

ABN 48 116 296 541



## **EXCHANGE RELEASE**

## Minemakers delivers maiden Inferred Resource for Baobab Rock Phosphate Project in Republic of Senegal

11 May 2015

- Maiden Inferred Mineral Resource of 68 million tonnes @ 22% P<sub>2</sub>O<sub>5</sub> at an 18% P<sub>2</sub>O<sub>5</sub> cut-off for the Gadde Bissik prospect, part of the wider Baobab Project
- Inferred Resource of 25 million tonnes @ 23% P<sub>2</sub>O<sub>5</sub> estimated within the Small Mine Permit application area of 5km<sup>2</sup> at Gadde Bissik East
- Initial metallurgical test work demonstrates significant upgrade potential using simple wet screening techniques
- Positive resource estimate reinforces rationale for Minemakers proposed acquisition of Baobab Mining and Chemical Corporation SA (see release 27 April 2015)
- Small Mine Permit application submitted; approval expected shortly allowing near-term production opportunity

#### Introduction

Minemakers Limited ("Minemakers") is pleased to announce a maiden Inferred Mineral Resource, for the Gadde Bissik prospect, as part of the Baobab Mining and Chemical Corporation SA ('BMCC") phosphate project in the Republic of Senegal ("Baobab Project"). Minemakers recently announced its conditional agreement to acquire 100% of this potential near term rock phosphate production project, subject to shareholder approval.

The Baobab Project area covers a total of approximately 1,553km<sup>2</sup>. Within the Baobab Project area, the Gadde Bissik prospect of approximately 90km<sup>2</sup> was identified during excavation of water wells in the 1950's. Minemakers has managed the exploration of the Gadde Bissik area for over a year, building up a comprehensive knowledge of the Baobab Project and its potential.

The Gadde Bissik resource estimates cover two areas designated as Gadde Bissik East and Gadde Bissik West respectively (Figure 3). The Gadde Bissik East Inferred Resource of 65 million tonnes @ 22% P<sub>2</sub>O<sub>5</sub> is estimated over an area of approximately 27km<sup>2</sup>. Within the Gadde Bissik East prospect,

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**Mr Rod Wheatley** 

CFO and Company Secretary, Minemakers Limited

an area of approximately  $5 \text{km}^2$  has been identified with thicker, higher, grade mineralisation. This area, the Small Mining Permit ("SMP") area, has an Inferred Resource estimated at 25 million tonnes @ 23%  $P_2O_5$ . Gadde Bissik West covers approximately  $10 \text{km}^2$ , and has an Inferred Resource estimated at 3 million tonnes @  $21\% P_2O_5$ .

For the combined resource areas, phosphate mineralisation is 2-12 metres thick and lies within 11-51 metres of the surface. The mineralisation is overlain by sand which is expected to allow for open pit mining via free dig excavation.

An application for a SMP was submitted in March 2015 and, if granted, will allow mining activity within this area without limitation of output volume.

Initial beneficiation test work shows that a wet screening process can significantly upgrade the phosphate, significantly decrease aluminium and marginally decrease iron. Further test work is underway to investigate potential for cleaning iron from the final product using magnetic separation to supplement, if required, exclusion of higher iron mineralisation during potential mining.

An Exploration Target of approximately 45 to 60 million tonnes at  $P_2O_5$  grades of approximately 19 to 22% has been estimated for the broader areas that lies to the east and west of Gadde Bissik East, with a combined area of  $54 \text{km}^2$ . These estimates are based on broad spaced drilling. The potential quantities and grades are conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain that future exploration will result in estimation of a Mineral Resource.

Exploration opportunities to the east of Gadde Bissik provide the potential for further discoveries of phosphate mineralisation along a 30 kilometre linear trend.

The following table summarises estimated resources at a  $P_2O_5$  cut-off grade of 18%. The figures in this table are rounded to reflect the precision of estimates and include rounding errors.

	GADDE BISSIK RESOURCE TABLE – EFFECTIVE DATE 11/05/2015								
PROS	SPECT	CATEGORY	TONNES (million)	P <sub>2</sub> O <sub>5</sub> (%)	CaO (%)	MgO (%)	Al <sub>2</sub> O <sub>3</sub> (%)	Fe₂O₃ (%)	SiO₂ (%)
	Within SMP area	Inferred	25	23	31	0.10	2.0	3.1	38
Gadde Bissik East	Outside SMP area	Inferred	40	21	29	0.14	2.4	3.9	39
	Combined	Inferred	65	22	30	0.12	2.2	3.6	38
Gadde Bissik West		Inferred	3	21	29	0.13	4.3	4.7	35
Total Gadde Bissik		Inferred	68	22	30	0.12	2.3	3.6	38

A NI43-101 Technical Report will be filed on SEDAR before the 10 June 2015.

Figure 1 Map of Republic of Senegal



Figure 2 Tenement location and current Gadde Bissik project area.



Dinguisaye K. MoE Fat Kaône LEGEND Diekinane Wd mbo A: SMP Inferred Resource 1,655,000 mN B: Gadde Bissik East Inferred Resource Tieul K. Assane Kane Mbouy C: Gadde Bissik West Inferred Resource D: Exploration Target Khaye Batti/Kane K. Makhoudia Golbi Assane Kouré eur Dam Air core hole Golbi Teug Yadou E G Ndari Diop / Rip Diamond hole Tiagal Ngayène Sadou Fal Diamond/air core twin Baba Garage Nda Ndari Gad Ndiawagne Ndourène Tieul Mber 1,650,000 mN Darou Diop K Mass Ndiaye Dankh Mdieulbe E Mbari Diamm E -Ndieulhèr Ndiano 1,650,000 mNbaye Dioung Mbalène Ndiobél Tiale Gnik Ndiagne Ndioufdiouf Darou Ngyêr Daradji Keur Diarde Ndioufene Lala

Keur Samba Kane Gandal E Keur Abdou Sal Mbèr Sitor Sorékh Samba Tal Ndianga Gad Bissik Gap E H Ndiarno Rikadji Gouye Dok K. Dieumb Dia Gad Dianga Darou Tioump Thilmakha Ndioum/ Ndiamsil Khairé Magnagne Gawane Ndiourene Niokhor Fal Darou Tiệp Panathie Neliarga Tiénène Ngangouné E Ndiaye Tiệp

Maka

Tassar (E) 00 Ndieng

Kalom Mbadiane

Ndioth

**Figure 3** Resource areas outlines and drill hole location plan.



#### **Mineral Resource and Exploration Potential**

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Drilling within the study area comprises 332 air core (AC) and 33 diamond holes for 13,285 metres of drilling. Assay results are pending for 46 AC holes which infills portions of the SMP area to around 125 metres by 125 metres spacing. Drill hole spacing for assayed holes varies from around 250 metres by 250 metres in central portions to around 1 kilometre by 2 kilometres in peripheral areas.

Mineralised drill hole intervals were generally sampled over one metre down-hole intervals and analysed by XRF for a suite of attributes including P2O5 with LOI determination by thermogravimetric analysis. All assaying was undertaken by SGS, with sample preparation in Dakar, Senegal and analysis at either Lakefield in Canada or Booysens in South Africa with these analytical laboratories contributing around three quarters and one quarter of the resource dataset respectively.

AC samples were taken on site using a three-tiered riffle splitter under the supervision of a BMCC geologist. A duplicate sample was taken at about the rate of 1 per 20 originals. Samples were placed in polyweave bags and transferred to BMCC staff on site each day and taken to the BMCC base where certified reference standards and coarse blanks were inserted into the sequence. Standards and blanks

Rinto

were inserted into the sample stream in batches of 6 for approximately every 50 original samples. Sample were kept in a locked room until transferred to the SGS Laboratory in Dakar by a company employee.

Composites from air core drilling provide around 95% of the resource dataset with diamond holes contributing around 5%. Information available to demonstrate the reliability of sampling and assaying includes standards, blanks, field duplicates, and recovered sample weights. Additional confirmation of the general reliability of the AC dominated resource dataset is provided by results of 9 twinned diamond holes drilled within 10 metres of AC holes.

MPR Geological Consultants Ltd consider that the sample quality information confirms the reliability of the sampling and assaying with sufficient confidence for the current Inferred estimates. There are, however some aspects of the sampling and assaying that MPR consider to warrant further investigation as assessment of the project continues.

The key potential concern over sample quality is the highly variable sample recovery and association between low recoveries and higher phosphate grades for one of the AC rigs used for the resource drilling. Samples from this rig contribute around 12% of the resource composites, and uncertainty over their reliability does not significantly impact confidence in the current Inferred resource estimates.

Inferred Mineral Resources were estimated for two areas tested by generally 500 metres by 500 metres and closer spaced drilling and designated as Gadde Bissik East and West respectively. Potential mineralisation in more broadly sampled areas is too poorly defined for estimation of Mineral Resources, and represents Exploration Targets.

The mineralised domain used for the current study captures one-metre down-hole composites of nominally greater than  $10\% \ P_2O_5$ . The domain is commonly bound by underlying marls and limestones, and overlying sands. It trends east-west over approximately 21 kilometres with an average width of around 4.4 kilometres.

Gadde Bissik East which includes the SMP area covers an area around 9 kilometres east-west by around 3 kilometres north-south with an average interpreted mineralised thickness of approximately 4 metres. Gadde Bissik West covers an area around 4.5 kilometres east-west by around 2.3 kilometres north-south with mineralisation interpreted to average around 2.4 metres thick. For the combined resource areas, mineralisation is overlain by an average of 30 metres of overburden, and extends to a maximum depth of around 54 metres.

Immersion density measurements are available for 64 diamond core samples, including 45 mineralised samples. The measurements suggest an average value of around 1.8 t/m³ for mineralisation. For the current estimates, this value was discounted by10%, reflecting the lack of wax coating and air drying for the density measurements, giving a value of 1.6 t/bcm.

Grades were estimated by Ordinary Kriging of one metre down-hole composites within the mineralised domain. Prior to variogram modelling and resource estimation, the mineralised domain composites were unfolded to remove the gentle undulations from the mineralised domain. The Kriged estimates were refolded to their correct positions in the compiled block model.

Peripheral portions of the potential mineralised area tested by drill holes spaced at consistently greater than 500 metres by 500 metres have insufficient drilling for estimation of Mineral Resources. Broadly spaced drilling in these areas suggests the presence of an Exploration Target of around 45 million tonnes to 60 million tonnes at approximately  $19 - 22 \% P_2O_5$ .

The Exploration Target estimates are derived from portions of the Ordinary Kriged model based on approximately 1 kilometre by 1 kilometre to 2 kilometres by 1 kilometre spaced drilling reported at a  $P_2O_5$  cut-off grade of 18% with appropriate factoring and rounding to generate a range of tonnages and grades.

Exploration drilling aimed at testing parts of the Exploration Target is planned to commence later this year, after the wet season.

Detailed information in regard to the Mineral Resource and Exploration Target estimates are included as Appendix 4. A table of material drill data is included as Appendix 3. Additional relevant drilling data are contained in Minemakers' market release dated 27 April 2015.

#### **Project Development**

BMCC submitted an application for a SMP in March 2015. This covers future mining activity within an identified area of 5km². This area is the focus of the current exploration and resource development work. The SMP, when issued, will be subject to the submission of a satisfactory Environmental Impact Statement and a Community Compensation and Relocation Plan.

Both of these work streams are well advanced and the SMP approval is expected in the near future.

Initial metallurgical investigations have demonstrated significant upgrade of phosphate from 22.0%  $P_2O_5$  to >30%  $P_2O_5$  using simple wet screening techniques. This process significantly reduces  $Al_2O_3$  and  $SiO_2$  grades, with current work focussing on further reducing  $Fe_2O_3$  grades. These outcomes provide the opportunity for a simple, physical separation step to produce potential high grade rock products to feed phosphoric acid production using the conventional "wet-acid" process.

Consequently, a program is underway to develop large bulk sample quantities from Gadde Bissik to further investigate potential highest value markets for this material.

Minemakers Managing Director and CEO Cliff Lawrenson said, "The maiden resource estimate for the Baobab Project confirms the potential we have been progressing with BMCC over the past year. This resource result exceeds our expectations and gives us great confidence that the Baobab Project has the potential to sustain long term profitable production utilising currently available logistics."

"The Small Mine Permit application lodged in March 2015 is progressing well and we expect to announce developments in relation to this permit soon. We are also continuing to progress our metallurgical test work which continues to demonstrate that wet screening can upgrade the resource to what we expect will be a marketable rock phosphate product."

"The proposed acquisition of BMCC strongly supports Minemakers core objective of pursuing potentially high quality, near-term production assets in the phosphate sector."

Cliff Lawrenson Managing Director

#### Competent Persons' and Qualified Person's Statement

The Mineral Resource estimates contained in this document are based on, and fairly represent, information and supporting documentation prepared by the competent persons named below.

The Qualified Person in relation to this document is Russell Fulton, who is the Geological Manager for Minemakers and a Member of the Australian Institute of Geoscientists, and who has reviewed and approved the information related to the current Mineral Resource estimates in this document. Mr Fulton has sufficient experience deemed relevant to 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' and a 'Qualified Person' as defined in National Instrument 43-101 – Standards of Disclosure for Mineral Projects. Mr Fulton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this document related to Exploration Targets and Mineral Resource estimates is based on information compiled by Jonathon Abbott who is a full time employee of MPR Geological Consultants Pty. Ltd. and is an independent consultant to Minemakers Limited. Mr Abbott, a Member of the Australian Institute of Geoscientists, has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is reporting to qualify as a Competent Person as defined in the 2012 edition of the Australian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves" and a 'Qualified Person' as defined in National Instrument 43-101 – Standards of Disclosure for Mineral Projects. Mr Abbott consents to the inclusion in this document of the matters based on the information compiled by him, in the form and context in which it appears.

For further information on the Senegal Phosphate Project please refer to Minemakers' market announcements dated 27 April 2015 ("Prior Announcement"). Minemakers is not aware of any new information or data that materially affects the information included in that Prior Announcement.

#### **Cautionary Statement Regarding Forward-Looking Information**

All statements, trend analysis and other information contained in this document relative to markets for Minemakers' trends in resources, recoveries, production and anticipated expense levels, as well as other statements about anticipated future events or results constitute forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Forward-looking statements are subject to business and economic risks and uncertainties and other factors that could cause actual results of operations to differ materially from those contained in the forward-looking statements. Forward-looking statements are based on estimates and opinions of management at the date the statements are made. Minemakers does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Investors should not place undue reliance on forward-looking statements.

#### Appendix 1

#### Senegal in Brief

#### **The Country**

Senegal is a multiparty democracy, demonstrating robust institutions, social and political rights, and freedom of expression: The country is a viewed as a model for Africa and is cited worldwide as an example and presents a moderate risk (Credit Risk International).



An influential player in Africa, Senegal is a signatory to international conventions protecting the environment, human rights, trade, copyright and employment law.

Extensive privatisation has profoundly transformed broad sectors of Senegal's economy. International investors are now present in strategic sectors including water, mining, telecommunications, energy, tourism and transportation.

#### **Transport Infrastructure**

Senegal has a dense and well maintained road network which ensures efficient movement of people and goods.

In 2009 a public-private partnership was formed to operate and maintain the Dakar - Diamnadio Highway. This has greatly improved mobility in and around the capital and traffic between the capital, the rest of the country and the import/export route into neighbouring Mali.



As a government priority, regional roads are also being built and renovated to further improve logistics within the country and the wider subregion, the existing 1060 kilometre railway provides potential for the transport of goods and raw materials, especially on the Dakar-Bamako (Mali) line, which gives access to the wider West African subregion. The successful integration of the rail network with port facilities promotes intermodal transportation.

#### **Airport Infrastructure**

Senegal boasts three international airports: Dakar, Saint Louis and Ziguinchor.

In order to cope with growing passenger and freight traffic the new Blaise Diagne International Airport located in Diass will open soon.

#### **Port Infrastructure**

Dakar is exceptionally well situated: 6 days from Europe and 7 days from America by sea. The Port Autonome de Dakar (PAD) provides well-protected deep water berths. All type of goods (bulk, dry and refrigerated containers, oil, petrol) can be stored for both import and export.

A major modernisation program is underway revolving around Dubai Port World's (DPW) management of the Container Terminal. This program involves significant investments to further improve logistics activities for the benefit of all economic sectors.





#### **Communications Infrastructure**

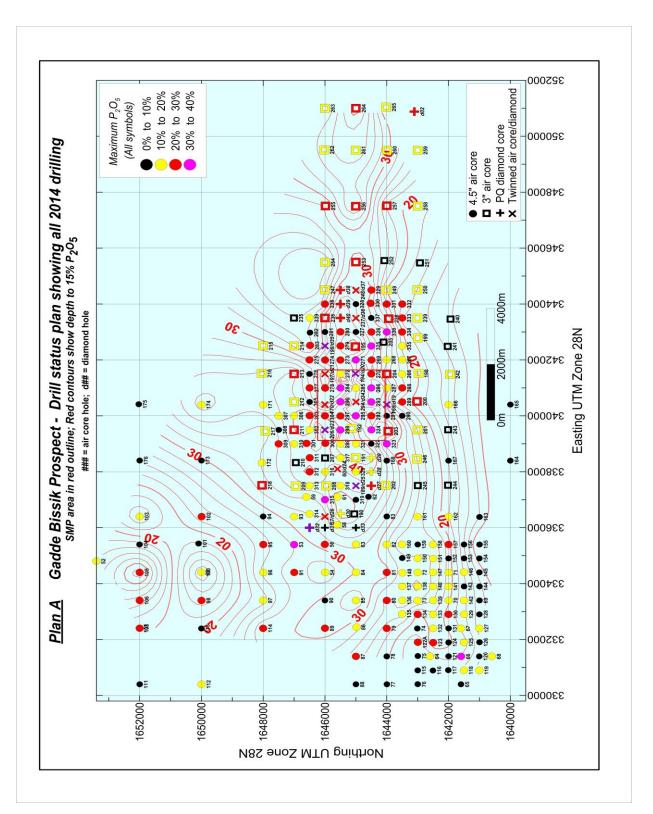
Viewed as the undisputed leader in West Africa, Senegal has a fully digitised network of efficient telecommunication with a 2,200 kilometre fibre optic network. It is linked to Europe, America, Asia and the Middle East through permanent cable connections.

#### Appendix 2

#### Drill hole location plans and representative cross-section

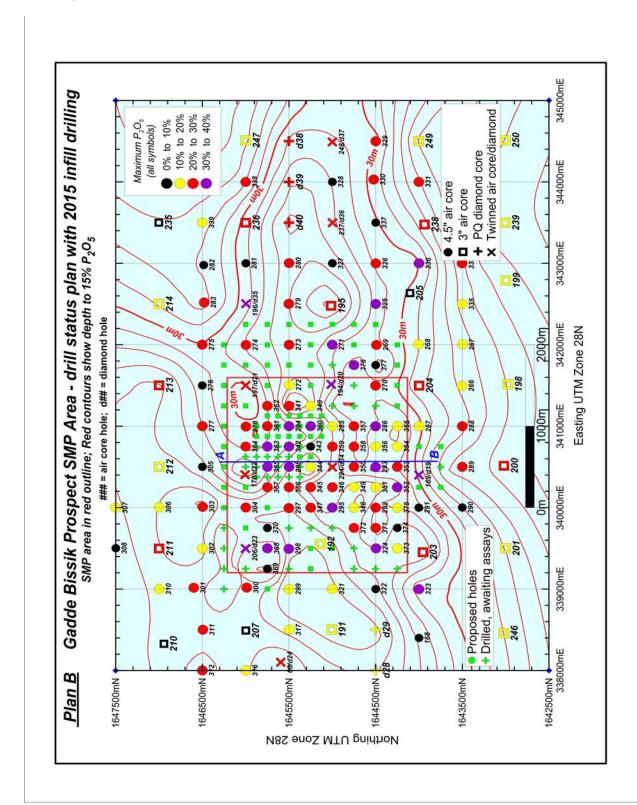
## Plan A - Gadde Bissik drill status plan

Plan A shows all drilling conducted in 2014 across the broader Gadde Bissik prospect. For clarity, 2015 infill drilling is shown in Plan B. No previous exploration drilling has been recorded in this area.



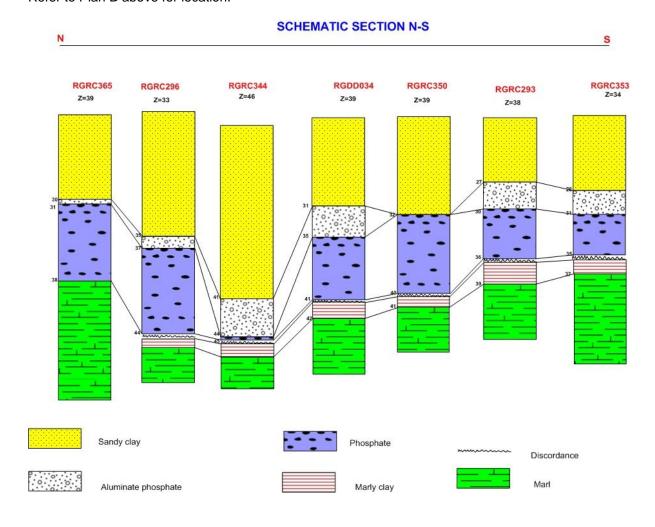
#### Plan B - Gadde Bissik Small Mine Permit area - drill status plan

Plan B shows 2014 drilling and 2015 infill drilling in and around the area of higher grade and thicker mineralisation now subject to a Small Mine Permit application. The blue A-B line denotes the location of the representative cross-section included below as Section A.



### Section A - Gadde Bissik SMP area - representative geological cross-section

Section A is a schematic geological cross-section oriented north-south at approximately 345000mE. Refer to Plan B above for location.



Appendix 3

Table of material drill intercepts for Gadde Bissik East Inferred Resource area. For drill hole location plans and drill hole intercept data for the SMP area, please refer to Minemakers' market announcement of 27 April 2015.

					Total	Mir	neralis	ation int	ercept d widt	-	age grade	over
Hole ID	Easting	Northing	RL	Dip	depth	From	То	Width	P <sub>2</sub> O <sub>5</sub>	Fe₂O₃ %	Al <sub>2</sub> O <sub>3</sub>	MgO %
RGRC0315	337001	1645999	37	-90°	43	34	43	9	19.0	5.27	4.60	0.47
						35	39	4	26.1	3.69	2.10	0.06
						37	39	2	32.5	2.30	1.14	0.07
RGRC0057	336398	1645999	32.6	-90°	42	32	39	7	21.0	3.72	2.30	<0.03
						33	36	3	25.0	3.71	1.30	<0.01
RGRC0189	337499	1644998	46	-90°	45	36	42	6	22.6	8.26	6.02	<0.21
						36	40	4	27.6	6.09	3.88	<0.04
						36	37	1	32.5	2.21	2.57	<0.01
RGRC0237	343498	1644998	43	-90°	42	34	40	6	16.9	2.98	2.41	0.39
						34	35	1	26.8	1.23	1.19	0.05
RGRC0333	343500	1643501	51	-90°	23	15	21	6	15.6	4.09	3.50	0.34
						18	20	2	21.6	1.31	1.91	0.03
RGRC0329	344499	1644499	55	-90°	38	31	36	5	18.0	2.54	3.36	0.37
						34	35	1	21.2	0.92	1.27	0.10
RGRC0309	339000	1647501	32	-90°	43	36	41	5	16.1	4.01	3.39	0.18
						37	38	1	22.5	4.57	2.38	0.06
RGRC0059	337101	1646600	31.2	-90°	42	33	38	5	15.9	3.90	3.15	0.17
RGRC0338	343998	1646001	50	-90°	32	25	29	4	26.1	2.84	1.38	0.06
						27	28	1	29.3	2.37	1.23	0.04
RGRC0060	338100	1645596	32.7	-90°	42	36	40	4	24.8	3.36	2.59	0.22
						36	38	2	27.3	2.40	0.95	< 0.01
RGRC0280	343002	1645499	39	-90°	45	37	42	4	24.6	5.85	1.99	0.06
						38	40	2	28.6	5.20	1.60	0.05
RGRC0236A	343499	1646000	37	-90°	38	31	35	4	22.4	2.13	1.63	0.10
						31	33	2	26.1	1.64	1.45	0.09
RGRC0248	344490	1645000	39	-90°	39	32	36	4	22.2	5.77	3.74	0.18
						32	35	3	23.5	4.56	2.28	0.06
RGRC0211	339499	1646999	46	-90°	47	40	44	4	20.5	7.99	2.59	<0.03
						41	43	2	24.4	4.24	2.42	<0.03
RGRC0330	344028	1644524	42	-90°	38	29	35	4	18.0	2.30	3.56	0.11
						30	31	1	24.7	2.60	2.56	0.08
RGRC0336	342999	1644001	40	-90°	37	31	34	3	24.6	0.54	1.17	<0.02
						31	33	2	30.6	0.42	0.98	<0.01
RGRC0326	342999	1644498	49	-90°	37	31	34	3	19.7	3.29	3.88	0.37
						32	33	1	23.7	0.68	2.03	0.09
RGRC0238A	343476	1643935	38	-90°	30	24	27	3	19.5	2.72	5.37	0.25
						25	26	1	25.6	0.74	2.50	0.08
RGRC0312	338001	1646500	43	-90°	47	41	44	3	17.6	4.27	2.90	0.09
						43	44	1	21.9	6.84	2.66	0.11
RGRC0311A	338501	1646495	40	-90°	45	39	42	3	17.0	3.91	3.83	0.08
					1	39	40	1	21.6	3.19	3.11	0.07
RGRC0249	344500	1644003	40	-90°	24	18	22	3	15.0	5.70	5.31	0.26
RGRC0247A	344511	1645999	41	-90°	29	23	26	3	14.6	2.83	2.19	0.10
RGRC0310	339000	1646998	41	-90°	36	31	34	3	12.8	3.31	4.12	0.12
RGRC0332	343999	1643499	51	-90°	23	18	20	2	24.6	3.69	4.84	0.09

Hole ID	Easting	Northing	RL	Dip	Total depth	Mineralisation intercept data (average grade over width)				over		
				·		From	То	Width	P <sub>2</sub> O <sub>5</sub>	Fe <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>	MgO %
						19	20	1	29.3	4.78	4.44	0.10
RGRC0331	344000	1644001	44	-90°	26	22	24	2	21.0	7.67	5.05	0.34
						22	23	1	23.5	0.93	2.00	0.04
RGRC0334	343000	1643502	52	-90°	24	19	21	2	18.2	1.98	3.58	0.06
						20	21	1	21.8	2.05	3.39	0.07
RGRC0306	340004	1646999	29	-90°	46	40	42	2	17.9	1.93	2.33	0.11
RGRC0191	338503	1645008	53	-90°	47	43	45	2	15.0	3.96	5.87	1.15
RGRC0307	340001	1647500	35	-90°	43	38	40	2	12.9	22.45	4.08	0.17
RGRC0318	337499	1645498	46	-90°	56	52	54	2	12.8	4.64	3.97	0.08
RGRC0316	338001	1645998	53	-90°	45	40	43	2	12.5	5.03	4.62	0.08
RGRC0267	342004	1643498	47	-90°	27	22	24	2	12.4	1.23	2.98	0.06
RGRC0208	337493	1645964	52	-90°	44	38	40	2	11.2	2.49	2.32	0.05
RGRC0335	342499	1643500	40	-90°	25	21	22	1	17.5	1.33	4.76	0.07
RGRC0061	337100	1645600	36.6	-90°	48	42	43	1	15.2	5.43	4.79	0.10
RGRC0313	337502	1646500	42	-90°	39	32	33	1	14.7	6.39	4.55	0.10
RGRC0314	336498	1646501	35	-90°	40	35	36	1	12.7	2.98	3.76	0.15
RGRC0320	337999	1644999	44	-90°	47	43	44	1	12.0	1.85	2.39	0.08
RGRC0212	340500	1646999	52	-90°	49	45	46	1	10.8	2.26	2.88	0.04
RGRC0317	338502	1645498	40	-90°	47	43	44	1	10.8	2.22	2.46	0.06
RGRC0058	336099	1645604	34.1	-90°	45	41	42	1	10.5	3.61	3.69	0.07
RGRC0207A	338491	1645998	48	-90°	42	33	39	6	5.6	4.37	3.80	0.05
						38	39	1	6.7	2.98	2.95	0.08
RGRC0308	339501	1647498	40	-90°	44	37	41	2	8.2	8.53	3.58	0.14
RGRC0328	344000	1644999	48	-90°	38	34	36	2	8.1	2.11	3.52	0.18
RGRC0266A	341497	1643503	50	-90°	28	24	25	1	8.4	12.50	6.90	0.27
RGRC0327	343000	1645000	46	-90°	44	40	41	1	6.4	0.81	1.08	0.06
RGRC0337	343502	1644500	43	-90°	36	32	33	1	5.7	5.02	6.78	0.55

Intervals restricted to those with  $\geq 10\%~P_2O_5$  except for holes with a maximum grade  $\leq 10\%~P_2O_5$ 

Maximum of 2 metres of internal waste excluded

# Appendix 4 JORC Code, 2012 Edition – Table 1 report template

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> </ul>	<ul> <li>Exploration and resource drilling undertaken in 2014 and 2015 by Agrifos, in association with Minemakers planning and program management includes air core (AC), reverse circulation (RC), and diamond core drilling.</li> <li>An earlier phase of exploration undertaken by Agrifos in 2012 is not considered material to the current Public Reporting.</li> <li>The database compiled for the current study comprises 463 AC, RC and diamond holes for 16,543 m of drilling, of which 332 AC and 33 diamond holes for 13,285 m lie with the Gadde Bissik area. This drilling includes 46 recently completed AC holes for which assay results are pending.</li> <li>AC drilling was undertaken by two rigs from IDC designated as the Schramm and Austex rigs, which contribute 83% and 12% of resource composites respectively. Composites from diamond holes provide 5% of the resource dataset.</li> </ul>
	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul> <li>All drilling and sampling was supervised by field geologists.</li> <li>RC and AC holes were sampled over 1 m down hole intervals with sub-sampling generally by riffle splitting. Around 2% of AC resource composites were collected by spearing.</li> <li>Diamond core was halved or quartered for assaying using a diamond saw.</li> </ul>
	<ul> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul> <li>Phosphate mineralisation is typically associated with elevated uranium grades. Hand-held radiation detection measurements were used to aid selection of intervals for assaying. These results were not used for resource estimation.</li> </ul>
	<ul> <li>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</li> </ul>	<ul> <li>All assaying was undertaken by SGS, with sample preparation in Dakar, Senegal and analysis at either Lakefield in Canada or Booysens in South Africa. Approximately three quarters of samples</li> </ul>

Criteria	JORC Code explanation	Commentary
	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.	<ul> <li>from the resource area were analysed at Lakefield and one quarter were analysed at Booysens.</li> <li>SGS's sample preparation comprised oven drying and crushing of the entire sample to 75% passing -2mm. A 1.5kg sub-sample collected by riffle splitting was pulverised to 85% passing -75 microns in a ring and puck pulveriser (SGS Method PRP89, PRP94).</li> <li>20g samples of pulverised material were air freighted to the analytical laboratory. A 0.2-0.5 gram sub-sample of the pulverised material was fused with lithium metaborate and analysed by XRF for P<sub>2</sub>O<sub>5</sub>, Al<sub>2</sub>O<sub>3</sub>, CaO, Fe<sub>2</sub>O<sub>3</sub>, K<sub>2</sub>O, MgO, MnO, Na<sub>2</sub>O, SiO<sub>2</sub> and TiO<sub>2</sub> (± Cr<sub>2</sub>O<sub>5</sub> and V<sub>2</sub>O<sub>5</sub>). (SGS Method XRF76C,V). LOI was determined gravimetrically at 1000°C.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>The RC drilling utilised face-sampling bits with diameters of 146 mm.</li> <li>The AC drilling utilised bit diameters of 134 to 136mm.</li> <li>All diamond drilling was triple tube, at 90 or 116mm diameters with rotary mud tri-cone pre-collars through un-mineralised overburden. Diamond core was not oriented.</li> <li>All Gadde Bissik drilling was vertical.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>RC sample recovery was assessed by weighing total recovered sample material. RC recoveries for the first 30 holes showed significant variation between holes with significant problems caused by the sandy overburden. High pressure air is likely to have caused widening of the hole at depth thus reducing air pressure and sample return. RC drilling was abandoned in favor of AC, and no RC holes lie within the current resource area.</li> <li>AC sample recovery was assessed by weighing total recovered sample material. The two AC rigs used showed comparable average recoveries, with a combined average for mineralised samples of around 70%. This value is slightly less than expectations for high quality AC sampling. Reasons for this trend are unclear. Additional investigations, including further bulk density measurements are ongoing.</li> <li>Samples from the Austex AC rig, which provide 12% of resource composites show considerable variability in sample recovery with average recovery from the first sample from each 3m rod proportionally around 40% lower than subsequent samples, and an</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>apparent association between lower recoveries and higher phosphate grades. Reasons for this trend are unclear, and investigations are ongoing.</li> <li>Samples from the Schramm rig which provide 83% of resource composites showed more consistent recoveries with no notable association between recovery and phosphate grade.</li> <li>Additional confirmation of the general reliability of AC sampling is provided by 9 twinned diamond holes which show similar average mineralisation thicknesses and phosphate grades to the paired AC holes.</li> <li>Diamond core recovery measurements based on recovered lengths for core runs are available for all holes and show an average recovery of 94% for mineralised intervals, which is consistent with good quality diamond drilling.</li> <li>Available information suggests that, with the exception of AC drilling from the Austex rig the resource sampling is reasonably representative and does not include a systematic bias due to preferential sample loss or gain.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>AC, RC and diamond holes were routinely geologically logged by industry standard methods with logs available for around 98% of resource area drilling.</li> <li>Sub-samples of AC and RC chips were retained in chip trays. Diamond core and AC and RC chip trays were routinely photographed.</li> <li>The geological logging is qualitative in nature, and of sufficient detail to support the current estimates.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</li> </ul>	<ul> <li>RC and AC samples were collected over 1 m down-hole intervals and generally sub-sampled with a three tier riffle splitter. Around 2% of AC resource composites were collected by spearing.</li> <li>The majority of RC and AC samples were dry, with very few samples logged as wet.</li> <li>Diamond core was halved or quartered for assaying using a diamond saw.</li> <li>Measures taken to ensure the representivity of RC and diamond subsampling include close supervision by field geologists, use of appropriate sub-sampling methods, routine cleaning of splitter and</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>cyclones, and rigs with sufficient capacity to provide generally dry RC and AC samples.</li> <li>Information available to demonstrate the representivity of AC and RC sub-sampling includes field duplicates and paired diamond holes.</li> <li>The available information demonstrates that the sub-sampling methods and sub-sample sizes are appropriate for the grain size of the material being sampled, and provide sufficiently representative sub-samples for resource estimation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Hand-held radiation detection measurements were used to aid selection of intervals for assaying. These results were not used for resource estimation.</li> <li>Assay quality control procedures include certified reference standards and coarse blanks. These results have established acceptable levels of precision and accuracy for the attributes included in the current Inferred resource estimates.</li> </ul>
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	No drill hole results are reported in this announcement.
assaying	The use of twinned holes.	<ul> <li>Diamond drilling includes 9 holes drilled within 10 m of AC holes. The twinned diamond and AC holes show similar mineralisation grades and thicknesses providing some confidence in the general reliability of the AC sampling.</li> </ul>
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul> <li>Sample intervals and geological logs were recorded on logging sheets and subsequently entered into desk-top or lap-top computers. These logs and laboratory assay files were merged directly into a central Micromine database.</li> </ul>
		<ul> <li>Database and geological staff routinely validate database entries with reference to original data.</li> </ul>
		<ul> <li>The Competent Person's independent checks of database validity included: Comparison of assay values with geological logging, comparison of assay values between nearby holes, checking for internal consistency between, and within database tables, comparisons between assay results from different sampling phases.</li> </ul>
		<ul> <li>Additional checking included comparing all database assay entries with laboratory source files and spot check comparison of depths and sample numbers between original field sampling sheets and database entries for 48% of assayed sample intervals.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>These checks showed no significant discrepancies in the database used for resource estimation.</li> </ul>
	Discuss any adjustment to assay data.	<ul> <li>No assay results were modified.</li> </ul>
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.	<ul> <li>Around 18% of resource composites are from holes with high accuracy differential GPS (DGPS) collar surveys. The remainder are from holes with collar locations measured by hand-held GPS.</li> <li>For holes with only hand-held GPS surveys, collar elevations were assigned from a DTM generated from DGPS surveys.</li> <li>Drill holes were not routinely down-hole surveyed.</li> <li>For the comparatively widely spaced and shallow vertical holes the lack of comprehensive differential GPS collar surveys and down-hole surveys and does not affect confidence in resource estimates.</li> </ul>
	Specification of the grid system used.	All surveying was undertaken in World Geodetic System (WGS84) Zone 28 coordinates.
	Quality and adequacy of topographic control.	<ul> <li>A triangulation representing topography was generated from DGPS collar surveys. The mineralisation does not outcrop and accuracy of the topographic triangulation does not affect resource estimates.</li> <li>Topographic control is adequate for the current estimates.</li> </ul>
Data spacing and distribution	Data spacing for reporting of Exploration Results.	<ul> <li>Drill hole spacing across the broader Gadde Bissik prospect varies from more than two kilometres by two kilometres in peripheral portions of the tenement to 125 metres by 125 metres in the SMP area. Assay results are pending for the 125 metres by 125 metres drilling, and the closest spaced assayed holes are generally at 250 by 250 m spacing.</li> <li>Most of the current resource areas has been tested by 500 by 500 m spaced drilling with a comparatively small area tested by 250 by 250 m spaced drilling.</li> <li>Potential mineralisation tested by drilling spaced at more than 500 metres by 500 metres to around 2 kilometres by 1 kilometre is too poorly defined for estimation of Mineral Resources, and represents Exploration Targets.</li> </ul>
	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.	The data spacing has established geological and grade continuity sufficiently for the current Inferred Mineral Resource Estimates.
	Whether sample compositing has been applied.	Drill hole samples were composited to 1 m down-hole intervals for

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>resource modeling.</li> <li>The mineralisation is flat lying to gently undulating, and perpendicular to the generally vertical drill holes.</li> <li>The drilling orientation achieves un-biased sampling of the mineralisation.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Sample collection for Agrifos drilling was supervised by Agrifos geologists using protocols established by Minemakers.</li> <li>The project is in a largely rural area with easy access to the general public. Samples selected for assaying were collected in heavy-duty polyweave plastic bags that were immediately sealed and placed inside an Agrifos vehicle. The bagged samples were then taken by Agrifos employees directly to the Agrifos site office in the regional town of Tivaouane where they were kept under lock and key. Samples were transferred to the Agrifos office in Dakar weekly where paperwork was prepared and samples then delivered directly to SGS in Dakar by Agrifos personnel. No contractors or third parties were permitted unsupervised access to samples before delivery to SGS.</li> <li>Results of field duplicates twinned holes, and the general consistency of results between sampling phases and drilling methods provide confidence in the general reliability of the resource data.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Data reviews have included comparisons between various sampling phases and methods which provide some confidence in the general reliability of the data.</li> <li>The Competent Person independently reviewed the quality and reliability of the exploration data. These reviews included observation of drilling and sampling, review of database consistency, spot check comparisons between original sampling sheets and database entries and comparison of laboratory source files with database entries, and review of QAQC information.</li> <li>The Competent Person considers that the sample preparation, security and analytical procedures adopted for the Agrifos drilling provide an adequate basis for the Mineral Resource estimates.</li> </ul>

## **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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Gadde Bissik project lies within Agrifos' 1553km² Research Permit "Cherif-LO Ngakham" in the region of Thies. The licence was renewed on 28 July 2014 for three years.</li> <li>A 5km² higher grade, more closely drilled portion, is the subject of a Small Mine Permit (SMP) application by Agrifos. Minemakers has entered into an agreement with Agrifos to acquire the tenement and certain fees and royalties apply, the nature of which are subject to confidentiality. The obligations in regard to fees and future royalties are not considered by the company to be commercially onerous. There are no known impediments to obtaining a licence to operate in the area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Data from an earlier phase of exploration by Agrifos is not considered material to this Public Reporting.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Gadde Bissik phosphate mineralisation is part of the widespread marine phosphate phase within the in the Middle Eocene (48.6 to 40.4 million years) Senegalese sedimentary basin. Phosphate mineralisation in the Gadde Bissik area is predominantly a product of dismantling and reworking of primary high grade "residual" phosphate deposits and subsequent deposition under palaeo-morphological control. The "reworked" deposits at Gadde Bissik are thicker and higher grade than typically recorded in the broader area and may indicate a more proximal source resulting in a lower degree of dilution through mixing with non-phosphatic material.</li> <li>The Gadde Bissik stratigraphic succession comprises a footwall of marl and marly clays, with locally overlying nummulitic limestone, discordantly overlain by the phosphatic sequences. The contact is typically marked by elevated iron levels within the marly clay. The main phosphatic unit comprises phosphate sands with hard and soft phosphate pebbles, phosphatic conglomerates and varying degrees of ferruginous gravels. The unit varies from 1 to 12 m thick with the thicker areas interpreted as lenticular or pod-like bodies. Grades vary from around 5 to 37% P<sub>2</sub>O<sub>5</sub>. Above the main phosphate unit a</li> </ul>

Criteria	JORC Code explanation	Commentary
		discontinues layer of white gravelly aluminum phosphate is locally developed with grades typically in the range of 1-5% $P_2O_5$ locally ranging up to 10%. Where present the layer varies from 1 to 5 m thick. The lower part of this unit grades into the main phosphatic unit in some places. The phosphatic units are overlain by clayey sands ranging from around 10 to 50 m thick.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	No drill hole results are reported in this announcement.
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> </ul>	No drill hole results are reported in this announcement.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Estimated resources do not include equivalent values.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	The mineralisation is flat lying to gently undulating, and perpendicular to the generally vertical drill holes, with down-hole lengths representing true thicknesses.
Diagrams	Appropriate maps and sections (with scales) and tabulations of	Included in text of announcement.

Criteria	JORC Code explanation	Commentary
	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.	
Balanced reporting	<ul> <li>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.</li> </ul>	No drill hole results are reported in this announcement.
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.	<ul> <li>Immersion density measurements are available for 64 diamond core samples, including 45 mineralised samples. The measurements, did not include oven-drying or wax coating and suggest an average value of around 1.8 t/m³ for mineralisation. For the current estimates, this value was discounted by around 10% reflecting the lack of wax coating and air drying giving a value of 1.6 t/bcm.</li> <li>Additional bulk density measurements, including and oven-drying and wax coating are planned.</li> <li>An initial metallurgical composite of 56 kg taken from 9 AC holes was tested at the University of Adelaide in September 2014. Results indicated that a simple wet screening process rejecting the &lt;212 micron fraction could upgrade material from a feed grade of ~22% to a product of ~33% P<sub>2</sub>O<sub>5</sub>. Approximately 55% of the P<sub>2</sub>O<sub>5</sub> was recovered and 60% of the feed weight was rejected. The composite had a cadmium level of &lt;30ppm and uranium levels &lt;100ppm.</li> <li>A second round of metallurgical test work undertaken at the University of Adelaide on 5 separate composites, comprised of approximately 300kg from 19 diamond drill holes confirmed the results of the first round of test work. Composite feed grades of 21-29.5% P<sub>2</sub>O<sub>5</sub> were able to be beneficiated to product grades of 31.4-36.6% P<sub>2</sub>O<sub>5</sub>. Other product grades ranged from 0.01-0.03% MgO, 0.5-1.1% Al<sub>2</sub>O<sub>3</sub>, 1.6-4.1% Fe<sub>2</sub>O<sub>3</sub> and from 7.3-16.6% SiO<sub>2</sub>. Cadmium and uranium levels in the second round of test work were higher that levels measured in the first round of test work and the combined results indicated cadmium levels in the 30-40ppm range and uranium levels in the 120-140ppm range for the &gt;212 micron fraction.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas,</li> </ul>	<ul> <li>Further infill drilling is being carried out within and around the SMP area, as well as drilling to recover samples for metallurgical and geotechnical test work prior to any proposed mining.</li> <li>Future exploration work is planned at a regional scale, starting at 4</li> </ul>

С	Criteria J	JORC Code explanation	Commentary
		provided this information is not commercially sensitive.	kilometres by 4 kilometres grid spacing.

## **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	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Database and geological staff routinely validate database entries with reference to original data.</li> <li>The Competent Person's independent checks of database validity included: Comparison of assay values with geological logging, comparison of assay values between nearby holes, checking for internal consistency between, and within database tables, and comparisons between assay results from different sampling phases.</li> <li>Additional checking included comparing all database assay entries with laboratory source files and spot check comparison of depths and sample numbers between original field sampling sheets and database entries for 48% of assayed sample intervals.</li> <li>These checks showed no significant discrepancies in the database used for resource estimation.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Geological setting and mineralisation controls of the Gadde Bissik mineralisation have been established from with sufficient confidence for the current estimates.</li> <li>Resources were estimated within wireframes representing mineralised domains interpreted on the basis of geological logging and P<sub>2</sub>O<sub>5</sub> assay grades with a nominal P<sub>2</sub>O<sub>5</sub> cut off grade of 10%. The domain is commonly bound by underlying marls and limestones, and overlying sands.</li> </ul>
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.	<ul> <li>The mineralised domain interpreted for the current study trends around 21 km east-west by around 4.4 km north south and includes areas tested by assayed drill holes at patterns varying from around 250 by 250 m to 2 km by 1 km. Only areas tested by generally 500 by 500 m and closer spaced drilling are included in estimated Mineral</li> </ul>

Criteria J	ORC 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.	Resources. Potential mineralisation in more broadly sampled areas is too poorly defined for estimation of Mineral Resources, and represents Exploration Targets.  The areas of 500 by 500 m and closer spaced drilling included in the current Mineral Resources include two zones designated as Gadde Bissik East and West respectively. The Gadde Bissik East zone includes the SMP area.  In the Gadde Bissik East zone the interpreted mineralised domain extends around 9 km east-west by around 3 km north-south. It ranges from 2 to rarely 12 m thick and averages around 4 m thick, with an average depth to mineralisation of approximately 34 m. Within the SMP area the interpreted domain averages around 5 m thick.  In the Gadde Bissik West zone the interpreted mineralised domain extends around 4.5 km east-west by around 2.3 km north-south. It averages around 2.4 m thick, with an average depth to mineralisation of 21 m.  For the combined resource areas, the depth to the base of mineralisation ranges from 13 to 54 m and averages around 34 m.  Resources were estimated by Ordinary Kriging of 1 m down hole composited assay grades within the mineralised domain.  The estimates include P <sub>2</sub> O <sub>5</sub> , Al <sub>2</sub> O <sub>3</sub> , CaO, Fe <sub>2</sub> O <sub>3</sub> , MgO and SiO <sub>2</sub> with variograms modeled for each attribute.  No upper cuts were applied to the estimates. This reflects the generally moderate variability of most attributes, and ameliorates the risk of understating secondary attribute grades.  Estimates included in Mineral Resources were generally extrapolated to a maximum of around half the drill hole spacing beyond drilling, with an extrapolation distance of generally around 250 m.  Grade estimation included a five pass, octant based search strategy. Search ellipsoid radii (east-west, north-south, vertical) and minimum data requirements for these searches comprise: Search 1 400x400x1 m (4 data), Search 2: 600x600x1.5 m (4 data), Search 3 600x600x1.5 m (2 data), Search 4 1500x1500x2 m (2 data) and Search 5 2250x2250x3 m (2 data).

Criteria	JORC Code explanation	Commentary
	The availability of check estimates, previous estimates and/or mine	<ul> <li>Mineral Resources include estimates from search passes 1,2,3 and 4 which contribute 15%,80%,5% and 0.1% of estimates respectively. Search pass 5 was used only for estimation of Exploration Targets.</li> <li>Micromine software was used for data compilation, domain wireframing, and coding of composite values, and GS3M was used for resource estimation.</li> <li>The estimation technique is appropriate for the mineralisation style</li> <li>There has been no production from the project, and no previous</li> </ul>
	production records and whether the Mineral Resource estimate takes appropriate account of such data.	<ul> <li>resource estimates.</li> <li>A comparative OK model estimated without un-folding gave similar estimates.</li> </ul>
	<ul> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> </ul>	<ul> <li>In addition to P<sub>2</sub>O<sub>5</sub>, the resource model includes estimates for Al<sub>2</sub>O<sub>3</sub>, CaO, Fe<sub>2</sub>O<sub>3</sub>, MgO, and SiO<sub>2</sub></li> <li>Estimated resources make no assumptions about recovery of byproducts.</li> </ul>
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	<ul> <li>Grades were Kriged into 125 by 125 by 1 m parent blocks (east, west, vertical). Plan-view dimensions of the parent blocks approximate half the assayed drill hole spacing in the closest drilled portions of the deposit. For un-folding and precise representation of interpreted domain volumes the parent bocks were re-blocked to dimensions of 25 by 25 m by 0.25 m.</li> </ul>
		<ul> <li>Grade estimation included a five pass, octant based search strategy. Search ellipsoid radii (east-west, north-south, vertical) and minimum data requirements for these searches comprise: Search 1 400x400x1 m (4 data), Search 2: 600x600x1.5 m (4 data), Search 3 600x600x1.5 m (2 data), Search 4 1500x1500x2 m (2 data) and Search 5 2250x 2250x3 m (2 data).</li> </ul>
		<ul> <li>Mineral Resources include estimates from search passes 1,2,3 and 4 which contribute 15%,80%,5% and 0.1% of estimates respectively. Search pass 5 was used only for estimation of Exploration Targets.</li> </ul>
	Any assumptions behind modelling of selective mining units.	<ul> <li>Details of potential mining parameters are unclear reflecting the early stage of project evaluations.</li> <li>The estimates reflect conceptual development plans for the project which comprise a selective medium scale open pit operation feeding a beneficiation plant.</li> </ul>
	Any assumptions about correlation between variables.	The modeling did not include specific assumptions about correlation

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		between variables.
	<ul> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	<ul> <li>The mineralised domain used for resource estimation is consistent with geological interpretation of mineralisation controls.</li> </ul>
	Discussion of basis for using or not using grade cutting or capping.	<ul> <li>No upper cuts were applied to the estimates. This reflects the generally moderate variability of most grade attributes, and ameliorates risk of understating secondary attribute grades.</li> </ul>
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul> <li>Model validation included visual comparison of model estimates and composite grades, and trend (swath) plots.</li> <li>There has been no production from the project.</li> </ul>
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>The project is at an early stage of evaluation and moisture content of the mineralisation, and the impact of moisture on density measurements is unclear.</li> <li>Tonnages are estimated on a dry tonnage basis.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	The cut off grades used for resource reporting reflect Minemakers interpretation of potential project economics for a medium scale operation feeding a beneficiation plant.
Mining factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <li>The estimates are intended to reflect medium scale, selective open pit mining. Specific details of potential mining parameters are unclear reflecting the early stage of project evaluations.</li> <li>With a maximum depth of 54 m, the resources appear amenable to open pit mining.</li> </ul>
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.	<ul> <li>An initial metallurgical composite of 56 kg taken from 9 AC holes was tested at the University of Adelaide in September 2014. Results indicated that a simple wet screening process rejecting the &lt;212 micron fraction could upgrade material from a feed grade of ~22% to a product of ~33% P<sub>2</sub>O<sub>5</sub>. Approximately 55% of the P<sub>2</sub>O<sub>5</sub> was recovered and 60% of the feed weight was rejected. The composite had a cadmium level of &lt;30ppm and uranium levels &lt;100ppm.</li> <li>A second round of metallurgical test work undertaken at the University of Adelaide on 5 separate composites, comprised of approximately 300kg from 19 diamond drill holes confirmed the results of the first round of test work. Composite feed grades of 21-</li> </ul>

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Environmenta I 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.	<ul> <li>29.5% P<sub>2</sub>O<sub>5</sub> were able to be beneficiated to product grades of 31.4-36.6% P<sub>2</sub>O<sub>5</sub>. Other product grades ranged from 0.01-0.03% MgO, 0.5-1.1% Al<sub>2</sub>O<sub>3</sub>, 1.6-4.1% Fe<sub>2</sub>O<sub>3</sub> and from 7.3-16.6% SiO<sub>2</sub>. Cadmium and uranium levels in the second round of test work were higher that levels measured in the first round of test work and the combined results indicated cadmium levels in the 30-40ppm range and uranium levels in the 120-140ppm range for the &gt;212 micron fraction.</li> <li>The project is at an early stage of evaluation and precise details of environmental impacts for potential mining are unclear. The available information shows no specific issues that would preclude potential mining and processing.</li> <li>Testing to date and analysis of the clay waste product from the simple physical sizing beneficiation process indicates no chemical environmental concern storing this product either in surface storage facilities or returning this material to completed open pit areas.</li> <li>An environmental risk assessment completed by Environmental Consultant –Transecor, has been included in a draft Environmental Impact Statement for the Project. This assessment identifies the key negative environmental impacts during a construction phase, as dust generation, noise levels generated from mining operations, surface water management and the potential for local aquifer water quality reduction. All of these elements are typically mitigated through standard management plans and systems of work. The risk assessment also identifies significant positive environmental and socio-economic impacts during any future operating phase of the project.</li> </ul>
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Immersion density measurements are available for 64 diamond core samples, including 45 mineralised samples. The measurements, did not include oven-drying or wax coating and suggest an average value of around 1.8 t/m³ for mineralisation. For the current estimates, this value was discounted by around 10% reflecting the lack of wax coating and air drying giving a value of 1.6 t/bcm.</li> <li>Additional bulk density measurements, including and oven-drying and wax coating are planned.</li> </ul>
· · · · · · · · · · · · · · · · · · ·	The basis for the classification of the Mineral Resources into varying	<ul> <li>The current Inferred resources include only areas tested by generally</li> </ul>

JORC Code explanation	Commentary
confidence categories.	500 by 500 m and closer spaced drilling defined by plan-view polygons. Potential mineralisation in more broadly sampled areas is too poorly defined for estimation of Mineral Resources, and is represents Exploration Targets.
<ul> <li>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).</li> </ul>	The resource classification accounts for all relevant factors.
Whether the result appropriately reflects the Competent Person's view of the deposit.	<ul> <li>The resource classifications reflect the competent person's views of the deposit.</li> </ul>
The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>The resource estimates have been reviewed by Minemakers geologists, and are considered to appropriately reflect the mineralisation and drilling data.</li> </ul>
<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate</li> </ul>	Confidence in the relative accuracy of the estimates is reflected by the classification of all Mineral Resource estimates as Inferred.
	<ul> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The results of any audits or reviews of Mineral Resource estimates.</li> <li>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.</li> <li>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.</li> </ul>