and CdF holes, 50 are located within the Mmamabula West Prospecting Licence • Aquila and Asenjo followed with 108 holes between 2007 and 2011.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Mmamabula West coal deposit occurs in the southern belt of the Central Kalahari sub-basin, one of several Permo-Carboniferous Gondwana depositional sub-basins in the region. The coal resource occurs within Lower Karoo aged sediments and is typified by a relatively thick coal zone occurring in close proximity to the basal unconformity between the Karoo Supergroup and the Precambrian Basement. Sediments are relatively flat-lying with mostly gentle dips (<3°, average 0.5-1°). • The Mmamabula West deposit is interpreted to have formed under inferred temperate climatic conditions in a fluvio-deltaic to lacustrine palæo-environment possibly partially concurrent with rift-basin development. Available evidence suggests that the coals represent a predominantly flood-plain or meander-belt type deposit with the extensive development of peat swamps towards the base of the "coal measures" sequence. • The coal measures in the western Mmamabula Coalfield comprise numerous coal seams interbanded with coaly mudstones, carbonaceous shales and siltstones and

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
		sandstones of variable thicknesses. There are however three seams that have developed to economic thicknesses, namely the SK, SA and SE Seams.
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, including easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus 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.*	• Refer to Appendix 2.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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.*	• Length weighted averages were used to report exploration results. • No minimum seam thickness was applied when interpreting the geological model and correlating the seams across the Mmamabula West deposit area. • Partings were selected using a minimum interval of 0.5m between coal plies. • Cut-off were applied to seam thickness and coal qualities in the resource reporting – see below.
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 (eg 'down hole length, true width not known').*	• Vertical drill holes have intersected coal seams nearly perpendicularly due to the shallow dip of seams (<1°). All vertical drillhole intervals reported can therefore be regarded as true width.
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.*	• Refer to Diagrams 2 to 6 - and Appendix 2.
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.*	• Comprehensive reporting of drill details has been provided in the drill results reported in Appendix 2.
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.*	• All meaningful and material exploration data have been reported.

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
Further work	• *The nature and scale of planned further work (eg 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.*	• No further exploration work is currently planned.

Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

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.*	• AFR field data was regularly emailed to a database administrator in Perth where information was captured to drillhole database management software (DataShed™). Extensive reviews of the database were conducted by AFR consultants. • Lithological and sampling intervals were compared against downhole geophysical logs. Suspected data entry errors were identified, investigated and where appropriate corrected. • Laboratory generated CV and Ash data was plotted against geophysical probe data as an additional quality control check.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	• The co-Competent Persons for this resource, Dr Frazer Tabeart, has visited the site between 2012 and 2016 including for both AFR's 2015 and 2016 drilling programs. • During site visits, all aspects of field activities including drilling practices, geological logging and sampling procedures and downhole logging were inspected.

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.*
		• The general procedure for geological evaluation of coal resources were as follows:
		  ○ Capture, verification and tabulation of borehole data.
		  ○ Determination of indicated geological trends and anticipated coal resource limits.
		  ○ Review of geological structures affecting the coal deposits and interpretation of geological structure (dolerite sills and dykes).
		  ○ Interpretation and review of borehole data (physical and chemical properties of the coal).
		  ○ Re-correlation of coal "zones" and seams/"plies" to conform to a "standard" nomenclature.
		  ○ Processing of borehole data in terms of Coal Seams and Coal "Plies".
		• Geological modelling was performed using a combination software including Seequent's Leapfrog® Geo and GEOVIA Surpac™.

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
		• The main coal seams modelled including the SK and SA seams plus also the SE (lower) seam. Due to its limited seam thickness, the SE forms only a very minor portion of the Mmamabula West coal resource reporting. • Sufficient confidence in the geological interpretation and continuity exist to support the classification of the Inferred Coal Resource.
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 Mmamabula West Coal Resource on the area of AFR PL strikes for approximately 20 x 15km and dips very gently to the north. The average depth to the SK seam in the resource area is approximately 115-135m (minimum of 78m and maximum of 181m), while the average depth to the SA seam is 120-160m (minimum of 71m and maximum of 230m) and the SE seam is 136m (minimum of 83m and maximum of 185m).

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 (eg 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.*
		• A two-dimensional block model (consisting of a single 1m block in the Z direction) was created for the purpose of estimating and reporting quality and structure using GEOVIA Surpac™. Laterally blocks sizes were set to 50m (X) by 50m (Y).
		• For each coal seam a roof, floor and composite ply thickness surface was created in ARANZ Leapfrog Geo software using the points of observation obtained from drilling data. The 50m x 50m block model grid was draped over each of the surfaces to determine an elevation or thickness at each grid point. This information was then imported into the Surpac "structure" block model as an attribute.
		• Raw coal qualities were estimated in the "quality" block model for each seam using the Inverse Distance Squared (ID2) interpolation method in GEOVIA Surpac™. Qualities modelled and reported are: RD (Relative density), CV (Calorific Value), AS (Ash), IM (Inherit Moisture), VM (Volatile matter) and TS (Total Sulphur. All qualities reported are on an air-dried basis. FC (Fixed carbon) is reported as difference.
		• Base of oxidation was used to exclude coal resources over the entire deposit area.
		• Physical coal parameter limits or cut-offs were applied to the In Situ tonnage estimation as follows:
		  ○ Minimum seam thickness of 1m un-weathered coal to define seam limits.
		  ○ Prospecting Permit boundaries.
		  ○ A resource area defined by the maximum allowed 4km by 4km average drillhole spacing (see Diagram XX).
		  ○ No dolerites dykes appear to affect the coal in the resource area – all coal Dry Ash Free Volatiles, lithological logs and available geophysics were checked to confirm this.

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on an air dried basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Coal quality cut-offs were applied to the In Situ tonnage estimation as follows:

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
		○ Composited seam thickness of greater than or equal to 1m. ○ Ash (%) less than or equal to 50%. ○ Calorific Value greater than or equal to 8 MJ/kg. • In addition, further percentage reductions in the reported resource has been applied for potential geological losses. The reported resource is thus stated as TTIS (total tonnes in-situ). • The percentage reductions include: ○ Measured – 5%. ○ Indicated – 10%. ○ Inferred – 15%.
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.*	• Based on the depth to seam roof and the seam thickness modelled, the potential mining methods considered to date are primarily underground mining. Further technical studies are required to determine the optimal mining methods. • A minimum seam thickness of 1m was applied to the resource in order to reflect the reduced selectivity associated with underground mining of coal seams.
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.*	• Detailed processing test work has been completed using coal from the measured area of the Mmamabula West Coal Resource. Mmamabula West deposit coal has been demonstrated to be suitable feedstock for power generation and the potential also exists to create an export quality product through washing.
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 greenfields 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.*	• At the current stage of the project there are no limiting environmental factors. • The Company routinely measures water levels and analyses ground water quality in a series of drill holes throughout the project area. Approximately five years of such baseline data have now been collected.
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.*	• Air dried Apparent Relative Densities (ARD's) were determined at ALS Witbank and Inspectorate using the standard Archimedes method. • Weighted average densities were calculated for each seam at the points of observation. Densities for each seam were subsequently estimated to the Block Model using the ID^2 Method.

APPENDIX 3: JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie 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.*	• A Measured, Indicated and Inferred Coal Resource has been estimated for the Mmamabula West deposit. The resource adequately reflects the confidence as determined by the drill spacing and the geological model. • The Coal Resource estimate appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No 3rd party reviews or audits of the resource have been completed. External audits and reviews for Mmamabula West is limited to geophysical probe data, drilling and sampling practices and database integrity.
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 relative accuracy of the Coal Resource estimate is reflected in the reporting of the Coal Resource as per the guidelines of the 2012 JORC Code. • The statement relates to global estimates of tonnes and grade. • No production data is available.