

NEWS RELEASE

10 February 2021

DEEP YELLOW PROCEEDING WITH TUMAS DFS FOLLOWING POSITIVE PFS

HIGHLIGHTS

- **Highly positive Pre-Feasibility Study (PFS) completed on the Tumas palaeochannel project (Tumas Project)**
 - **PFS focused on a Langer Heinrich-style open pit mining operation utilising a purpose-built processing facility with a design capacity of 3Mlb U₃O₈ per annum**
 - **Tumas Project PFS confirms technical and economic viability of the Project delivering the following key outcomes:**
 - **Utilises only 50% of the total Mineral Resources available on Tumas Project**
 - **After further resource definition drilling, converted Inferred Mineral Resources to Indicated Mineral Resources at a conversion rate of 95%**
 - **Established a maiden Ore Reserve at a 63% conversion rate from Indicated Mineral Resources to Probable Reserves**
 - **Assumed a fixed uranium price of US\$65/lb in line with TradeTech forecasts**
 - **Confirmed or improved on the Tumas Scoping Study assumptions with key results including:**
 - **11.5 years Life of Mine (LOM)**
 - **post-tax, ungeared NPV_{8.6(nominal)} of US\$207M (A\$276M)**
 - **2.5Mlb U₃O₈ pa average LOM production**
 - **post tax, real, ungeared IRR 21.1%**
 - **C1 Costs US\$27.3/lb after by-product vanadium credit**
 - **total initial CAPEX US\$98M per 1Mlb design capacity**
 - **On the back of the PFS results, Board has approved proceeding directly to a Definitive Feasibility Study (DFS)**
 - **With a key focus on enhancing and further optimising the development option recommended in the PFS**
 - **A drilling program already planned to define sufficient Indicated and Measured Resources outlined as being required by the PFS**
 - **Following the PFS results, the Company is confident in achieving its stated development criteria for the Project**
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TUMAS PFS TAKEAWAYS

The Tumas PFS has been successfully concluded and is summarised as follows:

Maiden Ore Reserve

Probable Reserves	U ₃ O ₈ Cut-off	Tonnes	U ₃ O ₈	U ₃ O ₈ Metal
	ppm	Mt	ppm	Mlb
Tumas 1 & 2	150	13.9	292	9.0
Tumas 3	150	26.9	371	22.0
Total	150	40.9	344	31.0

Financial Summary

All dollars (\$) quoted are in 2020 United States (US) dollars unless otherwise specified.

Project Financials (Ungeared): Real Unless Stated Otherwise	Unit	LOM	Per Operating Year
U ₃ O ₈ Gross Revenue	\$M	1,890	164
Gross Revenue: Total (U ₃ O ₈ and V ₂ O ₅)	\$M	1,958	170
Site Operating Expenses	\$M	(833.6)	(72.5)
Other Operating Costs	\$M	(90.6)	(7.9)
Operating Margin (EBITDA)	\$M	1,034	90
Initial Capex	\$M	(295.1)	(25.7)
Capitalised Pre-Production Opex	\$M	(25.3)	(2.2)
Sustaining Capex and Closure	\$M	(37.1)	(3.2)
Total Initial, Pre-Production, Sustaining & Closure Capital	\$M	(357.5)	(31.1)
Undiscounted Cashflow After Tax	\$M	447.4	38.9
C1 Cost (U ₃ O ₈ basis with V ₂ O ₅ by-product)	\$/lb	27.28	
All-in Sustaining Cost (AISC) (U ₃ O ₈ basis with V ₂ O ₅ by-product)	\$/lb	30.69	
Project NPV _{8.6 nominal} (Post Tax)	\$M	207	
Project IRR (Post Tax)	%	21.1	
Project Payback Period from Production Start	Years	3.8	
Breakeven U ₃ O ₈ Price	\$/lb	47.33	

This Announcement is Presented as Follows

1.	Introduction
2.	Tumas Pre-Feasibility Study
3.	Resource to Reserve Conversion Factors
4.	Uranium Resource Status
5.	Maiden Ore Reserve Estimate
6.	Exploration Upside
7.	Uranium Price Outlook
8.	PFS – Key Outcomes
9.	Vanadium By-Product
10.	Development Scenario
11.	Approval to Proceed to DFS
12.	Next Steps in DFS Completion
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1. INTRODUCTION

Deep Yellow Limited (ASX: DYL) (**Deep Yellow** or the **Company**) is pleased to announce the completion of the Tumas Pre-Feasibility Study¹ (PFS).

The PFS evaluated the potential of the calcrete-associated uranium deposits located within the Tumas palaeochannel (**Tumas Project** or **Tumas**) in the Company's 100% owned Reptile Project (EPLs 3496 and 3497), located in Namibia, (see Figure 1).

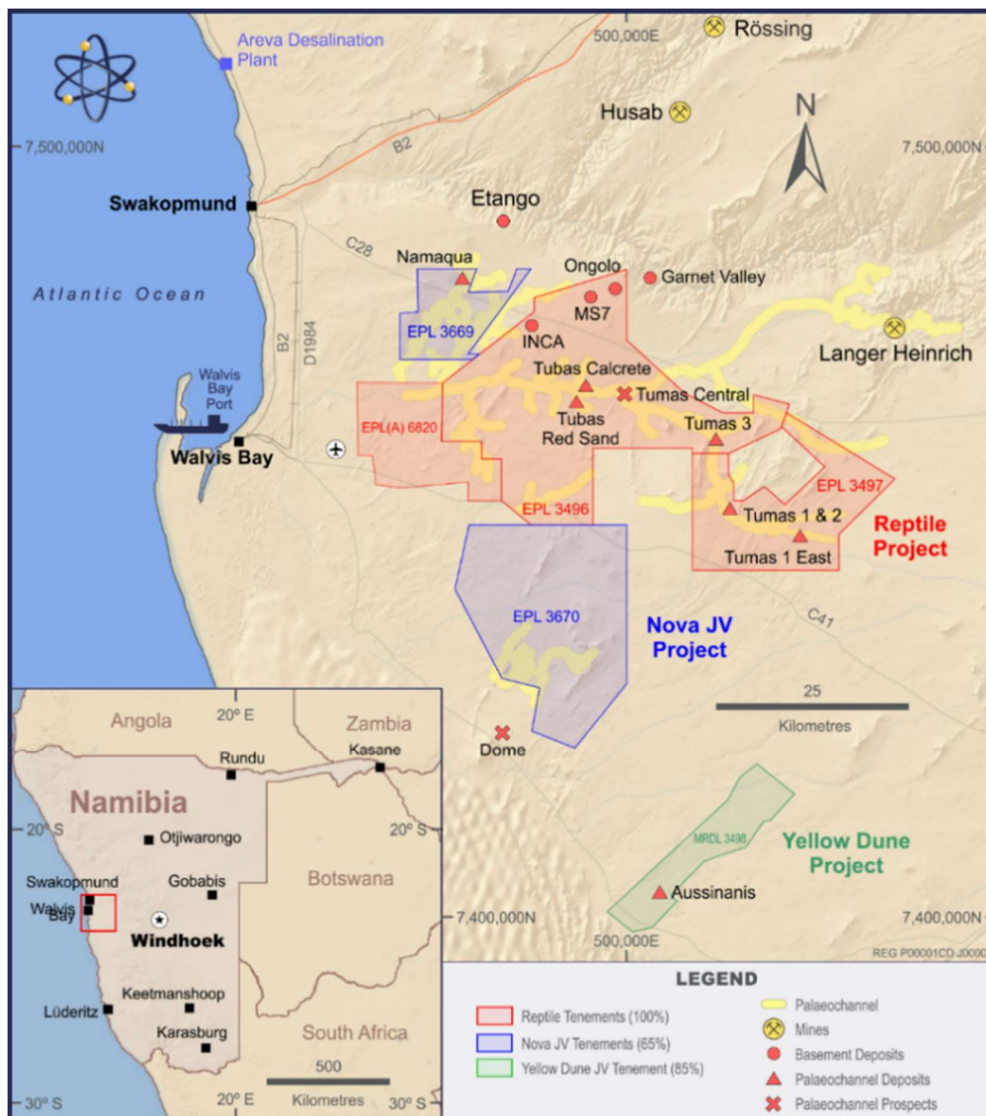


Figure 1 - Namibian locality map showing position of the Tumas Project.

ASX Chapter 5 Compliance and PFS Cautionary Statement¹

The Company has concluded that it has a reasonable basis for providing the forward looking statements and forecast financial information included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and all material assumptions including the JORC modifying factors, upon which the forecast financial information is based are disclosed in this announcement. This announcement has been prepared in accordance with JORC Code 2012 and the ASX Listing Rules.

The actual results could differ materially from a conclusion, forecast or projection in the forward-looking information. Certain modifying factors were applied in drawing a conclusion or making a forecast or projection as reflected in the forward looking and cautionary statements.

The Tumas Project is in the PFS phase and although reasonable care has been taken to ensure that the facts are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and development of projects may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. A key conclusion of the PFS, which is based on forward looking statements, is that the Tumas Project is considered to have positive economic potential.

A Probable Ore Reserve classified under JORC 2012 Guidelines was used for the PFS and all relevant details are set out in this announcement. The Company believes it has a reasonable basis to expect to be able to fund and further develop the Tumas Project. However, there is no certainty that the Company can raise funding when required.

Importantly, the PFS has delivered encouraging results, in line with the assumptions determined and announced from the preceding Scoping Study (**SS**) that was completed in January 2020.

The SS was a critical milestone which identified a project with clear potential to meet the Company's publicly stated investment criteria of:

- Minimum 20 years Life of Mine (**LOM**);
- 2-3Mlb U₃O₈ pa production;
- IRR hurdle rate of 20% (real, ungeared);
- Operating Costs in lower quartile at time of development (US\$30/lb for Tumas); and
- CAPEX US\$120M to US\$130M per 1Mlb of design capacity.

The positive economic outcomes achieved from the PFS have provided the Board with the confidence to approve proceeding directly to a Definitive Feasibility Study (**DFS**), which will commence in February 2021.

In view of the stipulations with respect to the reporting of Technical Studies, Mineral Resources and Ore Reserves in the JORC, 2012. Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code), Deep Yellow herein uses only the Ore Reserves detailed in the maiden Ore Reserve Statement that was a product of the work completed as part of the PFS. The Ore Reserve estimate includes 40Mt of ore at an average grade of 344ppm U₃O₈ containing 31Mlb U₃O₈ of Probable Reserves.

The Ore Reserve estimate was only able to consider Measured and Indicated Resources and these represent 50% of the total Mineral Resources identified. During the DFS, infill drilling will be undertaken over the remaining Inferred Resources to convert them from Inferred Resources to Indicated Resources. Once converted, these resources will then be assessed for conversion to Ore Reserves.

At this stage, the Company is prohibited by regulations from divulging any production targets and associated financial parameters that involve the remaining Inferred Resources.

Infill drilling undertaken during the PFS has provided benchmark conversion rates for converting Inferred Mineral Resources to Indicated Mineral Resources in the Tumas region. This, now established, benchmark conversion rate is 95%.

The Ore Reserve estimation work undertaken for the PFS has also established a benchmark rate for converting Indicated Mineral Resources to Probable Reserves of 63%. These established benchmark ratios for the Tumas Project area have been an important guiding input in establishing the target for the upcoming DFS.

Commenting on the encouraging results and successful completion of the Tumas PFS, John Borshoff Managing Director/CEO said:

“The completion of the Tumas Pre-Feasibility Study marks a major milestone for Deep Yellow as we advance our exciting Namibian project portfolio towards production.

“The highly positive outcomes of the PFS, underpinned by impressive economic numbers, has resulted in the Board approving the immediate commencement of a Definitive Feasibility Study, representing a significant step forward in the corporate evolution of Deep Yellow.

“Tumas is an exciting development opportunity and one of very few globally over the last 4 years that has progressed from brownfields exploration to completion of a PFS, now moving on to a DFS. This is testament to the entire Deep Yellow team, who have proven uranium credentials and understand what it takes to develop a world-class uranium operation.

“The Company is managing the progression of the Tumas Project in line with forecasts highlighting significant improvements in the uranium price which are expected during 2022, following realisation by nuclear utilities of the looming uranium shortage expected from 2023/24.

“Development of the Tumas Project is a critical element in the execution of our stated dual-pillar growth strategy and we are extremely pleased with the ongoing success we are experiencing advancing this highly prospective project.

“The impressive results from the Tumas PFS clearly justify advancing this project to a DFS status, appreciating that uranium prices are expected to improve strongly over the next two to three years. With this approach, the Company has a significant opportunity to continue diligently advancing the Tumas Project in a cost-effective and timely manner.

“As previously indicated, our overall aim is to establish a multi-platform, 5-10Mlb per annum, low-cost uranium producer, with the expectation of each project achieving a minimum 2-3Mlb per annum production capability. We remain on track with this strategic objective and look forward to commencing the DFS and continuing to advance the Company towards establishing itself as a tier-one uranium producer.”

2. TUMAS PRE-FEASIBILITY STUDY

The Tumas PFS was undertaken to further examine the potential viability of mining and processing the Tumas deposits, contained within a 30km radius of a proposed purpose-built processing facility following on from the positive SS completed in January 2020 - see Figure 2.

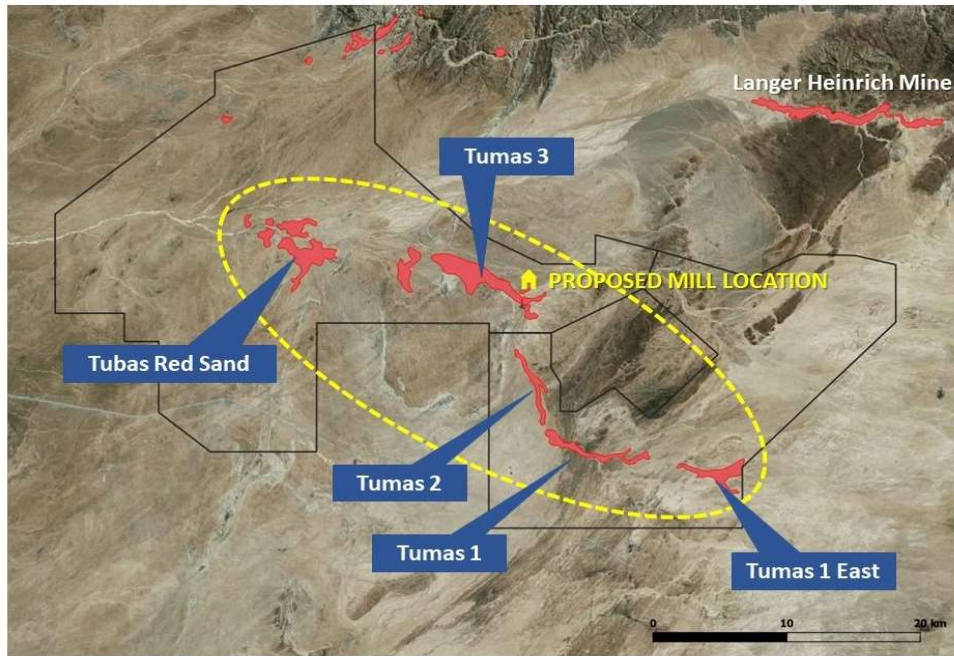


Figure 2 - PFS area showing potential operational footprint.

This PFS has considered the timing and cost associated with permitting, site establishment, mining, material haulage, processing, administration and closure associated with future development. It is based on further drilling, metallurgical test work using a combination of directly gathered project data together with highly relevant assumptions derived from the adjacent Langer Heinrich uranium deposit and the establishment of a maiden Ore Reserve. (The current Deep Yellow management team had direct executive management involvement in establishing the Langer Heinrich operation from resource establishment, mining, processing design, operations, optimisation, ESG management and product marketing²).

Expertise and Experience Statement²

⁴Mr John Borshoff and the management team, both corporate and technical, involved in completing the PFS were involved with the successful development of Paladin Energy Ltd in the pre-Fukushima period. This is the only group to have established two successful, conventional uranium operations in two countries after a 20-year global uranium industry hiatus. One of these operations was the Langer Heinrich uranium operation in Namibia (adjacent to the Tumas Project), which successfully mined deposits similar to those which occur in the Tumas palaeochannel system. Consequently, with this expertise at hand, the Company is justifiably confident it is able to bring appropriate expertise to the issues in the PFS.

3. URANIUM RESOURCE STATUS – UPDATED MINERAL RESOURCE ESTIMATE

Summary information in relation to the Mineral Resources is set out immediately below and detailed in Appendix 3 in accordance with Sections 1 to 3 (inclusive) of Table 1 of the JORC Code. For comparison to previous Mineral Resource estimates refer to ASX announcements on the following dates - 4 February 2013, 24 March 2014, 26 October 2016, 27 September 2017, 11 July 2018, 27 March 2019, 19 November 2019 and 12 May 2020.

The updated Mineral Resources using 100ppm, 150ppm and 200ppm U₃O₈ cut-off grades for the Tumas deposits are tabulated in Table 2.

Summary of the Underlying Data used to Estimate the Grades and Tonnages

The original exploration drilling was targeted at a nominal 50m x 50m grid but is dependent on final drill rig location. Spacing currently increases to approximately 100m surrounding the central portion of Tumas 3 with wider drill spacings in the relatively recent Tumas 1E deposit. A small area within the Tumas 1 deposit has been infilled to a nominal 12.5m x 12.5m spacing in order to derive short-range statistical information. A portion of the Tumas 2 deposit has been drilled to a nominal 25m x 50m with occasional 25m infill lines. This information forms the basis current Mineral Resource estimate. It is expected that, should mining take place within the deposits, some form of pre-mining grade control at

closer drill spacings will be undertaken. Table 1 lists the drill hole numbers and metres used for the resource estimations. Figure 5 and Figure 6 show their locations.

Table 1 - Drill Hole Statistics.

Deposit	Holes	Metres
Tumas 1E	591	6,281
Tumas 1	2,312	27,942
Tumas 2	2,238	57,150
Tumas 3	2,419	51,144
Total	7,560	142,517

Uranium grade values determined from all drilling are predominantly derived using downhole radiometrics and are based on 1m composites of 5cm gamma data. Samples used for validation geochemical assays were split to a 1m interval.

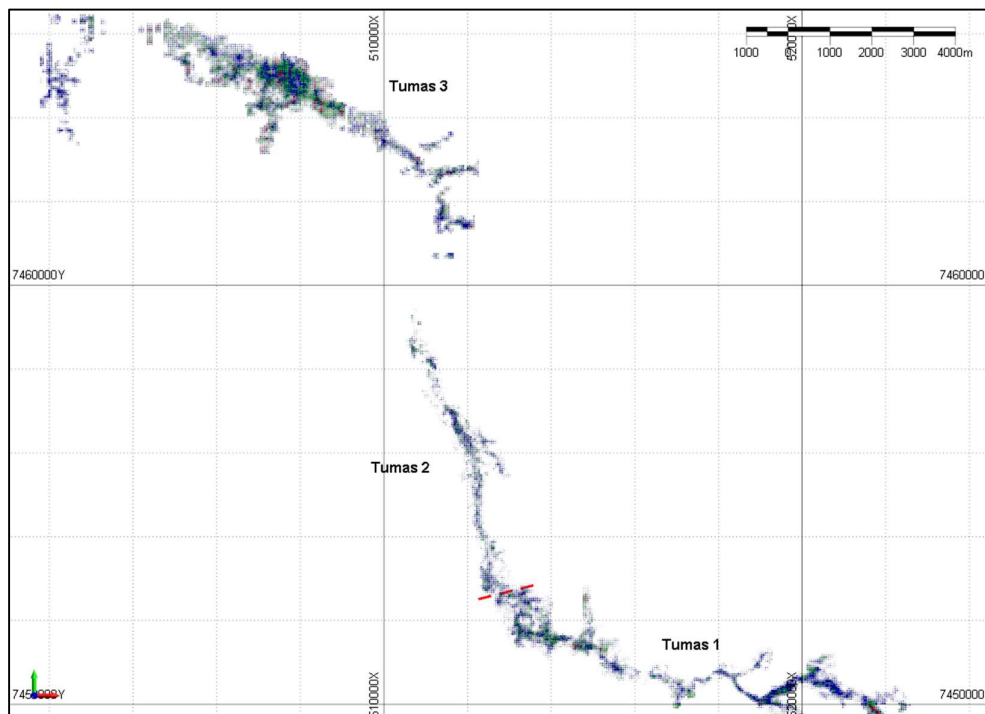


Figure 3 - Tumas 1, 2 and 3 Mineral Resources.

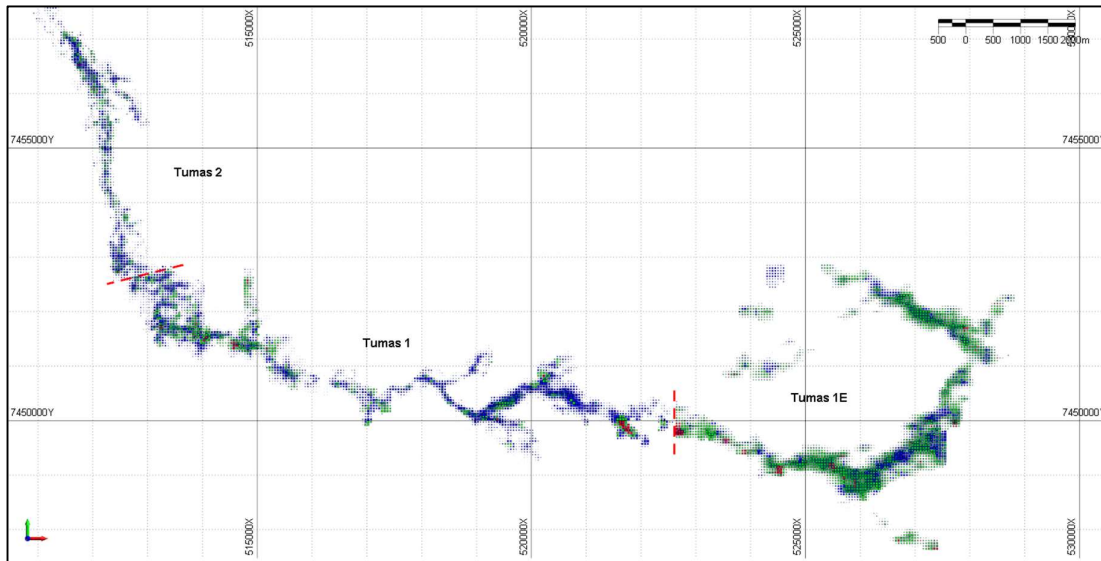


Figure 4 - Tumas 1 and 1E Mineral Resources.

Estimation Methodology

The uranium metal within the Mineral Resource was estimated using Multi Indicator Kriging (**MIK**) techniques with a specific variance adjustment correction applied to allow for the level of selectivity expected during the mining process. Estimation search distances range from 50mE x 50mN x 3mRL to 100mE x 100mN x 5.2mRL in three passes for Tumas 1, 2 and 3. Due to wider drill spacings the search distances for Tumas 1E commenced at 100m and were increased progressively to 200m. Searches were conducted on an octant basis with a minimum of 4 octants for Measured and Indicated material and two octants for Inferred material. In addition, a minimum of 16 samples (and maximum of 48) were required for Measured and Indicated estimates. This was relaxed to a minimum of 8 samples for Inferred material. The full MIK model has been used within the subsequent Ore Reserve estimate.

Mineral Resource Classification and Criteria used for Classification

All relevant factors have been taken into account when determining the Mineral Resource classification (including as described above and as follows).

The Mineral Resources have been classified on the basis of drilling density throughout the deposits as well as the validity of the underlying data.

Geology and Geological Interpretation

The Mineral Resource is a calcrete-hosted secondary uranium deposit associated with valley-fill sediments in an extensive Tertiary palaeodrainage system. The geological setting of the deposit is well understood having been subject to extensive exploration over a significant period from the 1970s to the present by a number of companies.

Additional information has been sourced from trenching and geophysical surveys of the mineralisation.

Sampling and Sub-sampling Techniques and Sample Analysis Method

Almost all exploration drill holes were radiometrically logged downhole at a vertical depth interval of 5cm with periodic geochemical assaying to confirm radiometrically derived grades. Those drill holes which could not be downhole gamma-logged had grade defined by XRF analysis. Sampling processes and preparations are listed further in this section. To determine radiometric grades a number of factors are applied to radiometric data to derive a deconvolved equivalent U_3O_8 grade, according to a well-defined and documented procedure (refer to the JORC Table 1 disclosures in Appendix 3). Downhole radiometric logging completed by Deep Yellow during in the period 2006 – 2020 was quality controlled by sleeve calibrations on radiometric probes which were completed prior to the

commencement of each logging shift. Routine calibrations of all downhole radiometric probes were completed at various sites around the world until a purpose-built calibration pit was constructed at the nearby Langer Heinrich mine. Following construction, the calibration pit was validated against pits at Pelindaba (South Africa), Adelaide (Australia), Grand Junction (USA) and Saskatoon (Canada).

Geochemical assaying was undertaken on reverse circulation (RC) drilling chip samples, which were collected from mineralised holes, to validate downhole gamma results. The routine aim was for approximately 10% of all mineralised holes to be validated by assay. Samples were selected on a 'whole of hole' basis. RC samples are split on the drill rig and should any duplicates be taken they are split from the bulk residue sample by riffle splitter.

Sample preparation for more recent drilling was undertaken by ALS in Perth, Western Australia, using industry standard methods (crush-split-pulverise) and is considered appropriate to the style of mineralisation present in the deposit. Samples from previous work completed by Deep Yellow were analysed by a Company-operated and run laboratory in Swakopmund with routine checks provided by SetPoint in South Africa. When required, standard, blank and split duplicates were inserted into the sample stream with the aim being for every 20 samples. The material sampled is relatively fine grained and the sample size taken is deemed to be appropriate. Analysis of duplicates has indicated some potential for a bias to be introduced during the splitting process and because of this, additional care is taken setting up the drill rig.

Drilling Techniques

The vast majority of drilling used in the Mineral Resource estimate comprises RC drilling. Historical drilling included a combination of percussion, RC and diamond core techniques and this drilling now only forms a minor portion of the Mineral Resource dataset. All Mineral Resource drilling since 2006 has been RC. Figure 5 and Figure 6 show all RC drill hole locations in the Tumas 1, 1E, 2 and 3 areas.

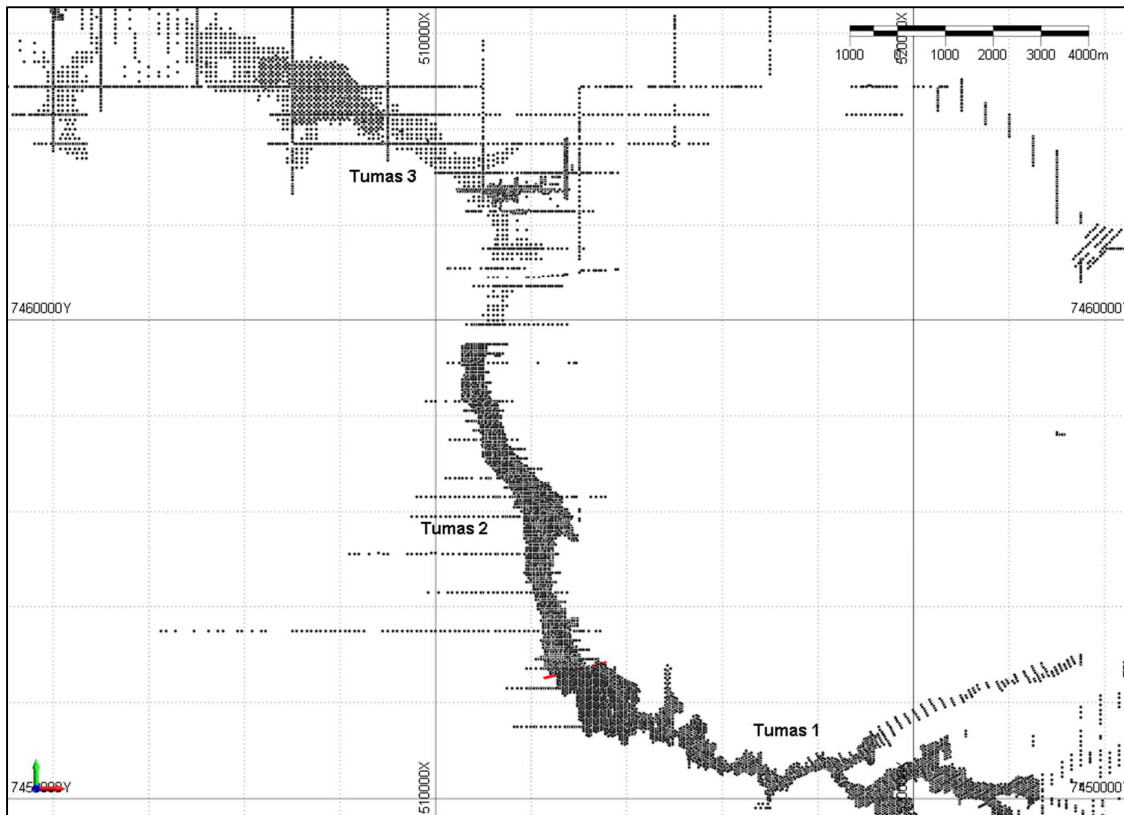


Figure 5 - Tumas 1, 2 and 3, all drill hole locations.

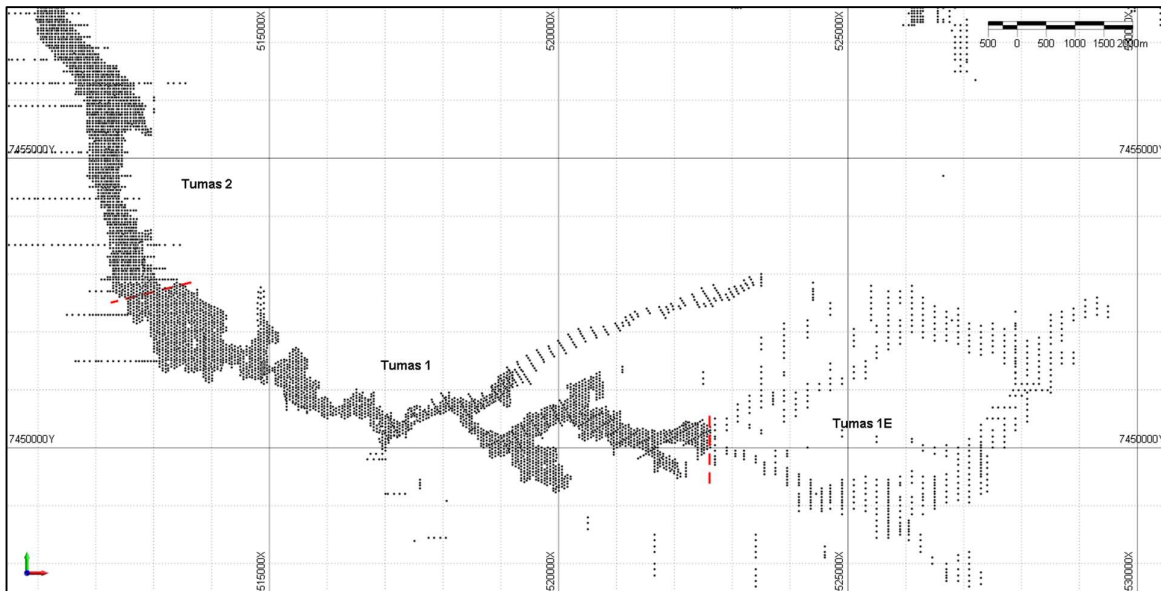


Figure 6 - Tumas 1, 2 and 1E, all drill hole locations.

For additional information on drill hole locations and drilled metres used in the Mineral Resource estimate refer to ASX announcements released on the following dates 4 February 2013, 24 March 2014, 26 October 2016, 27 September 2017, 11 July 2018, 27 March 2019, 19 November 2019 and 12 May 2020.

Cut-off Grades

Cut-off parameters are based on the likelihood of open pit mining of the Mineral Resource. Pit optimisation calculations were undertaken at a number of commodity prices to determine both the likely size and scale of the deposit. A uranium price of US\$65/lb indicates a marginal cut-off grade of 120ppm U_3O_8 using budget mining and processing costs from the PFS. Mining studies have suggested that material between 100 and 150ppm U_3O_8 may potentially be processed at the end of mining and, as such, a Mineral Resource estimate cut-off grade of 100ppm U_3O_8 has been determined. The Mineral Resource estimate has been reported at 100, 150 and 200ppm U_3O_8 within this report in order to allow comparison of the Mineral Resource estimate to the previous estimates as well as the Ore Reserve estimate.

Reasonable Prospects for Eventual Economic Extraction – Analysis of Mining and Metallurgical Methods and Parameters and other Modifying Factors Considered to Date

It is assumed that the Mineral Resource is likely to be extracted by open-pit mining techniques. As the Mineral Resource estimation technique is MIK, no additional dilution or recovery adjustments have been made over those contained in the original estimation. Refinement of the MIK variance adjustments is likely to be undertaken once any mining commences in order to more closely align the Mineral Resource estimates to actual mining practice.

There are no other mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental social and governmental factors material to the Mineral Resources.

Mineral Resource Estimates

The Mineral Resource estimate for the Tumas Deposits (Tumas 1, 1E, 2 and 3) is reported in Table 2 at various cut-off grades. A cut-off grade of 100ppm U_3O_8 has been selected as the Mineral Resource estimate quoted cut-off grade in order to more reasonably reflect the expected mining inventory resulting from the PFS.

Table 2 - Tumas 1, 1E, 2 and 3, Mineral Resource Estimate at various cut-off grades.

Cut-off	Deposit	Indicated			Inferred		
		Tonnes M	Grade ppm U ₃ O ₈	Metal Mlb	Tonnes M	Grade ppm U ₃ O ₈	Metal Mlb
200	Tumas 1E				36.24	291	23.29
150					46.64	266	27.34
100					51.47	253	28.71
200	Tumas 1	11.84	343	8.96	0.71	357	0.56
150		19.70	275	11.95	1.15	286	0.73
100		33.76	212	15.76	2.09	212	0.98
200	Tumas 2	4.85	367	3.92	0.06	350	0.05
150		8.69	281	5.38	0.13	262	0.07
100		20.33	189	8.47	0.39	166	0.14
200	Tumas 3	24.24	417	22.30	16.26	392	14.04
150		32.76	354	25.57	25.15	314	17.42
100		43.18	299	28.43	39.58	245	21.35

4. MAIDEN ORE RESERVE ESTIMATE

Summary information in relation to the Ore Reserves follows and is detailed in Appendix 3 in accordance with Section 4 of Table 1 of the JORC Code.

Cube Consulting (**Cube**) was engaged by Deep Yellow to complete mining engineering work for the Tumas PFS. Cube completed their work and report, which forms part of the PFS, based on a processing plant designed to produce 3.0Mlb U₃O₈ product per annum and a processing capacity of 3.75 Mtpa of uranium-bearing ore. The Cube report serves as a record of the technical mine engineering work completed towards the Tumas Project as part of the PFS.

The scope of work for Cube included: collation of input parameters, open-pit optimisation studies on the Indicated Mineral Resources of the deposit, open-pit designs and pit production scheduling, culminating in the reporting of a maiden Ore Reserve for the Tumas Project.

Following the pit optimisations and shell selection, a final pit design was completed together with internal staged pit designs. The shape and geometry of the final pit designs are shown in Figure 7 and Figure 8.

A pit production and process feed schedule was completed in quarterly increments resulting in an 11.5 year mine life, exclusive of pre-production development and 2 quarters of pre-production mining in which waste stripping is conducted and a Run of Mine (**ROM**) stockpile is built to have process feed material available from the start of production. The schedule demonstrates that the mine can provide sufficient material to maintain a consistent process tonnage and grade feed rate to achieve the targeted U₃O₈ production throughout the first 8.5 years (include product ramp-up of 6 months) of the planned mine life, tapering after that time due to reduced grade.

Graphical results of the planned ore, waste mined and ore processed in the production schedule are shown in Figure 9 and Figure 10 respectively.

The work completed at a pre-feasibility level in support of the modifying factors facilitates the reporting of a maiden Ore Reserve for this Project in accordance with the guidelines in the JORC Code. Probable Ore Reserves have been derived from the Indicated Mineral Resources contained within the final pit design and scheduled to be processed through the planned processing facility. The Tumas Ore Reserve is shown in Table 3.

Table 3 - Tumas 1, 2 and 3, Ore Reserve Estimate.

Probable Reserves	U ₃ O ₈ Cut-off	Tonnes	U ₃ O ₈	U ₃ O ₈ Metal
	ppm	Mt	ppm	Mlb
Tumas 1 & 2	150	13.9	292	9.0
Tumas 3	150	26.9	371	22.0
Total	150	40.9	344	31.0

The rounding in the above Table 3 is an attempt to represent levels of precision implied in the estimation process which may result in apparent errors of summation in some columns.

The above Ore Reserve is contained within an open pit containing 91.7Mt of waste material resulting in a waste to ore (tonnes) strip ratio of 2.23:1 and a total open pit size of 132.5 Mt. Included in the waste material are 0.4Mt of Mineral Resources classified within the inferred category which received no economic value in the work completed within this PFS.

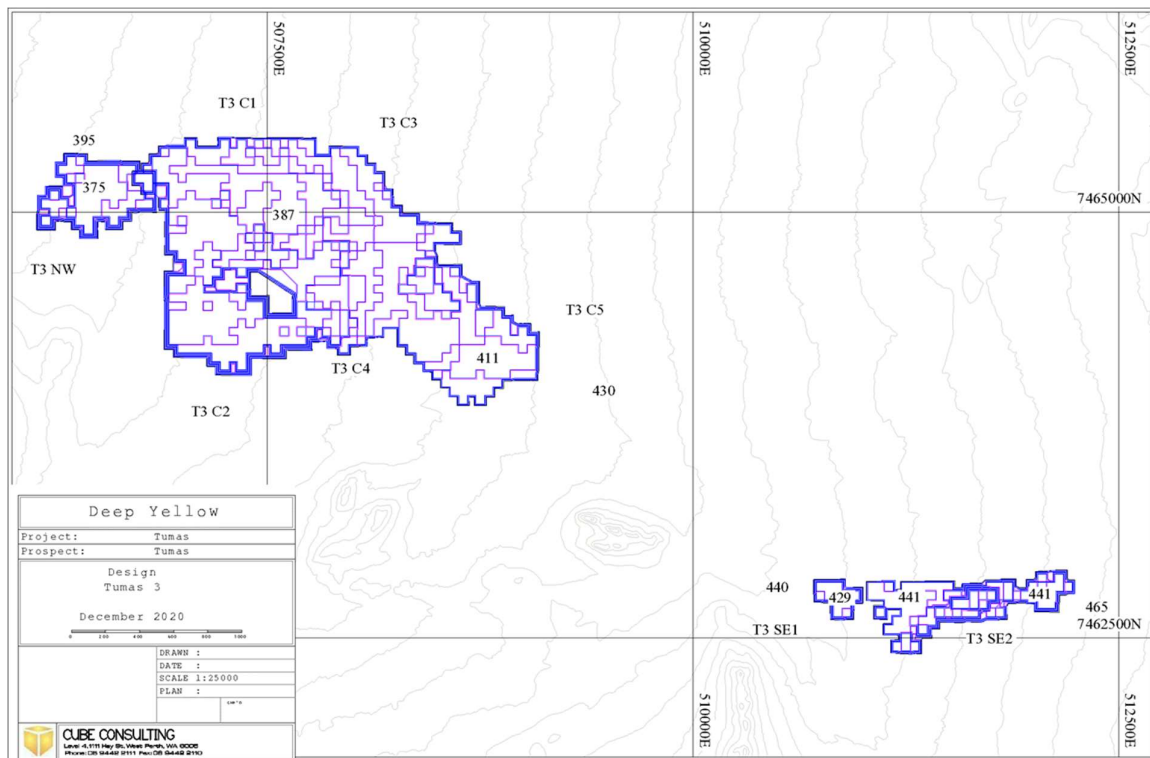


Figure 7 - Tumas 3 Pit Shells.

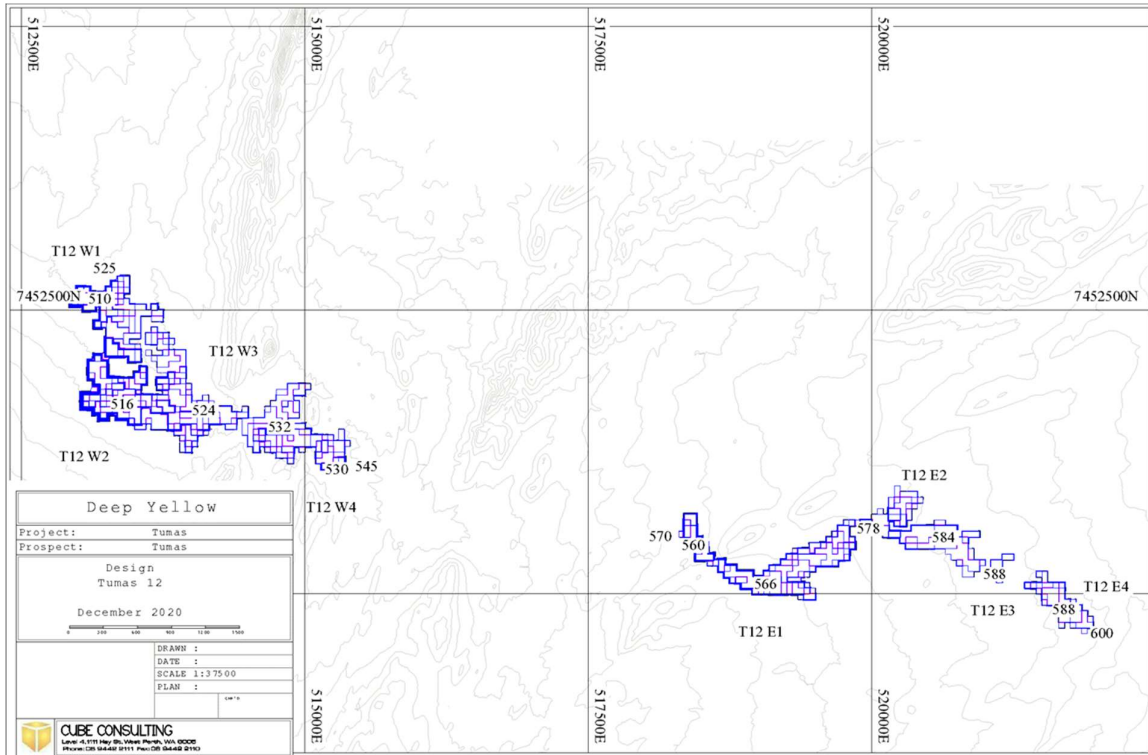


Figure 8 - Tumas 1 Pit Shells.

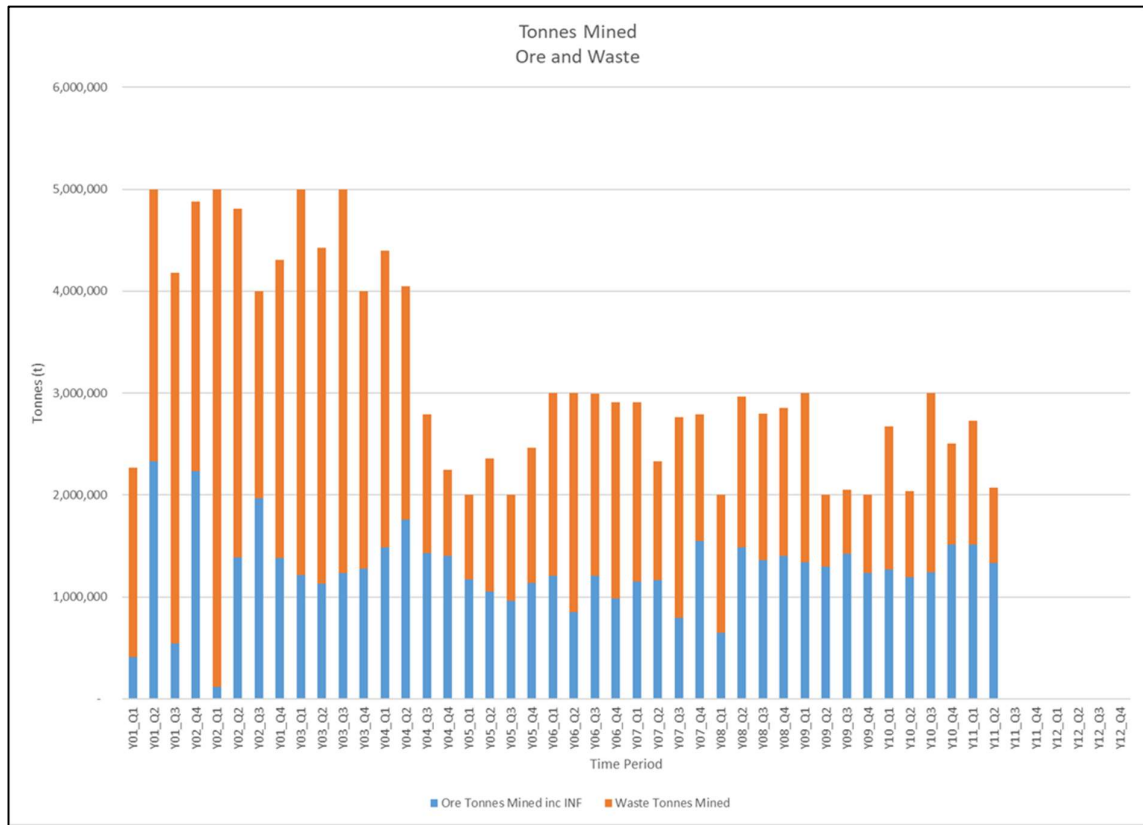


Figure 9 - Tumas Project Mining Schedules.

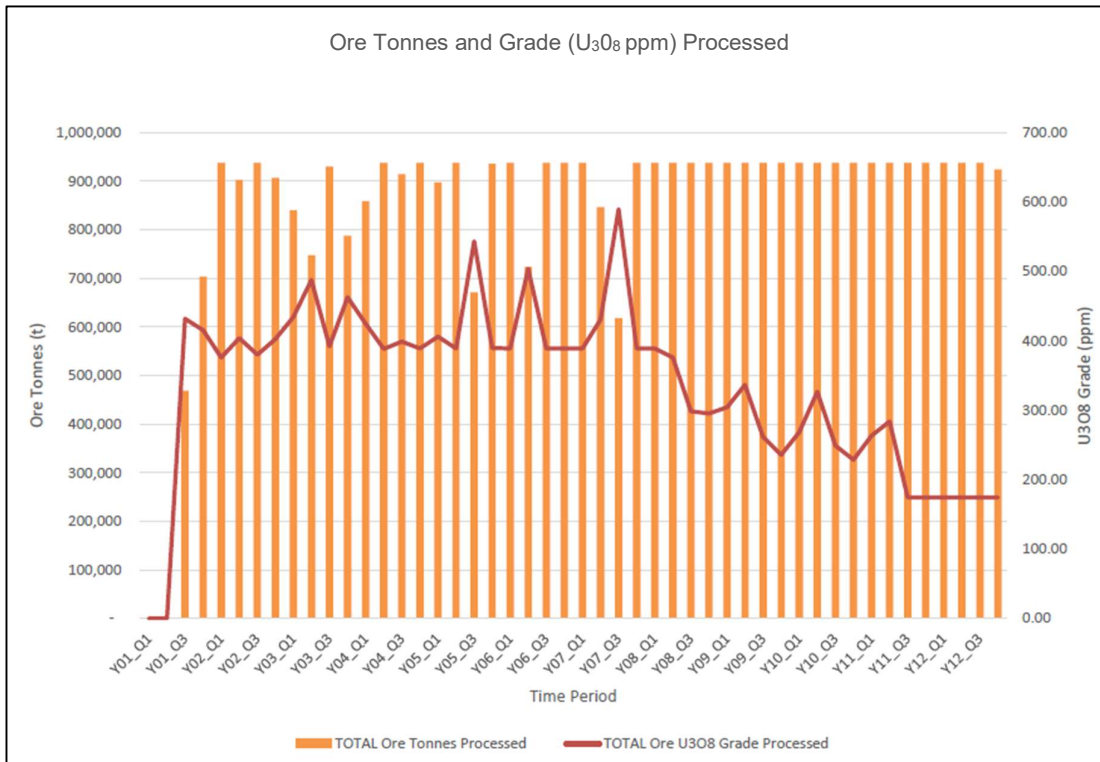


Figure 10 - Tumas Project Production Schedules.

Final input parameters containing processing, operating, fixed and mining costs and recovery were provided to Cube by Deep Yellow. This information consisted of base economic, geotechnical, mining and processing parameters required for the Cube study. These inputs are listed in Table 4.

Economic parameters provided by Deep Yellow were used in completing open-pit optimisations using WHITTLE® software which uses the Lerchs-Grossman algorithm to determine a range of optimal shells at varying metal prices. The program generates economic shells based on input parameters consisting OF operating costs (mining & processing costs, royalties, selling costs), metallurgical recoveries, geologic and geotechnical (slope) considerations. The optimal pit shells derived from the open-pit optimisation are then used to develop open-pit mine plans for the deposit. The sections below discuss the parameters used in the pit optimisation process.

Table 4 - Tumas Project, Ore Reserve, Physical and Base Inputs.

Physicals and Base Inputs		
Item	Unit	Value
Ore treated	ktpa	3,748
Met Recovery U ₃ O ₈	%	93.3
Fuel Price	\$/l	0.56
Exchange rate	(N\$:)	19.1372
U ₃ O ₈ produced	Mlb pa	2.98
Base Price U ₃ O ₈	\$/lb	65
Selling Costs	\$/lb U₃O₈	1.59
Ore Based Costs		
Mining	\$/t Ore	2.56
Processing	\$/t Ore	9.33
Maintenance	\$/t Ore	1.55
G&A	\$/t Ore	1.75
Safety, Health, Radiation (SHR)	\$/t Ore	0.33
Environment	\$/t Ore	0.10
HR	\$/t Ore	0.08
Marketing	\$/t Ore	0.08
Total Ore-Based Costs	\$/t Ore	15.79

Mining Dilution and Ore Loss

The models supplied were estimated using MIK with information-effect adjustments and have been treated as recoverable resource models thereby not requiring additional mining dilution and ore loss factors.

Metallurgical Recoveries

A metallurgical recovery assumption of 93.3% was used in the pit optimisation process. This was supplied by Deep Yellow.

Discount Rate

A discount factor of 10% per annum was applied at a maximum throughput rate of 3.748Mtpa. The discounted cash flows, which are exclusive of capital expenditure, are indicative only and used for comparison purposes in the optimisation evaluation and shell selections.

Cut-off Grade Calculation

Treatment plant breakeven cut-off grade was calculated to demonstrate a theoretical break-even point within the resources. A theoretical, calculated cut-off was determined by:

Treatment Plant Costs

$$\text{Cut - Off Grade (\%)} = \frac{\text{Treatment Plant Costs}}{\text{Metal Price} * (1 - \text{Royalty}) * \text{Recovery}}$$

Where:

Treatment Plant Costs = processing and all ore related costs (\$/t)

Metal Price = U₃O₈ price

Royalty = State Royalty plus land title royalty

Recovery = Metallurgical Recovery (%)

The calculated breakeven cut-off grade using the above input parameters is 121ppm U₃O₈. Analyses of numerous scenario iterations of pit optimisation and production scheduling resulted in a strategic decision to base this PFS, and hence the reported Ore Reserves, on an elevated cut-off grade of 150ppm U₃O₈.

Geotechnical Parameters

Overall slope angles used in the optimisation are 35°. No allowance was made for ramps as it was decided ramps could be positioned where required for little extra cost or effect on the overall shell due to the very flat and shallow nature of the resultant open pits.

Project Funding

Deep Yellow has formed the view that there are reasonable grounds to believe that the Tumas Project is capable of being financed in the future, as and when required. The grounds for this view are:

- There is significant market interest in the sector given the need to drive down greenhouse gas emissions and meet the various targets set by the Paris Accord in an environment which sees forecast growth in electricity production.
- Over the past decade there has been a significant reduction in the number of companies which have either a viable resource to be developed and/or the expertise to develop it. Deep Yellow is debt-free and holds 100% of the Tumas Project.
- The technical and financial assumptions detailed in the PFS demonstrate the potential of the Tumas Project to be economically robust and highly attractive. A combination of debt and equity will likely be utilised to fund the development of the Project.
- The executive team have significant relevant and recent experience in the development of uranium mines in Namibia. In this regard the key executives have a demonstrated track record of success in defining, funding, developing and operating uranium mines.

5. RESOURCE TO RESERVE CONVERSION FACTORS

The Inferred Mineral Resource mineralisation established within the deposits is remarkably consistent over an extensive length. The Company is confident that the remaining Inferred Mineral Resources associated with the Tumas deposits will convert to Indicated Mineral Resource at a conversion factor similar what was achieved in Ore Reserves for the PFS. For the purposes of Ore Reserve estimation during evaluation of the forthcoming DFS the remaining Inferred Mineral Resources over the Tumas deposits will be utilised (targeted for conversion to Indicated Mineral Resources, with the planned additional resource definition drilling).

The uranium mineralisation occurring within the Tumas palaeochannel is of the calcrete-type located within an extensive, 125km, mainly east-west trending, palaeochannel system. This mineralisation occurs in association with calcium and magnesium carbonate precipitations (calcrete) in clastic fluvial sediment-filled palaeovalleys. Uranium minerals are predominated by uranium vanadates, mainly carnotite. Uranium is generally the only economically extractable metal in this type of mineralisation, although vanadium production can be considered for processing and environmental reasons and for economic reasons if the price for vanadium justifies such production. The grade of the uranium mineralisation may vary considerably over short distances (metres) however, at larger scale (+100m and kilometres), the mineralisation is persistent and predictable both laterally and along the channel. The geology of this type of mineralisation is well understood, having been explored over many years. The Langer Heinrich uranium mining operation, occurring within an adjacent palaeochannel system 30km to the north-east, mined this type of deposit. It was in operation from 2007 to 2017 and is currently on care and maintenance due to the low uranium price.

Deep Yellow has identified 125km of highly prospective palaeochannel systems within the Reptile tenements centred on the Tumas Channel. To date 65km of this drainage system has been adequately tested, delivering a total calcrete resource base of 110Mlb eU₃O₈ at a 100ppm eU₃O₈ cut-off grade and an average grade of 251ppm. Of this total resource, 52.6Mlb eU₃O₈ at 245ppm are of the Indicated JORC category and occur in the Tumas 1, 2 and 3 deposits.

Infill drilling in 2020 at Tumas 3 to upgrade a portion of the existing Inferred Mineral Resources succeeded in converting 95% of this Mineral Resource to Indicated Mineral Resource status. In the adjacent Tumas 1 and 2 deposits, Indicated Mineral Resources comprise 95% of the Mineral Resource base associated with these deposits suggesting a consistent overall conversion rate over 25km of mineralised palaeochannel. It is expected that similar conversions may be achieved in the drill programs already planned as a component of the DFS. Figure 11 shows the location of the uranium deposits within the Tumas palaeochannels.

The recent mining and pit optimisation studies have succeeded in converting 86% of the Tumas 3 150ppm cut-off Indicated Mineral Resource of 25.6Mlb eU₃O₈ to 22.0Mlb eU₃O₈ of Probable Ore Reserves and 52% of the Tumas 1 and 2 Indicated Mineral Resource of 17.3Mlb eU₃O₈ to 9.0Mlb eU₃O₈ of Probable Ore Reserves. Of the total 42.9Mlb eU₃O₈ Indicated Mineral Resource (using a cut-off grade of 150ppm) from which these Ore Reserves are derived, 63% were converted to 26.9Mlb eU₃O₈ high grade ore (405 ppm eU₃O₈). A further 10% were converted to 4.1Mlb eU₃O₈ of medium grade ore (174 ppm eU₃O₈). Within the mining schedule is material between the Mineral Resource and Ore Reserve cut-off grades (100ppm – 150ppm), which will be stockpiled as mineralised waste for potential processing at the end of mining if economic conditions allow.

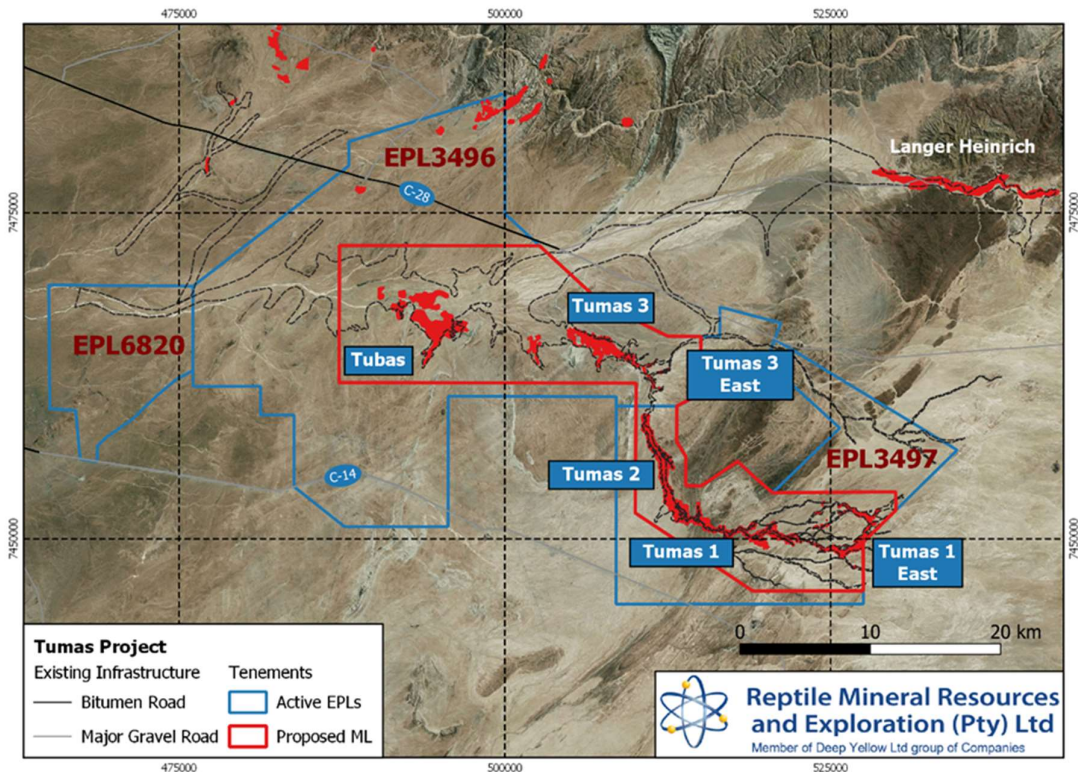


Figure 11 - Tumas Project, Resource and Palaeochannel Locations.

6. EXPLORATION UPSIDE

At the commencement of the exploration campaign, initiated in 2016 by the new Deep Yellow management team, the Company announced an **Exploration Target**³ of between 100Mlb to 150Mlb in the grade range of 300ppm to 500ppm U₃O₈ for the Reptile Project.

This Exploration Target was based on Deep Yellow management's extensive and acknowledged experience, from exploration to successful mining and production, of these surficial calcrete-associated and channel-related deposits. Deep Yellow Managing Director, Mr John Borshoff and the management and technical team involved in development of the Tumas PFS were also instrumental in the successful development of Paladin Energy Ltd. This team is the only group to have established two successful, conventional uranium operations in two countries on the African continent after a 20-year global uranium industry hiatus.

One of these operations was Paladin's Langer Heinrich uranium operation in Namibia, which successfully mined deposits similar to those which occur in the Tumas palaeochannel system. Consequently, the Company is confident with the expertise this team is able to bring to these studies.

Cautionary Statement³

¹With the additional resources as announced herein, the Company has now determined an MRE of 110.5Mlb of calcrete mineralisation - reaching the lower of its stated Exploration Target range of 100Mlb to 150Mlb eU₃O₈. The Company however acknowledges that the potential quantity and grade of the Exploration Target is conceptual in nature. There is however significant and sufficient additional exploration information generated to give more confidence in achieving the stated Exploration Target objective. Additional exploration is planned; however, it is uncertain if this will result in the estimation of all the expanded Mineral Resource that has been predicted from the review and evaluation of calcrete associated mineralisation identified on the Company's tenements which commenced in the December 2016 quarter. With the subsequent exploration and resource drilling carried out over the past three years, the Company has a greater understanding of the stratigraphy and topography of the palaeochannels which host the uranium mineralisation. This work and the resource increase that is being achieved, having now reached the lower limit of the stated Exploration Target range (and with 50% of the 125km of prospective palaeochannel that has been identified still remaining to be tested), has provided renewed confidence that further mineralisation is likely to be identified in targeted palaeochannel areas on the Company's tenements.

Targeted tonnage/grades are based on results and understanding from work carried out over the past 14 years in this region and the Exploration Targets that have been defined will continue to be the focus the ongoing drilling investigations.

Continued success over the past three years through various exploration programs has seen the resource base from this highly prospective palaeochannel increase threefold to a total calcrete/palaeochannel-related Measured, Indicated and Inferred Mineral Resource of 92.5Mlb eU₃O₈, grading 303ppm at a 200ppm cut off (*refer to the Company's 2019 Mineral Resource and Reserve Statement dated 18 November 2019 and Appendix 1 attached*) for the updated Mineral Resources Statement at 100ppm.

To date, only approximately half of the 125km Tumas palaeochannel system has been properly tested and the consequent trebling of the Mineral Resources over a 3-year period reinforces the Company's confidence that the announced Exploration Target will be achieved during future exploration work.

Sixty kilometres of uranium-rich Tumas palaeochannel system is located within MLA area being considered for submission. Approximately 10 km of this channel system occurs between Tumas 3 West and Tubas (Figure 11) and has been sufficiently drilled to indicate the presence of a calcrete uranium resource. This requires further drilling to define resources of Indicated and Measured JORC Mineral Resource standard. To date 1.5 to 6Mlb eU₃O₈/channel km at 100ppm eU₃O₈ cut-off has been identified within the overall paleochannel system. At Tumas 1, 2 and 3 this gives an average of 2.5Mlb eU₃O₈ per kilometre at 100ppm eU₃O₈ cut-off, indicating that a further 15 to 25Mlb eU₃O₈ may be delineated within the sparsely drilled 10km zone between Tumas 3 and Tubas.

7. URANIUM PRICE OUTLOOK

The global uranium market has entered a phase characterised by anticipated growing demand as new reactors enter commercial operation, more than offsetting expected retirements while uranium supply deteriorates (production closures/cut-backs) driven by persistent low uranium prices. The most recent World Nuclear Association nuclear fuel market report concludes that the global market is already in deficit with stockpiles being consumed to meet uranium requirements. Looking forward, new uranium production facilities are needed to meet demand and these projects will only be forthcoming at much higher uranium prices in order to incentivise not only the potential restart of currently shut-down uranium mines but, more importantly, the development of new production projects.

TradeTech is a globally recognised uranium market analysis and price reporting organisation which has a long history of comprehensive uranium demand and supply assessments (firm was operated continuously since its founding in 1968). As shown in Appendix 1 - the Executive Summary pages 47-51, the TradeTech price forecast published in 2Q2020 (FAM-2) shows increasing uranium prices through the remainder of the decade reaching \$60-65/lb U₃O₈ by mid-decade and then rising to \$70/lb U₃O₈ by late in the 2020s. Deep Yellow has chosen to incorporate a uranium price of \$65/lb U₃O₈ in its financial analysis which reasonably represents the expected global uranium market for newly negotiated multi-year (term) sales agreements by mid-to-late decade.

8. PFS - KEY OUTCOMES

Summary information in relation to the PFS outcomes follows and is further detailed in the PFS Executive Summary in Appendix 1.

The PFS was able to confirm the key assumptions of the previous SS and demonstrate an improved forecast outcome based on the Ore Reserves currently available to the Tumas Project. Material assumptions for the PFS are a uranium sale price (based on an independent expert third party analysis and report) of US\$65/lb U₃O₈, a sale price for the vanadium by-product of US\$7/lb V₂O₅ and a N\$:US\$ exchange rate of 16.75 (end 2020).

Metallurgical testing undertaken for the PFS confirmed the technical and commercial suitability of the development concept assumed in the SS. This development concept consists of the following:

- conventional open pit mining;
- beneficiation of the ore by scrubbing and size classification;
- low temperature (150°C) pressure leaching using carbonate/bicarbonate leachate;
- reagent recycle using membrane concentration of washed leachate;
- uranium and vanadium refining and packaging; and
- in-pit tailings deposition.

A Capital Cost Estimate (**CCE**) for the process plant was undertaken by Ausenco Services Pty Ltd (Ausenco). These costs are summarised as follows in Table 5, which represents the estimated costs of the Ausenco's scope and has been prepared generally in accordance with an AACE class 4 estimate with a nominal accuracy of $\pm 25\%$ in USD with a base date of 4Q2020:

Table 5 - Tumas Project, Process Plant Capital Cost Estimate by Ausenco.

Process Plant Capital (Ausenco)	Total Cost US\$M
Process Plant	154.3
On-Site Infrastructure	5.1
Spares and First Fills	8.2
Construction Indirects	11.6
Engineering	33.5
Provisions (incl Contingency)	53.1
Total Cost	265.7

Owner's capital was estimated by the Company to be \$29.4M, giving total initial direct capital of \$295.1M and a unit capital cost of \$98M per Mlb U₃O₈ of annual design capacity for the Project.

Capitalised pre-production operating costs were also assessed by the Company in the financial modelling and are summarised as follows in Table 6:

Table 6 - Tumas Project, Development Capital Cost Estimates.

Capitalised Pre-Production Operating Costs	\$M
Mining Pre-Production Capitalised Operating Costs	20.8
Processing & Other Pre-Production Capitalised Operating Costs	4.5
Initial Capital Costs: Total	25.3

Sustaining and closure capital costs were also estimated by the Company and are detailed as follows in Table 7:

Table 7 - Tumas Project, Sustaining and Closure Capital Cost Estimates.

Description	Total Cost US\$M
Sustaining Capital: Mining	0.4
Sustaining Capital: Process Plant	19.7
Sustaining Capital: Infrastructure	7.0
Closure Costs	10.0
Total Cost	37.1

Key project physicals for the LOM are detailed in the following Table 8.

Table 8 - Tumas Project, Key Project Physicals.

Project Physicals (LOM)	Units	LOM
Project Life (Total)	Years	13
Development Period	Years	1.5
Operating Life (Total)	Years	11.5
Open Pit Ore Mined	kt	40,864
Waste Mined	kt	91,273
Ore & Waste Mined	kt	132,137
Ore Fed to Process plant	kt	40,864
U ₃ O ₈ head grade ore feed	ppm	344
U ₃ O ₈ Contained in ore feed	Mlb	31.0
U ₃ O ₈ Recovered and sold	Mlb	29.1
U ₃ O ₈ Recovery	%	93.8
Power Usage	kWh/t fed	29.7
Power Usage	MWh	1,212,163
Diesel Usage	kL	78,306
HFO Usage	kL	295,649
Water Usage	MI	23,701

A detailed financial model was constructed by an independent financial modelling expert during the PFS process and financial analysis of the Tumas Project, based on data provided by the Company, demonstrates its potential to be economically robust. The financial model is constructed using real inputs for costs and prices. These real inputs are escalated by a US dollar inflation index (at 1.5% per annum) to generate nominal cashflows and these nominal cashflows are discounted by a nominal discount rate to derive an NPV. The equity discount rate (cost of equity) of 8.6% nominal (or 7% real) has been determined internally by the Company from first principles. The U₃O₈ price of US\$65.00/lb is constant in real terms over the life of the model which means that, in nominal terms, it rises each period with inflation. The treatment of pricing and costs is identical in this respect. Model results are presented in real (un-escalated) terms unless otherwise stated.

Project operating life is 11.5 years with post-tax, NPV_{8.6(nominal)} calculated to be US\$207M (A\$276) and real, post-tax IRR is 21.1%, both calculated on an ungeared basis. The Project returns capital in the 4th year post commissioning and the LOM break-even uranium price is US\$47.33/lb U₃O₈. C1 costs are estimated to be US\$27.28/lb U₃O₈ after a US\$2.32/lb offset through the sale of vanadium that is produced as a by-product of the uranium recovery.

The Project has an operating margin (EBITDA) over the LOM of US\$1,034M (A\$1,379M) and an undiscounted after-tax cashflow, LOM, of US\$447M (A\$597M). Deep Yellow is anticipating debt financing for at least 50% of initial Project capital will be obtainable. Financial modelling of this scenario increases post-tax, NPV_{8.6(nominal)} to US\$222M (A\$295M) and real, post-tax IRR to 28.8%.

The Brook Hunt operating costs and the AISC for the Project, LOM, are detailed below in Table 9.

Table 9 - Tumas Project, Cash Costs (LOM).

Brook Hunt Cash Costs (LOM)		
C1 Cost	US\$M	US\$/lb
Revenue from sales of payable V ₂ O ₅	(67.5)	(2.32)
Marketing Costs (Fixed & Variable)	3.6	0.12
Transport and Shipping	16.6	0.57
Converter Costs	10.7	0.37
Mining Operating Cost	333.8	11.48
Processing Operating Cost	359.2	12.35
G&A and Other Operating Costs	137.0	4.71
Total C1 Cost	793.4	27.28
AISC		
C3 Costs	1,184.8	40.74
Initial Capital Depreciation	(292.24)	(10.05)
AISC	892.6	30.69

Sensitivity analysis undertaken during the PFS indicates that the Tumas Project is most sensitive to metal prices and the exchange rate between US dollars and the Namibian dollar. It is least sensitive to vanadium price, capital costs, mining and processing costs.

Risk in the Project may consequently be reduced most effectively by securing long-term offtake agreements for uranium production on suitable terms (which the Company intends doing) and ensuring that as many service and supply contracts as are possible are designated in US Dollar terms (also the intention of the Company).

The PFS concluded:

- there was sufficient confidence for future development of the Tumas Project to justify proceeding to a DFS;
- as this is a PFS with a margin of error of 25% there remains many aspects of the Tumas Project that may be further optimised and jointly represent significant potential for improvement in the economic outcome. Notable among these are:
 - mine scheduling after grade control drilling and additional Mineral Resource and subsequent Ore Reserve definition;
 - Mineral Resource definition as a consequence of additional exploration and resource definition drilling;
 - detailed treatment process and balance after completion of the recommended trade-off and optimisation studies; and
 - Project infrastructure and utilities.
- the Project outcome is materially improved through the addition of further Ore Reserves. With the amount of Inferred Resources still to be converted to Indicated Resources using established benchmark conversion rates, there is potential to at least double the Ore Reserve base during the DFS stage. The use of gearing, which is the stated intent of Deep Yellow may also materially improve the outcome; and
- the Tumas Project meets the Company's investment criteria having the potential to achieve the stated corporate benchmarks required by the Deep Yellow growth strategy.

9. VANADIUM BY-PRODUCT

The only identified uranium mineral in the Tumas resources is carnotite, which is a carbonate mineral of uranium and vanadium with one vanadium atom for each uranium atom, although other vanadium minerals are present in the ore and consequently, the ratio of vanadium to uranium determined by analysis is always higher than the stoichiometric value ($0.214 = V/U$ for carnotite). Metallurgical testwork conducted for the PFS demonstrates that the other vanadium minerals in the ore do not leach to any material extent in the proposed process. This is demonstrated by the ratio of vanadium to uranium in leach discharge solution which averages almost the exact stoichiometric ratio of carnotite ($1:1 V:U$ [molar] = $0.214 [V:U$ by analysis]) as detailed in Table 10.

Table 10 - Vanadium to Uranium Ratio in Leach Liquor.

Test	V:U Ratio
HY8765	0.23
HY9001	0.16
HY9002	0.16
HY8766	0.28
HY9043	0.21
HY9044	0.22
HY9206	0.21
HY9207	0.20
Average	0.21
Variance	0.001

The low variance, demonstrated by the data and alignment with the stoichiometric value, indicates that vanadium extraction in leach is dependent on the leaching of carnotite alone and that vanadium production is consequently a by-product of uranium production. Vanadium extractive deportment is consequential to that of uranium.

There is no Ore Reserve estimate for vanadium, however for metallurgical and financial modelling purposes, vanadium extraction is based on this stoichiometric relationship between uranium and vanadium in carnotite. Vanadium recovery in beneficiation through to CCD is consequently assumed to be controlled by the recovery of carnotite (and uranium) in those sections. In the refining sections of the process, modelling determines that vanadium recovery will be slightly higher than that for uranium and the estimated overall vanadium recovery is 96% (based on a V:U ratio of 1).

10. DEVELOPMENT SCENARIO

The timing of both the SS and the PFS, as advised previously (see ASX release dated 24 September 2019), has been developed for a possible development decision (should all subsequent studies prove positive) which is at least two to three years away and based on the uranium shortage expected to occur from 2023/24 and the uranium price reaching US\$60/lb to US\$70/lb on a predicted supply/demand dynamic where shortages are anticipated.

The abovementioned studies and forthcoming DFS are scheduled to provide Deep Yellow the opportunity of a potential mine development in the period 2023-24.

11. APPROVAL TO PROCEED TO DFS

The Board of Deep Yellow has determined that, based on the positive results arising from the Tumas PFS, the Company will now progress to a DFS, pursuing an expanded Project target by incorporating the remaining 50% of the Total Mineral Resources into the ORE model for the DFS to achieve the stated goal of a minimum 20-year LOM operation.

The DFS will commence with immediate effect to confirm the technical and potential economic viability of the Tumas Project.

The DFS is expected to be completed by the end of CY2022 and will represent a further significant milestone as the Company advances towards its stated ambition of becoming a multi-platform, low-cost, global uranium company.

12. NEXT STEPS

Key Activities

1. Immediate commencement of a 16,000m drilling program focussed on converting the remaining Mineral Resources in the Tumas Central, Tumas 3, Tumas 1E deposits to Reserve status:

February to May 2021

- February: Drilling Tumas 3 West (300 to 350 holes, 4,500 to 6,000m)
 - March: Drilling Tumas 3 East (250 to 300 holes, 2,500 to 3,500m)
 - April – May: Tumas 1E (400 to 500 holes, 4,500 to 6,500m)
2. Immediate commencement of the detailed trade-off and optimisation studies recommended in the PFS.
 3. Immediate commencement of metallurgical optimisation test work and analysis utilising the 1,000kg of sample already in storage in Perth.
 4. Expansion of the Deep Yellow technical team to facilitate the DFS.
 5. Continue with EIA completion and submit application in April/May 2021 for a Mining Lease covering the Tumas Project area.

The DFS will focus on achieving the stated goal of a minimum 20-year LOM operation.

Yours faithfully



JOHN BORSHOFF
Managing Director/CEO
Deep Yellow Limited

This ASX announcement was authorised for release by Mr John Borshoff, Managing Director/CEO, for and on behalf of the Board of Deep Yellow Limited.

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About Deep Yellow Limited

Deep Yellow Limited is a differentiated, advanced uranium exploration company, in pre-development phase, implementing a contrarian strategy to grow shareholder wealth. This strategy is founded upon growing the existing uranium resources across the Company's uranium projects in Namibia and the pursuit of accretive, counter-cyclical acquisitions to build a global, geographically diverse asset portfolio. A PFS has recently been completed on its Tumas Project in Namibia and a DFS commenced February 2021. The Company's cornerstone suite of projects in Namibia is situated within a top-ranked African mining destination in a jurisdiction that has a long, well-regarded history of safely and effectively developing and regulating its considerable uranium mining industry.

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Competent Persons' Statements

Uranium Resources

*The information in this announcement that relates to the **Mineral Resource Database, Tumas Mineral Resources Estimate and the Exploration Target** is based on work completed by Mr. Martin Hirsch, M.Sc. Geology, who is a member of the Institute of Materials, Minerals and Mining (UK) and the South African Council for Natural Science Professionals, Mr. David Princep who is a Fellow and Chartered Professional of the AusIMM and Mr. Eduard Becker who is a Member of the AusIMM. Mr. Hirsch is the Manager for Resources and Pre-Development for Reptile Mineral Resources (Pty) Ltd, Mr. Princep is an independent consultant and Mr. Becker is Head of Exploration/Resources Development for Deep Yellow. Messrs Hirsch, Princep and Becker have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they undertake to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). Messrs Hirsch, Princep and Becker consent to the inclusion in this announcement of the matters based on their information in the form and context in which it appears.*

Where the Company refers to the other JORC 2012 resources and JORC 2004 resources in this report, it confirms that it is not aware of any new information or data that materially affects the information included in the original announcements and all material assumptions and technical parameters underpinning the resource estimates in those original announcements continue to apply and have not materially changed.

The JORC 2004 classified resources have not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported, however they are being progressively reviewed to bring all resources up to JORC 2012 standard.

Ore Reserve Statement

The information in this announcement that relates to Ore Reserves is based on information compiled by Mr Quinton de Klerk, who is employed by Cube Consulting. Mr de Klerk is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the activity 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 (the JORC Code)". Mr de Klerk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Project and Technical Expertise

Mr Darryl Butcher is a process engineer/metallurgist working for Deep Yellow and has sufficient relevant experience to advise the Company on matters relating to mine development and uranium processing, project scheduling, processing methodology and project capital and operating costs. Mr Butcher is satisfied that the information provided in this ASX announcement has been determined to a Pre-Feasibility Study level of accuracy and, based on the data provided by the Company and experience in development of similar deposits, considers that progress to a Definitive-Feasibility Study can be justified.

Forward Looking Statement

Any statements, estimates, forecasts or projections with respect to the future performance of Deep Yellow and/or its subsidiaries contained in this presentation are based on subjective assumptions made by Deep Yellow's management and about circumstances and events that have not yet taken place. Such statements, estimates, forecasts and projections involve significant elements of subjective judgement and analysis which, whilst reasonably formulated, cannot be guaranteed to occur. Accordingly, no representations are made by Deep Yellow or its affiliates, subsidiaries, directors, officers, agents, advisers or employees as to the accuracy of such information; such statements, estimates, forecasts and projections should not be relied upon as indicative of future value or as a guaranteed of value or future results; and there can be no assurance that the projected results will be achieved.

INCLUDED AS APPENDICES

- APPENDIX 1 – TUMAS PFS EXECUTIVE SUMMARY
- APPENDIX 2 – JORC RESOURCE TABLE
- APPENDIX 3 – JORC (2012) CODE TABLE 1
- APPENDIX 4 – TECHNICAL SYMBOLS AND ABBREVIATIONS

APPENDIX 1
TUMAS PFS EXECUTIVE SUMMARY



TUMAS PROJECT PRE-FEASIBILITY STUDY

Executive Summary

January 2021



EXECUTIVE SUMMARY

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1. INTRODUCTION

In the Scoping Study that preceded this Pre-Feasibility Study (**PFS** or **Study**), all available knowledge, data and information that Deep Yellow Limited (**Company** or **Deep Yellow**) had concerning the Tumas Project (**Project**) was collated and assessed. That assessment confirmed the potential to economically exploit the Tumas Project Mineral Resources and developed a Project concept that was defined by a set of commercially and technically reasonable assumptions.

The Scoping Study recommended that the Project proceed to the next development phase and, in January 2020, the Deep Yellow Board of Directors approved the expenditure required to undertake this PFS.

This Study has been conducted by Deep Yellow using both in-house and external expertise. Deep Yellow is uniquely placed to be able to undertake the majority of the work required for this Study due to the depth of experience that is embodied in its executive team. Where required, external experts have been engaged to augment the capabilities of the Deep Yellow team.

Contributors to the Study, their roles and summarised relevant expertise are detailed in Table 1.

Table 1. Key PFS Contributors.

Contributor	Association	Summarised Expertise
John Borshoff BSc, FAusIMM, FAICD	Deep Yellow, MD/CEO	Experienced mining executive and geologist with previous success in the uranium sector, more than 40 years of uranium industry experience and is regarded as an authority.
Darryl Butcher BSc, FAusIMM, FAICD	Deep Yellow, Head of Projects and study manager for the PFS and competent person	Project Manager and uranium ore processing expert with over 40-years' experience in the mining industry.
Gillian Swaby BBus, FCIS, FAICD, AAusIMM	Deep Yellow, Exec. Dir.	Over 35 years' experience in the mining industry, with extensive corporate governance and project finance experience.
Ed Becker MSc, MAusIMM	Deep Yellow, Head of Geology	Uranium exploration, geology, Resources and Reserves expert with close to 40 years' experience in uranium exploration and Mineral Resource definition.
Mike Introna BComm, FAICA	Deep Yellow, Commercial and Financial consultant	Over 25 years' experience in the mining industry (10 years specifically in uranium), with most of that period on Southern African projects.
Dr Andy Wilde PhD, FAusIMM, FRPG, VP - AIG	Deep Yellow, Chief Geologist	Uranium exploration and project assessment expert with over 35 years' experience in the mineral exploration industry.

Contributor	Association	Summarised Expertise
Martin Hirsch MSc, MIMMM (IOM3 UK), Pr. Sci. Nat. SACNASP (RSA)	RMR, Manager for Resources and Pre- Development	Namibian project development, statutory requirements and Resource and Reserve expert with over 27 years' experience in the mining industry.
Cathy Paxton BSc	Deep Yellow, Environmental, Community and Sustainability Consultant	Over 30 years' experience in the mining industry in her field with a particular focus on uranium.
Cube Consulting	Quinton de Klerk, Director Mining Engineering, Ore Reserve and mining engineering	Specialist consulting services and provider of software systems to the global mining industry.
Ausenco Services Pty Ltd	Capital cost estimate for the Processing Plant with associated engineering design within the scope	A global company providing consulting, engineering, project delivery and asset operations, management and optimisation solutions to the minerals and metals, oil and gas and industrial sectors.
BDB Process Pty Ltd	Uranium and vanadium process engineering	Specialist process consultancy with extensive experience in uranium process design, project development and operations.
Gill Lane Consulting	Dave Princep, FAusIMM (CP), Mineral resources consultant	Uranium mining, Resources and Reserves' expert with close to 20 years' experience in uranium mining and Mineral Resources definition, particularly for calcrete deposits.
Nuclear Fuel Associates	Dustin Garrow, principle – uranium marketing.	A Specialist consultancy, with global expertise in the nuclear fuels' markets.

The deliverables established at the commencement of the PFS are as follows:

- a PFS report (**Report**) that is fit-for-purpose;
- a maiden Ore Reserve estimate;
- a detailed Capital Cost Estimate (**CCE**), including pre-development capital and owner's costs;
- a metallurgical report covering the key metallurgical characteristics required at the PFS stage;
- a multi-element metallurgical model, using available testwork data;
- a financial model that is fit-for-purpose and structured such that it is able to be used (with only minor modification, if any) for further pre-development and development stages of the Project; and
- a schedule and budget, framed by a clearly defined future development environment, that would allow the timely development of the Project to meet the milestone timeframes indicated.

All the deliverables are incorporated into the PFS document and summarised in this executive summary.

The PFS has confirmed the potential for the Project to be successfully developed and satisfy the Deep Yellow strategic plan development hurdles for target projects:

- greater than 20-years' operational life;
- 2-3Mlb U₃O₈ pa production;
- a real, ungeared IRR hurdle rate of 20%; and
- cash operating costs that are in the lower quartile at the time of development (\$30/lb for Tumas).

2. CURRENCY

Unless stated otherwise, all references to currency or dollars (\$) are references to United States dollars.

3. PROJECT OVERVIEW AND HISTORY

The Tumas Project includes the Tumas 1, Tumas 2, Tumas 3, Tumas 1 East (Tumas 1E) and Tubas Red Sand/Calcrete orebodies and is located in Namibia about 80km ESE from the coastal town of Swakopmund and 80km ENE from the Seaport of Walvis Bay. The Walvis Bay port is a Class 7 port which regularly exports yellowcake and has done so since the 1970s. The Project area is accessible via the C28 or C14 roads (Figure 1). The Tumas/Tubas deposits fall within the boundaries of the Exclusive Prospecting Licences (EPL) 3496 and 3497, which are wholly (100%) owned by Reptile Uranium Namibia (Pty) Ltd (204/511) (RUN), a subsidiary of Reptile Mineral Resources and Exploration (Pty) Ltd (RMR). RMR is a wholly-owned subsidiary of Deep Yellow. (Figure 1).

EPLs 3396 and 3497 cover 860km² are in their thirteenth year of tenure and were renewed for the fifth time through to 4 August 2021.

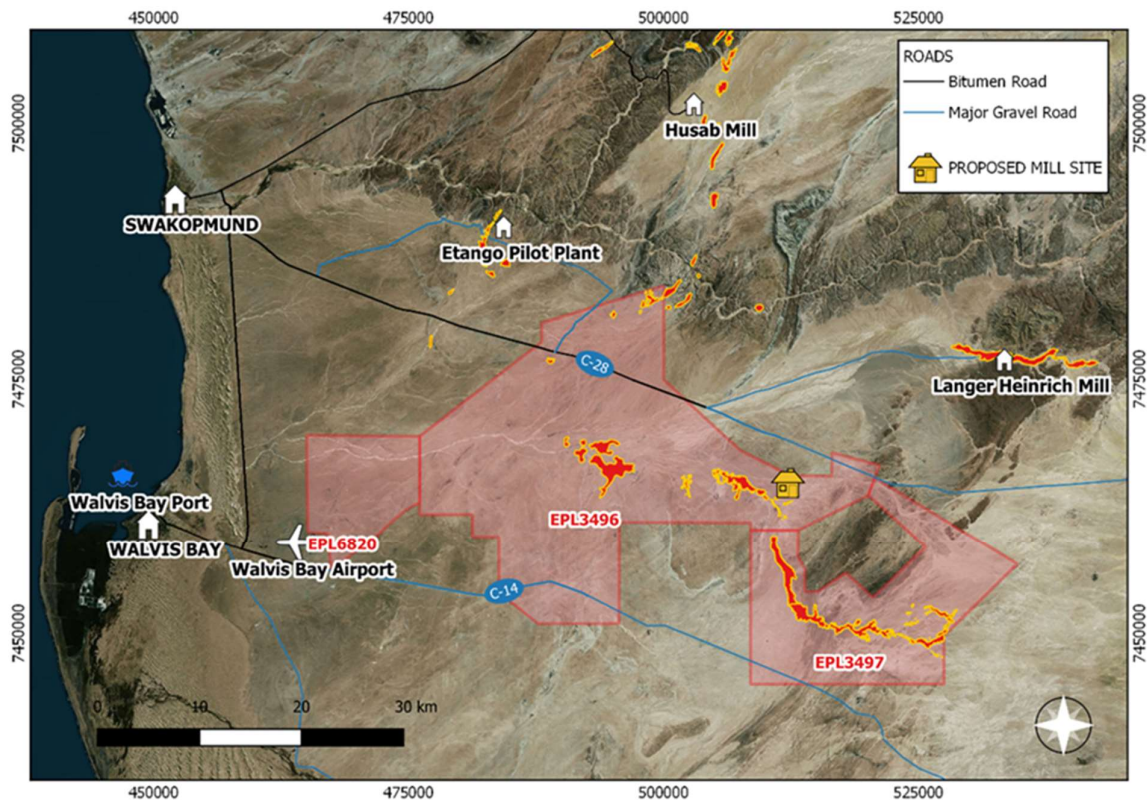


Figure 1. Tumas Project, access and tenement locations.

The Project is located in the Namib Desert (**Namib**). Near the coast, temperature average and range are moderated by proximity to the sea. As distance increases from the coast the temperature range rapidly becomes more extreme. The hottest month is February, when

maximum air temperatures can reach 40°C, with the average maximum of 25°C - 30°C. The coldest month is August when the average minimum temperatures are between 8°C and 12°C depending on distance from the coast. The Project area is approximately between 40km and 70km from the coast.

The average annual rainfall at the coast ranges from about 15mm to about 35mm. However, rainfall is extremely variable, patchy, and unreliable and any particular area can go for many years without any rain. The Namib receives significant amounts of moisture from fog and consequent dew, particularly near the coast. On average, it receives as much or more precipitation from dew than from rainfall. This dew is sufficient to support a variety of plants and small fauna which only survive because of it.

In the Project area, warm easterly winds from the interior can blow throughout the year and cause strong sandstorms, particularly in winter and spring.

The harsh climate results in a sparse vegetation cover including lichen on rock surfaces, thin grass covers after rain on sandy plains and small, hardy bushes and some trees along the dry river valleys. The fauna in the area is limited and rarely seen and, if so, generally at a distance.

The landscape of the Project area rises from approximately 350m above sea level in the west to approximately 785m above sea level in the east where the area is characterised by bedrock outcrops of Late Proterozoic metasediments. Elsewhere, old river terraces stand at elevations several metres higher than the present watercourses. The major one of these is the Tumas river which dominates the landscape in the western and central part of the Project area and is wide and braided with low longitudinal gradients. Deposition is the dominant fluvial process. The Tumas drainage starts initially as a braided river system east of the basement ridges and then passes through a major bedrock drainage constriction at Tumas 1 & 2, where it becomes narrow and incised. In the Project area, the Tumas River rarely, if ever, flows.

The deposits targeted in the Project occur in low-lying gravel plains that are generally flat, except where they have been incised by river channels as described above, leaving the terraces as remnants of an earlier land surface.

In 2006 Deep Yellow acquired Reptile Investment Four (Pty) Limited which was renamed RUN and holds the EPLs 3496 and 3497 and in late 2016 the newly-placed current Deep Yellow management re-evaluated all previous drill and geophysical data resulting in a new geological model and exploration strategy targeting the prospective Tumas palaeochannel for substantial resource increases. Initial drilling in 2017 and 2018 totalling 874 RC holes and 24,357m concentrated on Tumas 3 resulting in a maiden calcrite Inferred Resource of 33.1Mlb U₃O₈ at 378ppm. Drilling continued at Tumas 3 to collect 1,000kg of sample material for future metallurgical studies and better define some of the lighter-drilled parts of the deposit. Further exploration and resource drilling is planned for the Tumas Central and Tubas areas to better define and enhance the calcrite resource in that part of the substantial palaeochannel. The results of these programs will be included in any future studies.

4. GEOLOGY AND RESOURCES

Uranium mineralisation at Tumas is hosted within palaeochannels (ancient valleys) incised into metamorphic and igneous rocks of the Cryogenian to Silurian Damaran (or Pan-African) orogenic belt. During early Tertiary times falling sea levels initiated rapid, deep incision of the basement rocks and formation of a series of east-west trending palaeochannels. The palaeochannels were progressively filled by coarse fluvial sediments (mainly sands, grits and conglomerates) of the Tumas Basin. In the western parts of the Tumas Basin, younger sediments were deposited over a more extensive area beyond the limits of the palaeochannels. These sediments include the distinctive red aeolian sand of the Tubas Red Sand resource.

Secondary carbonate cementation of the channel-fill sediments and the intensity of cementation varies from relatively weak to intense when the rocks are referred to as calcrite. The dominant carbonate mineral is calcite however dolomite also occurs. Intense calcium

sulphate cementation is widespread beneath the current land surface and extends throughout the area, commonly forming plateaux.

Overlying the carbonate-cemented sediments and red sands are several metres of unconsolidated sands and gravels related to current ephemeral drainages that have incised into the gypsum-cemented plateaux, resulting in the frequent occurrences of low gypcrete scarps.

Uranium mineralisation occurs in a number of discrete bodies distributed along the length of the palaeochannel system (Figure 2). Uranium-rich outcropping and sub-cropping granites are plausible source rocks for the uranium of the Tumas deposits although uraniferous leucogranites (alaskites) occur to the north of the area.

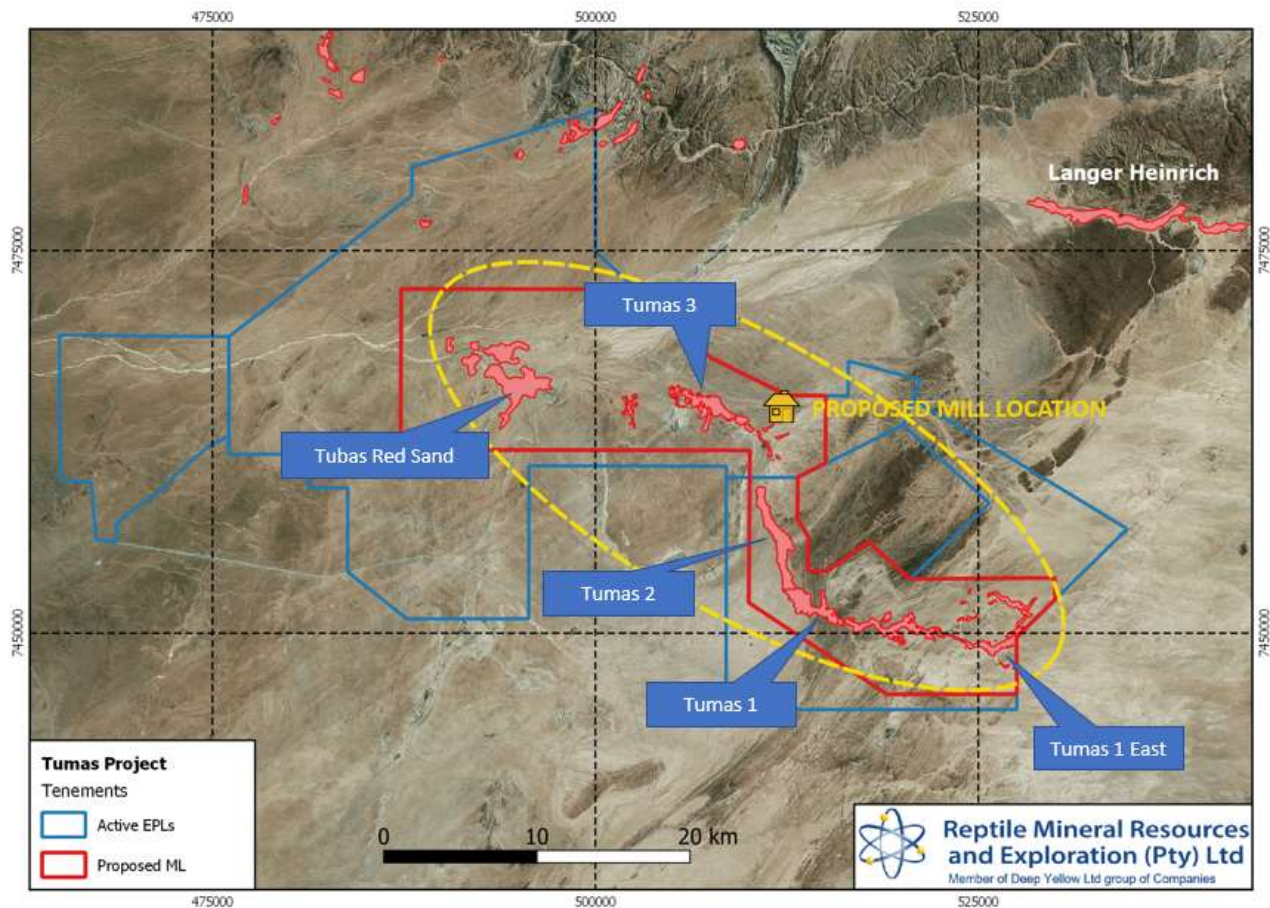


Figure 2. Distribution of uranium deposits along the Tumas palaeochannel.

In the Tumas 1 East area the palaeochannel is subdivided into numerous shallow tributaries. Economic mineralisation occurs only in tributaries 1 and 5, infilled by up to 13m thick of fluvial sediments assigned to the Leeukop Conglomerate Formation, interpreted as the stratigraphic equivalent of the Langer Heinrich Formation. The full extent of mineralisation has not been determined for the deposit and further drilling, including infill drilling, will be required to define the extent of the Tumas 1 East deposit.

Tumas 1 is relatively shallow and narrow, up to a maximum of 15m to 20m depth and up to 200m wide. It sits at the headwaters of the Tumas palaeochannel directly west of Tumas 1 East, cutting through the north-east striking Tinkas Formation schist and marble before bending to the north into Tumas 2, running west of the Tumas dome northwards until reaching Tumas 3.

Historical studies of the Tumas area postulated a mineralisation inventory for Tumas 3 of 10 to 30 million tonnes at grade ranges between 300ppm to 400ppm U_3O_8 (H&S, 2010). In 2017, with new management and funding in place a 10,000m drilling program started. For

the first time Tumas 3 moved into prime focus and became adequately drilled. The mineralisation envelope of Tumas 3 remains open to the East and to the West for further discovery. The current Mineral Resource estimate is classified Indicated with Inferred inventory along the edges and along the channel to the East and to the West. It is reasonably expected that the majority of the Indicated Mineral Resource can be upgraded to a Measured Mineral Resource and that the Inferred Resource is upgradable to an Indicated resource category with continued drilling.

Resource estimations since 2017 (under the new Deep Yellow management) reported JORC code Mineral Resource estimate on the Tumas 1, 2 and 3 deposits using various cut off grades ranging from 100, 150, 200, to 250 ppm eU₃O₈ and which were regularly reported in the respective ASX releases. In these releases the headline resource reported used the 200ppm eU₃O₈ cut off, assuming that this represented a conservative choice to reflect a fair determination for eventual consideration of the economic viability for the Tumas Project.

Subsequent work on the Tumas PFS testing more detailed metallurgical, processing and engineering aspects including confirmation of more efficient innovative treatment options, has showed that the production costs of the Project are trending lower than previously assumed and this positive outcome has allowed the lowering of the 200ppm eU₃O₈ cut-off grade previously used.

Accordingly, taking into account the reduced production costs for the Tumas Project, the resultant Ore Reserve estimation work carried out by Cube Consulting Pty Ltd (**Cube**) indicates that the marginal cut-off grade for reserve estimation using the Measured and Indicated Tumas 1, 2 and 3 resources can now be optimally placed at 100ppm eU₃O₈ introducing a significant increase in the quantity of uranium into the revised Mineral Resource estimate model, albeit at lower grade as shown in Table 2. On this basis the pit shells that have been created and reserves estimated now use the more appropriate 150ppm cut-off grade.

In addition, the Mineral Resource estimate for Measured, Inferred and Indicated Resources will in future incorporate utilisation of the Multiple Indicator Kriging (**MIK**) method for resource determination rather than Ordinary or Single Indicator Kriging (**OK** or **SIK**) methods as used previously. MIK-based resource estimations proved to more accurately reflect reserve estimations and subsequent metallurgical reconciliation from previous experience on the Langer Heinrich deposit and its processing.

The Mineral Resources identified at Tumas and considered for Ore Reserve estimate purposes in this Study are detailed in Table 2 below.

Table 2. Tumas Project Mineral Resource Statement (Uranium).

Mineral Resources at Tumas						
Deposit	Category	Cut-Off	Tonnes	U₃O₈	U₃O₈	U₃O₈
		(ppm)	(M)	(ppm)	(t)	(Mlb)
Tumas 3	Indicated	100	43.2	299	12,906	28.4
Tumas 3	Inferred	100	39.6	245	9,694	21.4
Total			82.8	273	22,600	49.8
Tumas 1 & 2	Indicated	100	54.1	203	10,997	24.2
Tumas 1, 2, 1E	Inferred	100	53.9	251	13,539	29.8
Total			108.0	227	24,535	54.0
Total Tumas			190.8	246	47,135	103.8

It should be noted that the above estimate does not include the Indicated 4.1 Mlb and Inferred 14.7Mlb eU₃O₈ Red Sand and Calcrete resources of the Tubas area located 15km west of Tumas 3. Although this is still a surficial Mineral Resource, the Red Sand which constitutes 65% of the Tubas Mineral Resource is hosted in aeolian sands (not calcretes) with a lower average grade of 170ppm eU₃O₈. On this basis the Tubas Mineral Resource was excluded from the current Mineral Resource/Ore Reserve considerations.

5. RESERVES AND MINING

The Ore Reserves have been estimated by Cube based on the Mineral Resource information, metallurgical information and budget mining costs provided to them by Deep Yellow. Cube have provided the Ore Reserve Mining Schedule used to populate the financial model used for the PFS Report. Table 3 provides a summary of the Ore Reserves estimated and Table 4 details the Ore processed in the financial model.

Table 3. Summarised Tumas Ore Reserve Estimate.

Item	Units	Total	Tumas 1	Tumas 3
Probable Ore Reserves				
Ore Tonnes Mined	t	40,863,928	13,942,371	26,921,557
Ore U ₃ O ₈ Grade Mined	ppm	344	292	371

Table 4. Ore Processed for the PFS Financial Model.

Ore Processed	Units	Total	HG	MG
TOTAL Ore Tonnes Processed	t	40,863,928	30,057,859	10,806,069
TOTAL Ore U₃O₈ Grade Processed	ppm	344	405	174

A significant volume of Mineralised Waste is left in mineralised waste stockpiles at the end of the operation (11.5Mt at 125ppm U₃O₈). This material was deemed to be too marginal to include in the ore to be processed for the PFS but remains as a potential profit centre should future uranium prices exceed the \$65/lb used in this Report, or if operating costs can be reduced during any future operating phase. The financial model assigns no value to this material.

Mining will be undertaken by a contractor and the costs used for this Study are based on a budget quote obtained from a Namibian mining contractor (two quotes obtained).

6. BENCHMARK CONVERSION FACTORS FOR FUTURE RESOURCES AND RESERVES

Deep Yellow has identified a 125km long, highly prospective palaeochannel systems within the Reptile tenements centred on the Tumas Channel. To date 65km of this drainage system has been adequately tested, delivering a total calcrete resource base of 110Mlb eU₃O₈ at a 100ppm eU₃O₈ cut-off grade and an average grade of 251ppm. Of this total resource, 52.6Mlb eU₃O₈ at 245ppm are of the Indicated JORC category and occur in the Tumas 1, 2 and 3 deposits.

Infill drilling in 2020 at Tumas 3 to upgrade a portion of the existing calcrete Inferred Mineral Resources succeeded in converting 95% Inferred Mineral Resource to Indicated Mineral Resource status. In the adjacent Tumas 1 and 2 deposits, calcrete Indicated Mineral Resources comprise 95% of the resource base associated with these deposits suggesting a consistent overall benchmark conversion rate over 25km of mineralised palaeochannel. (see Figure 2 for locations).

Sixty kilometres of uranium-rich Tumas palaeochannel system is located within the Mining Lease Application (MLA) area being considered for submission. Approximately 10 km of this channel system occurs between Tumas 3 West and Tubas (Figure 2) and has been sufficiently drilled to indicate the presence of a calcrete uranium resource. This requires further drilling to define resources of Indicated and Measured JORC resource standard. To date 1.5 to 6Mlb eU₃O₈/channel km has been identified within the overall paleochannel system. At Tumas1, 2 and 3 this averages 2.5Mlb eU₃O₈ per kilometre, indicating that a further 15 to 25Mlb eU₃O₈ will most likely be delineated within the sparsely-drilled 10km zone between Tumas 3 and Tubas.

The recent Ore Reserve estimation studies have succeeded in converting 86% of the Tumas 3 150ppm cut-off Indicated Mineral Resource of 25.6Mlb eU₃O₈ to 22.0Mlb eU₃O₈ of Probable Reserves and 52% of the Tumas 1 and 2 (150ppm cut-off) Indicated Mineral

Resource of 17.3Mlb eU₃O₈ to 9.0Mlb eU₃O₈ of Probable Reserves. Of the total 42.9Mlb eU₃O₈ Indicated Mineral Resource (using a cut-off grade of 150ppm) from which these Reserves are derived, 63% of the contained eU₃O₈ was converted to 26.9Mlb eU₃O₈ high grade ore (405 ppm eU₃O₈). A further 10% were converted to 4.1 Mlb eU₃O₈ of medium grade ore (174 ppm eU₃O₈).

7. GEOMETALLURGY

Four mineralisation types have been defined within the Tumas-Tubas palaeochannel based on the type of host rock. Of these, only gypcrete is known to have direct adverse impacts. Gypcrete, for the purposes of Tumas geometallurgy is defined as palaeochannel sediment with greater than 0.35 wt% totals (equivalent to 1.58 wt% bassanite, a calcium sulphate mineral). Calcium sulphate consumes the active leach reagent during ore processing, sodium carbonate, to form sodium sulphate (aqueous) and calcium carbonate (solid). The sodium sulphate formed must be bled from the process and this adds to operating costs.

Gypcrete forms a discontinuous layer up to 8m thick occurring at a few metres below the surface and generally defines the upper limit of uranium mineralisation. It is only mineralised with uranium in a few locations and is likely to make up only a small portion of the total resource although its contained resource has not yet been explicitly estimated. This material will not be processed initially and will be stockpiled separately as potential future process development may mitigate any adverse process impact.

Some of the clay minerals present (particularly palygorskite) may also cause hindered settling characteristics. To date, attempts to define domains for palygorskite (to allow potential discarding in the mining process) have been unsuccessful and consequently the process design allows for this potential impact.

8. METALLURGY

Metallurgical testwork has been undertaken as part of the PFS at the Balcatta (WA) metallurgy laboratory of ALS using samples supplied by the Company. The work program has been limited to indicative beneficiation and leach performance at elevated temperatures. Sufficient work has been undertaken to inform the process design and operating cost estimate to PFS level. For a future Detailed Feasibility Study (**DFS**). Further work is recommended and should include, as a minimum:

- beneficiation work to establish the potential benefit of crushing within the circuit and improve accountability;
- further leach testwork to optimise leach conditions, including higher temperature;
- detailed slurry rheology work;
- settling testwork on beneficiation concentrate and leach product to allow the pre-leach thickener and CCD circuits to be specified;
- membrane concentration characterisation work on PLS developed during testwork;
- water characterisation work on actual process water for the Project (membrane desalinated sea water); and
- hydrometallurgical testwork involving locked cycle mini-piloting and multi-element modelling fitting to stability.

Two composite samples of the Tumas 3 deposit (to be processed over the initial 8 years of Project life) were collected after consultation between the Project metallurgical and geological discipline specialists. These discussions were undertaken to ensure that the composites generated would be reasonably representative of the plant feed, particularly in the first decade of production. The first composite was generated from RC chips and the second from diamond core. For all testwork, other than beneficiation, this Study has concluded that the RC composite is an acceptable proxy for diamond core material.

Analysis of the testwork undertaken by the Company to date has resulted in the process recovery estimates that are detailed in Table 5 for the Project and utilised for financial modelling.

Table 5. Tumas Project Estimated Metallurgical Recovery.

Process Area	Factor
Beneficiation	97.7%
Leach	97%
Counter Current Decantation (CCD)	99%
Overall	93.8%

Beneficiation performance is a function of percentage weight barren reject and barren grade. The RC composite resulted in a barren reject that was 35% of feed weight for a minus 500µm cut size. Due to the nature of this sample and the extent of size reduction involved in the RC drilling process, this is considered to be a minimum reject value and has been adopted for this Study. The barren reject grade achieved for the RC composite was 11.8ppm U₃O₈, however for the Study, 27ppm U₃O₈ is assumed, again due to the nature of the sample and extent of size reduction due to RC drilling.

Leach extraction at elevated temperature is assumed to be 97% for uranium. This figure is lower than the best performance observed (98.5%) and considered suitably conservative for use in a PFS. The leach conditions established as the base case (standard) conditions are detailed in Table 6, which also provides the leach time selected for design purposes.

Table 6. Tumas Standard Leach Conditions.

Condition	Units	Value
Slurry density	% solids	40
Temperature	°C	150
Na ₂ CO ₃	g/l	30
NaHCO ₃	g/l	5
Leach time	Minutes	30

Leach kinetics at elevated temperature were shown to be very rapid (see Figure 3) under the standard conditions chosen and further optimisation of the process during a future DFS testwork phase is considered likely.

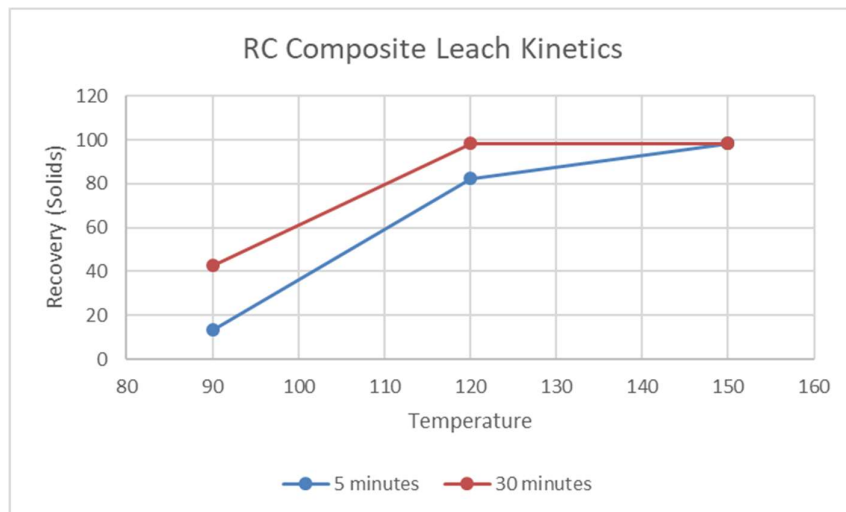


Figure 3. RC composite leach kinetics, at 5 and 30-minutes.

Testing the SS concept of elevated temperature leach was an important aspect of the PFS testwork undertaken and the PFS generally. The results obtained clearly confirm the validity of that SS assumption.

This Study assumes 99% wash efficiency and the metallurgical model and overall recovery estimate includes provisions for the losses associated with waste streams from the uranium and vanadium refining sections of the process.

The testwork undertaken is preliminary in nature and focused on the key areas of beneficiation and leach. It is considered that the hydrometallurgy (subsequent process steps) associated with carnotite leach discharge is sufficiently well understood by the Deep Yellow technical team and advisers that data required for the detailed design (in a DFS) may be deferred until the start of the DFS work program. Further testwork is recommended at the commencement of any future DFS phase for the Project.

8.1. Vanadium By-Product

The only identified uranium mineral in the Tumas resources is carnotite, which is a carbonate mineral of uranium and vanadium with one vanadium atom for each uranium atom, although other vanadium minerals are present in the ore and consequently, the ratio of vanadium to uranium determined by analysis is always higher than the stoichiometric value for carnotite. Metallurgical testwork conducted for the PFS demonstrates that the other vanadium minerals in the ore do not leach to any material extent in the proposed process. This is demonstrated by the ratio of vanadium to uranium in leach discharge solution which averages almost the exact stoichiometric ratio of carnotite (1:1 V:U [molar] = 0.214 [V:U by analysis]) as detailed in Table 7.

Table 7. Vanadium to Uranium Ratio in Leach Liquor.

Test	V:U Ratio
HY8765	0.23
HY9001	0.16
HY9002	0.16
HY8766	0.28
HY9043	0.21
HY9044	0.22
HY9206	0.21
HY9207	0.20
Average	0.21
Variance	0.001

The low variance demonstrated by the data and alignment with the stoichiometric value, clearly indicates that vanadium extraction in leach is dependent on the leaching of carnotite alone and that vanadium production is consequently a by-product of uranium production. Vanadium extractive department is consequential to that of uranium.

There is no Ore Reserve estimate for vanadium. However, for metallurgical and financial modelling purposes, vanadium extraction is based on this stoichiometric relationship between uranium and vanadium in carnotite. Vanadium recovery in beneficiation through to CCD is consequently assumed to be controlled by the recovery of carnotite (and uranium) in those sections. In the refining sections of the process, modelling determines that vanadium recovery will be slightly higher than that for uranium and the estimated overall vanadium recovery is 96% (based on V:U ratio of 1:1).

9. PROCESS DESIGN

The process design selected for Tumas relies on the testwork undertaken to date and the in-house IP and knowhow of Deep Yellow and its process consultants. The flowsheet is conventional in many aspects but with a few critical innovations.

The innovative areas of design are the use of high temperature leach for carnotite, the application of membranes and the degree to which reagent recycling is actively employed.

While these may be innovative in terms of the contemporary uranium industry, importantly, they do not encompass design that has not already been proven elsewhere.

As with all process designs, there is intrinsic risk associated with the design chosen. The design approach used to mitigate this risk, where it has been identified, is two-fold. In the first instance, mechanical equipment has been conservatively specified and circuit performance assumptions are also conservative. In the second instance, the plant layout allows for the post-commissioning installation of further equipment, should that be found necessary.

In addition to the above two design principles, the process layout also assumes that the plant may be doubled in capacity at some time post-commissioning and space is allowed for additional circuit units to accommodate this.

A fundamental focus of the process design is reducing the long-term remediation costs associated with the operation. In particular, the design seeks to generate a relatively benign tailing. This is achieved through the active recycling of reagents which also has direct benefits in terms of reduced operating costs and increased metallurgical recovery. The tailing produced contains only very low levels of reagent and value metals.

10. ENGINEERING DESIGN

The engineering design for the Project has been undertaken sufficiently to allow a CCE of sufficient accuracy to support a PFS. Layouts are all preliminary and will need to be further optimised during future Project stages. Numerous recommendations are made regarding potential circuit improvements for consideration in any future DFS.

11. REAGENTS AND CONSUMABLES

The reagents and consumables for Tumas have been defined and consumptions estimated based on the metallurgical model. All major supply items (with the likely exception of sulphuric acid, which may be locally sourced) for the Project will be sourced via the port of Walvis Bay, either directly or indirectly, and then trucked to the Project site as required. Fuel will be the largest single supply item and this will rely on drawing stock from third party fuel reserves located in Walvis Bay.

Major reagents, (sodium carbonate, lime and sulphuric acid) will be purchased in bulk, with a minimum of 3-months' supply held either at the Project site or Walvis Bay. Storage at the Project site will be bulk storage equipped with pneumatic transfer systems for lime and sodium carbonate, and liquid pumping for sulphuric acid which will be supplied in concentrated form.

12. UTILITIES

The process plant is designed to maximise the recovery and recycle of process liquor so that the requirement for fresh water is minimised. However, some areas within the process are sensitive to water quality and process water cannot be used. Raw water is sourced from NamWater via a water pipeline and stored in the raw water tanks. The potable water treatment system processes raw water for use at the end user points, including safety showers and buildings.

Electricity and steam (from waste heat) for the process facility is supplied by the hybrid solar/fossil fuel power plant. The fossil fuel options to be considered during a future DFS trade-off study include, but are not limited to: natural gas; coal; HFO; and diesel. Required installed capacity will be approximately 15Mwe, with an average operational load of 12.7Mwe.

The site power supply will be connected to the NamPower grid which runs within 10km of the process plant (and power station) site.

13. TAILINGS AND WASTE ROCK STORAGE

The process design assumes that tailings will be pumped to the Tailings Storage Facility (TSF) and decant water returned to the process water system. The process design also relies upon the efficient washing of the leach discharge slurry in the CCD section of the plant to retain 99% of contained aqueous contaminants within the plant area.

Tailings will be stored permanently in mined-out areas of the Tumas 3 area, which are all within 6km of the process plant. The water balance assumes that the ultimate settled density of the tailings will be 1.64 (65% solids) and that 15% of the water pumped to the TSF will be lost as evaporation.

This settled density equates to 1.07 t/m³ of dry solids. After TSF areas have settled sufficiently to ensure stability, they will be capped with waste rock and topsoil and contoured to match, or blend with original ground contours. This TSF rehabilitation will be undertaken progressively during the mining operations.

The barren reject from beneficiation will be screened and washed with clean water prior to discharge from the plant and consequently does not represent a disposal risk any more significant than mine waste rock. There are two permanent storage options for this material: co-storage with tailings; or co-storage with either mineralised or non-mineralised mine waste rock. These options will be considered as part of the trade-off study program during any future DFS. For the purposes of this Study, barren reject is assumed to be stored with waste rock.

Waste rock mined from Tumas 3 will be stored permanently in Waste Rock Dumps (WRD) located at the periphery of the mine pit(s).

All other waste rock will be permanently stored in mined-out areas other than Tumas 3.

Waste rock has been assessed for its acid-forming and net-neutralising capacity. The waste rock for the Project is assessed to be non-acid forming with generally very high neutralising capacity.

14. INFRASTRUCTURE AND SERVICES

Road access to the Project is achieved via the existing C28 road (see Figure 1) and a 12.5km, all weather, tarmac covered (or equivalent) site access road to be built as part of the Project development. The C28 road is an all-weather, tarmac covered road that is maintained by Namibian authorities.

Shipping services are available at Walvis Bay Port which is a Class 7 port that has handled the export of uranium concentrate from Namibia since the 1970s and has both bulk and container terminals.

Air travel is also available to and from limited destinations from Walvis Bay, with more extensive coverage available at Windhoek.

Required utilities for the Project: telecommunications; power; and water, are all available from established government utilities.

15. LEGAL FRAMEWORK

The management and regulation of mining activities in Namibia falls within the jurisdiction of the Ministry of Mines and Energy (MME), with the environmental regulations guided and implemented by the Directorate of Environmental Affairs (DEA) within the Ministry of Environment, Forestry and Tourism (MEFT).

The MME has granted RUN tenure of EPLs 3496 and 3497. The MME provided notification of preparedness to grant the application for the renewal of the EPLs in July 2019 (MME, 2019a; 2019b) and issued the EPL endorsement on 5 August 2019 (MME, 2019c; 2019d). The current EPLs 3496 and 3497 will expire on 4 August 2021.

The MET (now MEFT) has granted Environmental Clearance Certificates (**ECC**) for the exploration activities on EPLs 3496 and 3497 (MET, 2019a: 2019b). The ECCs were granted on 8 March 2019 and are valid for a period of three years so will expire on 7 March 2022. There are 22 conditions associated with the ECC that RUN must adhere to.

The process required to submit a Mining Licence Application (**MLA**) for the Project area has commenced with the intention of submitting the MLA in 2021. The Company expects the MLA to be approved, with conditions, in the normal course of business.

16. EXISTING ENVIRONMENT

RMR's Tumas Project is located in the Erongo Region to the west of central Namibia, Southern Africa.

Large parts of the Erongo Region are desert and retained by the State as protected areas under conservation management, including the NNNP in which the proposed Project is located (as shown on Figure 1). Given the arid conditions in the area, there is little potential for agricultural activities and the main land uses are conservation, tourism and mining.

RUN operates a weather station at the Project site which was installed in June 2010 and weather data was recorded between June 2010 and January 2013. No data was recorded between January 2013 and March 2018 due to a malfunction of the weather station. A replacement weather station was installed in March 2018 and baseline data has been recorded since that time.

Weather station data indicates that daily average minimum temperature ranges from 4°C to 14°C and maximums from 31°C to 42°C. Annual rainfall varied between 5.4mm (2019) to 72.2 mm (2011).

The seasonal wind roses show the predominant winds in summer (December to February) to be north-westerly, changing to west-south westerly during autumn (March to May). High speed winds from the north east dominate during the winter months (June to August) termed the east winds but then more westerly winds return during spring (September to November).

Vegetation and flora survey were conducted around the Tumas area in 2013 and 2020. The 2013 survey identified three major physiographic/vegetation types in the Tumas area. In the 2020 survey, 12 landforms were delineated in the study area which were divided into the broad categories of plains, rivers, inselbergs and mountains.

Fauna surveys were conducted in the Tumas area in 2010, 2013 and 2020. The surveys found that the general Swakopmund area is regarded as "low" in overall (all terrestrial species) diversity while the overall terrestrial endemism on the other hand is "moderate to high". According to a literature survey an estimated 54 reptile, 5 amphibian, 49 mammal and 130 bird species (breeding residents) are known to or expected to occur in the general Tumas Project area of which a high proportion are endemics.

The main air pollution sources within the region, as identified during the 2019 air quality study as part of the SEMP Air Quality Management Plan (**AQMP**), include current mining operations, exploration activities, public roads (paved, unpaved and salt/treated), and natural exposed areas prone to wind erosion. The main pollutant of concern would be particulate matter (TSP; PM₁₀ and PM_{2.5}) resulting from vehicle entrainment on the roads (paved, unpaved and treated surfaces), windblown dust, and mining and exploration activities. Gaseous pollutants such as SO₂, NO_x, CO and CO₂ would result from vehicle emissions but these are expected to be at low concentrations.

In June 2020, a Radiological Baseline Assessment was conducted based on the radiation related data that has been collected in an around the Tumas Project area. The data was used to estimate the public exposure doses that reflects the current baseline conditions that a hypothetical member of the public incurs when at or close to the Project area.

Baseline exposure doses at the Tumas Project site were estimated as part of the 2020 Radiological Baseline Assessment. These comprised:

- a total direct external gamma exposure does of some $1.1 \pm 0.4 \text{ mSv.a}^{-1}$;
- an inhalation does due to radon and progeny of some $0.2 \pm 0.1 \text{ mSv.a}^{-1}$; and
- an inhalation does due to ambient atmospheric dust of some $0.0003 \text{ mSv.a}^{-1}$.

The socio-economic structure of the Erongo Region, and Namibia as a whole, has important implications for proposed mining projects in terms of skills availability and labour pool. The mining and tourism sectors offer the best prospect for growth. The high unemployment and poverty levels means that any new development is perceived as being economically beneficial to the area.

An archaeological survey of EPL3496 was conducted in 2010. The archaeological survey, which was focused on the Tubas River Valley and environs, identified 39 archaeological sites ranging in age from the late Pleistocene to recent. 18 of these sites were recorded in the Tubas area. Only three of those sites are within the proposed MLA area. The area is of generally low archaeological significance but some sites may require some special protection.

An Environmental Management Plan (**EMP**) will be prepared as part of the current Tumas Project Environmental Impact Assessment (**EIA**) and will be revised as necessary as the Project develops and through construction and operations.

A Public Participation Program will be conducted as part of the EIA process for the current Tumas Project.

17. OPERATIONS

Mining will be undertaken by a contractor, with supervision, grade control and geological control provided by Deep Yellow. Mining operations will commence 6-months prior to the commencement of process plant commissioning and processing operations to allow for the development of ore stockpiles and the creation of an initial in-pit TSF.

The processing plant will operate on a continuous 24/7 basis with most maintenance undertaken on day shift.

The typical operating parameters for the Project are detailed in Table 7.

Table 7. LOM Operating Parameters.

Project Physicals (LOM)	Units	LOM
Project Life (Total)	Years	13
Development Period	Years	1.5
Operating Life (Total)	Years	11.5
Open Pit Ore Mined	kt	40,864
Waste Mined	kt	91,273
Ore & Waste Mined	kt	132,137
Ore Fed to Process plant	kt	40,864
U ₃ O ₈ Head Grade Ore Feed	ppm	344
U ₃ O ₈ Contained In Ore Feed	Mlb	31.0
U ₃ O ₈ Recovered and sold	Mlb	29.1
U ₃ O ₈ Recovery	%	93.8
Power Usage	kWh/t fed	29.7
Power Usage	MWh	1,212,163
Diesel Usage	kL	78,306
HFO Usage	kL	295,649
Water Usage	MI	23,701

Direct establishment for the Project is assumed to ramp-up over the pre-production year, ultimately arriving at 240 employees from years 2 onwards, with additional contracted employment for those areas assumed to be contract supply (mining, security, water, power and steam supply) of approximately 129, giving total site establishment of 369 (see Table 8).

Namibian staff are expected to fill most positions excepting those key positions identified where expatriates may be required and have been provided for. For costing purposes, these key positions are assumed to be: General Manager, Mining Manager, Processing Manager, Chief Financial Officer, Chemist, Radiation Specialist and Marketing Manager.

There will be a shift roster which is variable depending on the work area. Most areas will be predominantly day shift only, except for mining, ore processing, some engineering positions, store access and medics. A 4-panel continuous shift roster based on an 8-hour shift will operate for those positions that work 24/7 and which work hours are based on compliance with Namibian Labour Law.

Table 8. Site Personnel Establishment.

Employee Type	Estimate
Direct	
Management	2
Mining	16
Processing	96
Engineering	70
SHR	17
Environmental	6
HR	6
G&A	24
Corporate Relations	2
Marketing	1
Total Direct	240
Indirect	
Mining Contractor	79
Security Contractor	20
Services Contractors	30
Total Indirect	129
Total	369

18. CAPITAL

A CCE has been developed for the Processing Plant by Ausenco. It represents the estimated costs of the Ausenco's scope and has been prepared generally in accordance with an AACE class 4 estimate with a nominal accuracy of $\pm 25\%$ in USD with a base date of 4Q2020. The estimate is based on process and Project information supplied to them by Deep Yellow. The Deep Yellow technical team has provided the required detailed knowledge of uranium processing generally and carnotite processing specifically. The Block Flow Diagram (**BFD**) of the process selected for the PFS is provided in Figure 4.

The Processing Plant receives ROM ore for treatment to produce uranium and vanadium products as yellowcake and red cake respectively. The Processing Plant is comprised of four main areas:

1. Beneficiation;
2. Leaching and CCD;
3. Hydrometallurgy; and
4. Reagents and utilities.

The processing and production rates used for the CCE are not necessarily those used for the financial analysis of the Project. For the financial analysis, the ore schedule developed during the Ore Reserve estimation process has been used and this may vary from the averages used in the design process. All variations have been checked by the Company to ensure that the process plant, as designed, is adequate (fit-for-purpose) to process the expected ore feed.

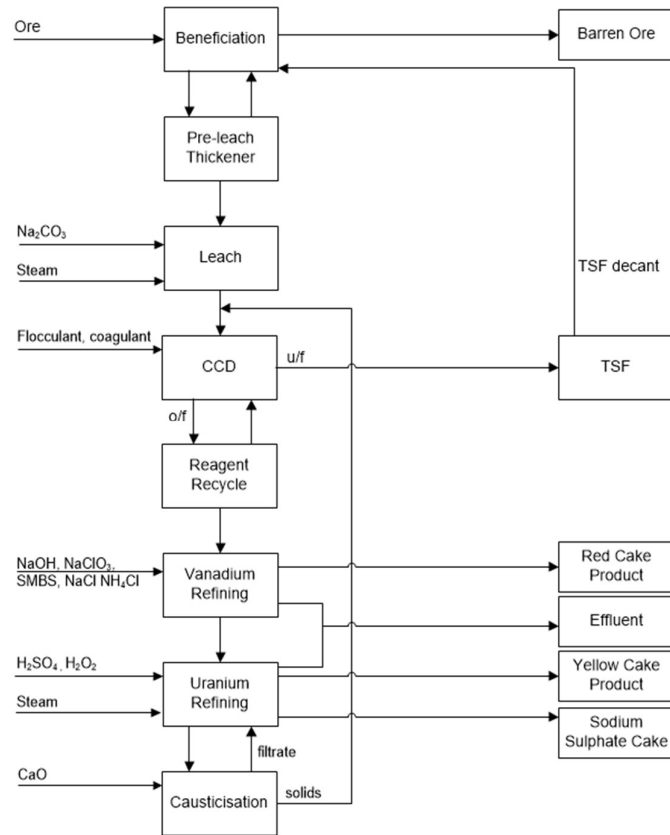


Figure 4. Process plant block flow diagram.

The CCE for the Process Plant undertaken by Ausenco is summarised in Table 9.

Table 9. Summarised Process Plant Capital Cost Estimate (Ausenco).

Process Plant Capital (Ausenco)	Total Cost US\$M
Process Plant	154.3
On-site Infrastructure	5.1
Spares and First Fills	8.2
Construction Indirects	11.6
Engineering	33.5
Provisions (incl Contingency)	53.1
Total Cost	265.7

Owner's capital was estimated by the Company to be \$29.4M, giving total initial direct capital of \$295.1M and a unit capital cost of \$98M per Mlb U₃O₈ of annual design capacity for the Project.

Capitalised pre-production operating costs were assessed by the Company and are summarised in Table 10.

Table 10. Summarised Additional Development Capital

Capitalised Pre-Production Operating Costs	Total Cost US\$M
Mining Pre-production Capitalised Operating Costs	20.8
Processing & Other Pre-production Capitalised Operating Costs	4.5
Total	25.3

Sustaining and closure capital costs were also estimated by the Company for the Project and are detailed in Table 11.

Table 11. Summarised Sustaining and Closure Capital.

Description	Total Cost US\$M
Sustaining Capital: Mining	0.4
Sustaining Capital: Process Plant	19.7
Sustaining Capital: Infrastructure	7.1
Closure Costs	10.0
Total Cost	37.1

19. OPERATING COSTS

The operating cost estimate for the Tumas PFS has been derived from a combination of first principal estimates, factored estimates and contractor or supplier estimates. Each cost area has been considered directly and only Project cost areas are included. Costs at parent company level, such as corporate overheads and advisory (technical and commercial) services from the parent company are not included.

Wages and salaries, as well as establishment numbers for the Project, have been estimated based on estimated requirements and typical labour rates in Namibia. Consultants and contractors for each area have been factored from the salary and wages estimate for that area. Table 12 provides a summary of the average C1 operating cost estimate for Production Years 1 to 10 (PY1 to 10) for the Project (before ore grade falls in the last 1.5 years).

Table 12. Summary of Total Operating Costs.

Cost Centre	Cost Estimate (PY1 to 10)			
	\$pa ('000)	\$/t	\$/lb U₃O₈	% of Total
C1 Costs				
Mining	33,094	9.39	12.23	45%
Processing	31,167	8.84	11.52	43%
Maintenance and Engineering	4,699	1.33	1.74	6%
G&A	5,586	1.58	2.06	8%
SHR	1,092	0.31	0.40	2%
Environment	308	0.09	0.11	0%
HR	227	0.06	0.08	0%
Total Site Operating Cost	76,173	21.61	28.15	105%
Corporate and Marketing	2,809	0.80	1.04	4%
Total	78,982	22.40	29.19	109%
Vanadium Offset	(6,238)	(1.77)	(2.31)	(9%)
Total after Vanadium offset	72,744	20.64	26.89	100%

The Brook Hunt operating costs and the All-in Sustaining Cost (AISC) for the Project (LOM) are detailed in Table 13.

Table 13. Brook Hunt Operating Costs (LOM).

Brook Hunt Cash Costs	LOM (\$M)	\$/lb
C1 Cost		
Revenue from sales of payable V ₂ O ₅	(67.5)	(2.32)
Marketing Costs (Fixed & Variable)	3.6	0.12
Transport and Shipping	16.61	0.57
Converter Costs	10.7	0.37
Mining Operating Cost	333.8	11.48
Processing Operating Cost	359.2	12.35
G&A and Other Operating Costs	137	4.71
C1 Cost	793.4	27.28
C2 Cost		
C1 Costs	793.4	27.28
Initial Capital Depreciation	292.2	10.05
Sustaining Capital Depreciation	25.9	0.89
Closure Costs	10.0	0.34
C2 Costs	1,121.5	38.56
C3 Cost		
C2 Costs	1,121.5	38.56
Namibian State Royalty	58	1.99
Namibian Export Levy	5.3	0.18
C3 Costs	1,184.8	40.74
AISC		
C3 Costs	1,184.8	40.74
Initial Capital Depreciation	(292.2)	(10.05)
AISC	892.6	30.69

20. MARKETING

Following the rapid uplift in uranium prices experienced in the 2006-2007 period when the spot price reached its zenith of \$136/lb in June 2007 (all uranium prices are given in pounds U₃O₈ equivalent), conditions in the global uranium market moderated somewhat during 2008-2010. Term contracting activity encouraged new production, not just in Kazakhstan but also in Africa, as evidenced by the development of two major conventional production centres, the Langer Heinrich uranium mine and Kayelekera uranium mine as well as smaller ISR-based facilities in the United States.

Subsequent to the Fukushima earthquake (March 2011), the uranium price, measured by both the spot/near-term and long-term market, deteriorated significantly (Figure 5). The spot price (UxC) averaged \$99.33/lb in 2007, with the term price close behind at \$90.83/lb. By December 2016, the term price had fallen to \$30.00/lb.

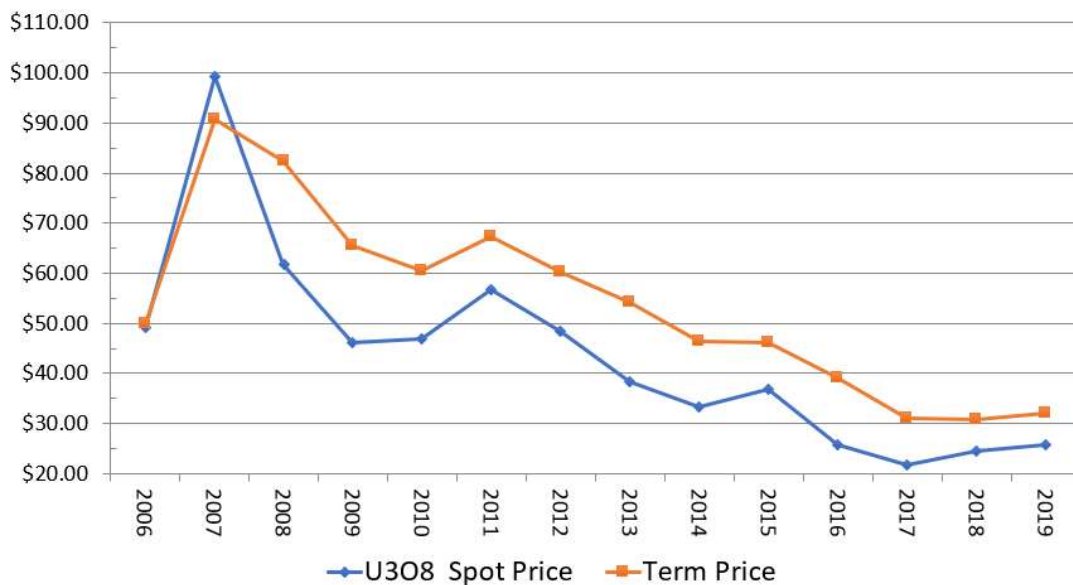


Figure 5. Uranium market price (UxC) - (annual average).

The very poor uranium price environment forced the primary production sector into significant reductions in production and an era of under-investment for new development. Global production peaked at 162.2 Mlb U₃O₈ in 2016 before declining to 139.5Mlb U₃O₈ in 2019. Recent estimates of worldwide uranium output in 2020 indicate aggregate output of 122Mlb U₃O₈ all offset by underfeeding practices of the enrichers producing the balance of the demand.

The global uranium production sector is under increasing stress due to persistent low unsustainable uranium prices, attrition of skilled development and operational professionals as well as managerial personnel, and the expiration of high-priced long-term contracts negotiated during the previous market price cycle. Uranium production contributed by the junior sector will be absolutely essential to support future nuclear electricity generation but that component of future uranium supply is far from certain and is becoming increasingly unlikely unless incentive pricing reaches required levels.

In a recent editorial, entitled "Is a Supply Pinch Developing?" UxC concluded "while uranium prices have recently retreated slightly from earlier gains tied to the immediate effects of the COVID-19 pandemic, *potential buyers should refrain from becoming too comfortable as market fundamentals indicate that a real supply pinch could emerge sooner than expected.*" (emphasis added).

Currently, commercial nuclear power provides about 10% of global electricity generation. According to the World Nuclear Association (**WNA**), there are 441 operable nuclear reactors worldwide with the largest programs being the United States, France, China, Russia and Japan. As of November 2020, an additional 53 reactors are under construction in 18 countries and 106 reactors are in the planned phase.

These latest figures compare favourably to the worldwide situation at the time of the Great Eastern Japan Earthquake (March 2011) when 442 reactors were operable, 63 units were under construction and 156 reactors were on order/planned.

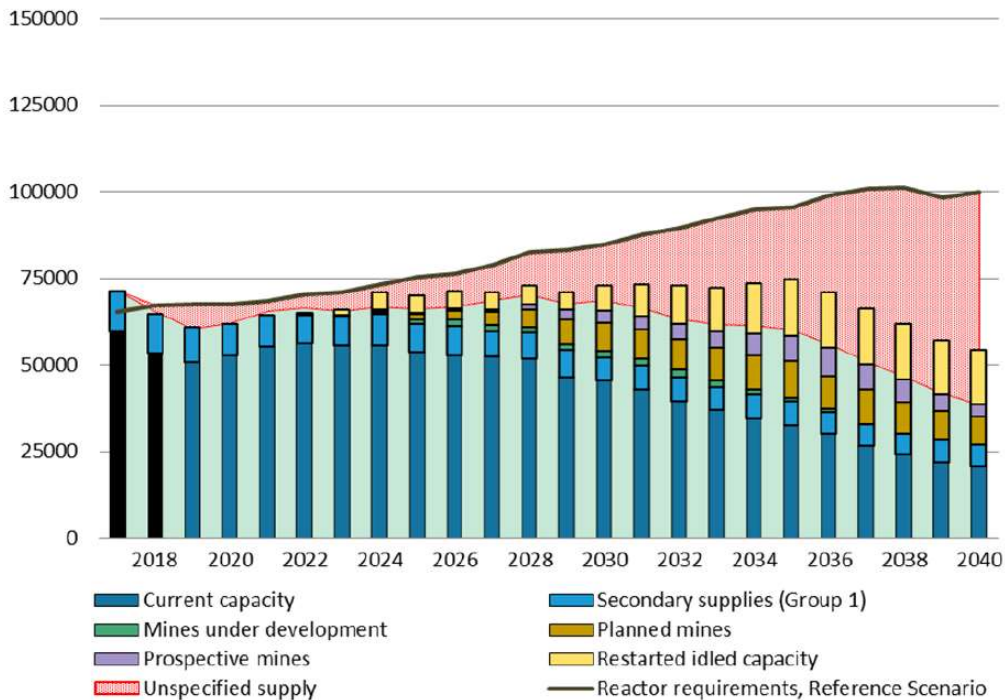
The WNA publishes a bi-annual review and forecast of the nuclear power generation sector which is developed by industry collaboration. The latest edition of that periodic report, released in September 2019, "The Nuclear Fuel Report: Global Scenarios for Demand and Supply Availability 2019-2040" provides three scenarios of future global nuclear electricity generation capacity. Nuclear Fuel Associates (**NFA**) has selected the Reference Case as the most likely future outcome for commercial nuclear generating capacity.

Reference Case uranium requirements stand at 177.4Mlb U₃O₈ today but would rise to 220.6Mlb U₃O₈ by 2030 before further expanding to 260Mlb U₃O₈ by 2040 representing growth of almost 47% over the next two decades.

It should be noted that the WNA market assessment does not take into account the increasingly probable development and implementation of Small Modular Reactors (defined by the U.S. Nuclear Regulatory Commission as reactors generating 300 MWe or less).

Looking forward, it has become abundantly clear that new uranium production facilities will be needed beginning in the mid-2020s as several existing facilities reach the end of their economic/reserve life and global uranium demand expands.

Figure 6 reproduces the WNA forecasted worldwide uranium market balance (Reference Case) extending through 2040. The conclusion of the WNA Working Group was that based upon the Reference Case reactor requirements and a detailed assessment of existing, restart and prospective/planned mines, the global uranium market is already in deficit. However, the near-term shortfall (2019-2021/2022) is likely to be filled by increased consumption of available inventories. However, even as currently idled mines (e.g. McArthur River/Key Lake, Langer Heinrich) recommence operations circa 2022/2023, these facilities require higher sustainable uranium prices to justify necessary capital investment and operating costs.



Source World Nuclear Association – The Nuclear Fuel Report 2019

Figure 6. Reference scenario supply, tU.

Figure 7 shows the most recent unfilled uranium requirements data for the European Union and the United States (31 December 2019). These two regions represent close to half of total global uranium demand. Clearly, near-term (2020-2022) uranium needs are well covered. However, beginning in 2023 both regions have dramatically increasing uncovered uranium requirements which will need to be committed under new long-term purchase agreements (on average, nuclear utilities procure 80-85% of uranium demand through term contracts rather than the spot market). In the aggregate, the two regions report uranium requirements totalling 651.4Mlb U₃O₈ over the period 2020-2028.

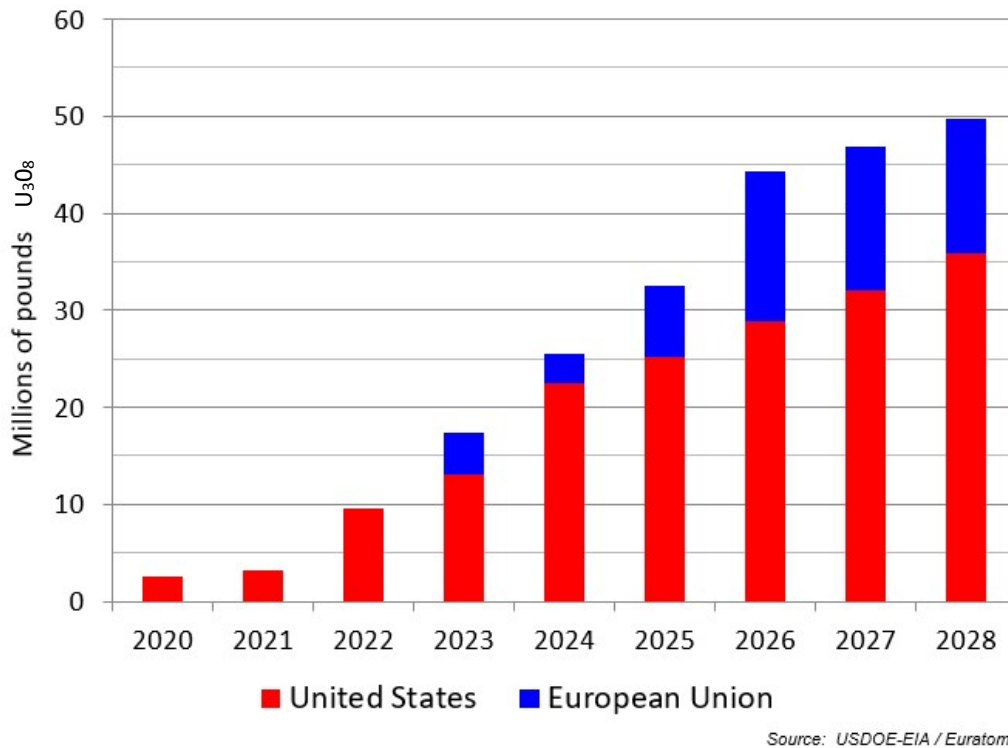


Figure 7. Unfilled uranium requirements - United States/European Union (31 Dec 2019).

A principal nuclear fuel consulting firm, TradeTech, publishes quarterly uranium market assessments and price forecasts ("Uranium Market Study"). In the most recent edition (2Q2020), TradeTech examines the global demand and supply balance under two fundamental scenarios, FAM-1 which assumes that uranium production increases based upon specific company announced production start dates (unrealistic) and FAM-2 which introduces production volume and timing factors based upon the likely start-up of individual uranium mines. Figure 8 shows the most recent FAM-2 term price forecast in both nominal (then current dollars) as well as in real terms (2019\$). Clearly, the anticipated imbalance in global demand and supply results in upward price pressure over the forecast period, 2020-2035.



Figure 8. Market price forecasts – term (nominal – then current \$US/real – 2019\$).

In general, NFA agrees with the TradeTech FAM-2 price forecast which shows nominal prices reaching \$60/lb by 2025 and then rising to \$70/lb in the latter half of the 2020s. In fact, that forecast may prove to be conservative especially regarding timing.

Natural uranium concentrates (U_3O_8) produced at the proposed Tumas Uranium Project will be exported from Namibia for importation to uranium conversion facilities in Canada (Cameco; Port Hope, Ontario), France (Orano; Tricastin, Drome) and the United States (ConverDyn; Metropolis Works, Illinois).

Natural uranium concentrates will be packaged in 55-gallon steel drums and then loaded into ocean-going containers for further shipping. Containers will be transported over improved roads by truck (80km) to the sole deep-water harbor facility in Namibia, the Port of Walvis Bay, Namibia.

Importantly, the Port of Walvis Bay has been the focal point for the shipment of natural uranium concentrates (U_3O_8) produced from several mining operations within the Republic of Namibia as well as the Republic of Malawi.

In 1976, the Rössing Uranium Mine (owned by Rio Tinto until 2019, now China National Uranium Corporation) commenced commercial operations incorporating shipping natural uranium concentrates (U_3O_8) via the Port of Walvis Bay to global uranium conversion facilities.

Subsequently, uranium shipments via Walvis Bay were undertaken by Paladin Energy Ltd. from the Langer Heinrich uranium mine (2008-2016) recently followed by exports of uranium produced at the Husab uranium mine ((Swakop Uranium (China General Nuclear/Epangelo Mining)) (2017- present). In addition, output from the Kayelekera uranium mine located in the Republic of Malawi was shipped through Walvis Bay (2009-2014).

In total, since 1976, approximately 376Mlb U_3O_8 have been safely and securely exported via the Port of Walvis Bay on an uninterrupted basis.

21. FINANCIAL MODELLING

The financial model of the Tumas Project seeks to answer key questions surrounding the value of the Project, the potential variability in cashflows if certain key variables change and the quantum of capital required to put the Project into production. The financial model is constructed using real inputs for costs and prices. These real inputs are escalated by a US dollar inflation index (at 1.5% per annum) to generate nominal cashflows and these nominal cashflows are discounted by a nominal discount rate to derive an NPV. The U_3O_8 price of US \$65.00/lb is constant in real terms over the life of the model, which means that, in nominal terms, it rises each period with inflation. The treatment of pricing and costs is identical in this respect. Model results are presented in real (un-escalated) terms unless otherwise stated.

The model has been constructed by an independent expert in financial modelling, based on inputs and assumptions provided Deep Yellow and various other technical consultants associated with the Project.

The equity discount rate (cost of equity) of 8.6% nominal (or 7% real) has been determined internally by the Company from first principles.

The model is constructed in quarters with cashflows in US dollars and has the provision for foreign currency sensitivity analysis.

The Project is demonstrated to be financially robust and key financial parameters are detailed in Table 14.

Table 14. Key Financial Parameters.

Project Financials (Ungeared): Real unless stated	Unit	LOM	Per Operating Year
U ₃ O ₈ Gross Revenue	\$M	1,890	164.4
V ₂ O ₅ Gross Revenue	\$M	68	5.9
Gross Revenue: Total	\$M	1,958	170.2
Downstream Operating Expenses (TC/RCS, Freight)	\$M	(27.3)	(2.4)
Site Operating Expenses	\$M	(834)	(72.5)
Namibian State Royalty & Export Levy	\$M	(63.3)	(5.5)
Operating Margin (EBITDA)	\$M	1,034	89.9
Initial Capital	\$M	(295)	(25.7)
Capitalised Pre-Production Operating costs	\$M	(25)	(2.2)
Sustaining Capital	\$M	(27)	(2.4)
Closure	\$M	(10)	(0.9)
Total Capital & Sustaining Capital	\$M	(358)	(31.1)
Movement in Working Capital	\$M	(1.1)	(0.1)
Undiscounted Cashflow Pre-Tax	\$M	675	58.7
Tax Payable	\$M	(228)	(19.8)
Undiscounted Cashflow After Tax	\$M	447	38.9
C1 Cost (U ₃ O ₈ basis with V ₂ O ₅ by-product)	\$/lb	27.28	
C2 Cost (U ₃ O ₈ basis with V ₂ O ₅ by-product)	\$/lb	38.57	
C3 Cost (U ₃ O ₈ basis with V ₂ O ₅ by-product)	\$/lb	40.74	
All-in-Sustaining-Cost (U ₃ O ₈ basis with V ₂ O ₅ by-product)	\$/lb	30.69	
C1 Margin (U ₃ O ₈ basis with V ₂ O ₅ by-product)	%	58.0	
C2 Margin (U ₃ O ₈ basis with V ₂ O ₅ by-product)	%	40.7	
C3 Margin (U ₃ O ₈ basis with V ₂ O ₅ by-product)	%	37.3	
All-in-Sustaining-Cost Margin (U ₃ O ₈ basis with V ₂ O ₅ by-product)	%	52.8	
Project NPV (Pre-Tax)	\$M	332	
Project NPV (Post Tax)	\$M	207	
Project IRR (Pre-Tax)	%	25.9	
Project IRR (Post Tax)	%	21.1	
Project Payback Period from Construction Start	Years	5.3	
Project Payback Period from Production Start	Years	3.8	
Maximum Project Drawdown (Nominal)	\$M	309	
Maximum Project Drawdown	\$M	303	
Profitability Index	x	1.7	
NPV:Drawdown Ratio	x	0.7	
Breakeven U ₃ O ₈ Price	\$/lb	47.33	

22. SENSITIVITY

Sensitivity analysis indicates that the Project is most sensitive to metal prices and the exchange rate between US dollars and the Namibian dollar. It is least sensitive to mining and processing costs (see Figure 9).

Risk in the Project may consequently be reduced most effectively by securing long-term offtake agreements for uranium production on suitable terms and ensuring that as many service and supply contracts as are possible are designated in US Dollar terms.

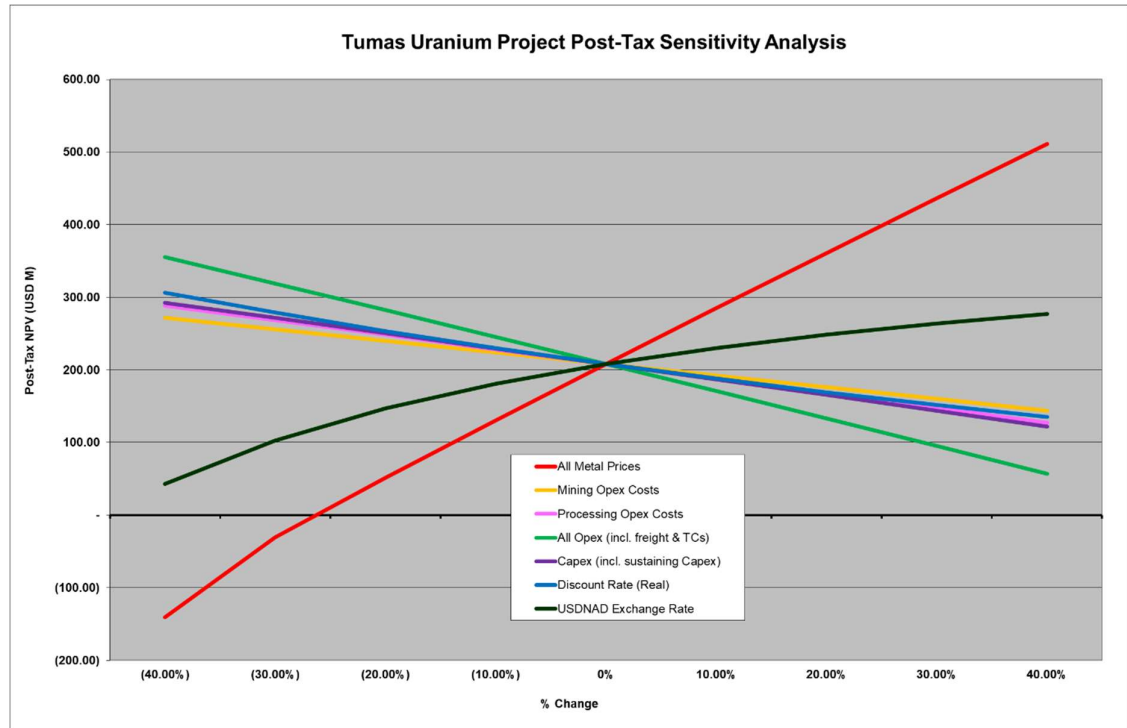


Figure 9. Tumas Project Sensitivity Spider Chart.

23. DEVELOPMENT SCHEDULE

A development schedule for the Project has been developed that results in the first production by late May 2024.

This schedule has a degree of flexibility and there are mechanisms available to either shorten or extend the time to first production, depending on the future needs of Deep Yellow and considering uranium price; and debt and equity market conditions.

24. RISK

The risk analysis for the Project has been undertaken to both identify perceived risks to the Project as well as formally document the proposed mitigation strategies. In principle, the approach taken is not based on attempting to remove all risk, more managing risk and its consequences.

The risk assessment matrix, as assessed for the Project at PFS level, is limited to those risks that are material to the Project at the conclusion of the PFS and consequently will need to be updated and most likely expanded as each future pre-development milestone is achieved.

The matrix has been developed using recognised mining industry development and assessment tools. Only one risk is assessed as being "High", and that is the risk of death or injury to personnel. The assessment of this risk is driven by the very high incidence (globally highest per capita) of death or injury to road users in Namibia. No risks were assessed as "Very High".

25. CONCLUSIONS

The Tumas Project has been better defined by the PFS process and a clear pathway identified to development when uranium pricing suits the value objectives of Deep Yellow.

The Project is located in an established uranium mining jurisdiction with a long history of continuous uranium mining and export. The legislative and regulatory framework is well-established and well-understood by the Deep Yellow technical and corporate teams. Consequently, there is a realistic expectation that the Project will be able to be developed, as and when Deep Yellow deems that to be appropriate.

The maiden Ore Reserve estimate that has been established as part of the work for the PFS has a contained 31.0 Mlb U₃O₈ at a grade of 344 ppm U₃O₈. This Ore Reserve estimate, and the associated mining schedules, provide the basis of an economically robust uranium mining project at a uranium sale price of \$65/lb U₃O₈ and with an operational life of 11.5 years.

Based on the exploration work undertaken to date and the established resource-to-reserve conversion rates for the Tumas system, there is also a reasonable expectation that the total reserve inventory ultimately available to the Project is likely to exceed 75Mlb U₃O₈ at similar grades. This would equate to a project production life of over 25 years.

The ore processing option selected for the Project has been developed with operating cost and long-term site rehabilitation as key priorities. The process is innovative but based on known commercial unit processes and well-established process chemistry. Where potential risk has been identified in the process, mitigation strategies have also been considered and documented.

Operating costs have been estimated from a mixture of first principle development and factoring, with less than 10% the result of factoring. The C1 operating for the Project in PY1 to PY10 is estimated at \$26.89/lb U₃O₈ after credit for vanadium sales. AISC for LOM is estimated to be \$30.69/lb U₃O₈.

An assessment of capital costs based on process and operational input from Deep Yellow, has determined that total direct capital cost for the Project, including spares, first fills, EPCM costs, owner's costs and contingency is estimated to be \$295M, or \$98M per annual lb U₃O₈ (design capacity).

Total initial capital cost for the Project (including capitalised pre-production operating costs of \$25M) is estimated to be \$320M.

Sustaining and closure capital costs are estimated to be \$37M.

Financial analysis of the Project demonstrates its potential to be economically robust. Project operating life is 11.5 years with, post-tax NPV_{8.6(nominal)} calculated to be \$207M and real, post-tax IRR is 21.1%. The Project returns capital in the 4th year post-commissioning and the LOM break-even uranium price is \$47.33/lb U₃O₈.

The Project has an operating margin (EBITDA) over the LOM of \$1,034M and an undiscounted after-tax cashflow, LOM, of \$447M.

Deep Yellow believes the Project may attract debt financing for at least 50% of initial Project capital. Financial modelling of this scenario at 6% debt interest rates increases real, post-tax NPV_{8.6(nominal)} to \$222M and real, post-tax IRR to 28.8%.

There remain many aspects of the Project that may be further optimised during the DFS and jointly represent significant potential for improvement in the above overall outcome. Notable among these are:

- mine scheduling after grade control drilling and additional Mineral Resource and subsequent Ore Reserve definition;
- Mineral Resource definition as a consequence of additional exploration and resource definition drilling;
- detailed treatment process and balance after completion of the recommended trade-off and optimisation studies; and
- Project infrastructure and utilities.

The Project outcome is materially improved through the addition of further ore reserves, for which potential to achieve at least a doubling has been determined. The use of gearing, which is the stated intent of Deep Yellow, also materially improves the outcome.

On the basis of the above, the progression of the project to DFS assessment is justified.

APPENDIX 2
JORC RESOURCE TABLE

Deposit	Category	Cut-off (ppm U ₃ O ₈)	Tonnes (M)	U ₃ O ₈ (ppm)	U ₃ O ₈ (t)	U ₃ O ₈ (Mlb)	Resource Categories (Mlb U ₃ O ₈)		
							Measured	Indicated	Inferred
BASEMENT MINERALISATION									
Omahola Project - JORC 2004									
INCA Deposit ♦	Indicated	250	7.0	470	3,300	7.2	-	7.2	-
INCA Deposit ♦	Inferred	250	5.4	520	2,800	6.2	-	-	6.2
Ongolo Deposit #	Measured	250	7.7	395	3,000	6.7	6.7	-	-
Ongolo Deposit #	Indicated	250	9.5	372	3,500	7.8	-	7.8	-
Ongolo Deposit #	Inferred	250	12.4	387	4,800	10.6	-	-	10.6
MS7 Deposit #	Measured	250	4.4	441	2,000	4.3	4.3	-	-
MS7 Deposit #	Indicated	250	1.0	433	400	1	-	1	-
MS7 Deposit #	Inferred	250	1.3	449	600	1.3	-	-	1.3
Omahola Project Sub-Total			48.7	420	20,400	45.1	11.0	16.0	18.1
CALCRETE MINERALISATION Tumas 3 Deposit - JORC 2012									
Tumas 3 Deposits ♦	Indicated	100	43.1	299	12,900	28.4	-	28.4	-
	Inferred	100	39.6	245	9,700	21.4	-	-	21.4
Tumas 3 Deposits Total			82.7	273	22,600	49.8			
Tumas 1, 1 East & 2 Project – JORC 2012									
Tumas 1 & 2 Deposit ♦	Indicated	100	54.1	203	11,000	24.2	-	24.2	-
Tumas 1 & 2 Deposit ♦	Inferred	100	54.0	250	13,500	29.8	-	-	29.8
Tumas 1 & 2 Project Total			108.1	226	24,500	54.0			
Sub-Total of Tumas 1, 2 and 3			190.8	247	47,100	103.8			
Tubas Red Sand Project - JORC 2012									
Tubas Sand Deposit #	Indicated	100	10.0	187	1,900	4.1	-	4.1	-
Tubas Sand Deposit #	Inferred	100	24.0	163	3,900	8.6	-	-	8.6
Tubas Red Sand Project Total			34.0	170	5,800	12.7			
Tubas Calcrete Resource - JORC 2004									
Tubas Calcrete Deposit	Inferred	100	7.4	374	2,800	6.1	-	-	6.1
Tubas Calcrete Total			7.4	374	2,800	6.1			
Aussinanis Project - JORC 2004									
Aussinanis Deposit ♦	Indicated	150	5.6	222	1,200	2.7	-	2.7	-
Aussinanis Deposit ♦	Inferred	150	29.0	240	7,000	15.3	-	-	15.3
Aussinanis Project Total			34.6	237	8,200	18.0			
Calcrete Projects Sub-Total			266.8	232	62,100	140.6	-	59.4	81.2
GRAND TOTAL RESOURCES			315.5	261	82,500	185.7	11.0	75.4	99.3

Notes: Figures have been rounded and totals may reflect small rounding errors.
XRF chemical analysis unless annotated otherwise.
♦ eU₃O₈ - equivalent uranium grade as determined by downhole gamma logging.
Combined XRF Fusion Chemical Assays and eU₃O₈ values.
Where eU₃O₈ values are reported it relates to values attained from radiometrically logging boreholes.
Gamma probes were calibrated at Pelindaba, South Africa in 2007. Recent calibrations were carried out at the Langer Heinrich Mine calibration facility in July 2018 and September 2019.
During drilling, probes are checked daily against standard source.

It should be noted the PFS, which is the subject of this announcement, excludes those Mineral Resources referred to as Basement Mineralisation in Appendix 2 JORC Resource Table above and only concerns itself with the calcrete/palaeochannel-related resources that are referred to in this table. Details of these resources can be found in the ASX announcements released on the following dates - 4 February 2013, 24 March 2014, 26 October 2016, 27 September 2017, 11 July 2018, 27 March 2019 and 19 November 2019 and 12 May 2020.

APPENDIX 3
JORC (2012) Code Table 1

Section 1 Sampling Techniques and Data

Criterion	JORC Code Explanation	Commentary
<i>Sampling Techniques</i>	<ul style="list-style-type: none"> • 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 downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • 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 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 style="list-style-type: none"> • Measurement of downhole gamma radioactivity (probing) is the primary means of uranium grade estimation. • Downhole gamma probing provides superior representivity compared to chip samples, because a much larger volume of rock is sampled. • The volume of rock sampled by gamma probing is of the order of 1m from the drill hole annulus. • Gamma data (as counts per second) from calibrated probes are converted into equivalent uranium values (eU₃O₈) using appropriate calibration and casing factors. • The methodology and results are periodically verified by an independent competent person (consulting geophysicist). • Geochemical analysis of chip samples provides a check on the downhole results. All chip samples are analysed in-house using RMR's dedicated Hitachi X-MET 8000 portable XRF analyser. • Chip samples from selected mineralised intervals are despatched to a commercial laboratory for additional check analysis.
<i>Drilling Techniques</i>	<ul style="list-style-type: none"> • 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). 	<ul style="list-style-type: none"> • Reverse circulation percussion (RC) is the main drilling technique used. • Hole diameter is 140mm. • Holes are relatively shallow (generally <100m) and vertical. • Downhole dip and azimuth are not recorded.
<i>Drill Sample Recovery</i>	<ul style="list-style-type: none"> • Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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. 	<ul style="list-style-type: none"> • Drill chip recoveries are assessed by weighing 1m drill chip samples at the drill site. Weights are recorded in paper sample books. • Drill chip recoveries are good, generally better than 90%. • Sample recovery is maximised by collecting the primary sample directly beneath the rig-mounted cyclone via a 87.5:12.5 splitter. • Bias is assessed by comparison between downhole gamma eU₃O₈ and conventional geochemical assays.

		<ul style="list-style-type: none"> • A visual assessment of sample material was done during the sampling process and samples were classified as either “dry” or “wet”. The current drilling program intersected water at times. • The use of downhole radiometric probing significantly limits the impact of any water encountered during drilling.
<i>Logging</i>	<ul style="list-style-type: none"> • 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> • All drill holes are geologically logged at 1m intervals. • Logging is qualitative in nature. A dominant (Lith1) and a subordinate lithology type (Lith2) are determined for every sample. • Other parameters routinely logged include colour, colour intensity, weathering, oxidation, grain size, hardness, carbonate (CaCO₃) content and sample condition (wet, dry). • A total gamma measurement is made on each 1m sample using a Rad-Eye scintillometer. • Selected holes are logged using an optical televiewer to provide additional geological information.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • Chip samples used to verify downhole gamma data are obtained using a 2-tier riffle splitter mounted on the drilling rig giving an 87.5% (reject) and a 12.5% sample (assay sample) and a portable 2-tier (50:50) splitter for any oversize assay samples. • Although most samples are dry some are recorded as being moist. • Sample sizes of approximately 1kg are considered appropriate to the grain size of the material being sampled. • Field duplicates for conventional assay are obtained by passing the 12.5% sample through a 50:50 riffle splitter to yield two samples labelled “A” and “B”.
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • 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. 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. 	<ul style="list-style-type: none"> • 33 mm diameter Auslog total count gamma probes operated by Company personnel are used for grade estimation with gamma measurements made every 5cm downhole. • Gamma probes are run at 5m/min downhole and 2.5m/min uphole with gamma measurements recorded on the upward run. • Gamma probes are regularly calibrated, most recently by a qualified technician at the Langer Heinrich Mine in September 2019. • Gamma probes also undergo daily sensitivity checks using a standard gamma source.

		<ul style="list-style-type: none"> • Both in-house portable XRF analysis and external analysis uses certified reference material (CRM), blanks and field duplicates in order to monitor assay precision and accuracy. • Nominally, 1 CRM, blank and duplicate are submitted with every 20 samples as per industry standard practice. • The Hitachi portable XRF device is periodically recalibrated using a range of certified reference samples. • The preferred analytical techniques used at commercial laboratories are lithium borate fusion or 4 acid digest followed by ICP-MS analysis and XRF. • CRM, field duplicates and blank analyses are reviewed to ensure that analytical results are within suitable tolerances.
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • Significant intersections are verified by portable XRF and/or commercial analysis of drill chips as described above. • RC holes are not twinned because of the nuggetty nature of the mineralisation. • Logging and sampling data are acquired using Microsoft Excel spreadsheets on a tablet computer or using Logchief software on ruggedised tablet computers, validated and imported into a web-based SQL database (Webshed) hosted offsite by Maxgeo. • Gamma data are imported into the SQL database as LAS files and eU₃O₈ values calculated from raw gamma by applying calibration and casing factors within the database. • The ratio of eU₃O₈ to assayed U₃O₈ for matching composites and mineralised intervals is used to quantify the statistical error using QQ plots. Generally, the two datasets agree to within 10%.
<i>Location of data points</i>	<ul style="list-style-type: none"> • 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. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • Drill collars are surveyed by an in-house surveyor using differential GPS. • The grid system is World Geodetic System (WGS) 1984, Zone 33. • Topographic control is provided by 50cm resolution LIDAR data.

<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • 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. 	<ul style="list-style-type: none"> • Data spacing and distribution is optimized along the Tumas palaeochannel direction. • To establish an Indicated Mineral Resource, north-south drill line spacing is 50m with 100m hole spacings offset by 50m on alternate drill lines achieving an overall 70m by 70m hole spacing. • 5 cm equivalent uranium (eU_3O_8) is composited to 1m intervals.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • 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. 	<ul style="list-style-type: none"> • Uranium mineralisation at Tumas is stratabound and distributed in a fairly continuous horizontal layer. • Holes are drilled vertically and mineralised intersections represent the true width. • It is considered that the orientation of drill holes with respect to the mineralisation does not introduce any sampling bias.
<i>Sample security</i>	<ul style="list-style-type: none"> • The measures taken to ensure sample security 	<ul style="list-style-type: none"> • Assay samples are placed into plastic bags at the time of drilling. Sample bags are then placed into plastic crates and transported directly from the drill site to Company premises in Swakopmund by Company personnel. • Crated samples are stored in a secured compound and access restricted to company personnel. • Crated samples are delivered by Company personnel directly to a commercial preparation facility in Okahandja which sends pulped subsamples to the appropriate laboratory for analysis.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • Periodic audits of gamma data quality and calculation methodology are undertaken by an external competent person (consulting geophysicist).

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criterion	JORC Code Explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> • <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> • The work to which the Exploration Results relate was undertaken on exclusive prospecting grants EPLs 3496 and 3497. • EPLs 3496 and 3497 are located within the Namib-Naukluft National Park in Namibia and were granted to Reptile Uranium Namibia (Pty) Ltd (RUN) in June 2006. • The EPLs are in good standing and are valid until 4 August 2021. • There are no known impediments to the operation of the Project other than some minor limitations imposed by operation in a national park.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • Anglo American Prospecting Services, General Mining and Falconbridge explored the EPL area during the 1970s. • Work included drilling of the Tumas palaeochannel and preparation of resource estimates. • Records of this early exploration are incomplete, and typically available only as poor quality paper copies. There are no digital records available from this period. • The historic drilling results have been used only as guide to site new drilling and have not been used in resource estimation.
<i>Geology</i>	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • Tumas mineralisation occurs as several horizontal stratabound carnotite bodies hosted within a Cenozoic palaeochannel incised into Proterozoic bedrock. • The palaeochannel is filled with poorly bedded sand, gravel and minor conglomerate cemented to varying degrees by calcite, ferroan dolomite and palygorskite clay. • Mineralisation is typically overlain by a layer up to 8m thick cemented by bassanite and gypsum. A thin layer of unconsolidated alluvial sands and gravel completes the sequence. • The bulk of the mineralisation is hosted in sands and gravels cemented by calcite, ferroan dolomite and the clay mineral palygorskite. • The underlying Proterozoic bedrock (mainly leucogranite) locally contains uranium mineralisation presumed to occur in open fractures.

<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>downhole length and interception depth</i> ○ <i>hole length.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Drilling was carried out between 2006 and 2020 and used a reverse circulation (RC) percussion drill rig. • 7,560 holes were drilled for 142,517m. • Exploration results are not reported in this release.
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> • Uranium grades are reported equivalent as eU₃O₈ as they are based on downhole gamma measurements. • Refer to Table 1 Section 1 for more information. • eU₃O₈ is computed for 5cm intervals and then composited to 1m intervals. • 1m composites of eU₃O₈ are used for the Mineral Resource Estimate. • An upper grade cut-off was not used.
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').</i> 	<ul style="list-style-type: none"> • Mineralisation occurs as horizontal and sub-horizontal bodies. • All drilling is vertical, therefore, mineralised intersections represent true widths.

<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of 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.</i> 	<ul style="list-style-type: none"> • All drill results can be found in the appendices of previous releases.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Exploration results are not reported in this announcement
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • 542 in-house bulk density determinations on drill core were carried out at RMR's Swakopmund facility. • Duplicate samples were sent to ALS in Johannesburg for independent verification of RMR's results. • Additional bulk density data are available for comparison from Tumas 1 & 2 from a previous downhole neutron logging campaign. • Selected holes were logged with an optical televiewer in order to obtain geological information, particularly grainsize distribution.
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • Further infill drilling at Tumas1E and Tumas 3 is planned to convert most Inferred Mineral Resources to Indicated and Measured categories

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 style="list-style-type: none"> 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. Data validation procedures used. 	<ul style="list-style-type: none"> A set of SOPs (Standard Operating Procedures) was defined that safeguard data integrity which covers the following aspects: <ul style="list-style-type: none"> Capturing of all exploration data; geology and probing; QA/QC of all drilling, geophysical and laboratory data; Data storage (database management), security and back-up; and Reporting and statistical analyses used Micromine (MM) software and Minestis.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> During all drilling programs regular site visits were conducted by the Company's Competent Person who signed off on all exploration data. More recently, the Company's current Competent Person has undertaken regular visits since, with the most recent visit being in March 2020.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Confidence in the geological interpretation and modelling of the sedimentary channel-fill is very high. This type of geology is well known and readily recognised in the RC drill chips. The factors affecting grade distribution are channel morphology and bedrock profile, with bedrock "highs" indicative of forming areas of mineralisation traps.
Dimensions	<ul style="list-style-type: none"> 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 style="list-style-type: none"> The drilled orebody in Tumas 3 has a total strike length of 7.5km, 200 to 1500m wide, 3 to 25m deep. The infilled drilled area of the current Mineral Resource estimation extends along a 2.6km strike length and is 400 to 1400m wide. The main mineralised calcrete reaches from a shallow depth below surface of 2 to 25m The Tumas 1 & 2 orebodies have a total strike length of 18km. The palaeochannel width varies from 100 to 300m. The main mineralised calcrete reaches from a shallow depth below surface of 1m down to 20m The Tumas 1E mineralisation has a total strike length of approximately 15km. The palaeochannel width varies from 100 to 300m. The main mineralised calcrete reaches from a shallow depth below surface of 1m down to 20m

Criteria	JORC Code explanation	Commentary
<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> • <i>The assumptions made regarding recovery of by-products.</i> • <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i> • <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> • The Mineral Resource estimates are based on grade-thickness, grade and lithology domains controlling the interpolations into block estimates. Block sizes used are 50m East x 50m North x 3m elevation for Tumas 1E and 3 and 50m x 50m x 2m for Tumas 1 & 2. • Estimation of block values used Multi Indicator Kriging (MIK) with the 100ppm U₃O₈ MIK cut-off grade selected as the Mineral Resource estimate cut-off grade; As the estimation method was MIK no grade capping was applied. • For Tumas 1, 2 and 3 a three pass search process was employed for the estimation, the first search was at 50m using four octants with a minimum of 16 samples and a maximum of 48. The second search distance was 75m with the same sample criteria and the final search was 100m, two octants and a minimum of 8 samples. • For Tumas 1E a three pass search process was employed for the estimation, the first search was at 100m using four octants with a minimum of 16 samples and a maximum of 48. The second search distance was 200m with the same sample criteria and the final search was 200m, two octants and a minimum of 8 samples. • A specific block support correction factor was applied to the raw MIK estimates in order to more reasonably approximate the degree of ore selection at the mining stage. • Direction variograms were created for each of the 14 indicator bins and used within the estimate. • Block validation was done using qualitative drill hole displays over block estimates. The current block estimate throughout correlates reasonably with composited eU₃O₈ GT (Grade-Thickness) data. • No correction for water was made. • The Mineral Resource estimate compared well against Ordinary Kriged (OK) estimates in terms of total contained metal.
<p><i>Moisture</i></p>	<ul style="list-style-type: none"> • <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> • Tonnages are estimated dry.
<p><i>Cut-off parameters</i></p>	<ul style="list-style-type: none"> • <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> • The cut-off grade applied to the Mineral Resource estimate is based on the economic assumptions contained in subsequent mining studies.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Potential mining scenarios will be open-cut mining using two or three metre high benches; after stripping of unconsolidated sandy grits and screens (free-digging). Nominal Selective Mining Unit (SMU) sizes (4m x 4m x 3m) are incorporated into the block support correction applied to the MIK estimate. SMU sizes are based on final ore selection by radiometric truck discriminator and reflect truck tonnages. This method has been successfully used at nearby uranium mines for a significant number of years.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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 style="list-style-type: none"> Detailed mineralogical characterisation tests have been conducted from the lower Tumas areas which presents the Company with a sound understanding of how a calcrete ore from Tumas would respond to beneficiation and further downstream processing. Currently metallurgical test work is underway in Perth, Australia using drill core drilled in 2019 and 2020. Also, the nearby Langer Heinrich uranium mine has successfully mined and processed calcrete ore for a decade and the mineralogical characteristics of the deposit are very similar.
Environmental factors or assumptions	<ul style="list-style-type: none"> 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 style="list-style-type: none"> SoftChem, an independent consultant, completed a scoping level Environmental Impact Assessment for the Tumas Project in 2013. With mining progressing along the channel perimeter, waste material can be expected to be backfilled into mined-out areas so as to provide for progressive rehabilitation of the mined-out areas throughout the life of the mine. Any remaining waste rock stockpiles will be shaped and contoured to blend into the surrounding environment.
Bulk density	<ul style="list-style-type: none"> 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. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, 	<ul style="list-style-type: none"> Bulk density information was derived from borehole density logging (gamma-gamma) from drilling at Tumas 1 & 2 in 2014. Further borehole density logging (gamma-gamma) from recent drilling at Tumas 1, 2 and 3 was carried out in 2020. In 2020 physical bulk density determinations were carried out in-house and by ALS in Johannesburg.

Criteria	JORC Code explanation	Commentary
	<p><i>etc), moisture and differences between rock and alteration zones within the deposit.</i></p> <ul style="list-style-type: none"> • <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> • At the nearby Langer Heinrich mine bulk density is defined at an SI of 2.40 (after mining geologically equivalent material for 10 years). • Evaluation of all data has resulted in the selection of an average density of 2.3 for Tumas 1E and 3 and 2.35 for Tumas 1 & 2.
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> • <i>Whether appropriate account has been taken of all relevant factors (ie 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).</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> • The Mineral Resource estimate has been classified as Indicated and Inferred. • The classifications applied within the models reflects the geological understanding of the deposit, the estimation methodology, the distribution of the sample data and the quality of the data used in the estimate. • All relevant factors have been taken into account when determining the Mineral Resource classification. • The current classification of the deposit reflects the opinion of the Competent Person.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • No additional reviews were conducted beyond those carried out by the various Competent Persons over time.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> • Based on the current understanding of the deposits it is believed that the Mineral Resource estimates reasonably reflects the accuracy and confidence levels within the deposits. Due to the nature and style of the mineralisation it is expected that additional, detailed, infill drilling will locally modify grades and thicknesses however the global tonnages and grades are expected to remain consistent.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<p><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></p> <p><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></p>	<p>The Mineral Resource estimates for the Tumas 3 and Tumas 1 & 2 deposits used as a basis for conversion to the Ore Reserve estimate reported here was compiled by David Princep of Gill Lane Consulting using data supplied by Deep Yellow.</p> <p>The data included drilling and assay data, geological interpretation, density checks and comparisons to independent check estimates. The January 2021 Tumas Mineral Resource is inclusive of the January 2021 Ore Reserves.</p>
<i>Site visits</i>	<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>The Competent Person (CP) has not attended a site visit to this location due to prevailing travel restrictions relating to the enduring COVID-19 pandemic. The CP has relied on DYL personnel to relate site specific information. Furthermore, the CP has knowledge of the country having worked there for 5 years and had also previously attended a site visit to the Langer Heinrich site situated very close to the Tumas Project which is also analogous in relation to the orebody presentation and style of proposed mining.</p>
<i>Study status</i>	<p><i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i></p> <p><i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></p>	<p>The Tumas Project was the subject of a Pre-Feasibility Study (PFS) including the estimation of a Mineral Resource and Ore Reserve for the Tumas open pits and treatment facility. The January 2021 Ore Reserve has included all aspects of the PFS study.</p> <p>Operational costs and modifying factors have been applied in optimisation and design of the Reserve pit.</p>
<i>Cut-off parameters</i>	<p><i>The basis of the cut-off grade(s) or quality parameters applied.</i></p>	<p>A lower MIK block cut-off grade of 150ppm U₃O₈ has been applied in estimating the Ore Reserve. Due to strategic objectives of target feed grades, this lower cut-off is slightly elevated from the calculated cut-off grade of 121ppm U₃O₈.</p>
<i>Mining factors or assumptions</i>	<p><i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i></p>	<p>The Resource model which formed the basis for estimation of the Ore Reserve was used in an open pit optimisation process to produce a range of pit shells using operating costs and other inputs derived from as part of the PFS. The resultant optimal shell was then used as a basis for detailed design.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i></p> <p><i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.</i></p> <p><i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></p> <p><i>The mining dilution factors used.</i></p> <p><i>The mining recovery factors used.</i></p> <p><i>Any minimum mining widths used.</i></p> <p><i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></p> <p><i>The infrastructure requirements of the selected mining methods.</i></p>	<p>The mining method assumed in the Ore Reserve study is open-cut with conventional excavator and truck fleets. The open pits will be developed using single staged designs.</p> <p>Geotechnical recommendations made by independent consultants have been applied in optimisation and incorporated in design, although these have minimal impact on the pit designs due to their very flat and shallow nature.</p> <p>No additional mining dilution and recovery factors have been applied to the MIK estimated resources since they are considered to be a recoverable resource and include the estimation of an information effect.</p> <p>No Inferred Mineral Resources are included in the Ore Reserve estimation and reporting process and are therefore not included in any revenue estimates and are treated as waste in the estimation of Ore Reserves.</p>
<p><i>Metallurgical factors or assumptions</i></p>	<p><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></p> <p><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></p> <p><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></p> <p><i>Any assumptions or allowances made for deleterious elements.</i></p> <p><i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i></p> <p><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></p>	<p>The metallurgical process proposed for the treatment of the Tumas Ore is similar to that used at the nearby Langer Heinrich Mine which operated from 2007 to 2018 when it was placed into care and maintenance due to depressed uranium prices. The process consists of:</p> <ol style="list-style-type: none"> 1. beneficiation through scrubbing and classification by size, with barren coarse material rejected to tailing; 2. alkali (carbonate/bicarbonate) leaching at elevated temperature; 3. CCD washing of the leach discharge; 4. membrane concentration of the pregnant liquor from the CCD circuit; 5. recovery of vanadium as V₂O₅ (red cake) from the membrane retentate liquor; 6. recovery of uranium as UO₃ (yellow cake) from the vanadium recovery section barren liquor; and 7. disposal and permanent storage of process tailings into in-pit tailings storage facilities. <p>The metallurgical process includes some aspects that are novel.</p> <p>In particular:</p>

Criteria	JORC Code explanation	Commentary
		<ol style="list-style-type: none"> 1. the use of membranes to concentrate the pregnant liquor is a novel application for the uranium extraction industry, but is commercially established in the broader contemporary minerals extraction industry; 2. the method used to recovery vanadium is also novel, but relies on chemistry that is well described in literature; and 3. some aspects of reagent recycling in the metallurgical process are novel to the uranium extraction industry, but commercially established elsewhere. <p>The remaining elements of the metallurgical process are based on well-tested technology.</p> <p>Metallurgical testing has been undertaken on representative samples of the Tumas Ore. Two bulk composite samples were generated using 5 separate primary Reverse Circulation (RC) drilling samples (~30kg) and 13 diamond core samples (whole PQ core, ~540kg). This metallurgical testwork was limited to the beneficiation and leaching aspects of the samples tested only, as the hydrometallurgy is well understood.</p> <p>The only economic mineral present in the Tumas Ore is carnotite, which is a carbonate mineral of uranium and vanadium. Two separate ore types have been identified in the Tumas Ore and no material variation in processing performance has been identified. The same overall metallurgical recovery of 93.8% for uranium is appropriate for both ore types.</p> <p>The only potentially deleterious element in the Tumas Ore is vanadium and the metallurgical process has been developed to remove (as a by-product) the vanadium that is co-leached with the uranium.</p>
<i>Environmental</i>	<i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i>	An Environmental Impact Assessment (EIA) is being undertaken for Tumas. Tumas is located in Namibia, which has a long and continuous (since the 1970s) history of uranium mining and export. Waste rock has been determined as non-acid generating and will be stored both in-pit and in surface waste rock dumps. A mining licence application is currently being prepared, the approvals process for which will consider the appropriateness of the storage methods proposed.
<i>Infrastructure</i>	<i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk</i>	The region in which the Tumas Project is located has:

Criteria	JORC Code explanation	Commentary
	<p><i>commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></p>	<ol style="list-style-type: none"> 1. established road (tarmac-covered road within 10km of the proposed treatment plant site) access; 2. established residential towns suitable for the projected needs of the Project within 70km of the Project location; 3. established power (10km from the proposed treatment plant site) and water (~30km from the proposed treatment plant site) infrastructure; 4. an established Class 7 port (suitable for the export of uranium concentrates) ~70km from the proposed treatment plant site; 5. an international airport ~60km from the proposed treatment plant site; and 6. an established telephone communication network.
<p>Costs</p>	<p><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></p> <p><i>The methodology used to estimate operating costs.</i></p> <p><i>Allowances made for the content of deleterious elements.</i></p> <p><i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</i></p> <p><i>The source of exchange rates used in the study.</i></p> <p><i>Derivation of transportation charges.</i></p> <p><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></p> <p><i>The allowances made for royalties payable, both Government and private.</i></p>	<p>The estimated capital costs for the development of the Process Plant for the Tumas Project have been developed by Ausenco Services Pty Ltd in accordance with an AACE class 4 estimate with a nominal accuracy of ± 25% in USD with a base date of 4Q2020. Plant capital costs were developed using a mixture of supplier quotations (major mechanical equipment) and relevant factoring. The estimated capital cost for the development of the Processing Plant completed by Ausenco is US\$265.7M. Owner's capital was estimated by the Company to be \$29.4M, giving total initial direct capital of \$295.1M and a unit capital cost of \$98M per Mlb U3O8 of annual design capacity for the Project.</p> <p>The total capital cost, including capital expenditure estimates for mining, process plant, infrastructure, spares, first fills, construction indirects, EPCM, commissioning, owner's costs, capitalised pre-production costs and contingency is US\$320M.</p> <p>Operating costs for the Project have been developed based on a detailed metallurgical balance, supplier published or quoted utility, reagent and consumable costs, local labour market rates and limited factoring. The operating cost estimate has a stated accuracy of ±10% and an effective date of December 2020.</p> <p>The uranium price used (US\$65/lb U₃O₈ flat) for the financial analysis is based on a report obtained from an independent third-party uranium marketing expert. The vanadium price used (US\$7/lb V₂O₅) is based on recent published market rates.</p>

Criteria	JORC Code explanation	Commentary
		<p>The currency exchange rate assumed (N\$:US\$ = 16.75) is based on the average published exchange rate for the first 10 months of 2020.</p> <p>Transport charges have been based on local contractor rates in the case of road transport and established shipping and handling charges for uranium concentrate.</p> <p>Converter charges are based on established converter rates and no allowance has been made for product specification penalties.</p> <p>All royalties and export levies payable in Namibia have been included in the cost estimates.</p>
<p><i>Revenue factors</i></p>	<p><i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i></p> <p><i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></p>	<p>The uranium price used (US\$65/lb U₃O₈ flat, real) for the financial analysis is based on a report obtained from an independent third-party uranium marketing expert. The vanadium price used (US\$7/lb V₂O₅ flat, real) is based on average published market rates.</p> <p>The currency exchange rate assumed (N\$:US\$ = 16.75) is based on the average published exchange rate for the first 10 months of 2020.</p> <p>Transport charges have been based on local contractor rates in the case of road transport and established shipping and handling charges for uranium concentrate.</p> <p>Converter charges are based on established converter rates and no allowance has been made for product specification penalties.</p> <p>All royalties and export levies payable in Namibia have been included in the cost estimates.</p>
<p><i>Market assessment</i></p>	<p><i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></p> <p><i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></p> <p><i>Price and volume forecasts and the basis for these forecasts.</i></p> <p><i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></p>	<p>A marketing report obtained from an independent third-party uranium marketing expert that considered current and forecast nuclear electricity production, installed commercial nuclear generating capacity, secondary uranium supplies, primary uranium production, the global uranium market balance and price outlook and marketing and logistics was commissioned to provide the basis for uranium price and volume forecasts.</p> <p>The vanadium price used was based on current published prices for red cake. Vanadium is a by-product of uranium extraction in the process and has little</p>

Criteria	JORC Code explanation	Commentary
		<p>impact on Project economic outcomes, so a more detailed analysis was not considered to be warranted at this stage.</p>
<p><i>Economic</i></p>	<p><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></p> <p><i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></p>	<p>The financial model for the assessment of the Tumas Project was built by an expert independent financial modeller based on inputs provided by the Company and other experts. Revenues and costs are captured in the model in real US dollars (in some cases converted from real Namibian dollars at the base case starting exchange rate). Sensitivity analysis is applied to the real US dollar cashflows. The subsequent cashflows are inflated in summary form to perform both tax and working capital calculations. Valuation cashflows are shown as both nominal and real US dollars and the user can decide whether to apply a real or nominal US dollar discount rate to determine value. The model carries inflation indices for both US dollars and Namibian dollars. The assumed rate of annual inflation is 1.5% for US dollars and 5% for Namibian dollars. A cumulative index is created for inflation in each currency as a time series. The index representing the cumulative inflation difference between US dollar and Namibian dollar inflation is that predicted by 'Purchasing Power Parity' theory.</p> <p>The equity discount rate (cost of equity) of 8.6% nominal (or 7% real) has been determined internally by the company from first principles.</p> <p>Capital and operating costs as well as revenue streams were developed as described above and suitable allowances were made for the required product inventory build in the marketing process.</p> <p>Sensitivity analysis is conducted in the model on a deterministic basis by changing each variable in isolation through a range of – 40% to +40% in increments of +10%. Inputs are grouped into the following categories for the purposes of sensitivity analysis:</p> <ul style="list-style-type: none"> • U₃O₈ Price; • V₂O₅ Price; • Mining Costs; • Processing Costs & G&A Costs; • Downstream Costs (excluding Royalties); • Capex and Sustaining Capex; • Discount Rate; and • USD/NAD Exchange Rate.

Criteria	JORC Code explanation	Commentary
		The Project was shown to be sensitive to uranium price, with a 10% increase in price lifting the NPV _{8.6} from US\$207M to US\$282M (35%). It was moderately sensitive to N\$:US\$ exchange rate with a 10% increase lifting the NPV _{8.6} from US\$207M to US\$230M (11%) and total operating cost (including freight and TC's with a 10% increase dropping the NPV _{8.6(nominal)} from US\$207M to US\$171M (18%), but relatively insensitive to other factors that were analysed including individual operating cost elements.
<i>Social</i>	<i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i>	As part of the EIA that is underway, initial meetings with all stakeholder groups have been undertaken and further meetings will be undertaken as this process continues.
<i>Other</i>	<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></p> <p><i>Any identified material naturally occurring risks.</i></p> <p><i>The status of material legal agreements and marketing arrangements.</i></p> <p><i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>	<p>The production of uranium concentrate involves risk specific to that commodity. These risks are being and will be actively managed.</p> <p>To date, no marketing arrangements have been established for the proposed production.</p> <p>All mineral permits associated with the Ore Reserves estimate are in good standing and the Company is currently in the process of completing an EIA in order to obtain an Environmental Clearance Certificate (ECC) for the proposed development.</p> <p>An application for a Namibian Mining Licence (ML) is also being prepared for anticipated lodgement and assessment in 2021. There is a reasonable expectation that the ECC and ML will be issued well within the timeframe required for the proposed mining development.</p> <p>Other than the satisfactory completion of a future DFS, securing suitable financial backing for capital, the ECC and ML, there are no other known unresolved matters that are dependent on a third party that may materially impact the future exploitation of the reserve.</p>
<i>Classification</i>	<p><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>The classification of the Tumas Ore Reserve has been carried out in accordance with the recommendations of the JORC code 2012. It is based on the density of the drilling, estimation methodology, the orebody experience and the mining method to be employed.</p> <p>Results of optimisation and design reasonably reflect the views held by the Competent Person of the deposit.</p>

Criteria	JORC Code explanation	Commentary
	<i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i>	All Probable Ore Reserves have been derived from Indicated Resources.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of Ore Reserve estimates.</i>	No external audits or reviews of the Ore Reserve estimate have been undertaken.
<i>Discussion of relative accuracy/ confidence</i>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>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.</i></p> <p><i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p> <p><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>Whilst appreciating that reported Ore Reserves are an estimation only and subject to numerous variables common in mining operations, it is the opinion of the Competent Person that there is a reasonable expectation of achieving the reported Ore Reserves commensurate with the classification.</p> <p>The Ore Reserve estimate is supported by the Tumas PFS and has been determined using appropriate industry standard procedures. The global accuracy of the Ore Reserve estimate is +/- 25%</p> <p>All modifying factors have been taken into account for the pit designs and Ore Reserve estimate.</p> <p>There has been no production at the Project to date.</p>

APPENDIX 4
TECHNICAL SYMBOLS AND ABBREVIATIONS

Acronym/Abbreviation	Meaning
NH ₄ Cl	Ammonium Chloride
NH ₄ VO ₃ also AMV	Ammonium Metavanadate
CaO	Calcium Oxide, Lime, or Quicklime
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
eU ₃ O ₈	Equivalent Uranium Oxide (calculated from downhole logging data)
H ₂ SO ₄	Sulphuric Acid
H ₂ O ₂	Hydrogen Peroxide
Pb(VO ₃) ₂	Lead Vanadate
PbSO ₄	Lead Sulphate
NaHCO ₃	Sodium Bicarbonate
Na ₂ CO ₃	Sodium Carbonate
NaClO ₃	Sodium Chlorate
NaCl	Sodium Chloride
NaOH	Sodium Hydroxide
Na ₂ S ₂ O ₅	Sodium Metabisulphite, also SMBS
NO _x	Oxides of Nitrogen
SO ₂	Sulphur Dioxide
Sv/yr	Sieverts per year
U ₃ O ₈	Uranium Oxide (Triuranium Octoxide)
UO ₄	Uranyl Peroxide (or Uranium Peroxide Hydrate)
UO ₃	Uranium Trioxide
V ₂ O ₅	Vanadium Pentoxide
VO ₂ SO ₄	Vanadyl Sulphate
²²⁶ Ra	Isotope of Radon (Ra) with atomic mass of 226 amu, also Radon-226
²³⁸ U	Isotope of Uranium with atomic mass of 238 amu, also Uranium-238