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## **DEEP YELLOW TARGETS MT ISA DISTRICT**

Deep Yellow Limited (DYL) is pleased to announce that it has acquired 100% of a private company Superior Uranium Pty Ltd (SUPL) which owns 100% of four granted uranium Exploration Permits (EPMs) and two EPM applications in northwest and north Queensland from the soon to be listed (on ASX) Superior Resources Limited (SRL) a Queensland base metal explorer.

In consideration for the acquisition of SUPL, DYL will issue 20 million of its fully paid ordinary shares to SRL. Unless imposed by ASX there is no escrow conditions placed on the shares. The acquisition also includes SRL's 10% holding in the five Durong Project EPMs in southwest Queensland so giving DYL 100% ownership of that project area.

The acquisition of the SUPL tenements establishes DYL as a major player in the highly prospective uranium rich Mt Isa district through:

- Access to immediate drill targets for Valhalla-Skal type uranium mineralisation at the Queens Gift and Calton Hills prospects.
- Access to a number of untested surficial uranium anomalies also to the north and east of the Valhalla-Skal deposits.
- An opportunity to explore for shallow secondary uranium deposits associated with younger cover sequences to the Mt Isa Inlier basement rocks.
- An opportunity to explore for uranium mineralised in concealed Tertiary channels draining 'hot granites' in the Croydon and Durong districts.

The latest increase in the uranium price to US\$72 per pound continues to provide both impetus and confidence to the expansion of DYL's exploration programmes.

#### SUMMARY OF THE SUPERIOR URANIUM PTY LTD TENEMENTS

The SUPL tenement package was assembled by SRL's Managing Director Mr Ken Harvey (and his associates). Mr Harvey is an exploration geologist with over 34 years of experience in exploration and discovery in Eastern Australia which included 28 years with Mt Isa Mines with specific responsibility for the Mt Isa district.

The acquisition of the four granted EPM's and one EPM Application (see Figure 1 and Appendix 1) in the Mt Isa district covering **1,060 km²** together with the uranium rights to a further **4,436 km²** subject to the NW Queensland Joint Venture with Matrix Metals Ltd establishes DYL as a major player in this highly prospective uranium province. In order to support its on-going commitment to regional and detail exploration programmes in the district DYL has established an exploration office with associated infrastructure in Mt Isa as a permanent base.

As part of the due diligence process an independent consultant uranium geologist assisted DYL in its evaluation of the SUPL tenements.

## Uranium Deposits of the Mt Isa District

To date, most uranium in the Mount Isa Inlier has been discovered as either mineralisation in calcsilicate skarn related deposits such as Mary Kathleen or as mineralisation hosted in volcanosedimentary rocks that are interbedded with basalts of the Eastern Creek Volcanics such as the Valhalla and Skal deposits.

Mary Kathleen is hosted by a sequence of calc-silicate and marble bearing metasediments and minor metavolcanic rocks of the Eastern Succession (Corella Formation). This rock sequence has been subjected to deformation, regional metamorphism, and skarn development associated with nearby granite intrusion resulting in the introduction of uranium, rare earth elements (REE) and minor basemetal mineralisation.

Mining by Mary Kathleen Uranium Limited (MKU), a Rio Tinto subsidiary, commenced in late 1956 with the treatment plant commissioned in June 1958. During the period from 1958 to 1963, 2.9 Mt of ore was mined at an average grade of 0.15% ( $U_3O_8$ ) yielding 4,080 tonnes of uranium oxide. New supply contracts were negotiated in the early 1970s and the mine and plant, which had been upgraded, reopened in February 1976. By the end of 1982 the mine was closed down with 4,800 tonnes of uranium oxide having been produced during the second phase of operations.

Period	Ore Milled (Mt)	Grade (ppm U₃O₃)	Tonnes (U <sub>3</sub> O <sub>8</sub> )		
1958 to 1963	2.9	1,500	4,080		
1975 to 1982	6.3	1,000	4,800		

Table 1 - Record of production from the Mary Kathleen uranium mine.

The allanite-uraninite-garnet ore body initially contained an estimated 12,000 tonnes of  $U_3O_8$  grading 1,200 ppm and a larger tonnage of rare earth elements with grades up to 7.6% REE.

**The Valhalla and Skal deposits** (owned jointly by Summit Resources and Paladin Resources) are the largest and most significant of the known uranium occurrences in the western succession of the Mount Isa Inlier. They are hosted by volcano-sedimentary rocks interbedded with basalts of the Eastern Creek Volcanics. This uranium mineralisation was discovered by prospecting teams in the 1950s.

Estimated resources for these deposits as published by Summit Resources Limited are:

Deposit	Mt	Grade (ppm U₃Oଃ)	Tonnes (U <sub>3</sub> O <sub>8</sub> )	Category		
Valhalla 21.3 12.0		800	16,900	Indicated		
		750	9,000	Inferred		
Skal	2.7		3,525	Measured and Indicated		
	Skal 1.5		1,500	Inferred		

Table 2 - Valhalla and Skal Resource Estimates

At Valhalla, drilling has tested the mineralisation to below a vertical depth of 400 m.

**Small uranium occurrences and anomalism** is present in graphitic and carbonaceous slates of the Answer and Marimo Slate and equivalent units in the region south of Cloncurry. This mineralisation is considered to be structurally controlled and the reducing nature of the slates suggests a redox trap to fix the uranium. A number of mineralised occurrences within the Leichhardt Metamorphics are located where felsic volcanics and fractionated granites of the basement rocks are the likely source of the uranium and chlorite schists are the likely trap rocks.

Strong uranium radiometric anomalies occur in Cambrian phosphate rich horizons that onlap the southern portion of the Mount Isa Inlier in the Duchess and Ardmore regions and elsewhere. During uplift and weathering uranium is likely to have migrated in oxygenated groundwater from enriched basement rocks to become fixed by phosphate within the overlying Cambrian phosphatic horizons.

Strong uranium radiometric anomalies also occur in the Toolebuc Formation of Cretaceous age. This formation occurs to the north-east, east and south-east of the Mount Isa Inlier and in places contains vanadium bearing oil shale (e.g. Julia Creek). During uplift and weathering, uranium is likely to have migrated from enriched basement rocks by oxygenated groundwater and to become fixed when coming in contact with the overlying reducing Toolebuc formation.

Uranium commonly migrates to the surface and often forms large expanses of low-grade enrichment which is associated with receptive compounds such as calcareous, carbonaceous and phosphatic material in the soil profile over particular sedimentary units. The phenomenon is shown very clearly in the Prospector district where some units of the Mt Isa Group and Surprise Creek Formation are effectively mapped by surface uranium.

In detail, uranium deposits are diverse but most appear to be deposited from circulating fluids driven by convection cells, which strip uranium (very soluble in highly oxygenated solutions) from the source rocks and re-deposit it in favourable structural and chemically reducing trap sites. Pre-concentration of uranium in chemically favourable beds is likely and deposits are expected to form in very permeable zones such as faults. Many deposits are associated with unconformities and are interpreted to be formed at shallow depths where meteoric water contributes to the convective fluid before final precipitation of uranium in reduced conditions. The Mary Kathleen Deposit appears to have been formed at greater depths.

## **Superior Uranium Pty Ltd Tenements**

Granted EPM's 15070, 15072 and EPM 15194 and EPM application 16007 are located in the Mt Isa district. EPM 15249 is located 340 km northwest of Mt Isa and 50 km south of the Westmoreland uranium province, and EPM application 16008 is located in the Croydon district north Queensland. A summary of the uranium potential of the SUPL tenements is given below:

## EPM 15070 - Prospector

Located approximately 65 km north of Mount Isa (see Figure 1) the tenement covers a number of airborne radiometric anomalies and known uranium occurrences. **The primary target is Proterozoic basement Valhalla – Skal type mineralisation** 

**Queens Gift Prospect:** At the Queens Gift, three significant radiometric anomalies within units of the Eastern Creek Volcanics lie in a zone which trends to the west of north and extends over a distance of greater than 1 km.

Previous drilling returned a number of significant shallow intersections that require follow-up drilling, namely:

- 26 m at 470 ppm U<sub>3</sub>O<sub>8</sub> from 36 m
- 1.5 m at 1,200 ppm U<sub>3</sub>O<sub>8</sub> from 21.5 m
- 5 m at 800 ppm U<sub>3</sub>O<sub>8</sub> from 49 m
- 4.5 m at 910 ppm U<sub>3</sub>O<sub>8</sub> from 32.5 m

At surface, uranium mineralisation in this area occurs over a width of approximately 20 m with the zone of mineralisation registering over 1,500 cps on the hand held scintillometer where it outcrops. This zone occurs within a broader zone of lesser radioactivity some 30 m to 40 m across. Five samples were collected by SUPL from the central area of mineralization with one sample being collected from a local area giving up to 8,000 cps. Assaying of samples revealed grades up to 1,890 ppm  $U_3O_8$ .

Sampling of the Queens Gift outcrop area by DYL's consultant geologist returned a maximum value of 3,530 ppm  $U_3O_8$  from an iron carbonate altered chloritic schist.

Queens Gift – Close up of uranium and chalcopyrite bearing iron carbonate altered sheared chloritic schist after basic volcanics.



**Calton Hills Prospect:** This covers a prominent airborne uranium radiometric anomaly. The anomaly lies 3 km to the north of the Watta and Warwai uranium prospects of Summit Resources.

The Calton Hills uranium anomaly is of high order and roughly circular with dimensions of 400 to 500 m. It is more prominent than the uranium anomalies that lie over the Watta and Warwai prospects (described below). The strongest part of the anomaly overlies a roughly east-trending fine grained ironstone unit, which outcrops along a low ridge. The ironstone appears to be dipping northerly at about  $15^{\circ}$  and it appears to extend under cover to the east. Generally the ironstone gives a strong radiometric response above 1,000 cps with the hand-held scintillometer over a strike length of about 100 to 150 m. A surface assay from the ironstone returned up to 270 ppm  $U_3O_8$  and 690 ppm Cu.

The Watta deposit 3 km to the south of the tenement was the focus of much of the work and was eventually drilled to obtain material for metallurgical testing by MKU in 1981 prior to the closure of the Mary Kathleen mine. It was tested by MKU on the basis that of all prospects in the district it was estimated to contain the most significant resource (2,000 tonnes  $U_3O_8$  at a grade of about 450 ppm  $U_3O_8$ ). The potential of the area was also considered by MKU to be enhanced by being located on a 2.5 km long zone of mineralisation that extended into Warwai where 150 tonnes  $U_3O_8$  at a grade of 1,200 ppm  $U_3O_8$  had been estimated. The program by MKU was in joint venture with AGIP which retained Watta as one of only seven mining leases for uranium it still held throughout the district in the mid-1980s. MKU drilled HQ size holes in close proximity to pre-existing holes to maximise intersecting and obtaining mineralised samples.

In addition to the test work MKU estimated an historic resource of 650,000 tonnes at a grade of 700 ppm  $U_3O_8$  containing 450 tonnes  $U_3O_8$  using a 500 ppm  $U_3O_8$  cut-off grade and 4,200,000 tonnes at a grade of 450 ppm  $U_3O_8$  containing 1,900 tonnes  $U_3O_8$  using a 300 ppm  $U_3O_8$  cut-off grade.

Drill intersections for the Watta deposit recently reported by Summit Resources include:

- 33 m at 400 ppm U<sub>3</sub>O<sub>8</sub>
- 47 m at 500 ppm U<sub>3</sub>O<sub>8</sub>
- 7 m at 1,100 ppm U<sub>3</sub>O<sub>8</sub>

Calton Hills Anomaly – View towards the east from near the centre of the ridge under the airborne radiometric anomaly and along the anomalous (copper uranium) ferruginous zone.



The highly prospective Calton Hills airborne radiometric anomaly has a greater intensity and aerial extent than the drill proven Watta prospect and has potential for strike continuity under shallow cover to the east of the prospect.

The Prospector EPM and the Queens Gift and Calton Hills prospects are readily accessible from existing tracks and it is DYL's intention to fast track the prospects to drilling stage as early as possible in the 2007 field season.

### EPM 15072 - Pilgrim

Located 120 km south-southeast of Mount Isa (see Figure1). The tenement covers an airborne radiometric anomaly immediately east of the old Tick Hill gold mine and to the north of the Phosphate Hill phosphate mining operations of Southern Cross Fertilizer Pty Ltd. Portions of three of the mining leases associated with the Phosphate Hill mine operation overlap the permit and those areas are excluded from the EPM.

# The primary target within the tenement is secondary enrichment of uranium within bedded phosphate deposits

The apparent effectiveness of phosphate as a uranium fixing agent raises the possibility that a substantial economic uranium deposit might exist in the area associated with the phosphorite beds surrounding the Mt Isa Inlier. Radiometric response supports the conclusion that the great deal of phosphate in sedimentary rocks surrounding the Inlier might, in most cases, lead to the formation of large low grade diffuse deposits. It is thought that an economic deposit could form where ground water was channelled preferentially through phosphatic stratigraphy in a permeable zone, such as a fault zone or fracture zone.

The Pilgrim Fault Zone was selected by SUPL as the best target area as it contains a major fault zone that has fractured the Cambrian phosphorite and it also contains interpreted high order uranium anomalies in airborne radiometric survey data.

Sampling of surface float material by DYL's consultant geologist returned a maximum assay value of 242 ppm U<sub>3</sub>O<sub>8</sub> in a mudstone unit associated with the target sedimentary breccia unit. Initial reconnaissance traverses also returned extensive above background uranium anomalies (spectrometer readings) indicating that a more detailed sampling programme needs to be undertaken in order to fully evaluate the prospect area.

DYL plan to carry out a regional drill programme to target a deposit with a strike length of 2,000 m or more and a width of 500 m. The tonnage present would depend on the thickness of any supergene zone that is present.

#### EPM 15194 - Lorrett Downs

Located about 230 km southwest of Mount Isa (see Figure 1). The tenement covers radiometric anomalies and a number of magnetic features in airborne survey data. The project area is dominated by a shallow cover of Lower Cretaceous sediments which overlie Proterozoic basement rocks of the Mount Isa Inlier.

Previous exploration by other companies has been conducted for petroleum, phosphate, uranium, oil shales, base metals and gold. This exploration includes evaluation of anomalous fluorite in bore waters as an indicator of buried mineralisation and targeting of geophysical anomalies below cover sequence for mineralisation over a number of exploration permits that either overlap or adjoin the Lorrett Downs permit.

Exploration for uranium has generally been for sandstone uranium deposits or similar deposit types within the Cretaceous sediments. Base-metal exploration generally has been directed at magnetic features beneath the Cretaceous cover and which show in the airborne magnetics.

In 1971, Union Miniere Development and Mining Corporation Ltd carried out an airborne scintillometer survey at 15 m and 30 m flying heights over the Toolebuc Limestone and around the southern margins of the Mt Isa Inlier. The survey covered a distance of 150 km along the strike of the limestone and encountered radiometric anomalies of 4 to 5 times background. Ground checking revealed rather irregular high levels of radioactivity in soil and rock with concentrations of up to 140 ppm  $U_3O_8$  encountered in some samples.

The maximum uranium reported in rock chip sampling was 1,060 ppm U<sub>3</sub>O<sub>8</sub> from an area that recorded 200 cps.

SUPL's work on the available government airborne magnetics and radiometric data along with other historical data in the area has highlighted radiometric anomalies which largely occur over the Cretaceous Toolebuc Member.

DYL will continue to evaluate the historic exploration data with a view to carrying out regional drill traverses in 2007.

## EPM Application 16007 - Sherrin Creek

Located approximately 70 km northwest of Mount Isa (see Figure 1), the tenement area covers Proterozoic basement and some Cambrian sedimentary units beneath younger cover sequence to the west of the Sybella Granite complex. The area lies 40 to 50 km west of the Vallhalla and Skal uranium deposits and just to the east of the Sherrin Creek and Lily Creek phosphorite deposits. In addition to the primary target of Proterozoic basement hosted mineralisation DYL will assess the potential of the cover sequences to host secondary uranium mineralisation.

#### EPM 15249 - Hedleys

Located about 340 km north-northwest of Mount Isa the area is considered prospective for uranium as it contains a prominent airborne radiometric uranium anomaly. The area is also considered to be prospective for copper, lead, zinc and silver as the rocks under cover in the area are possible equivalents to the Fickling Group which hosts the Walford Creek lead-zinc-silver prospect.

The airborne radiometrics covering the area shows uranium anomalies at two locations where groundwater springs exist on the Nicholson River Fault and on splays from this fault. The principal anomaly has a length of over 1 km. It lies on the Nicholson River Fault at the base of a fault scarp of quartzite of the Constance Sandstone of the South Nicholson Group. Further evaluation and research will be carried out on the uranium anomaly prior to committing to a drill programme

## EPM Application 16008 - Mistake Creek

Located approximately 20 km southwest of Croydon in north Queensland. The available airborne magnetics and radiometrics data along with other data in the north Queensland area has suggested the possibility of significant Tertiary channels in the Mistake Creek area.

These channels are considered worthy of investigation for possible roll-front uranium deposits. The Esmeralda Granite and Croydon Volcanics are a ready source of uranium. Deposition of uranium occurs by reduction onto pyrite or organic material in the Tertiary channels or Mesozoic rocks from the groundwaters that transport uranium minerals from the source rocks.

## **Durong Project**

DYL (90%) and SRL (10%) applied for five EPMs over an area of 1,550 km² in the Kingaroy – Chinchilla district South East Queensland. The four granted EPMs and one application cover approximately 50 km strike of a southwest trending palaeochannel. The 'headwaters' of the palaeochannel comprise the outcropping Boondooma Granite which has a reasonably high uranium content as indicated by the airborne radiometric survey data.

The Durong Project is a greenfields conceptual target where the granite is seen as a potential source of uranium for the development of sandstone/roll front style uranium deposits in the organic rich Tertiary stream channels.

As part of the acquisition of SUPL ownership of SRL's 10% interest in Durong Project will revert to DYL.

DYL plans to fly an airborne electromagnetic survey over the tenements in early 2007 in order to delineate the potential sites for uranium deposition within the buried palaeochannel.

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The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Leon Pretorius a Fellow of The Australasian Institute of Mining and Metallurgy. Dr Pretorius sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Pretorius consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

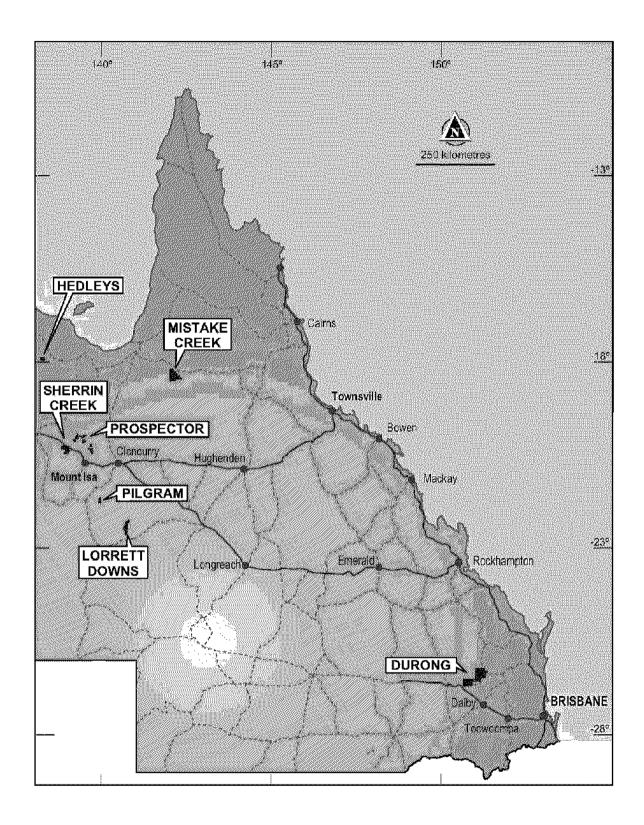


Figure 1 - Queensland Tenement Acquisitions

## APPENDIX 1 - SUPERIOR URANIUM PTY LTD - EXPLORATION PERMITS

ЕРМ	Name	Principal Commodity	Date of Application	Date of Grant	Term	Current Status	Sub- Blocks	Approx Area (km²)	Location	Native Title
15070	Prospector	Uranium	06-Apr-05	28-Mar-06	5 Years	Granted	100	300	NW Qld	Expedited Procedures
15072	Pilgrim	Uranium	06-Apr-05	28-Mar-06	5 Years	Granted	17	51	NW Qld	Expedited Procedures
15194	Lorrett Downs	Uranium	22-Aug-05	12-Dec-06	5 Years	Granted	100	300	NW Qld	Expedited Procedures
15249	Hedleys	Uranium	30-Sep-05	30-Nov-05	5 Years	Granted	27	81	NW Qld	Exclusive Land
16007	Sherrin Creek	Uranium	27-Nov-06			Application	109	327	NW Qld	Not Yet Advertised
16008	Mistake Creek	Uranium	27-Nov-06			Application	243	729	N. Qld	Not Yet Advertised
							596	1,788		