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ASX Market Announcements

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## SANDPIPER PROJECT MAIDEN ORE RESERVES ESTIMATE OF 133Mt @ 20.41% P<sub>2</sub>O<sub>5</sub>

### HIGHLIGHT

A maiden Ore Reserve Estimate has been produced for the Sandpiper Marine Phosphate Project in Namibia:

Ore Reserve	Mt	% P <sub>2</sub> O <sub>5</sub>
Proved	54.07	20.83
Probable	78.69	20.12
<b>Total Proved and Probable</b>	<b>132.76</b>	<b>20.41</b>

### Introduction

The joint venture company, Namibian Marine Phosphate Pty Limited (NMP), owned jointly by UCL Resources Limited (ASX – “UCL”) 42.5%, Minemakers Limited (ASX & TSX – “MAK” and NSX – “MMS”) 42.5%, and Namibian partner Tungeni Investments cc (“Tungeni”) 15% are pleased to announce the maiden Ore Reserve Estimate for the Sandpiper Marine Phosphate Project in support of the Definitive Feasibility Study (DFS).

### Ore Reserves and Mineral Resources

Based on the resource development work undertaken through the DFS, the Mineral Resource estimates for the Sandpiper Project have been prepared by independent geo-statistical consultant, Dr A. Annels, FIMMM, C.Eng, at a 15% P<sub>2</sub>O<sub>5</sub> cut off.

*Previous Mineral Resource Estimate (April 2012):*

Mineral Resources Estimate	Mt	% P <sub>2</sub> O <sub>5</sub>
Measured (in ITRA*)	60.1	20.8
Indicated (in ITRA*)	105.0	19.6
Indicated (outside ITRA*)	61.8	20.6
<b>Total Measured &amp; Indicated</b>	<b>226.9</b>	<b>20.2</b>
Inferred	1608	18.9

*\*ITRA - Initial Target Recovery Area*

The Mineral Resource estimates were prepared in compliance with JORC and NI 43-101 standards. Two dimensional Inverse Distance Weighting methods were used to interpolate thicknesses, grade, specific gravities and moisture content for 200 metre North-South x 200 metre East-West blocks. Extrapolation has been constrained by the search parameters used. The dimension of the search areas were controlled by examination of the distribution and trends of data, the numbers of samples captured and the results of current geo-statistical studies.

#### *Current Reserves and Resources*

90% of the previously announced Measured Mineral Resources and 75% of the Indicated Mineral Resources estimated within the Initial Target Recovery Area have been converted to Proved and Probable Reserve estimates respectively:

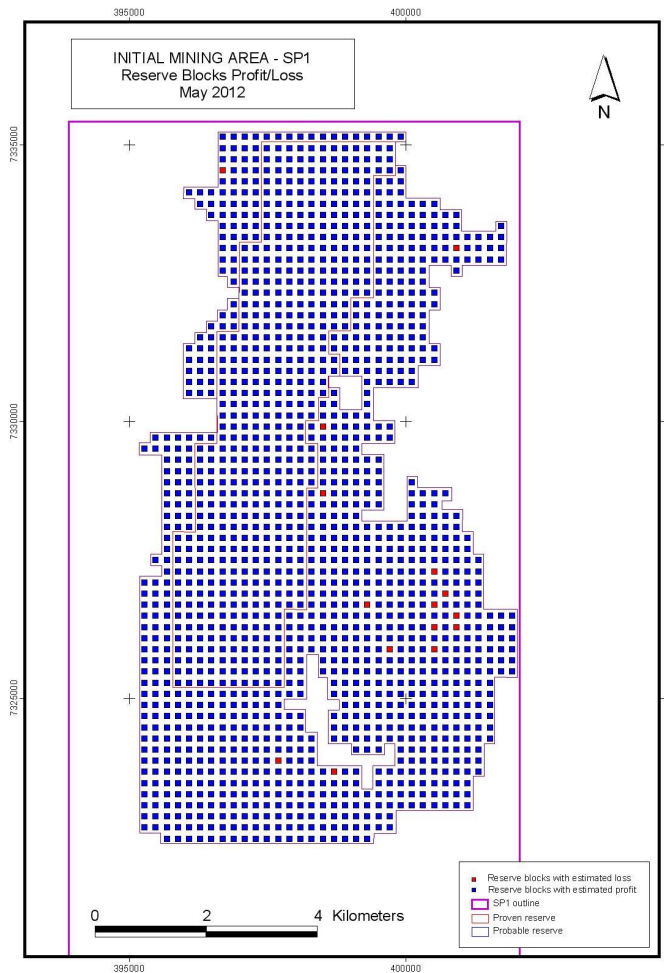
<b>Ore Reserves</b>	<b>Mt</b>	<b>%P<sub>2</sub>O<sub>5</sub></b>
<b>Proved</b>	54.07	20.83
<b>Probable</b>	78.69	20.12
<b>Total Proved and Probable</b>	<b>132.76</b>	<b>20.41</b>

Remaining Mineral Resources:

<b>Mineral Resources</b>	<b>Mt</b>	<b>%P<sub>2</sub>O<sub>5</sub></b>
<b>Measured</b>	–	–
<b>Indicated</b>	79.75	19.82
<b>Inferred</b>	1608.00	18.90

Reserve estimations were also calculated on a 200m x 200m resource block basis with a variable SG and moisture ratio based on grade as was determined for the Resource estimation. The individual block cut-off grade was determined on the basis of expected profit

The calculations and parameters used in the reserve estimates (see attached Appendix) were applied to all the existing Measured as well as Indicated Resource blocks within the initial Target Recovery Area (SP1). The reserve however contained unprofitable blocks. The uneconomical blocks were removed on a cluster basis. Those individual sub-economic blocks surrounded by profitable blocks were retained in the ore reserve to reflect mine planning practicalities.



**Reserve Blocks**

Further detail regarding the basis of the reserve estimations is provided in the Appendix attached hereto.

### **Competent Persons Statement**

*The information in this announcement that relates to Mineral Resources and Ore Reserves is based on information compiled or reviewed by Roger Daniel and Dr Alwyn Annels. Mr Daniel is a member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of the Company. Dr Annels is a Fellow of the Institute of Materials, Minerals and Mining and is a consultant to Namibian Marine Phosphates (Pty) Ltd. Mr Daniel and Dr Annels each has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Each of Mr Daniel and Dr Annels consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.*

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## APPENDIX

### 1. ORE RESERVE ESTIMATES

#### 1.1 Input parameters

The following parameters were considered in the Reserve estimations process:

- Mass balance (plant recoveries)
- Operating expenditure
- Expected phosphate price

##### 1.1.1 Mass balance

The recovery figures to be used for financial modeling originate from the characterization tests on Bulk Sample 1797B, done at Bateman's Research Centre in Israel, and two Pilot Tests performed at Mintek, South Africa.

##### 1.1.1.1 Laboratory Tests, Bateman Israel

###### a. Sample

An 800 kg composite bulk sample of three Layers was recovered by gravity coring from sample area 1797 and was received in Israel on May 30, 2011. The sample was designated Bulk Sample 1979B.

###### b. Compositing

The proportions for compositing were based upon the average in-situ depth of the layers, using the wet weight.

Layer 1- 0.6m thick Layer 2 – 0.9m thick Layer 3 – 0.1m thick

Layer 3, tightly compacted silt and clay, is considered the basement or footwall of the ore horizon. 0.1m was an estimate of the average penetration into the footwall layer.

Table 1.1 below shows the wet and dry weight proportions used for compositing. The wet material would have been impossible to mix together accurately, so the layer material was mixed and split, wet, into sub-samples. Moisture determination and wet sizing was done on subsamples from each layer to arrive at the correct proportions for compositing.

Table 1.1: Composite Ratios (Based upon Layer Depth analogous to Wet Weight)

Layer	Depth	Depth/Wet Wt Ratio		Moist	Equiv. Dry Wt	Dry Weight Ratio	
L1	0.6	38%	2	19.4	1.6	41%	2.0
L2	0.9	56%	3	27.5	2.2	55%	2.7
L3	0.1	6%	0.3	42.8	0.2	5%	0.2
Total /Avge	1.60	100%	5.3	25.4%	4.0	100%	4.9

Using the above proportions to calculate the composite, the following split of material was obtained from the hand screening of approximately 500 kg of material to produce concentrate.

Table 1.2: Sandpiper 1797B Wet Screening – Material Split

Interval	L1			L2			L3			Composite		
	% Wt Ret	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %	% Wt Ret	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %	% Wt	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %	% Wt	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %
+1000 um	20	8.0	7.7	3	26.8	3.6	2	25.4	8.9	10	11.3	5.3
-1000/+100 um	67	27.9	89.9	70	27.7	87.8	18	25.8	81.3	66	27.8	88.6
-100 um	13	3.9	2.4	27	7.0	8.6	80	0.7	9.8	24	5.3	6.1
Tot/Avge	100	20.8	100	100	22.1	100	100	5.7	100	100	20.8	100

As can be seen, the % mass recovery to the concentrate size interval was 67% for L1, 70% for L2 and 18% for L3, with a weighted average for the Composite of 66%.

### c. Losses

#### Attrition Losses

It must be remembered that this result was obtained with simple manual wet-screening, without gravity concentration or attrition. Subsequent attrition tests on composited concentrate showed that up to 5.8% of the mass from the concentrate fraction was degraded into the fines fraction.

#### Gravity Losses

Gravity tests done at SGA in Germany showed that around 9.4% of the -1000/+100 µm material reported to the “gravity” tails in an upstream separator test.

Therefore, the mass recovery of the 1797B Composite could be calculated as:

$$66\% - (66\% \times (5.8\% + 9.4\%)) = 56\% \text{ excluding fines lost through the dredging process.}$$

#### Dredging Losses

Dredging contractor, Jan de Nul, reports that almost all of the -90µm material is lost in the decanted sea water during the dredging operation. If we assume that this is correct, the data in Table 1.2 can be recalculated as shown in Table 1.3.

Table 1.3 Bulk Sample 1797B Size Distribution Corrected for 100% Slimes Removed to Simulate Dredge Losses

Interval	L1			L2			L3			Composite		
	% Wt Ret	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %	% Wt Ret	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %	% Wt	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %	% Wt	P <sub>2</sub> O <sub>5</sub> %	P <sub>2</sub> O <sub>5</sub> Rec %
+1000 um	23	8.0	8	4	26.8	3.6	10	25.4	10	13	11.3	6
-1000/+100 um	77	27.9	92	96	27.7	87.8	90	25.8	90	87	27.8	94
-100 um	-	-	-	-	-	-	-	-	-	-	-	-
Tot/Avge	100	23.3	100	100	27.7	100	100	25.8	100	100	25.6	100

Thus it can be seen from Table 1.3 that if it is assumed that all of the slimes material is washed overboard, then between 77 and 96% of the material brought ashore is in the

concentrate size range. However, at least a further 15.2% slimes and losses are experienced from this fraction during processing, as we know from the attrition and gravity testing reported above.

Therefore, the theoretical mass recovery from the on-shore material to the concentrate would be between 65% and 81%, with the composite average being 74%.

### 1.1.1.2 Pilot Tests

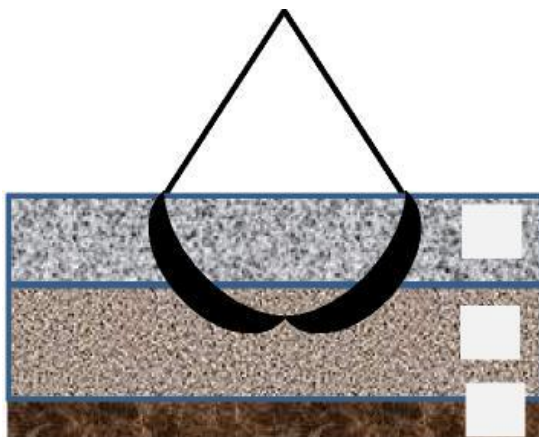


Figure 1.1: Schematic of Bulk Sample Grabber

Two pilot campaigns were run at Mintek in South Africa using a sample that was collected from approximately the same area as bulk sample 1797B. In this case, however, in excess of 300t of sample was collected using a specially fabricated “grabber”. The penetration pattern of the grabber necessarily meant that Layer 1 was overly represented in the sample. Figure 1.1 above shows this schematically.

Three plant configurations were run as follows:

- Pilot 1 (Run 1 –4) – dry feeding to vibrating screen, gravity circuit in rougher/cleaner configuration, attrition included
- Pilot 2 (Run 1–3) – wet feeding to vibrating screen, gravity circuit in rougher/cleaner configuration, attrition included
- Pilot 2 (Run 4 –9) – wet feeding to vibrating screen, gravity circuit in rougher/cleaner configuration with cleaner middlings recycle, attrition included.

Table 1.4 shows the averages of the daily composites for the distribution of the products.

Table 1.4: Mintek Pilot Runs – Distribution of Products

Fraction	Pilot 1 Average Run 1-4			Pilot 2 Average Run 1-3			Pilot 2 Average Run 4-9		
	% Wt Ret	% P <sub>2</sub> O <sub>5</sub>	% P <sub>2</sub> O <sub>5</sub> Rec	% Wt Ret	% P <sub>2</sub> O <sub>5</sub>	% P <sub>2</sub> O <sub>5</sub> Rec	% Wt Ret	% P <sub>2</sub> O <sub>5</sub>	% P <sub>2</sub> O <sub>5</sub> Rec
Shells	38	11.4	23.2	15	5.2	3.8	16	4.5	3.7
Concentrate	45	27.2	62.9	39	27.1	52.1	53	27.7	73.8
Grit & Slimes	17	15.9	13.9	46	19.8	44.2	30	14.1	22.5
Tot/Avg	100	19.4	100.0	100	20.4	100.0	100	20.0	100.0
Comment	Poor Screening - high losses			Poor gravity - high losses			Good Screening, Gravity. Middlings Recycle		

As can be seen from the table, a significantly lower mass of material reported to the concentrate than would be expected from the feed sizing. Pilot 1, Runs 1 – 4 should be discounted, because it was obvious that the material reporting to the screen overflow was dirty and contained a lot of product-sized material. Pilot 2 Runs 1 – 3 showed a more realistic split to the screen oversize, however, a very high proportion of material and phosphate reported to the gravity tails. Therefore, the middlings fraction of the cleaner spiral was returned to the rougher spiral in order to improve the recovery. Of the three sets of results, the latter was most ideal, because the plant ran steadily, with very few blockages and interruptions.

Of the screening and beneficiation feed, we can use a figure of 62% mass recovery to concentrate. This mass recovery figure is between the theoretical value from the bulk bench scale testing of 74% and the value achieved in the most reliable pilot plant run (Run 2, Comp 4-9) of 53%.

Using mass recovery of 62% to concentrate the delivered volume to the buffer pond (assuming 100% in situ slimes are lost at sea):

### 1.1.1.3 Summary

The original mass recovery of concentrate from the screening and beneficiation feed was 54%. This value was determined based upon mass recoveries of the laboratory bulk samples received and the pilot test work conducted on the grab sample. However this does not account for the fact that by the time the material reaches the buffer pond, many or all of the slimes (-90 µm particles) have been washed out.

Since there have been no dredged samples to work with, the estimated mass recovery of 62% as outlined above, is considered reasonable based on run-of-mine (ROM) made up of a blend of Layer 1 and Layer 2 in their geological proportions. If, in fact, during the actual dredging operation, material coarser than 100 µm is lost, this mass recovery might change.

It should be noted, though, that until dredged samples are available, the actual size distribution and mass recovery to concentrate cannot be fully defined, and is expected to vary depending upon the conformity of the ore-body and the depth of the dredge suction head. Therefore, the process plant has been designed to produce 3Mtpa with equipment sizing having sufficient flexibility to handle both coarse and fine feed sizes.

The graph in Figure 1.2 is based on the data highlighted in Table 1.5. The regression function of  $y = 3.062x + 0.746$  was used in Reserve estimation calculations

Table 1.5: Sandpiper mass recovery data

Layer/Run	Sample Area	Feed Grade	Conc Grade	P <sub>2</sub> O <sub>5</sub> Rec	Mass Rec
L1	3414	19.7	24.1	95.6	78.0
	3415	15.0	21.4	78.6	55.2
	3323	17.6	24.3	91.4	66.0
	1797	20.1	25.6	78.1	61.3
	1797B	20.8	27.9	89.9	67.0
L2	3414	20.6	26.2	95.4	75.2
	3415	18.7	25.2	86.4	64.0

	3323	21.3	25.9	94.9	77.9
	1797	21.0	26.3	57.4	45.7
	1797B	22.1	27.7	87.8	70.0
L3	3323	2.5	22.3	84.4	9.4
	1797	2.0	23.7	71.2	5.9
	1797B	5.7	25.8	81.3	18.0
Pilot	Pilot 1 R 1-4	19.4	27.2	62.9	39.0
	Pilot 2 R 1-3	20.4	27.1	73.8	45.0
	Pilot 2 R 4-9	20.0	27.7	73.8	53.0
Summary	Reviewed	20.0	27.7	73.8	62.0

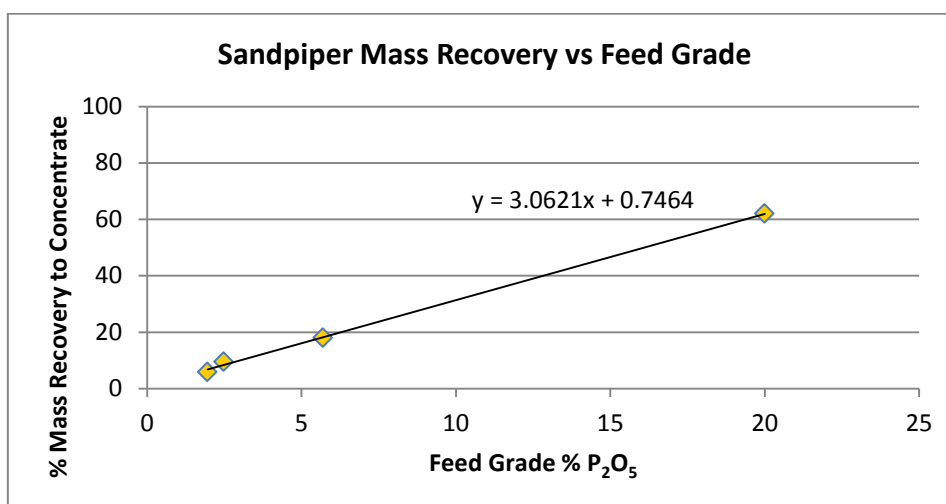


Figure 1.2: Mass balance regression function

### 1.1.2 Operating Expenditure (OPEX)

The year 3 OPEX cost of product in 2014 prices has been established at \$65.84 per tonne for a production rate of 3Mt concentrate per annum.

### 1.1.3 Expected Price for Sandpiper Concentrate

Independent fertilizer market consultant, CRU Strategies utilizes a proprietary 'value in use' (VIU) model for calculating the expected pricing of a new entrant to the phosphate rock industry. This takes into account the chemical specifications of the product and adjusts the expected pricing based on current producers. In the case of Sandpiper concentrate, the comparatively low P<sub>2</sub>O<sub>5</sub> grade of 27.5% is taken into account, and is offset somewhat by the higher reactivity of the phosphate mineral, as evidenced by its weak acid solubility and the water solubility of the SSP produced from Sandpiper. For comparison, one primary benchmark is selected – in this case the Bayovar 30% P<sub>2</sub>O<sub>5</sub> rock exported from Peru.

CRU analysis suggests that Sandpiper rock would trade at anywhere from a 5- 10% discount against the Bayovar benchmark on sales as DA rock and SSP, with the latter type of sale requiring the larger discount.



On sales to the WPA market, CRU expect a discount of 20-32.5% versus the Bayovar benchmark.

Table 1.6 utilizes the results of the VIU analysis and provides the expected netback price to NMP when marketing to each sector over the forecast period.

Table 1.6 NMP Price Forecast

	Bayovar (Peru)	Direct Application Potential Discount		Rock for SSP Potential Discount		Rock for WPA Potential Discount	
		Base Case 9.9%	Likely Case 5.0%	Base Case 9.9%	Likely Case 9.9%	Base Case 32.5%	Likely Case 20.0%
2012	129	116	123	116	116	87	103
2013	117	106	111	106	106	79	94
2014	119	107	113	107	107	80	95
2015	119	107	113	107	107	80	95
2016	122	110	116	110	110	82	97
2017	126	114	120	114	114	85	101
2018	130	117	124	117	117	88	104
2019	139	125	132	125	125	94	111
2020	135	121	129	122	122	91	108
2021	135	122	129	122	122	91	108
2022	135	122	129	122	122	91	108

Source: CRU Strategies

The Bayovar forecast benchmark price of \$119/t (2014) is used for the NMP reserve estimations

## 1.2 Reserve estimations

The Reserve estimations are based on the Mineral Resources in the Initial Target Mining Area of ML 170 listed in Tables 1.7 to 1.10 (A Annels report, April 2012) that were determined using a 15% block cut-off grade, a minimum thickness of 25cm and a variable SG and moisture ratio based on grade.

Table 1.7: Indicated Mineral Resources in the Initial Target Mining Area of ML 170 (15% P<sub>2</sub>O<sub>5</sub> BCOG)

Wet Tonnes x 10 <sup>6</sup>	Dry Tonnes x 10 <sup>6</sup>	Grade (%P <sub>2</sub> O <sub>5</sub> )	Area (km <sup>2</sup> )
139.86	104.95	19.63	50.96

Table 1.8: Measured Mineral Resources in the Initial Target Mining Area of ML 170 (15% P<sub>2</sub>O<sub>5</sub> BCOG)

Wet Tonnes x 10 <sup>6</sup>	Dry Tonnes x 10 <sup>6</sup>	Grade (%P <sub>2</sub> O <sub>5</sub> )	Area (km <sup>2</sup> )
80.58	60.08	20.83	20.80

Table 1.9: Combined Measured and Indicated Mineral Resources in the Initial Target Mining Area of ML 170 (15% P<sub>2</sub>O<sub>5</sub> BCOG)

Wet Tonnes x 10 <sup>6</sup>	Dry Tonnes x 10 <sup>6</sup>	Grade (%P <sub>2</sub> O <sub>5</sub> )	Area (km <sup>2</sup> )
220.44	165.03	20.07	71.76

Table 1.10: Indicated Mineral Resources (Phosphate) all Licence Areas within the Sandpiper Project (15% P<sub>2</sub>O<sub>5</sub> BCOG)

EPL/ ML	Wet Tonnes x 10 <sup>6</sup>	Dry Tonnes x 10 <sup>6</sup>	Grade (%P <sub>2</sub> O <sub>5</sub> )	Date Reported
170	139.86	104.95	19.63	April 12
3414	47.251	35.438	21.70	July 09
3415	35.424	26.310	19.08	Sept 09
<b>Combined</b>	<b>222.535</b>	<b>166.698</b>	<b>19.98</b>	

Reserve estimations were also calculated on a 200m x 200m resource block basis with a variable SG and moisture ratio based on grade as was determined for the Resource estimation. The individual block cut-off grade was determined on the basis of profit

The listings calculations and parameters are discussed below.

1. Block centroid (easting): The x co-ordinate is reported in spheroid WGS84, projection UTM zone 33S. The centroid corresponds to the resource block centroid data of the resource estimation data of Dr. A Annels
2. Block centroid (northing): The y co-ordinate is reported in spheroid WGS84, projection UTM zone 33S. The centroid corresponds to the resource block centroid data of the resource estimation data of Dr. A Annels.
3. Sediment area: Sediment area is based on the Measured and Indicated Resource block dimensions of 200m x 200m and as such has a constant area of 40,000 m<sup>2</sup>.
4. Block thickness: IDW gridded block thickness values as determined for the resource estimations were used.
5. In-situ sediment volume: Calculated block volumes.
6. In-situ sediment volume less environment remnant: A remnant comprising of 10% of the total block area deducted from the in-situ volume, to be left untouched by mining to encourage the re-establishment of marine fauna within the mining area.
7. Specific gravity: IDW gridded block SG values as were determined for the resource estimations by Dr. A Annels are used.
8. Wet tonnes: Calculated in-situ block tonnage.
9. Wet tonnes after dredge loss: An expected 10% loss of fines overboard during the dredging process is deducted from the block tonnage.

10. Moisture content: Moisture content was modelled on a block basis during the resource estimation process based on measurements from all individual sub-samples.
11. Dry tonnes: Moisture factor applied to block wet tonnes
12. Concentrate mass: A regression function applied to the dry tonnes that accounts for losses during the dredging process as well as the beneficiation process. The mass of the end product is in tonnes
13. Block grade: Gridded block grades taken from the resource estimate by Dr. A Annels.
14. Block value: Calculated by using the expected phosphate price of US\$119/ton
15. Block value less royalties: The expected 2% government royalties payable were deducted from the block value
16. Opex: Expected block operating cost in US\$
17. Prof/loss: Expected profit or loss on a block basis in US\$
18. Mining Time: Expected time for mining completion of a block based on Jan de Nul production data
19. MA: Metal accumulation
20. Tonnage x grade

The above calculations and parameters above were applied to all the existing Measured as well as Indicated Resource blocks within SP1. The reserve however contained unprofitable blocks as seen in Fig. 1.3. The uneconomical blocks were removed on a cluster basis and only individual blocks inside the reserve were preserved as it would impose difficulty in excluding them from mine plan scheduling. Fig 1.4 shows the final reserve blocks

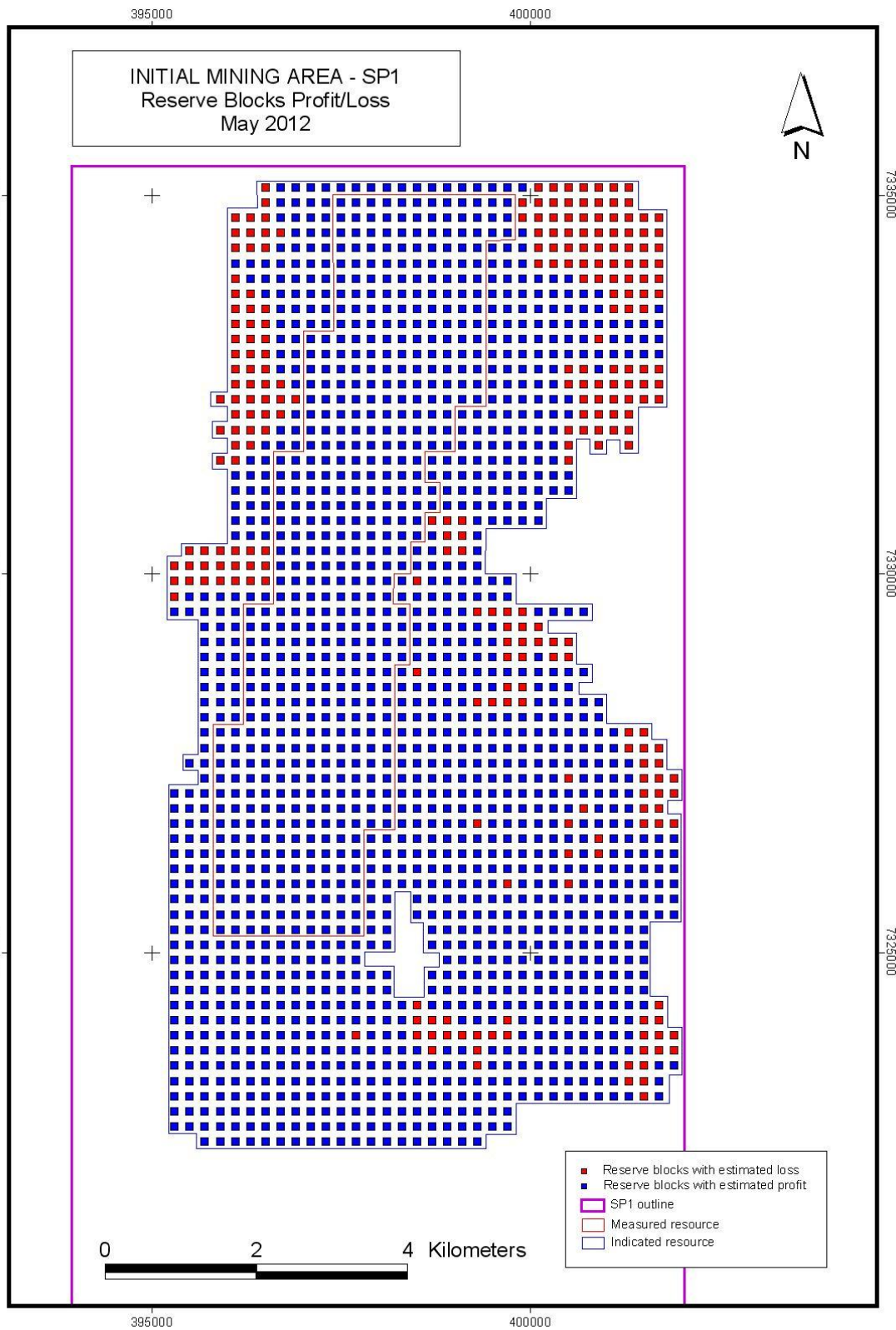


Figure 1.3: Uncut reserve blocks

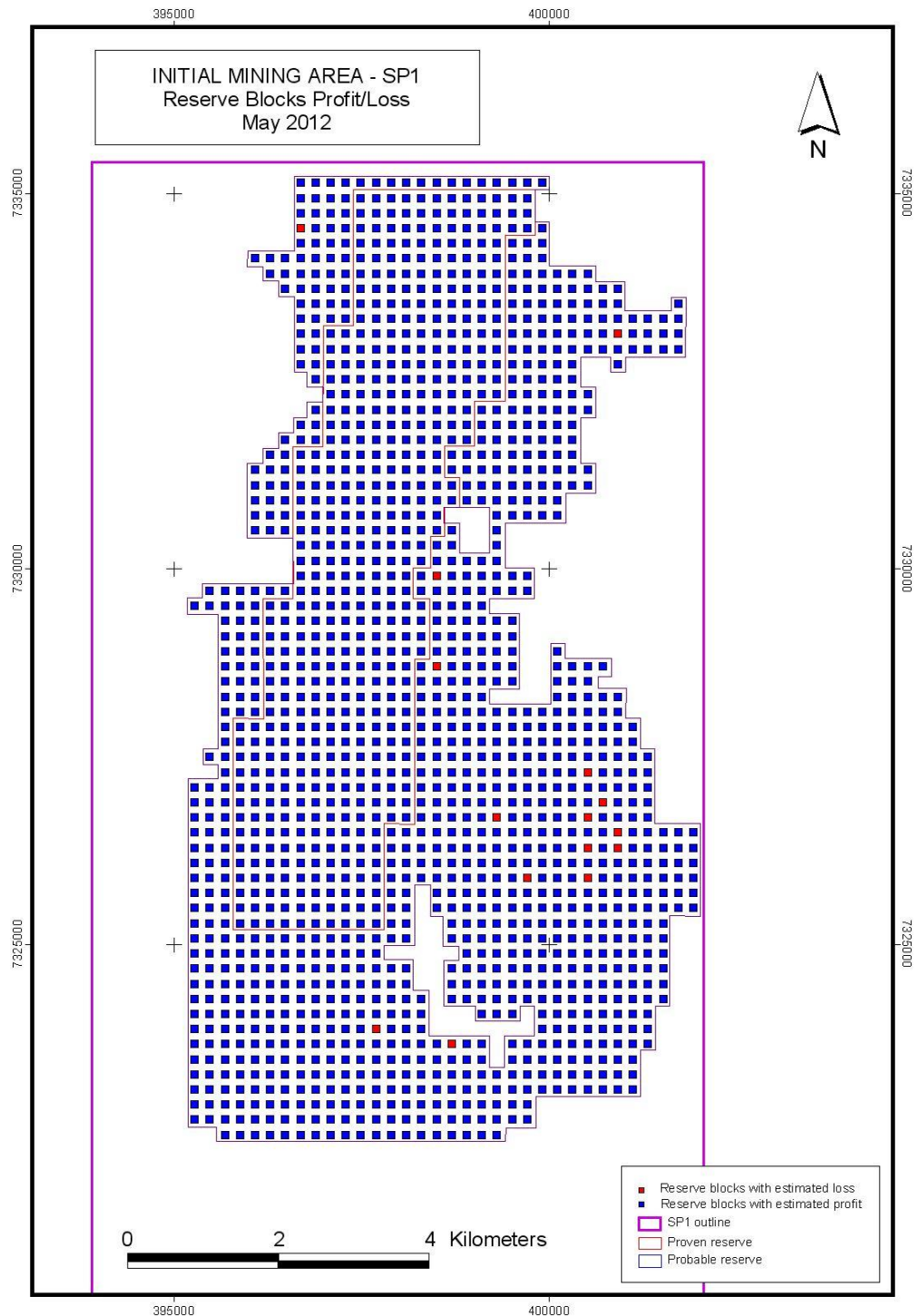


Figure 1.4: Reserve blocks

### 1.3 Reserve classification

The Ore Reserve estimations were restricted to the gravity cored areas of ML170 (ITMA – SP1) and are considered to be fully NI 43-101 and JORC compliant. The Indicated Resource in SP1 (400m x 400m sampling spacing) contained sufficient information for an upgrade to an estimated **Probable Reserve** (Table 1.11).

Table 1.11: Probable Ore Reserve estimation in the Initial Target Mining Area of ML 170

Wet Tonnes x 10 <sup>6</sup>	Dry Tonnes x 10 <sup>6</sup>	Grade (%P <sub>2</sub> O <sub>5</sub> )	Area (km <sup>2</sup> )
104.74	78.69	20.12	41.16

In the Measured Resource area sufficient representative sampling with a higher level of confidence exists (200m x 400m sampling spacing) to be able to estimate a **Proved Reserve**.

Table 1.12: Proved Ore Reserve estimate in the Initial Target Mining Area of ML 170

Wet Tonnes x 10 <sup>6</sup>	Dry Tonnes x 10 <sup>6</sup>	Grade (%P <sub>2</sub> O <sub>5</sub> )	Area (km <sup>2</sup> )
72.52	54.07	20.83	20.80

The **combined Reserve** estimation within SP1 is summarized in Table 1.13 below.

Table 1.13: Combined Ore Reserve estimate in the Initial Target Mining Area of ML 170

Wet Tonnes x 10 <sup>6</sup>	Dry Tonnes x 10 <sup>6</sup>	Grade (%P <sub>2</sub> O <sub>5</sub> )	Area (km <sup>2</sup> )
177.26	132.76	20.41	61.96

#### 1.4 Reconciliation of Resources

The conversion of Indicated and Measured Resources to Reserves within the Initial Target Mining Area of ML170 has resulted in a depletion of the Measured Resource and a substantial reduction in the Indicated Resource as shown in Fig 1.5 and summarized in Table 1.14.

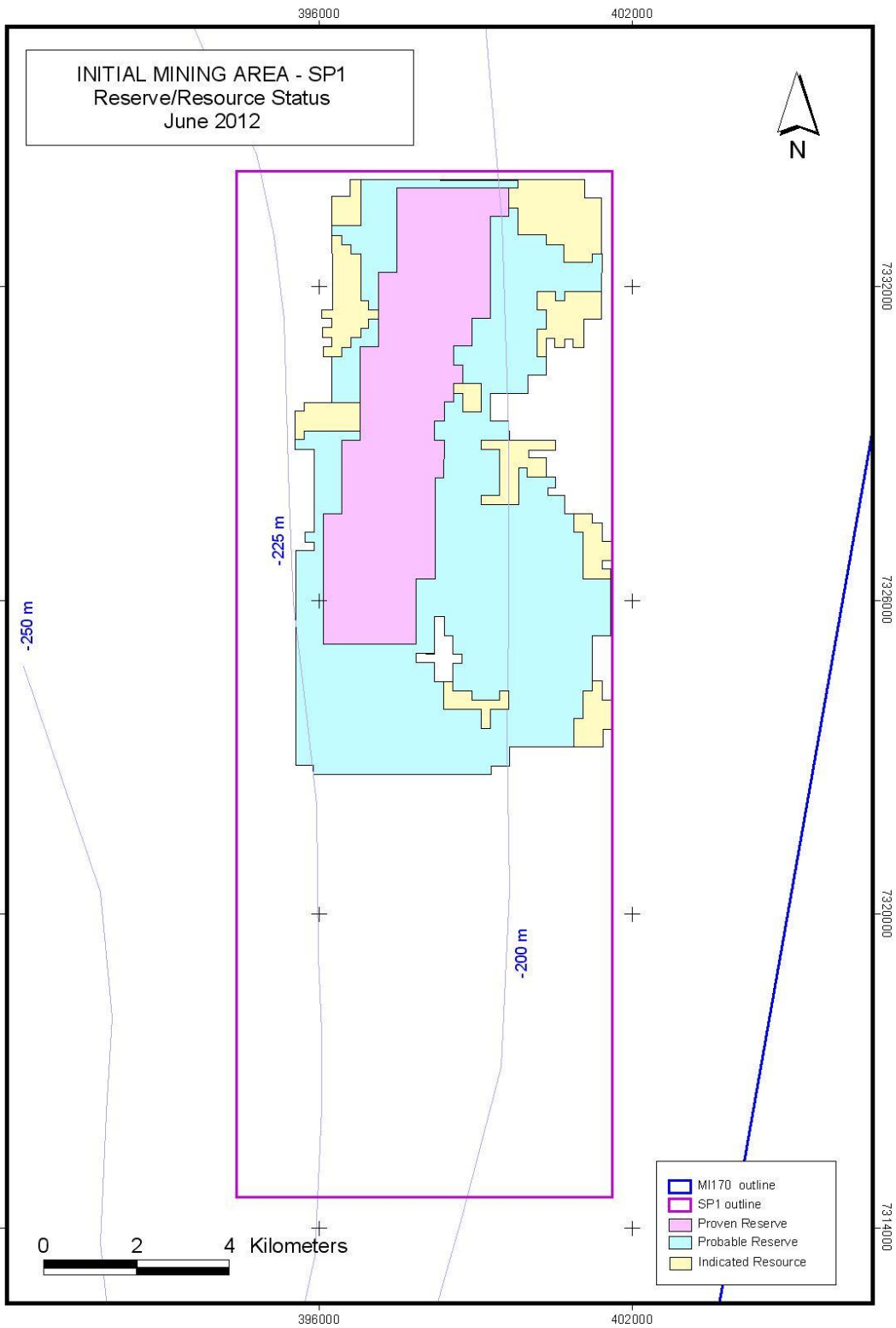


Figure 1.5: ML170, SP1 Resource status

Table 1.14: Depletion of Indicated Resources estimates by transference to Reserves (in SP1 of ML170)

Concession	Class	Wet Tonnage (Mt)	Dry Tonnage (Mt)	Grade (% P <sub>2</sub> O <sub>5</sub> )
ML170 (SP1) – 2012	Proved reserve	72.52	54.07	20.83
ML170 (SP1) – 2012	Probable reserve	104.74	78.69	20.12
ML170 (SP1) – 2012	Indicated resource	24.149	18.00	17.21
ML170 (SP2) – 2009	Indicated resource	47.251	35.438	21.70
ML170 (SP3) – 2009	Indicated resource	35.424	26.310	19.08

All of the reserves estimated in this report are in tenements owned by Namibian Marine Phosphates (Pty) Ltd ("NMP") and that company advises that all of the tenements are currently in good standing.

A Definitive Feasibility Study on the economics of development of the phosphate resources was carried out for NMP by independent and appropriately qualified local and international consultants.

NMP submitted the Final Environmental Impact Assessment to the Environmental Commissioner in March 2012. The Commissioner has requested that NMP conduct further consultation with the Ministry of Fisheries and Marine Resources (MFMR) to resolve certain marine scientific reservations that they hold. The Company is confident that these matters will be cooperatively resolved shortly in order to enable the issue of the Environmental Clearance certificate. The programme of actions required to achieve this outcome is currently in progress. Mining can only take place once the environmental certificate has been issued.

Applications for the allocation and entitlement to the land sites required for the plant site and buffer pond areas are being processed but have not been secured at this stage.

NMP advises that, at this time, it is not aware of any other permitting, legal, title, taxation, socio-economic, marketing or other factors which are likely to cause a material effect on the Ore Reserve estimates herein.

## 2. INTERPRETATION AND CONCLUSIONS

These interpretations and conclusions should be read in conjunction with those in the 30<sup>th</sup> April 2012 report as all reserve blocks falls within the previously sampled area of the ITMA in ML170.

- 1) The Proved Reserve blocks are based on a sample spacing of 200m along lines spaced 400 m apart. The Probable Reserve blocks are based on a sample spacing grid of 400m x 400 m
- 2) Sampling and core logging appear to have been undertaken with great care though these procedures have not been directly witnessed by the Qualified Person.
- 3) Improvements in analytical precision are evident compared with previous studies of QA/QC results and precisions now considered excellent.
- 4) Pilot plant test studies appear to have been undertaken with great professionalism though these procedures have not been directly witnessed by the Qualified Person.



- 5) Analysis of international standards has been undertaken on a routine basis in the laboratory and all analyses lie with acceptable limits around the “accepted” values.
- 6) QA/QC procedures have been followed and the results have been examined by the Qualified Person and have been found to be compatible with the level of confidence expected for NI 43 -101 compatible Ore Reserves.
- 7) Sufficient Proved and Probable Ore Reserves have now been defined to ensure an operational life of in excess of 20 years for the project as required by the recently released definitive feasibility study.
- 8) The reserve estimates presented are considered to be conservative in terms of tonnage as phosphate is known to continue below those intersections which failed to reach the underlying grey-green marine clay. Additional resources probably exist in marginal and internal areas where, to date, the corer has not been able to penetrate due to technical limitations.