

# Deep Yellow Limited

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ASX Announcement

ASX Code DYL

## Engineers Appointed for Omahola Pre-Feasibility Study and General Project Progress Report

25 February 2010

### Highlights

- SNC Lavalin from South Africa (SNC) has been appointed as engineers to complete the Omahola Project Pre-Feasibility Study (PFS).
- Metallurgical testwork on INCA material is to be conducted by Mintek in South Africa.
- Successful physical beneficiation testwork by Mintek on Tubas Red Sand (TRS) samples results in the concentration of 90% of the contained  $U_3O_8$  in the minus 75 micron fraction which constitutes 22% of the feed.
- Softchem from South Africa has been appointed to complete the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) studies.
- Additional INCA data required for JORC Code resource estimation work by MSA Consulting from South Africa now quality controlled and delivered on 23 February 2010. Estimate is 3 to 4 weeks to completion.
- Ongoing diamond drilling of INCA Deeps returns further encouraging results of **11 metre at 596 ppm eU<sub>3</sub>O<sub>8</sub>**.

### Omahola Project Summary

The INCA and TRS deposits together make up the Omahola Project.

The INCA mineralisation is metasomatic in origin and consists of both primary and secondary uranium mineralisation with abundant iron (magnetite) in places. The TRS mineralisation is entirely secondary and occurs in free digging aeolian sand located about 10 kilometre south of INCA.



As stated previously RUN determined that around 8,000 tonne contained  $U_3O_8$  at ~400 ppm will suffice to warrant construction of a ~1,000 tpa production plant. On this basis the detail grid area was selected as being large enough to contain that amount of mineralisation. Once the JORC Code resource is known a decision will be made whether to continue the drill out of the known larger mineralised area to add additional tonnage or whether to step out the drilling to look at the extensions to the INCA mineralised area based on geophysical anomalies generated from the three airborne surveys and the current gravity survey. In the interim metallurgical, environmental, social and other studies are being conducted with a view to production from this exciting project as soon as possible.

### **Pre-Feasibility Engineers Appointed**

After a lengthy evaluation process it was decided to appoint SNC-Lavalin SA (Pty) Ltd (SNC) as Reptile Uranium Namibia's (RUN) consultants to complete the PFS. This decision was based upon their world wide experience in uranium processing plants and mines. Their team will augment the in-house expertise of RUN's Project Manager, General Manager and Managing Director, all who have extensive uranium processing experience.

Although Johann Verster of SNC has had informal input into the various flowsheet proposals developed by RUN since October 2009, the kick-off meeting with SNC in Swakopmund took place during the week of 15 February 2010 following formal agreement signing procedures. Mintek who are conducting the metallurgical testwork were also present to finalise sample selection, sample size, etc.

RUN is satisfied that it has made the best choice available and looks forward to working with both groups going forward.

### **Metallurgical Testwork**

Mintek of South Africa was selected to conduct the metallurgical testwork on both the INCA and TRS material.

The metasomatic origin of the INCA mineralisation which consists of both primary and secondary uranium associated with variable alteration (including carbonate) and magnetite within granite, granitic gneiss and metasedimentary rocks has led to a decision to initially separate the three main ore types at INCA for extraction trials prior to blending them proportional to their volumetric contribution within the deposit for the final testwork.

Basically a mild sulphuric acid leach will most likely be the chosen processing route with refinements for carbonate neutralisation and/or removal and iron (magnetite) recovery.

Pyrite (and lesser pyrrhotite) is almost ubiquitously present from shallow depths within the INCA deposit and recovery through flotation will be tested later for use in an autoclave to produce sulphuric acid. This is commonly used 'off-the-shelf' technology and should present no problems.

Mintek has completed attritioning and uranium concentration and size distribution tests on the TRS material and a brief summary of their report follows below. Testwork is now being conducted on how best to separate the fine fraction containing most of the uranium and then to physically separate the gangue material from the carnotite within it.



### Summarised Results of Mintek Test Work on TRS Samples

The geological model of the TRS deposit is still being developed at this stage, but the mineralised aeolian sand has been located in drill holes south of the Tubas Palaeochannel over a distance of at least 20 kilometre. Continuity and distribution needs to be defined in future with detail grid drilling. It is presumed given its unconsolidated free-digging nature that a lower grade than required in cemented calcrete hosted mineralisation will suffice and its low carbonate content makes it amenable to treat in either an acid or alkali processing plant.

Test work to determine the characteristics of the TRS carnotite mineralisation and possible beneficiation methods was carried out by Mintek (South Africa) on composite mineralised samples collected from the trial mining trench (previously reported) within the deposit that was subjected to resource drilling. Size-by-size and uranium analyses were done on the samples as received. Laboratory scrubbing and attritioning test work were also performed.

The uranium is concentrated in the finer fraction for both the raw as well as the processed samples. The highest concentration was obtained when scrubbing when a ball charge of 10% was used as the test method.

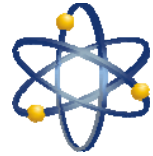
- For the raw sample 87.5% of the  $U_3O_8$  concentrated in 24% to 27% of the material in the minus 150 micron fraction while in the minus 38 micron fraction 77% of the  $U_3O_8$  concentrated in 17 to 20% of the feed.
- Scrubbing with balls efficiently broke the top size of the material and ensured that the majority of the  $U_3O_8$  was liberated into the finer size fractions. The minus 75 micron material contained 90% of the  $U_3O_8$  in 22% of the feed.

It is envisaged that a dry air classification process would be used at the TRS site to concentrate the uranium minerals. The concentrated ore would then be transported to the INCA processing plant about 10 km to the north of the trial trench site. This upgrading process would decrease the transport cost and the processing costs at INCA. The TRS will be added to the INCA ore at amounts to be determined by the INCA process characteristics.

### Environmental Studies and Mining Licence Applications for Iron Production

RUN decided after a detailed evaluation and selection process to appoint Softchem from South Africa to complete its EIA and EMP studies for the Omahola Project. Softchem completed the original Langer Heinrich Mine's environmental studies and reports and are well regarded in the industry and in Namibia in particular.

The study into supplying ferric (iron) to the Rossing Uranium mine is ongoing and once complete a decision will be made whether to proceed with this project as a precursor to the fully fledged uranium and iron producing facility. At present the environmental base line studies for early stage Mining Licence (ML) applications to produce iron alone exclude tailing disposal and any chemical extraction activities. Once Mintek's metallurgical testwork indicates the processing route and hence chemicals and tailings characteristics the environmental studies will be expanded accordingly.



## JORC Code Estimation Studies

All INCA data for the JORC Code resource estimation work by MSA has now been subjected to quality control and fully audited and was delivered on 23 February 2010. Since the first data was provided to MSA in December a few more holes have been added to the database, directional surveying of the deep holes completed and additional chemical assays completed and a third party consultant determined conversion factors for eU<sub>3</sub>O<sub>8</sub> versus cU<sub>3</sub>O<sub>8</sub> assay values.

The latest estimate is 3-4 weeks to completion.

The TRS JORC Code report will accompany the INCA Resource announcement.

## Drilling

There are presently 4 rigs operating at INCA:

- Two diamond rigs are drilling HQ size core within the detail grid in order to collect the 2.5 tonne of metallurgical sample required by Mintek.
- One diamond rig is deepening the remaining 4 incomplete RC holes within the INCA Deeps portion in the north of the grid.
- One RC rig is carrying out reconnaissance drilling of ~250 metre deep 60 degree angle holes east of the INCA grid.

## Results from Recent INCA Diamond Drilling

Drillhole	mE	mN	Azi	Dip	TD (m)	From (m)	To (m)	Interval (m)	eU <sub>3</sub> O <sub>8</sub> (ppm)	GTM
INCRD277	489,000	7,476,850	0	-90	314	245	256	11	596	6,556

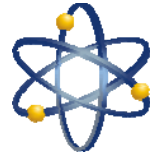
## Pre-Feasibility Timing

Mintek estimate 3 months from receipt of the 2.5 tonne INCA sample to complete their testwork. The sample should be available and delivered to Johannesburg before end March.

SNC require an additional two months for their report compilation.

At this stage therefore the estimated completion date is September 2010.

Softchem's studies and reports should be complete within the same timeframe, but if RUN proceeds with early stage Mining Licence applications to produce ferric (iron) the initial EIA/EMP procedures will be completed sooner and then expanded to encompass the tailings and chemical processing plant.



## Electricity

Presently there is excess power available in Namibia with further generating capacity being planned. This is not seen to be a problem.

## Water

Areva who have constructed a desalination plant north of Swakopmund have publically announced they will have excess water available which will probably be distributed by NAMWATER. RUN is however undertaking pilot-scale studies to produce potable water from the saline water contained within the INCA proposed pit area. Large quantities of similar water is known to be present in the Tubas palaeochannel a few kilometre south and east of INCA and at present RUN plans to evaluate the commercial aspects of producing its own water on site through desalination and injecting the brine back into the saline aquifer.



From left to right representing SNC-Lavalin SA (Pty) Ltd is James Nieuwenhuys (Managing Director) and Johann Verster (Technical Specialist Uranium); Leon Pretorius (Managing Director RUN); and Martin Kavanagh (Executive Director DYL) during signing of the agreement to complete the Omahola Project's PFS

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*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 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.*

*Where  $eU_3O_8$  and/or  $cU_3O_8$  is reported it relates to values attained from radiometrically logging boreholes with Auslog equipment using an A675 slimline gamma ray tool. The probes have been calibrated either at the Pelindaba Calibration facility in South Africa or at the Adelaide Calibration facility in South Australia.*

**Deep Yellow Limited (DYL)** is an Australian based pure uranium exploration company with extensive operations in Namibia and Australia.

DYL's principal development focus is in Namibia through its 100% owned subsidiary **Reptile Uranium Namibia P/L** (Reptile) at the mid to high grade Omahola Project and the extensive secondary calcrete deposits contained in the Tumas-Oryx-Tubas palaeochannel and fluvialite sheetwash systems.

The Omahola Project comprises the INCA uranium and iron and Tubas Red Sand (TRS) uranium deposits. JORC Code resource estimates for Omahola are being completed and management are confident it will underpin the stated objective of becoming a producer of 1,000 to 1,500 tonne of  $U_3O_8$  per year at a grade of 400 ppm or better from the combined deposits.

As part of the transition from explorer to producer DYL and Reptile have been building a team of in-house expertise and consultants to complete the required studies and various reports and permit applications.

The Australian focus is on resource delineation in the Mount Isa district of Queensland and greenfields exploration in the Northern Territory. A pipeline of other projects in both countries are continually being examined and there is extensive exploration potential for new discoveries.