Deep Yellow Limited

ASX Announcement **ASX: DYL**

8 May 2014

Tubas Sand Project Trade-Off Study

KEY POINTS

- **DRA Mineral Projects has completed a preliminary techno-economic trade-off study for the Tubas Sand Project in Namibia**
- **The study, to scoping level accuracy, confirmed the economics of the project under various operating scenarios and flowsheet options, from the production of an upgraded sand concentrate by physical beneficiation through to a final uranium precipitate product**
- **Production of a sand concentrate for sale to an existing Namibian producer is preferred, being the option with the lowest technical risk, capital expenditure and shortest development schedule**
- **Planning is underway for an accelerated pre-feasibility and feasibility study which, depending on funding and market conditions, could be completed by mid-2015**

Advanced stage uranium explorer Deep Yellow Limited ('DYL' or 'the Company') is pleased to announce the completion of a preliminary techno-economic trade-off study by DRA Mineral Projects ('DRA') for the Tubas Sand Project in Namibia. The study compared five processing options representing various levels of beneficiation, yielding products ranging from an upgraded sand concentrate through to uranium bearing precipitates. A physical beneficiation option consisting of ore scrubbing, classification and dewatering to produce an upgraded sand concentrate for sale to existing Namibian producers has been selected as the preferred strategy.

Whilst other options remain feasible under different pricing assumptions physical beneficiation was selected due to its lower technical risk and capital expenditure and shortest estimated development schedule. In addition, environmental approval from the Republic of Namibia's Ministry of Environment and Tourism is already in place for this project under these operating conditions.

"This is a good result. We now have an independent view of the potential of the Tubas Sand Project" said DYL's Managing Director, Greg Cochran. "The study has given us greater confidence to move the project forward and also provided clarity on the operational choices to be made. We will now focus on working with DRA in planning an accelerated pre-feasibility and feasibility study with a view to completing it by the middle of June 2015, depending on funding and market conditions. Obviously current uranium prices are both unattractive and unsustainable so we will be looking for stronger market signals before making any commitment for development."

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For further information on the Company and its projects visit the website at www.deepyellow.com.au

Brief Summary of the Results of the Study

The preliminary techno-economic assessment study and risk analysis compared five processing options representing various levels of beneficiation, yielding products ranging from an upgraded sand concentrate, intermediate precipitation products, loaded resin and final uranium bearing precipitates. Within each of the processing options, subsets of opportunities were considered for overland transport (trucking or pumping) of concentrate, for obtaining process water by desalination and for integration with existing Namibian uranium producers.

All options considered well established processing technology and included ore scrubbing and size classification ahead of the main processing facility. The main processing plant comprised of beneficiation combinations of atmospheric acid tank leaching, resin in pulp, elution, solvent extraction and final product precipitation using either hydrogen peroxide or ammonia.

The process design and subsequent capital and operating cost estimates derived for the various options were based on historic and current test work data, together with preliminary engineering, database estimating and by benchmarking with similar operations in Sub-Saharan Africa. Preliminary economic analysis indicated that increased levels of beneficiation will not improve the economic returns.

A physical beneficiation option consisting of ore scrubbing, classification by cyclones and dewatering to produce an upgraded sand concentrate for sale to existing Namibian producers was selected as the preferred processing strategy. This is from an economic, environmental, technical simplicity and capital intensity viewpoint. Previous test work results using Schauenburg technology were reviewed but not included in this study.

Concentrate transportation to existing producers could be done utilising either overland pumping or by using road transportation.

Depending on ultimate desalinated water and energy input costs it is expected that a mining and physical beneficiation operation could produce the upgraded sand concentrate at a cost of less than US$25/lb U_3O_8 before being transported to an existing Namibian producer, based on mining cost estimates provided by DYL's technical team. It is believed that there is significant upside potential and subsequent test work and engineering will focus on capturing that upside.

Future study phases will aim to complete the necessary metallurgical characterisation test work which will include mineralogy, solid/liquid separation, rheology and diagnostic leaching to provide sufficient data for design and value optimisation.

Background Information on the Tubas Sand Project

Overview

The Tubas Sand deposit consists primarily of low grade secondary uranium mineralisation (carnotite) in well-sorted aeolian (windblown) sand which occurs immediately south of the Tubas palaeochannel located on Exclusive Prospecting Licence (EPL) 3496. EPL3496 is held by Reptile Uranium Namibia Pty Ltd ('RUN'), Deep Yellow's wholly owned Namibian operating entity.

The Project was originally held by Anglo American ('Anglo') in the 1970's and early 1980's. Anglo successfully demonstrated that the deposit was amenable to upgrading via physical beneficiation and envisaged an offtake arrangement of upgraded sand concentrate to Rössing Uranium Mine.

The deposit can be mined in a shallow, low cost free dig truck and shovel operation and already has full environmental clearance whilst a Mining License Application has also been lodged.

RUN conducted independent laboratory tests and its own pilot scale test work in 2011 with new technology which proved that the deposit could readily be physically beneficiated in a relatively low cost process to produce a low carbonate, uranium rich sand concentrate that is amenable to alkali or acid leaching. The results showed high uranium recoveries and effective carbonate reduction, as well as impressive uranium upgrade factors up to 7.9 (depending on mass pull).

DYL has always believed that a strategy to produce an intermediate product which could be sold to an existing Namibian uranium producer would be attractive. This would enable the company to potentially commence production initially at a smaller scale with a gradual increase depending on the resource and other operating and market factors. Ultimately, it is envisaged that the project could supply DYL's own Omahola Project.

The recently updated Indicated and Inferred JORC 2012 Mineral Resource for the Tubas Sand deposit totals 34 Mt at 170 ppm for 12.7 Mlbs U_3O_8 at 100 ppm U_3O_8 cut-off (See Appendix 1). (Refer ASX 24 March 2014).

Metallurgical Testwork (Conducted prior to DRA's involvement)

Laboratory scale test work, undertaken at Mintek in Johannesburg in 2011, involved low intensity scrubbing, assay by size analysis on feed and product streams and diagnostic atmospheric leach tests on a composite sample of concentrates. Scrubbing at energy levels ranging from 1.7 to 4.0 kWh/t, resulted in uranium recoveries ranging from 78 to 83% at cut-sizes of 75µm to 150µm.

The final uranium leach efficiency of an upgraded scrubbed sample was 96% within 12 hours and no oxidant was necessary for this leach.

A pilot plant (See Figure 1), designed and supplied by Schauenburg MAB GmbH, Germany (Schauenburg) to RUN in 2011 enabled it to conduct its own test work in its Swakopmund laboratory. The plant performed well at cut sizes down to sub-20µm with the following results:

- 12~20% mass pull (100 tonnes feed delivered 12~20 tonnes product);
- 84% uranium recovery in less than 20% of the feed mass;
- uranium content upgraded by as much as a 7.9 factor (100 ppm U_3O_8 feed results in 790 ppm U_3O_8 product); and
- carbonate reduction up to 86% which would result in lower plant reagent consumption.

Schauenburg have offered a process guarantee as a result of these successful tests.

Figure 1. Schauenburg Hydrocyclone Pilot Plant in RUN's laboratory, 2011

About Deep Yellow Limited

Deep Yellow Limited is an ASX-listed, Namibian-focussed advanced stage uranium exploration company. It also has a listing on the Namibian Stock Exchange.

Deep Yellow's operations in Namibia are conducted by its 100% owned subsidiary Reptile Uranium Namibia (Pty) Ltd. Its flagship is the high grade alaskite Omahola Project where mining studies are being conducted and the next phase of metallurgical testwork is being planned as inputs into a Pre-Feasibility Study. It is also evaluating fast track development options for its Tubas Sand Project utilising physical beneficiation techniques it successfully tested in 2011.

APPENDIX 1 – JORC 2012 Project Resource

Resource category	Cut-off U_3O_8 [ppm]	Tonnage [Mt]	U_3O_8 grade [ppm]	U_3O_8 metal [tonnes]	U_3O_8 metal (Mlbs)	In-Situ Dry bulk density
Indicated	70	10,800	180	1,900	4.2	1.8
Inferred		28,900	149	4,300	9.5	1.8
Total		**39,700**	**158**	**6,200**	13.7	1.8
Indicated	100	10,000	187	1,900	4.1	1.8
Inferred		24,000	163	3,900	8.6	1.8
Total		**34,000**	**170**	**5,800**	12.7	1.8
Indicated	150	5,800	232	1,300	2.9	1.8
Inferred		10,200	215	2,200	4.8	1.8
Total		**16,000**	**221**	**3,500**	7.7	1.8

Compliance Statements:

Mineral Resource Estimate
Where the Company refers to the Tubas Sands Project Mineral Resource Estimate in this announcement (referencing the announcement made to the ASX on 24 March 2014), it confirms that it is not aware of any new information or data that materially affects the information included in that announcement and all material assumptions and technical parameters underpinning the resource estimate with that announcement continue to apply and have not materially changed.

Trade-Off Study
The information in this announcement that relates to the preliminary techno-economic assessment and risk analysis study is based on metallurgical information reviewed by Mr Val Coetzee (B.Eng (Chem), M.Eng, Pr.Eng, SAIMM). Mr Coetzee is a full time employee of DRA Global a Consulting Engineering Group. Mr Coetzee is a Professional Engineer registered with the Engineering Council of South Africa and has more than 13 years of relevant experience in this area of work. Mr Coetzee consents to the inclusion in this announcement of the matters based on information provided by him and in the form and context in which it appears.

Forward-Looking Statements

Certain statements made in this announcement, including, without limitation, those concerning the preliminary techno-economic assessment and risk analysis, contain or comprise certain forward-looking statements regarding Deep Yellow Limited's (DYL) exploration operations, economic performance and financial condition. Although DYL believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management. DYL undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.

The Company notes that an inferred resource has a lower level of confidence than an indicated or measured resource. The Company believes that based on the geological nature of its deposit and the work done over several years by its geological team and its Competent Person that there is a high degree of probability that the inferred resources will upgrade to indicated resources with further exploration work.