





## **Deep Yellow**

Limited

"An Emerging Namibian Developer"

20:20 Investor Series "Innovation in Exploration"

7 November 2011

**Greg Cochran – Managing Director** 

ASX Code: DYL www.deepyellow.com.au

### Disclaimer



#### **Forward Looking Statements**

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### Overview & Vision



- Corporate Profile
- Namibian Introduction
- Namibian Project Portfolio
- Flagship Projects
  - Omahola
    - TRS Option Innovation in action
  - Shiyela Iron
- Summary and Conclusion





Commence uranium production in Namibia by 2014/5 and continue to successfully grow our uranium resource base through discovery, delineation and M&A

### Corporate Profile



#### The Board

| Mervyn Greene – Chairman             |
|--------------------------------------|
| Greg Cochran – Managing Director     |
| Martin Kavanagh – Executive Director |
| Gillian Swaby – N.E.D                |
| Rudolf Brunovs – N.E.D (independent) |
| Mark Pitts – Company Secretary       |

#### **Executives & Management**

**Greg Cochran** – Managing Director

Martin Kavanagh – Executive Director

Leon Pretorius – MD: Namibia

**Ursula Pretorius –** Financial Controller

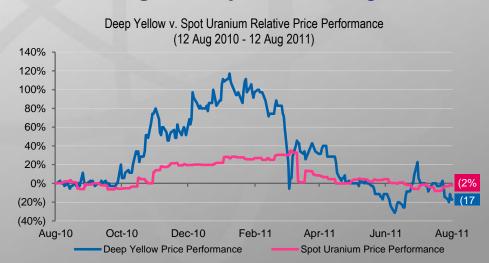
Klaus Frielingsdorf – GM: Technical

Werner Messidat – GM: Projects

#### Capital Structure – as at 4 Nov2011

| Shares on Issue                      | 1,128.51 M |
|--------------------------------------|------------|
| <b>Unlisted Options/Perf. Rights</b> | 12.68 M    |
| Market Cap (@ 13c)                   | 147 M      |
| Net Cash                             | ~11.0 M    |
| Major shareholders:                  |            |
| Paladin Energy                       | 19.94%     |
| <b>Board &amp; Management</b>        | 15.79%     |

#### Trading History - Bloomberg



### Namibia – Introduction



### Marenica – Marenica Energy Limited

(100ppm cut-off)

196 Mt @ 169ppm: 73 Mlbs

#### Trekkopje – Areva

(100ppm cut-off)

335 Mt @ 149ppm: 110 Mlbs

#### Valenica – Forsys Metals

(67ppm cut-off)

176 Mt @ 156ppm: 61 Mlbs

#### Rossing – Rossing Uranium Limited

(100ppm cut-off)

246 Mt @ 252ppm: 137 Mlbs

#### **Husab – Extract Resources Limited**

(100ppm cut-off)

241 Mt @ 480ppm: 257 Mlbs

#### Etango – Bannerman Resources Limited

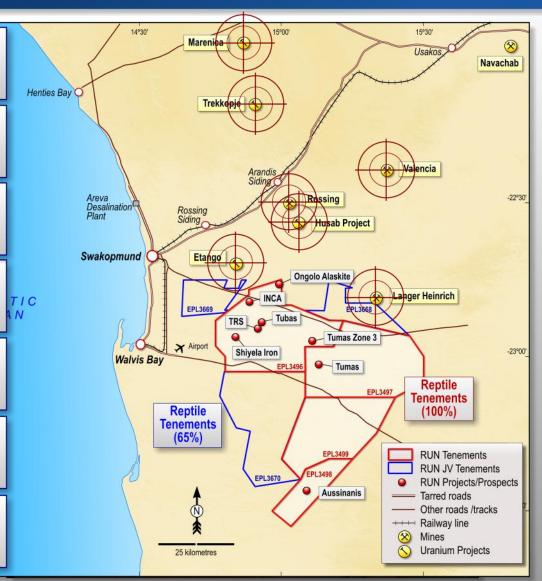
(100ppm cut-off)

336 Mt @ 201ppm: 149 Mlbs

#### Langer Heinrich – Paladin Energy Limited

(250ppm cut-off)

110 Mt @ 550ppm: 134 Mlbs



## Size is not the only criteria!



### Deep Yellow's Quality Criteria:

- **Grade:** 
  - ~300ppm U<sub>3</sub>O<sub>8</sub> for palaeochannel and sheetwash calcretes
  - ~400ppm U<sub>3</sub>O<sub>8</sub> for hard rock open pit deposits (alaskites)
  - ~1,000ppm U<sub>3</sub>O<sub>8</sub> for potential underground deposits
- Minimum 18Mlbs U₃O₂ per deposit with upside (15 yr mine life)
- Minimum production profile ~2.2Mlbs per operation
- No refractory uranium minerals
- Resource inventory ~100Mlbs U<sub>3</sub>O<sub>8</sub> to enable long term offtake agreements
- Unlock the potential of low grade (~150ppm) aeolian sand deposit by physical beneficiation

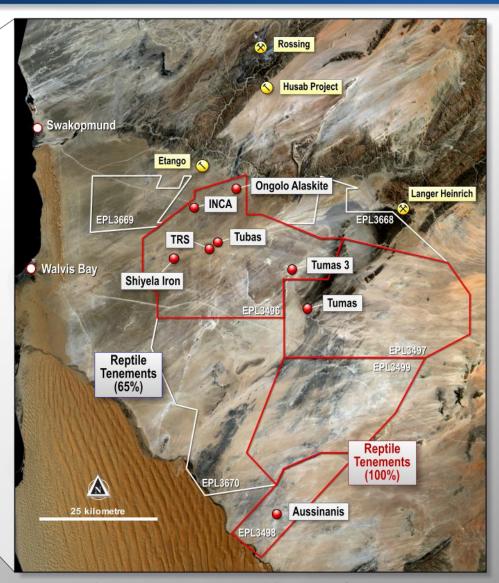
More attractive economics allows us to concentrate on smaller deposits with a real chance of success

### Namibian Tenements – Reptile Uranium\*





4,195 km<sup>2</sup> exploration area: 107.4Mlbs in resources



\*Note: Exploration in Namibia is conducted by DYL's wholly-owned subsidiary Reptile Uranium Namibia (RUN)

## Namibian Project Portfolio



OMAHOLA PROJECT

| _                                 |                                   |                                 |
|-----------------------------------|-----------------------------------|---------------------------------|
| ONGOLO & MS7 ALASKITE             | INCA URANIFEROUS MAGNETITE        | TUBAS RED<br>SAND (TRS)         |
| JORC resource: 20.3Mlbs           | JORC resource: 13.4Mlbs           | JORC resource: 4.9Mlbs          |
| Primary mineralisation            | Primary mineralisation            | Secondary mineralisation        |
| Open Pit Hardrock – Drill & blast | Open Pit Hardrock – Drill & blast | Free dig/physical beneficiation |
| Acid plant treatment              | Acid plant treatment              | Acid or alkali plant treatment  |
| Cut-off/Grade: 250&300/401ppm     | Cut-off/Grade: 250ppm/405ppm      | Cut-off/Grade: 100ppm/160ppm    |

### Three deposits feeding a central plant

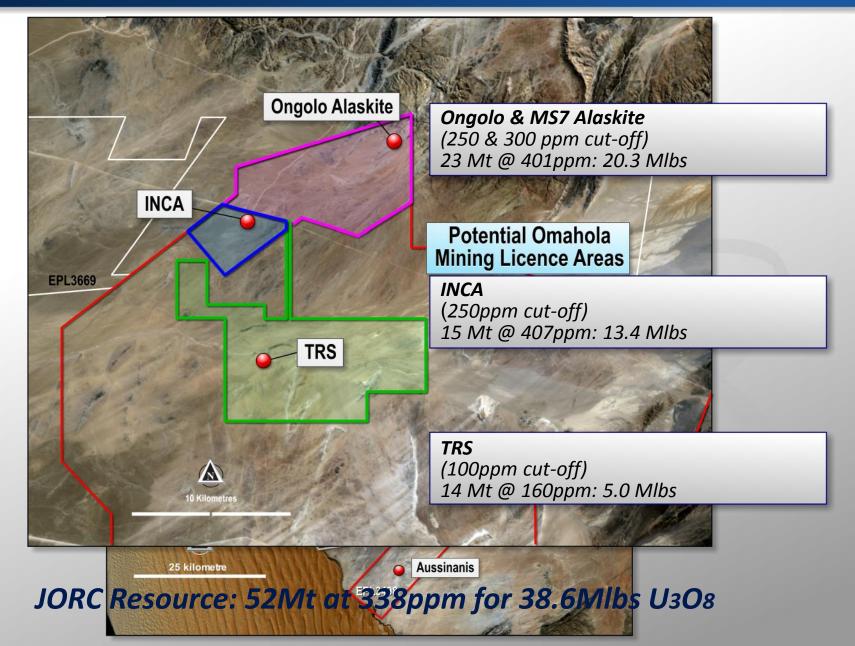
# ADVANCED XPLORATION

| TUBAS-TUMAS PALAEOCHANNEL   | AUSSINANIS<br>Project        | SHIYELA IRON Project              |
|-----------------------------|------------------------------|-----------------------------------|
| JORC Resource: 50.8Mlbs     | JORC Resource: 18.0Mlbs      | Mineralisation: Magnetite +       |
| Secondary mineralisation    | Secondary mineralisation     | Open Pit Hardrock – Drill & blast |
| Calcrete & sand hosted      | Sheetwash deposit            | Drilling complete                 |
| Free dig &/or drill & blast | Free dig &/or drill & blast  | Resource work underway            |
| Alkali plant treatment      | Alkali plant treatment       | Target: 150Mt, Recovery > 20%     |
| Grade: 250ppm               | Cut-off/Grade: 150ppm/237ppm | Scoping Study 2011                |

### A multi-project company

## Omahola Project - Location





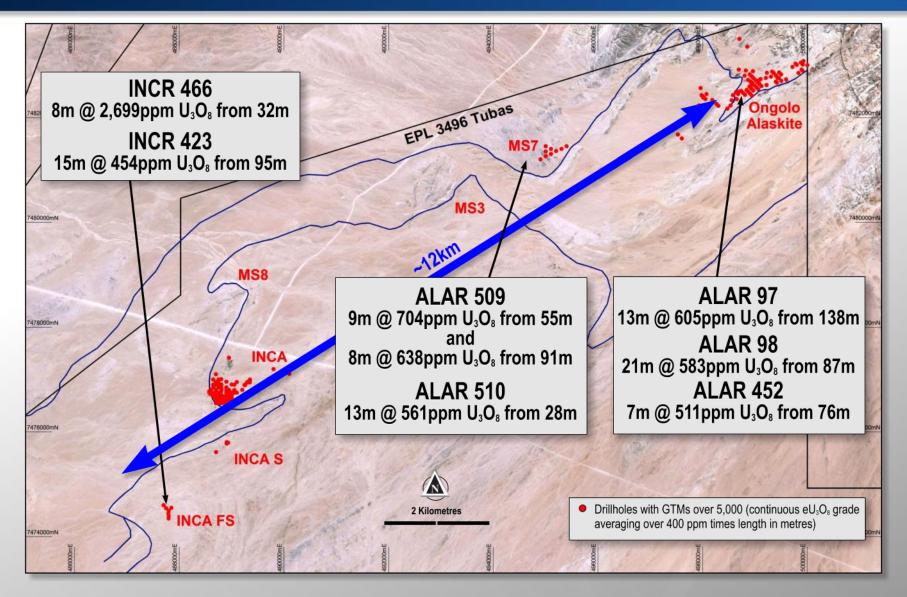
## Omahola Project - Overview



- \* Three Deposits feeding common plant:
  - Ongolo High-grade alaskite hosted uranium mineralisation
  - INCA Unique high grade uranium, magnetite and pyrite mineralisation
  - Tubas Red Sand Low grade surficial sands upgradeable by physical beneficiation
- **Hard rock Resource:** 
  - 38.1Mt @ 404ppm for 33.7Mlbs
- Interim PFS Results (SNC-Lavalin)
  - 2.2Mlbspa operation
  - Minimum 12 year mine life
  - Open pit / Surface Mining
  - Conventional acid based processing plant
  - Capex: ~US\$330M & Opex: ~US\$26/lb
     But critical mass still an issue....

## Omahola Project – Exploration Success





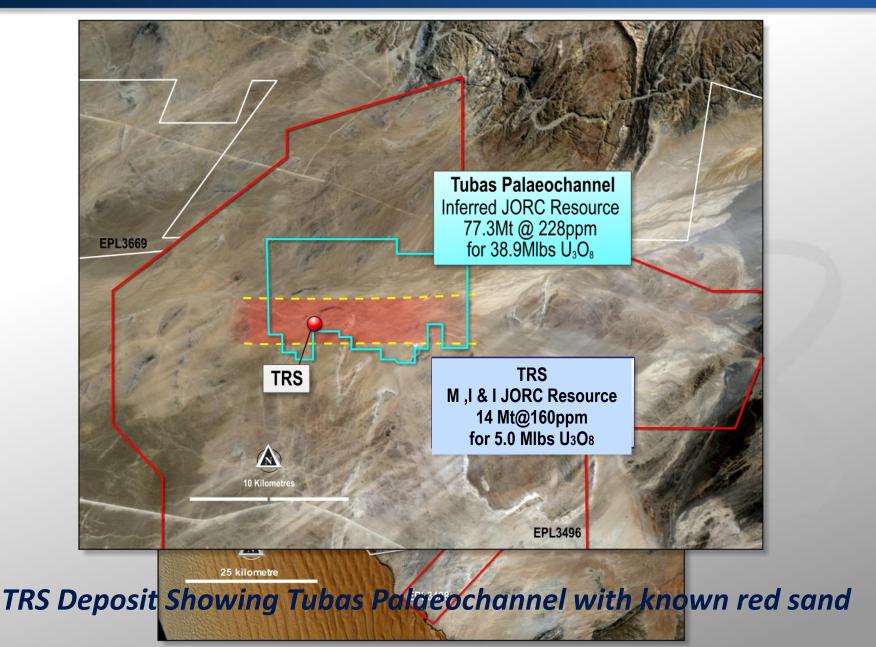
Resource Base is growing rapidly to address critical mass issue...

## Omahola Project – Timeline











### **Tubas Red Sand Deposit Characteristics:**

- Well-sorted wind-blown sand, low grade uranium
- Free flowing/loosely consolidated
- Large area south of the Tubas palaeochannel
- **Bulk of uranium in -20μm fraction**

### Objective:

Concentrate maximum uranium in minimum volume through physical beneficiation

#### **Process:**

Hydrocyclone → Scrubbing → Hydrosort → 3 X Hydrocyclones







Trench for Bulk Sample

Carnotite in Red Sand







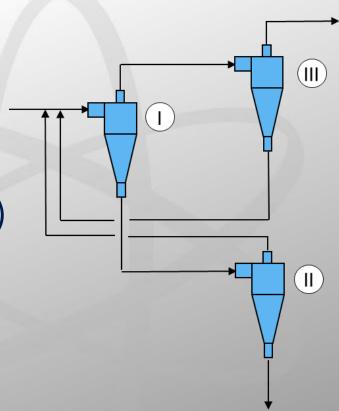
**Schauenburg Pilot Plant in Operation** 



### Successful Schauenburg Pilot Plant Test:

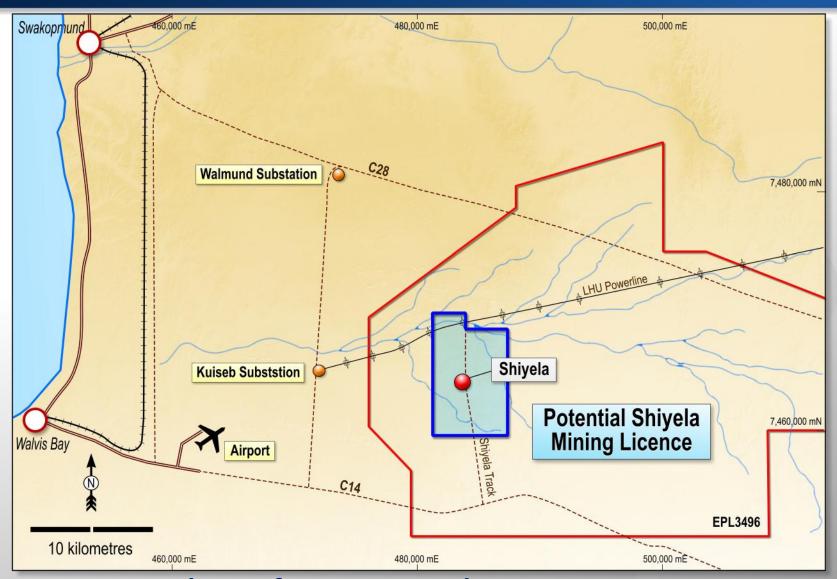
#### **Pilot Plant Schematic**

- Simple, non-chemical process
- Recovery >80% in <20% volume
- Carbonate reduction >80%
- Mass pull between 10% ~ 20%
- Uranium upgrade factor 7.9 (at 10%)
- Process guarantee offered
- Resource upgrade underway
- Produce an intermediate product?



## Shiyela Iron Project - Location



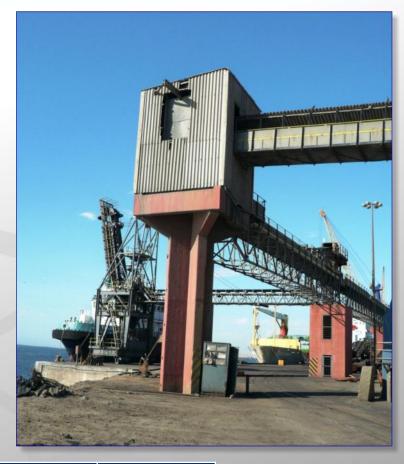


Clear Infrastructure advantage – power and 45 kilometres by road from Walvis Bayport

## Shiyela Iron Project - Overview



- Infrastructure
- Low strip ratio
- Likely Low Capex
- Fast Track development
- Exploration upside
- Outstanding coarse product
  - 150 μ Blast Furnace Grade



| Fe    | SiO <sub>2</sub> | Al2O3 | Р     | S     | LOI   |
|-------|------------------|-------|-------|-------|-------|
| 69.70 | 1.66             | 0.99  | 0.005 | 0.073 | -3.23 |

## Shiyela Iron Project – Results

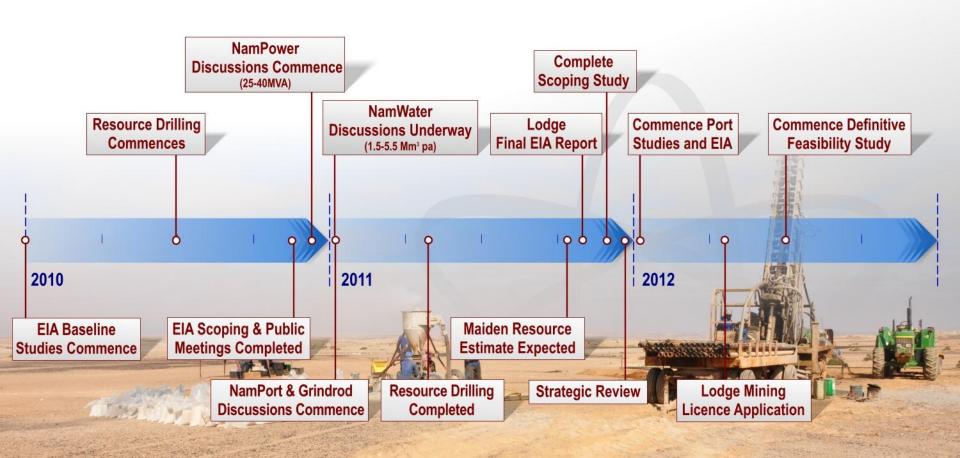


- Initial programme designed to drill out:
  - 120 to 150Mt of ore at 20% recovery
  - ~30Mt high-grade magnetite
  - ~15 year mine life at 2Mtpa
- Drilling completed April 2011
- Golder Associates (Perth) for JORC estimate
- ProMet (Perth) Scoping Study Underway
- Discussions underway:
  - Namport & Grindrod
  - NamWater
  - NamPower



## Shiyela Iron Project – Timeline





On a Fast Track

## **Summary and Conclusion**



- ♦ Ongolo & MS7 JORC Resource delivered 
  ✓
- Successful TRS Beneficiation Trial 
   ✓
- Shiyela EIA completed & submitted
- TRS Deposit upgrade underway for standalone project



- Mining Licence applications for TRS/INCA imminent
- Omahola PFS Ongoing
- Continued exploration success at Ongolo & MS7
- Shiyela resource and scoping study

A multi-project company advancing its flagship projects towards development

### **Contact Details**



### **Greg Cochran**

**Managing Director** 

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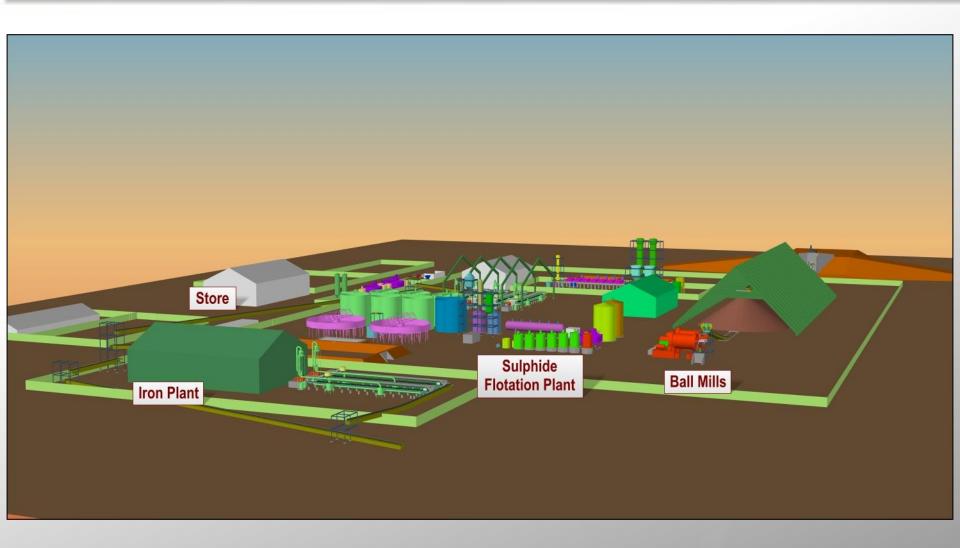




**Appendices** 

## Omahola Project – Proposed Plant Layout





Opportunity to optimise design as Ongolo Alaskite resource grows

### Namibian Palaeochannels



**Tubas (Inferred)** 

(100ppm cut-off)

77.3 Mt @ 228ppm: 39 Mlbs

Tumas (Indicated & Inferred)

(200ppm cut-off)

14.8 Mt @ 366ppm: 12 Mlbs

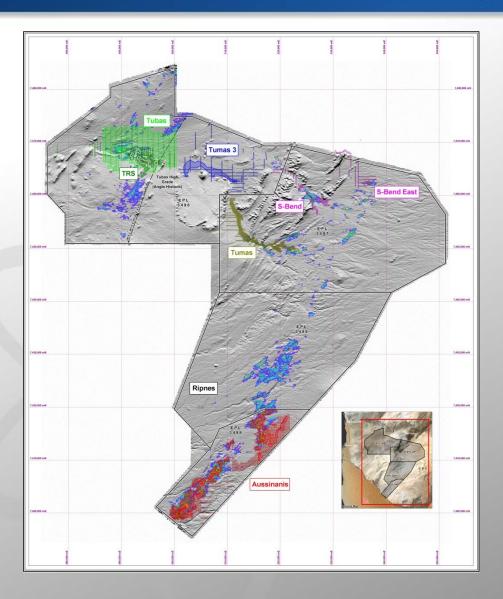
Aussinanis (Indicated & Inferred)

(150ppm cut-off)

34.6 Mt @ 237ppm: 18 Mlbs

Tumas 3 – Conceptual Exploration Target (200ppm cut-off)

10 ~ 30 Mt @ 300 ~ 400ppm

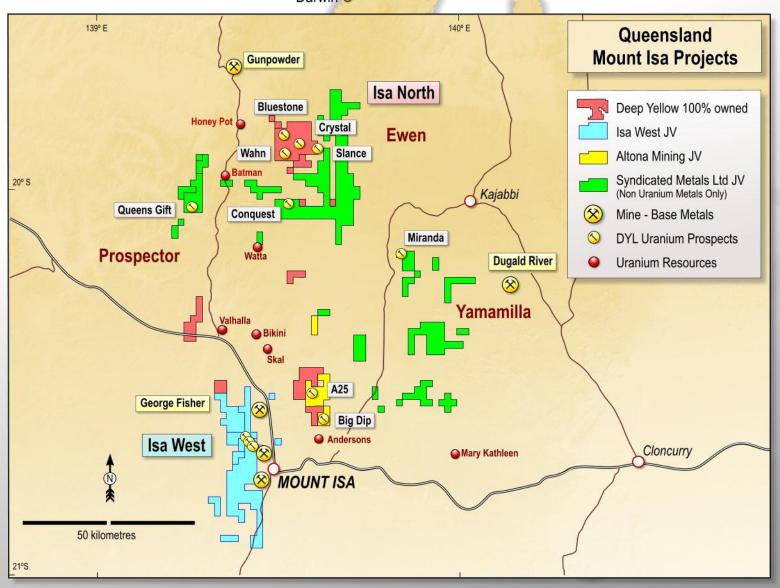


Large, shallow resource base with significant exploration upside

### Australia - Queensland



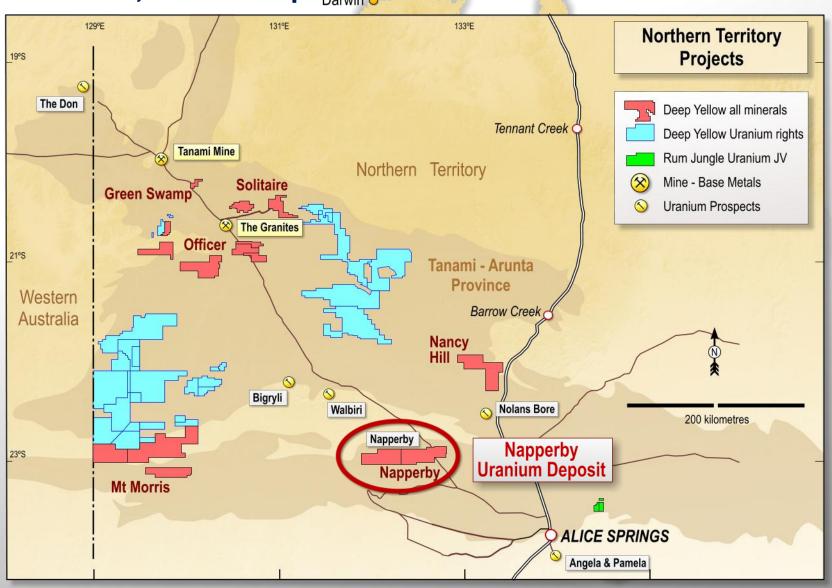
### Almost 1,700 km<sup>2</sup> exploration area: 4.8 Mlbs in resources



## Australia – Northern Territory



Over 23,000 km<sup>2</sup> exploration area: 7.4 Mlbs in resources



## JORC Resource Summary – Namibia (11/11)

|                          |                        | Cut-off |               |       | N3O8   | N3O8  |
|--------------------------|------------------------|---------|---------------|-------|--------|-------|
| Deposit                  | Category               | (ppm)   | Tonnes<br>(M) | (ppm) | (t)    | (MIb) |
| REPTILE URANIUM          | NAMIBIA (NAMI          | BIA)    |               |       |        |       |
| Omahola Project          |                        |         |               |       |        |       |
| INCA ◆                   | Indicated              | 250     | 9.4           | 385   | 3,628  | 8     |
| INCA ◆                   | Inferred               | 250     | 5.5           | 445   | 2,449  | 5.4   |
| Ongolo                   | Indicated              | 250     | 14.7          | 410   | 6,027  | 13.2  |
| Ongolo                   | Inferred               | 250     | 5.8           | 380   | 2,204  | 4.8   |
| MS7                      | Inferred               | 300     | 2.7           | 400   | 1,080  | 2.3   |
| Tubas Red Sand ◆         | Measured<br>/Indicated | 100     | 3.2           | 168   | 532    | 1.2   |
| Tubas Red Sand ◆         | Inferred               | 100     | 10.7          | 158   | 1,685  | 3.7   |
| Omahola Project T        | otal                   |         | 52.0          | 338   | 17,605 | 38.6  |
| Tubas-Tumas Pala         | eochannel Proj         | ect     |               |       |        |       |
| Tumas ♦                  | Indicated              | 200     | 14.4          | 366   | 5,270  | 11.6  |
| Tumas ♦                  | Inferred               | 200     | 0.4           | 360   | 144    | 0.3   |
| Tubas                    | Inferred               | 100     | 77.3          | 228   | 17,612 | 38.9  |
| Tubas-Tumas Proj         | ect Total              |         | 92.1          | 250   | 23,026 | 50.8  |
| Aussinanis Project       | t                      |         |               |       |        |       |
| Aussinanis ♦             | Indicated              | 150     | 5.6           | 222   | 1,243  | 2.7   |
| Aussinanis ♦             | Inferred               | 150     | 29            | 240   | 6,960  | 15.3  |
| Aussinanis Project Total |                        |         | 34.6          | 237   | 8,203  | 18.0  |
|                          |                        |         |               |       |        |       |
| RUN TOTAL - NAMI         | BIA                    |         | 178.7         | 273   | 48,834 | 107.4 |

Notes: Figures have been rounded and totals may reflect small rounding errors. XRF chemical analysis unless annotated otherwise.

 <sup>◆</sup> eU₃O₃ - equivalent uranium grade as determined by downhole gamma logging.

<sup>#</sup> Combined XRF Fusion Chemical Assays and eU<sub>3</sub>O<sub>8</sub> values.

## JORC Resource Summary – Aus (11/11)



|                   |                | Cut-off  |               |               | U3O8   | N3O8  |
|-------------------|----------------|----------|---------------|---------------|--------|-------|
| Deposit           | Category       | (ppm)    | Tonnes<br>(M) | U3O8<br>(ppm) | (t)    | (MIb) |
|                   |                |          |               |               |        |       |
| NAPPERBY PROJEC   | CT (NT, AUSTRA | LIA)     |               |               |        |       |
| Napperby          | Inferred       | 200      | 9.3           | 359           | 3,351  | 7.4   |
| NAPPERBY TOTAL    |                |          | 9.3           | 359           | 3,351  | 7.4   |
| MOUNT ISA PROJE   | CT (QLD. AUSTF | RALIA)   |               |               |        |       |
| Mount Isa         | Indicated      | 300      | 2.2           | 470           | 1,050  | 2.31  |
| Mount Isa         | Inferred       | 300      | 2.5           | 450           | 1,120  | 2.48  |
| MOUNT ISA TOTAL   |                |          | 4.7           | 460           | 2,170  | 4.8   |
| AUSTRALIA TOTAL   |                |          | 14.0          | 393           | 5,521  | 12.2  |
|                   |                |          |               |               |        |       |
|                   | [              | EEP YELL | OW TOTALS     |               |        |       |
|                   |                |          |               |               |        |       |
| TOTAL INDICATED F | RESOURCES      |          | 49.5          | 358           | 17,750 | 39.01 |
| TOTAL INFERRED R  | ESOURCES       |          | 143.2         | 256           | 36,605 | 80.58 |
| TOTAL RESOURCES   |                |          | 192.7         | 282           | 54,355 | 119.6 |

Notes: Figures have been rounded and totals may reflect small rounding errors. XRF chemical analysis unless annotated otherwise.

<sup>◆</sup> eU<sub>3</sub>O<sub>8</sub> - equivalent uranium grade as determined by downhole gamma logging.

<sup>#</sup> Combined XRF Fusion Chemical Assays and eU<sub>3</sub>O<sub>8</sub> values.

### JORC Compliance Statements



#### Namibia

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Leon Pretorius, a Fellow of the Australasian Institute of Mining and Metallurgy. Dr Pretorius, Managing Director of Reptile Uranium Namibia (Pty) Ltd has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Pretorius 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 report that relates to the **MS7** Mineral Resource is based on work completed by Mr Neil Inwood; for the **INCA** Mineral Resource on work completed by Mr Neil Inwood and Mr Steve Le Brun – Mr Inwood will supply consent for the Inca Resource; and for the Ongolo Mineral Resource on work completed by Mr Neil Inwood and Mr Doug Corley. Mr Inwood is a Fellow of the Australasian Institute of Mining and Metallurgy and Mr Corley is a member of the Australian Institute of Geoscientists. Messrs Inwood and Corley have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Messrs Inwood and Corley consent to the inclusion in the report of the matters based on his information in the form and context in which it appears. Messrs Inwood and Corley are full-time employees of Coffey Mining.

The information in this report that relates to the **Aussinanis and Tumas** Mineral Resources is based on work completed by Mr Jonathon Abboti who is a full time employee of Hellman and Schofield Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy. Mr Abboti has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' and as a Qualified Person as defined in the AlM Rules. Mr Abbott 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 report that relates to the **Tubas Red Sand** Mineral Resource is based on information compiled by Mr Mike Hall, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hall is Consulting Geologist Resources with the MSA Group and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hall consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Information in this report has also been verified by Mr Mike Venter, who is a member of the South African Council for Natural and Scientific Professions (SACNASP), a 'Recognised Overseas Professional Organization' (ROPO). Mr Venter is Regional Consulting Geologist, with The MSA Group and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Venter has visited the project sites to review drilling, sampling and other aspects of the work relevant to this announcement. Mr Venter 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 report that relates to the **Tubas** Mineral Resource is based on information compiled by Mr Willem H. Kotzé Pr.Sci.Nat MSAIMM. Mr Kotzé is a Member and Professional Geoscientist Consultant of Geomine Consulting Namibia CC. Mr Kotzé has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Kotzé consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

### **JORC Compliance Statements**



#### Queensland

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Martin Kavanagh, a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Kavanagh is an Executive Director of Deep Yellow Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Kavanagh 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 report that relates to the Queensland Mineral Resource is based on information compiled by Mr Neil Inwood. Mr Inwood is a Member of The Australasian Institute of Mining and Metallurgy. Mr Inwood is employed by Coffey Mining Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Inwood consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Northern Territory**

The information in this report that relates to the **Napperby Project** Mineral Resource is based on information compiled by Mr Daniel Guibal who is a Fellow (CP) of the Australasian Institute of Mining and Metallurgy. Mr Guibal is a full time employee of SRK Consulting and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Guibal consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Where eU3O8 values are reported it relates to values attained from radiometrically logging boreholes with Auslog equipment using an A675 slimline gamma ray tool. All probes are calibrated either at the Pelindaba Calibration facility in South Africa or at the Adelaide Calibration facility in South Australia.