NEWS RELEASE

20 January 2023

CRITICAL MINERALS ASSESSMENT OF MULGA ROCK PROJECT

HIGHLIGHTS

- **Completion of 63-hole, 4,099m aircore drilling program to support a geo-metallurgical study at the Mulga Rock Project (MRP).**
- **Geo-metallurgical test work will commence in Q1 2023 and inform an updated assessment of critical minerals and recovery options.**
- **Test work results will form the basis for the planned revised MRP Definitive Feasibility Study (DFS), to include potential uplift in project value due to recovery of critical minerals.**
- **A 600 to 800-hole aircore drill program is planned for H1 2023, to:**
  - **Better define reserve/resource variability and distribution of critical minerals**
  - **Upgrade resource classification for uranium and critical minerals**
  - **Provide additional material for metallurgical analysis**

John Borshoff, Managing Director/CEO commented: "*The recovery of critical minerals from the Mulga Rock Project, if feasible, has the potential to materially enhance project value. This initial drill program will provide data to better define the distribution of these valuable elements and provide samples to evaluate recovery options. Further, the re-scheduling of the mining into a more non-selective approach has potential both to increase the available uranium resource and extend life of mine of this exciting project.*"

Overview

Deep Yellow Limited (**Deep Yellow** or **Company**) is pleased to provide a progress update on the evaluation program undertaken on the Mulga Rock Project (**MRP** or **Project**), located in the Great Victoria Desert in Western Australia, 290km by road ENE of Kalgoorlie.

As advised on 25 November 2022, Deep Yellow initiated an evaluation program, following on from its pre-merger work, after identifying an opportunity for a significant potential uplift in Project value by increasing the focus on recovery of critical minerals located within the existing Mulga Rock resource shells. This work and the possible future recovery of critical minerals will be completed within the existing approvals framework for the Project, seeking to better utilise the resource base of the MRP.

The evaluation program is assessing the potential value of metals such as copper, nickel, cobalt, zinc, and rare earths (particularly neodymium and praseodymium), known to be present in these deposits.

Preliminary work already completed by the Company demonstrated that optimising the process flow sheet and mining schedules, within approved pit boundaries, by considering the full economic mineral endowment of these polymetallic deposits, rather than focusing solely on uranium, may add substantial value to the Project.

Drilling completed to date by Deep Yellow, associated with this program, has been restricted to the Mulga Rock East deposits (Ambassador and Princess) shown in Figure 1. These deposits are richer in critical minerals and uranium, represent the majority of the known mineral resources and consequently will be mined before the lower grade deposits to the west in MRP's mining schedule, providing up to 20-years operating life.

To help better define the assessment for value uplift at the MRP, a 63-hole, 4,099m geo-metallurgical aircore drill program was completed on 8 of December 2022. The program aimed to provide sample material for metallurgical analysis to determine ore variability and estimated process recoveries for critical minerals with 1,552 individual samples collected for metallurgical testing.

Additionally, 1,862 samples will be submitted for multi-element geochemical analysis to support the metallurgical test work and re-assessment. Results will be reported once they become available.

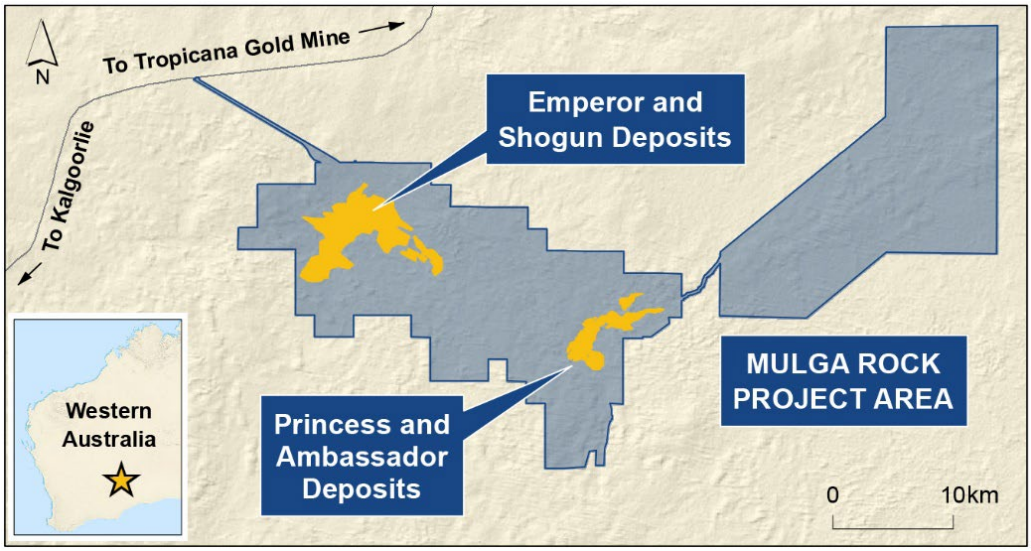

Figure 1: *Ambassador and Princess Deposits (**Mulga Rock East**) and Emperor and Shogun Deposits (**Mulga Rock West**).*

Figure 2 shows the drill hole locations. Table 1 in Appendix 1 lists the drill hole details.

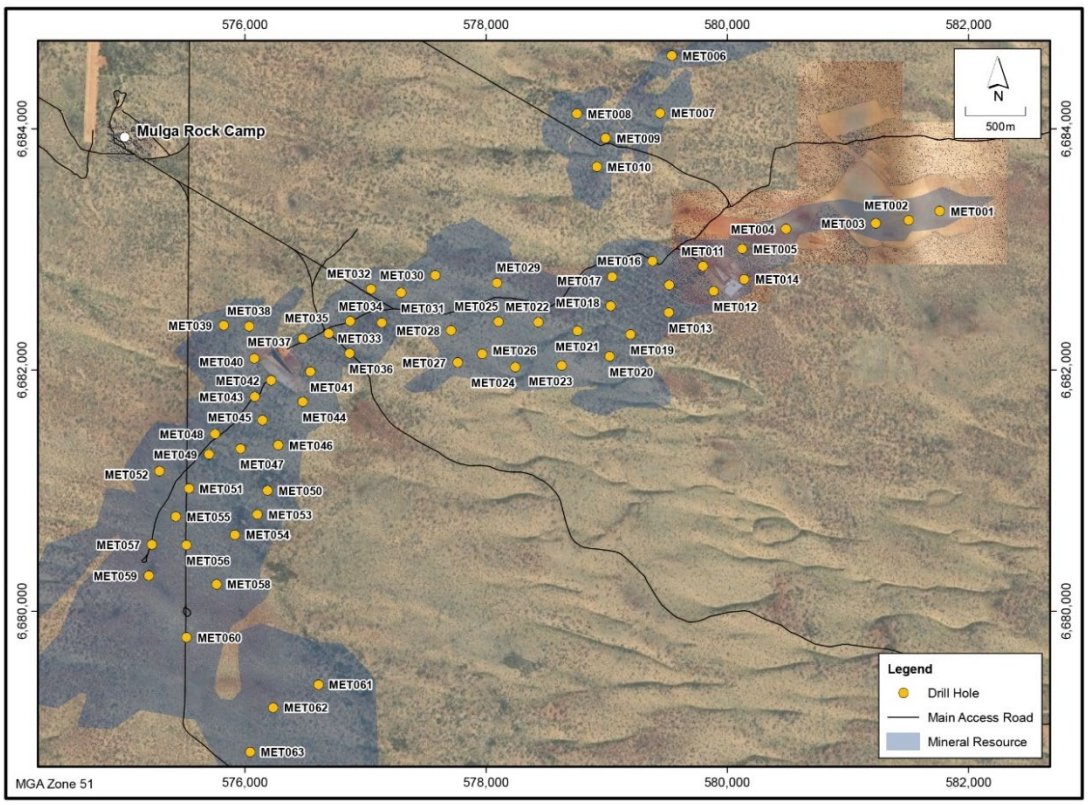

Figure 2: *Ambassador and Princess Deposit Outlines with Drill Hole Locations.*

Next step

In support of the revised MRP DFS, a 600 to 800-hole aircore drill program is planned for completion in H1 CY23 to better define reserve/resource variability, upgrade the resource classification for uranium and critical minerals and provide additional material for metallurgical analysis.

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.

Competent Person's Statement

The information contained in this announcement that relates to new exploration results is provided by Mr Xavier Moreau, who is a Member of the Australasian Institute of Geoscientists (AIG). Mr Moreau has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person, as defined in the JORC 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Moreau has 25 years of experience and is a shareholder and full-time employee of Deep Yellow Limited as Exploration Manager - Australia. Mr Moreau consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

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About Deep Yellow Limited

Deep Yellow is progressing its development through a combination of advancing its existing assets and expanding its opportunities for diversified growth through sector consolidation. With the merger and acquisition of Vimy Resources, the expanded Deep Yellow now has two advanced uranium projects at feasibility stage located both in Namibia and Australia with the potential for production starting from the mid 2020s. In addition, with its expanded exploration portfolio, opportunity also exists for substantial increase of its uranium resource base aimed at building a significant global, geographically diversified project pipeline.

TABLE 1: DRILL HOLE DETAILS

(GDA94 Zone 51 datum)

HOLE_ID	TYPE	EASTING	NORTHING	RL (m)	AZIMUTH	DIP (°)	EOH (m)
MET001	AC	581768	6683321	340.5	0	-90	60
MET002	AC	581500	6683247	338.3	0	-90	54
MET003	AC	581235	6683224	334.7	0	-90	54
MET004	AC	580477	6683184	334.0	0	-90	66
MET005	AC	580127	6683009	331.1	0	-90	54
MET006	AC	579541	6684608	341.2	0	-90	61
MET007	AC	579437	6684138	343.3	0	-90	66
MET008	AC	578771	6684163	340.0	0	-90	58
MET009	AC	578988	6683929	338.7	0	-90	51
MET010	AC	578919	6683694	342.5	0	-90	60
MET011	AC	579808	6682853	330.9	0	-90	72
MET012	AC	579884	6682661	333.0	0	-90	54
MET013	AC	579515	6682477	333.4	0	-90	60
MET014	AC	580150	6682751	333.8	0	-90	51
MET015	AC	579521	6682700	332.0	0	-90	69
MET016	AC	579385	6682918	335.6	0	-90	66
MET017	AC	579040	6682765	338.0	0	-90	66
MET018	AC	579039	6682541	338.7	0	-90	69
MET019	AC	579257	6682282	342.4	0	-90	84
MET020	AC	579025	6682119	335.0	0	-90	63
MET021	AC	578758	6682322	342.3	0	-90	72
MET022	AC	578438	6682397	347.2	0	-90	81
MET023	AC	578646	6682028	348.2	0	-90	63
MET024	AC	578234	6682029	339.3	0	-90	69
MET025	AC	578071	6682449	340.5	0	-90	46
MET026	AC	577971	6682132	345.0	0	-90	69
MET027	AC	577766	6682067	340.5	0	-90	59
MET028	AC	577736	6682323	334.0	0	-90	58
MET029	AC	578083	6682728	338.1	0	-90	60
MET030	AC	577564	6682784	335.5	0	-90	66
MET031	AC	577249	6682617	342.6	0	-90	72
MET032	AC	577038	6682669	342.5	0	-90	63
MET033	AC	577136	6682397	332.8	0	-90	66
MET034	AC	576879	6682402	331.9	0	-90	63
MET035	AC	576681	6682322	332.9	0	-90	53
MET036	AC	576877	6682136	331.8	0	-90	63
MET037	AC	576496	6682238	330.5	0	-90	60
MET038	AC	576026	6682366	331.5	0	-90	47
MET039	AC	575822	6682375	330.8	0	-90	57
MET040	AC	576048	6682120	333.0	0	-90	55

HOLE_ID	TYPE	EASTING	NORTHING	RL (m)	AZIMUTH	DIP (°)	EOH (m)
MET041	AC	576527	6682009	332.2	0	-90	66
MET042	AC	576217	6681897	329.5	0	-90	72
MET043	AC	576070	6681785	330.0	0	-90	78
MET044	AC	576478	6681740	335.6	0	-90	62
MET045	AC	576154	6681584	330.0	0	-90	75
MET046	AC	576289	6681364	330.5	0	-90	63
MET047	AC	575948	6681350	328.8	0	-90	72
MET048	AC	575745	6681471	329.0	0	-90	75
MET049	AC	575691	6681307	330.0	0	-90	81
MET050	AC	576180	6681002	327.0	0	-90	60
MET051	AC	575524	6681024	327.3	0	-90	78
MET052	AC	575290	6681156	326.0	0	-90	81
MET053	AC	576094	6680799	330.3	0	-90	54
MET054	AC	575906	6680642	327.0	0	-90	60
MET055	AC	575430	6680780	326.3	0	-90	78
MET056	AC	575506	6680527	328.1	0	-90	78
MET057	AC	575223	6680541	322.0	0	-90	78
MET058	AC	575756	6680225	326.1	0	-90	69
MET059	AC	575197	6680279	321.5	0	-90	78
MET060	AC	575501	6679784	323.6	0	-90	66
MET061	AC	576637	6679439	329.7	0	-90	57
MET062	AC	576231	6679204	327.4	0	-90	57
MET063	AC	576043	6678841	326.0	0	-90	81

APPENDIX 2: JORC CODE, 2012 ADDITION, TABLE 1

JORC Code, 2012 Edition – Table 1 – Mulga Rock Geo-metallurgical drill program update – January 2023

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	• Commentary
Sampling techniques	• The sampling criteria for aircore drill cuttings was based on their position relative to the main weathering front. • Samples from a few metres above the weathering front were recovered directly from the cyclone into plastic bags and a split fraction into calico bags, using industry. The bags were labelled and then left open for a few weeks for the sample to dry. Samples were taken at half-metre intervals from a few metres above the weathering front to several metres below the uppermost uranium mineralised zone. Sampling then reverted to 1m samples. • Downhole logging of natural gamma was used to determine an equivalent U_3O_8 grade, using gamma probes calibrated for uranium in November 2022 at the South Australian Government's Department of Energy and Mining calibration facility in Adelaide. The wireline density probe used to measure in-situ bulk density was calibrated at the same premises in September 2021. Daily calibrations on the gamma tools were carried out using a Cs^{137} jig, with approximately weekly additional calibrations runs through a calibration bore at Mulga Rock during the drilling program. • The following wireline logging tools were run in aircore drill holes by contractor Borehole Wireline included: o Natural total gamma (in-rod and open-hole configurations); o Dual-spaced focused resistivity / Magnetic deviation / Gamma; o Dual-spaced induction / Gamma; o Single arm calliper; o Gamma / Triple-spaced formation density (using a Cs^{137} source); and o Fullwave sonic. • Wireline logs were recorded in open hole configuration, following post-drilling conditioning of aircore holes with mud, with in-rod gamma logging also carried immediately upon completion of drilling to guard against potential caving in the hole space.
Drilling techniques	• The drilling program at Ambassador East, Ambassador West, Ambassador North, Ambassador West, and Princess relied on aircore drilling. • A range of aircore drill bits were used to deal with varying formation hardness, ranging from tungsten carbide blades arranged around an opening in the face of the bit to bits fitted with PCD buttons. • Drill hole collars were sited, and co-ordinates picked up by DYL personnel using a handheld GPS with an estimated positional accuracy of 3m or better.
Drill sample recovery	• Recovery of air-core samples can be uneven due to the variable density, moisture, clay and organic matter content of the sediments intersected. Sample flow from the cyclone was monitored, drilling was suspended, and cuttings residues were scraped out of the cyclone where adhesion was evident. • No sample bias has been established historically, yet it will be examined in the 2022 data once available.
Logging	• Lithological logging of drill samples was carried out to record primary lithological, sedimentological, weathering, colour, and redox features. Stratigraphy is also

Criteria	• Commentary
	tentatively assigned while drilling and revised following analysis of wireline data. The stratigraphic boundaries determined from these graphic logs and associated cross-sections were used to model deposit geology and to delimit the ore bodies. • Systematic analysis of the drill core by portable XRF (pXRF) and SWIR-NIR (shortwave infrared-near infra-red) analyses is underway, carried out in-house using an Olympus Vanta portable XRF and the company's Terraspec Analytical Spectral Device (ASD model 4).
Sub-sampling techniques and sample preparation	**Field Based Work** • Selection of sample composites for chemical analysis was based on pre-existing interpretations of mineralised domains for the drill core and adjusted as necessary based on downhole wireline radiometric data, as well as ad-hoc portable XRF analyses of drill cuttings through plastic bags at the bottom of the hole. • A ca. 20-25% split was collected at the rig to support geochemical analyses, with the bulk sample preserved for geo-metallurgical studies. • Following airdrying, the bulk aircore samples were double bagged, sealed and refrigerated to prevent subsequent degradation of the samples ahead of metallurgical testwork.
Quality of assay data and laboratory tests	• Samples submitted to the laboratory for analysis are subjected to a comprehensive QA/QC program, including submitting in-house and external certified reference materials (CRMs), blanks and laboratory duplicates. • Analysis by portable XRF is being carried out by competent operators using blanks, Certified Reference Materials (CRMs), and appropriate warm-up routines.
Verification of sampling and assaying	• The depth of down-hole gamma data was checked for discrepancies between the recorded total hole depth and the maximum depth of gamma logging. • Correlation of core assay data and probe-derived equivalent U_3O_8 grade is used to determine a radiometric disequilibrium correction. It will be applied to the wireline data collected once final equivalent grades are derived for the 2022 drilling program.
Location of data points	• The expected horizontal accuracy is 2-3m for holes picked up using hand-held GPS. • All holes will be re-surveyed by company personnel using a Hemisphere Differential GPS to refine coordinates to be used in future mineral estimates. • The MGA94, zone 51 grid system is used for reporting.
Data spacing and distribution	• Drill spacing at Ambassador East and Northeast ranges between nominal 50 x 80m and 50 x 40m along WNW-ESE trending traverses, with a nominal drill spacing of 100 x 80m at Princess and Ambassador West and 200 x 100m at Ambassador South.
Orientation of data in relation to geological structure	• Drilling has adequately tested the tabular nature of the mineralisation at Ambassador. However, it is possible that steeply dipping structures may control the distribution of zones of high-grade and thickness bodies of uranium and base metals mineralisation in sands underlying the upper mineralised lens (hence controlling the upward and lateral migration of hydrogen sulphide). These may require close-spaced angled drilling for a complete evaluation of spatial continuity and grade variography. • Aircore and diamond were consistently drilled at least 6m past the base of uranium mineralisation to allow for effective wireline logging of mineralised intervals.
Sample security	• A fit-for-purpose chain of custody will be maintained during aircore sample dispatch, with the cuttings packed into steel drums and strapped onto palettes ahead of dispatch to the laboratory.
Audits or reviews	• The DYL Competent Person has reviewed all information and data used in this report. • Auditing of equivalent grade derivation is currently underway and will be reported once complete.

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	• The Ambassador and Princess Deposits are located about 240 km ENE of Kalgoorlie within Mining Lease M39/1104, held by Narnoo Mining Pty Ltd, a wholly owned subsidiary of DYL (previously of Vimy Resources Limited, Vimy, prior to its merger with DYL). • Mining Lease M39/1104 is located on Vacant Crown Land subject to the Upurli Upurli Nguratja Native Title claim, lodged in December 2020, currently being assessed for determination by the Native Title Tribunal.
Exploration done by other parties	• The area of the Ambassador Deposit was subject to uranium exploration by PNC Exploration Australia Pty Ltd (PNC) during the 1980's, which resulted in the discovery of the Mulga Rock Deposits. The bulk of PNC's exploration effort was focused on the Ambassador and the eastern side of the Mulga Rock Project between 1982 and 1985. • A trial mining program took place within the Shogun deposit in late 1983 to obtain a bulk sample of mineralised lignite. • During 2008 and 2009, Vimy carried out a twin drill hole program followed by an extensive infill drilling and sampling program, with statistics as follows: ○ 417 aircore drill holes for 27,144m; ○ 27 diamond drill holes for 1,693m; and ○ 5 sonic drill holes for 306m. • During 2014, Vimy carried a further twin and resource drill-out program (primarily at Ambassador East, with several diamond tails drilled at Princess), as follows: ○ 144 aircore drill holes for a total of 9,461m; and ○ 42 diamond drill holes for 2,589m. • In 2015, Vimy carried out an additional infill drill-out program, primarily focused on Ambassador West, for the following totals: ○ 1035 aircore drill holes for 64,425m; and ○ 144 reverse circulation drill holes for 9,881m. • In late 2015-2016, Vimy completed two trial pits at Ambassador East and West to support geotechnical and metallurgical studies, and a conducted a reconciliation against the resource block model (see announcement to the ASX dated 14 June 2016). • In late 2016, Vimy completed an optimisation drilling program, focused primarily on Ambassador East, as follows: ○ 215 aircore drill holes for 11,700m; and ○ 84 diamond drill holes for 4,333m. • In 2016 and 2017, Vimy completed two standalone pilot plants testing the uranium and base metals process flowsheets developed for the project. • In early 2018, Vimy released a Definitive Feasibility Study for the Mulga Rock Project (announcement to the ASX dated 30 January 2018).
Geology	• The Mulga Rock Project is a sediment-hosted uranium resource. The mineralisation that comprises the Ambassador and Princess Mineral Resource is hosted by reduced Late Eocene sediments preserved within the Narnoo Basin. The Narnoo Basin Sequence consist of a multiple fining upwards packages including sandstone, claystone (typically carbonaceous) and lignite which were deposited in alluvial and lacustrine environments. The mineralisation is hosted by reduced sediments of Eocene age preserved within a complex set of sedimentary troughs overlying an extensive long-lived palaeodrainage referred to as the Mulga Rock palaeochannel, itself likely to represent a dead arm of the Lake Raeside regional palaeodrainage.

Criteria	Commentary
	• Overlying the reduced Narnoo Basin sediments is a succession of oxidised sediments which at Ambassador are about 25 to 55m thick. The pre-Eocene basement in the Ambassador area consists of both Cretaceous and Carboniferous sedimentary successions, as well as Palaeoproterozoic metasediments to the east of the Gunbarrel fault.
Drill hole Information	• All relevant drill hole collar data pertaining to this release is provided in the table attached to this announcement. • Nominal vertical dips are reported in Table 1. The shallow drill holes and sub-horizontal nature of the host sediments and overprinting weathering profile explains the limited deviation from vertical recorded in the wireline data (typically 1m or less).
Data aggregation methods	• Equivalent uranium grades are currently being derived using probe-specific dead time and K factors, accounting for the hole diameter, mud density and drill casing steel thickness. • There is no known elevated thorium or potassium accumulation within the Mulga Rock East part of the project, likely to bias the total gamma readings conversion to equivalent uranium grade.
Relationship between mineralisation widths and intercept lengths	• Mineralisation is tabular in habit and horizontal and related to unpressurised groundwater flow. The vertical drill hole intersections represent true mineralisation thickness.
Diagrams	• A location map and plan view of drill holes completed during the program are provided in the main text.
Balanced reporting	• Balanced reporting has been achieved through a comprehensive reporting of drilling, sampling and analytical processes followed and complete disclosure of all intercepts.
Further work	• Planning of additional drilling at the Mulga Rock East project is underway to achieve the following: ○ complete conversion of currently Inferred Mineral Resource to an Indicated status; ○ refine the bulk density modelling of the Mulga Rock deposits against known lithological units through whole-rock geochemical characterisation; ○ develop a predictive geo-metallurgical model applicable to all Mulga Rock mineralised material; and ○ further characterise short-scale (5m) facies, density and grade variability, to support the development of a grade control methodology specific to the MRP and conditional simulation of processing plant feed variability and stockpile management.