

# **HIGHLIGHTS**

# Melrose Nickel-Copper-PGE Project

- During the quarter, Cauldron completed the acquisition of E70/6160, the centrepiece of its Melrose Project and successfully pegged an area west and south of E70/6160 of ~1,338 km<sup>2</sup> (represented by Applications E70/6463, 6466, 6467, 6468 and 6469).
- Cauldron's Melrose Project lies near Dalwalinu in Western Australia on the western margin of the West Yilgarn Craton, a region which is receiving increasing activity by various minerals explorers and is of growing interest to investors.
- Cauldron's Melrose Project is ~125kms north of Chalice's Julimar Project and ~15kms immediately south of Chalice's Barrabarra Project.
- Cauldron has undertaken a thorough review of all historical geological, geochemical and geophysical data. This review highlighted elevated nickel and copper in shallow air-core drill holes co-incident with large magnetic anomalies identified from a regional aeromagnetic survey sourced from WA Department of Mines. The overlapping of data has identified four high-priority targets for immediate follow-up plus several other targets worthy of assessment.
- Anomalous nickel and copper in addition to palladium and platinum in mafic/ultramafic rocks were essential in Chalice's discovery of the Gonneville Ni-Cu-PGE Deposit at its Julimar Project, which has become one of the largest ortho-magnetic nickel-copper-PGE sulphide deposits in the world.
- Inversion modelling of the aerial magnetic survey has confirmed the existence of strongly magnetic bodies lying directly beneath elevated copper and nickel at Targets 01 and 04, providing considerable excitement.
- Buoyed by the geophysical results, Cauldron engaged UTS Geophysics to fly an Electromagnetic Survey EM in mid-August over Cauldron's high-priority targets to better define existing targets, and to help identify new targets for future drilling.
- The EM Survey successfully identified a large number of targets along a linear trend with coincident magnetic and geochemical anomalies.
- Cauldron plans to test these targets as soon as access is available after the agricultural harvest season ends (expected to be by the end of November 2023).
- Post end of the quarter, Program of Works (POW) application lodged with WA Department of Mines to undertake drilling and associated exploration activities

# Yanrey Uranium Project

- Work advancing on the update and finalization of a Scoping Study.
- Preparation for a drill program targeting potential extensions of uranium mineralisation to be undertaken in early part of calendar year 2024, weather permitting, ongoing.
- Mapping and sampling of areas having the potential for Ni-Cu-PGE and REE mineralisation at Yanrey also being planned for the early part of calendar year 2024, weather permitting.

# WA Sands Project

- Internal review has identified the potential value of the Company's sands tenements and the strategic importance of its Onslow tenements in a region undergoing significant development.
- During the quarter, the Company received interest from parties with discussions currently at a preliminary stage.



# **Blackwood Gold Project**

- Following a decision by the Company's Board to exit this project, Cauldron completed a successful sale, realizing cash proceeds of \$300,000, \$200,000 of which it has now received with a further \$100,000 due by 25 September 2024.
- The sale of the Blackwood Project demonstrates management is doing what it set out to do as part of its strategy to re-fresh and focus the business on projects in the critical minerals commodities, crucial to the global decarbonization movement.

## **Other New Project Opportunities**

- The Company is currently reviewing a range of project opportunities both in Australia and overseas, predominantly involving uranium, copper, lithium and other critical minerals.
- Cauldron remains vigilant to new project opportunities that fit the Company's investment strategy, complement the Company's project portfolio, are value accretive and have the potential to provide early cash flow.

# Corporate

- Post quarter end, Cauldron announced a Placement of \$198,000 at \$0.009 per share and a Fully Underwritten Renounceable Rights Issue to raise a further amount of up to \$1,427,353 also at \$0.009 per share.
- As at 30 September 2023, Cauldron had \$0.5 million cash at bank (30 June 2023: \$0.8M).
- The Company additionally holds a portfolio of shares in other ASX listed entities valued at approximately \$0.3 million as at the date of this report. Cauldron is considering options for liquidating of these investment positions.

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Cauldron Energy Ltd (**Cauldron** or the **Company**) is pleased to present its Quarterly Activities Report for the period ended 30 June 2023.

## **EXPLORATION ACTIVITES: AUSTRALIA**

In Australia, Cauldron's primary focus for the quarter has been on:

- i) its newly acquired Melrose Nickel-Copper-PGE Project (**Melrose**) consisting of 6 tenements, three of which remain as applications, covering an area of approximately 1,507 km<sup>2</sup> near Dalwalinu in Western Australia on the western margin of the West Yilgarn Craton; and
- ii) its Yanrey Project (**Yanrey**) consisting of 12 granted exploration licences for a total project area of 1,270 km<sup>2</sup> in Western Australia. Yanrey is prospective for large sedimentary-hosted uranium deposits and is host to the Bennet Well Uranium Deposit (**Bennet Well**); and is considered prospective for additional minerals such as rare earths.

In addition, Cauldron has 100% ownership of several river sand leases located at the mouths of the Gascoyne (Carnarvon), Ashburton (Onslow) and Fitzroy (Derby) rivers in Western Australia, collectively covering an area of about 286 km<sup>2</sup>.

During the quarter, the Company was largely focussed on the early stage geological investigation of the Melrose project, the commencement of a scoping study for the Yanrey Project along with a review of new project opportunities.

The Company is currently reviewing a range of project opportunities both in Australia and overseas, predominantly involving uranium, copper, lithium, high purity silica sands and other critical minerals.

Cauldron remains vigilant to new project opportunities that fit the Company's investment strategy, complement the Company's project portfolio, are value accretive and have the potential to provide early cash flow.



# **PROJECT INFORMATION**

# MELROSE PROJECT

The Melrose Project is located in the Dalwallinu region of Western Australia, approximately 250 km north of Perth (Figure 1).



Figure 1: Location Map - Melrose Project

The Melrose Project covers an area of approximately 1,507 km<sup>2</sup> and comprises E70/6160 covering an area of ~169 km<sup>2</sup> and the area immediately west and south of E70/6160 covering a further area of ~1,338 km<sup>2</sup> (pegged by Cauldron; represented by Applications E70/6463, 6466, 6467, 6468 and 6469).

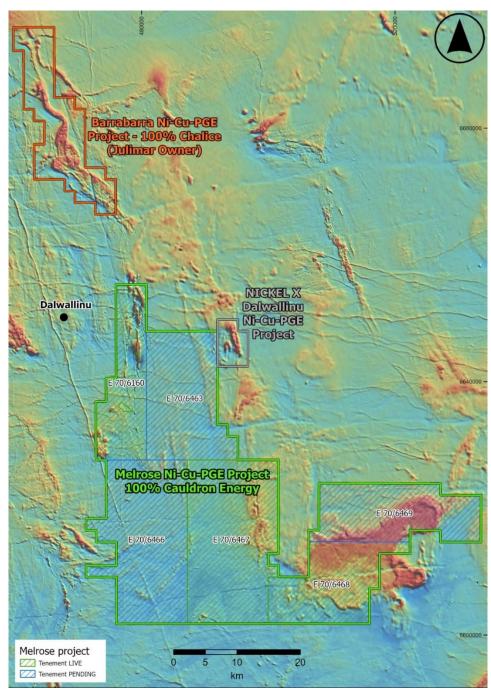
Of the areas pegged, two have recently been granted (E70/6467 and E70/6468), and three remain as tenement applications (E70/6463, 6466, and 6469).

Cauldron's Melrose Project is the largest contiguous Nickel-Copper-PGE prospective landholding in the Barrabarra Greenstone Belt portion of the West Yilgarn Craton.



The Melrose Project area is 13 km south of Chalice's Barrabarra Ni-Cu-PGE project. Chalice have described Barrabarra as containing a ~15 km long unexplored interpreted mafic-ultramafic complex, with anomalous Ni-Cu in soils, and a similar geophysical signature to the Julimar Complex. Barrabarra is about 140 km north of Chalice's Julimar project.

Nickel X is another important player in the region, having identified two very strong EM conductors associated with magnetic anomalies that they plan to drill test soon. Both Chalice and Nickel X are targeting Julimar style Ni-Cu-PGE deposits in the region (Figure 2).



*Figure2: Melrose project - nearby projects over regional aeromagnetics, and showing initial Melrose Tenement E70/6160, recently granted new Tenements (E70/6467 and E70/6468) and additional pending tenement applications (E70/6463, E70/6466 and E70/6469)* 



The Melrose Project area is also known to host historical gold production – at the Pithara gold deposit, discovered by IGO in 2005, which is excised from the Project tenements. In addition, Cauldron's technical team has undertaken a thorough review of the available historical information which has highlighted significant Ni results from first pass reconnaissance Air Core and RAB drilling undertaken by IGO in 2006 in the Project area.

IGO was the first company to undertake gold exploration over the area. IGO drilled ~496 shallow first pass air-core holes, 508 shallow first pass RAB holes, 11 RC holes and 1 diamond hole. Most of these holes were drilled at the Pithara prospect as the exploration focus was centred on the discovery of the Pithara gold deposit (excised area in the centre of the Tenement, refer Figure 6).

After reviewing this historical data, Cauldron has delineated four (4) nickel (Ni) targets, with continuous drill hole intervals assaying from 0.10% to 0.47% Ni, sometimes with accompanying anomalous Cu or Au. (Figures 5 to 8). Since these are first pass reconnaissance drill results in shallow air core drilling, they are highly prospective, with levels similar to those that led to the discovery of other nickel deposits in WA.

Many other untested magnetic anomalies also exist in the Project and recently pegged areas, that could be related to Ni mineralisation.

# High-Priority Nickel Targets identified from Historical Exploration

There are four high-priority nickel targets that CXU aims to test as soon as possible, which have been identified from historical air-core drilling geochemistry listed in order of nickel grades.

- Target 01: One line of previous Air Core drilling has been drilled across this target, which has a magnetic trend extending over 2km in length north-south and 300m east-west (Figures 3 & 4). Highly anomalous drill results included:
  - 19m @ 0.32% Ni from 17m downhole, incl. 4m @ 0.41% from 25m (hole DTR937), and
  - 4m @ 0.47% Ni from 25m downhole (hole DTR936)
- Target 02: One previous hole (Figures 3 & 4) intersected:
  - 12m @ 0.26% Ni from 32m downhole (hole DTR850)
- Target 03: Two parallel magnetic anomalies extending over 3km each north-south, with only the eastern one tested by previous Air Core drilling (Figures 5 & 8). Best results were:
  - 3m @ 0.19% Ni from 42m downhole (hole DTR931), and
  - 2m @ 203 ppb Au from 36m downhole (hole DTR466)
- Target 04: A large and complex magnetic anomaly (Figures 9 & 10) extending over 3km with anomalous previous drill results:
  - 2m @ 0.13% Ni and 213 ppm Cu from 36m downhole (hole DTR466)
  - 8m @ 536 ppm Ni from 36m downhole (hole DTR417), and
  - 2m @ 749 ppm Cu from 48m downhole (hole DTR407)



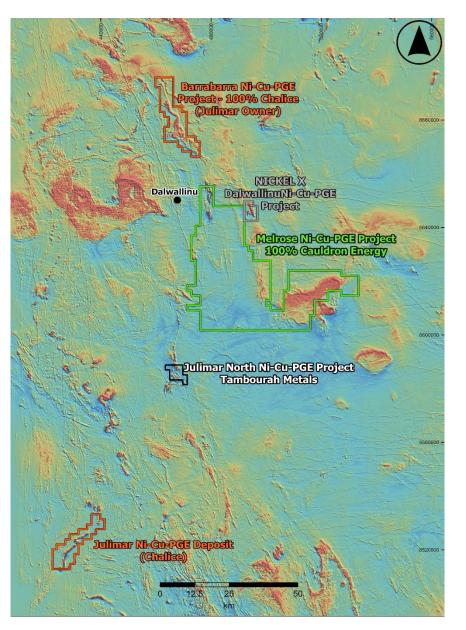


Figure 3: Main explorers in the West Yilgarn Ni-Cu-PGE province

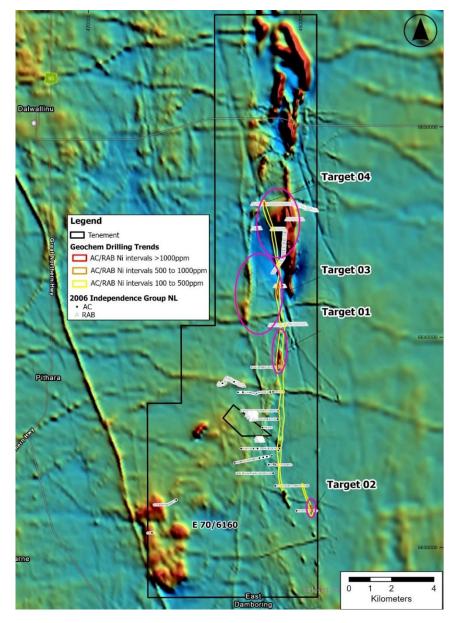


Figure 4: Melrose Project nickel targets



Target 01

DTR937 (Infill hole) 19m@0.32%from17m\_inc.4m@0.41%Ni\_from25m

DTR936 (Twin of hole DTR642) 4m@0.47%Ni\_from25m 8m@0.30%Ni\_from33m, Inc.4m@0.36%Ni\_from33m

DTR935 (Infill hole) 16m@0.16%from17m\_inc.4m@0.19%Ni\_from25m

DTR934 (Twin of hole DTR643) 10m@0.19%from19m\_inc.2m@0.24%Nil\_from27m

**DTR643** 12m@0.16%from16m\_inc.4m@0.24%Ni\_from20m 2m@0.26%from31m

#### **DTR642**

12m@0.19%from16m\_inc.4m@0.28%Ni\_from24m

Legend Tenement **Geochem Drilling Trends** AC/RAB Ni intervals >1000ppm C AC/RAB Ni intervals 500 to 1000ppm AC/RAB Ni intervals 100 to 500ppm 2006 Independence Group NL • AC

n magnetic trend

0.25 0.5 Kilometer

Figure 5: Target 01 details

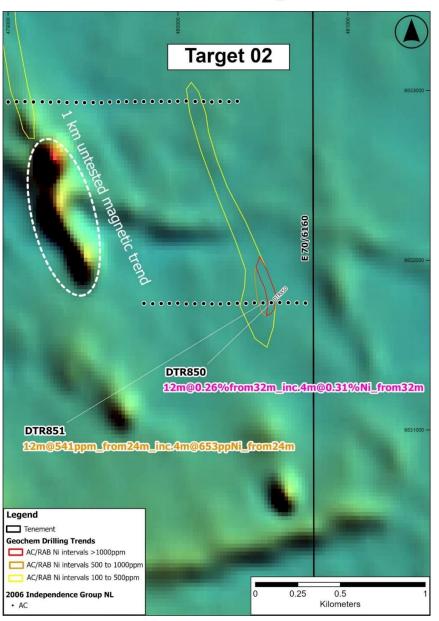


Figure 6: Target 02 details



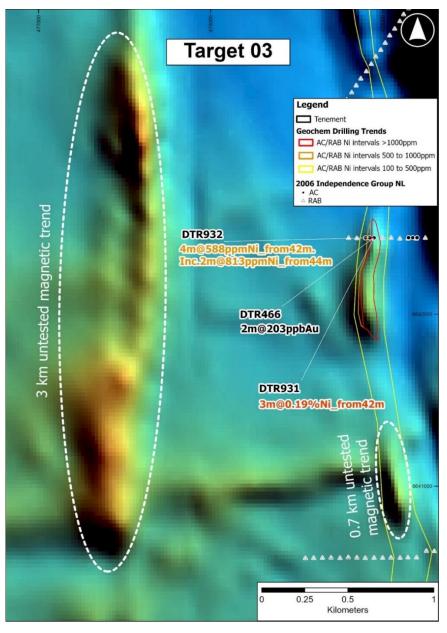


Figure 7: Target 03 details

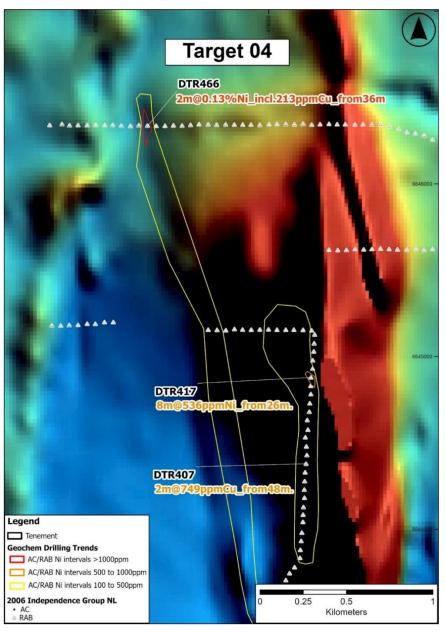


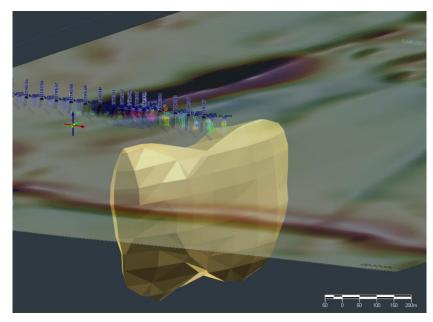
Figure 8: Target 04 details



# Previously announced Target 01 Geophysical Results

Magnetic inversion modelling performed by Newexco Geophysics has implied the presence of a magnetic body at Target 01 (previously reported ASX: CXU 3 July 2023) (Figure 3).

The top of the magnetic body interpreted to lie between 110m and 160m below surface, which is approximately 60m beneath historic shallow air-core holes, which returned elevated levels of nickel and copper including nickel grades of up to 0.47% (Figures 3 & 4).



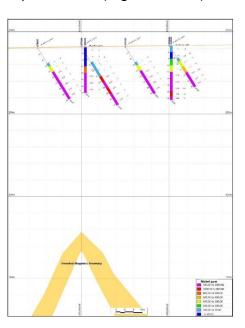


Figure 9: 3D view of the inverted magnetic anomaly at Target 01, including the air-core drill holes and original magnetic survey image before inversion (shaded).

Figure 10. showing anomalous nickel and copper air-core drill hole intervals in relation to the interpreted magnetic body

The magnetic inversion results for Target 01 are interpreted to be robust since several inversion models were run by Newexco, each yielding consistent susceptibilities and geometries.

# **Previously announced Target 04 Geophysical Results**

Magnetic inversion modelling performed by Newexco Geophysics has modelled the presence of a magnetic body at Target 04 (refer ASX: CXU 26 July 2023), (Figure 5).

The top of the magnetic body interpreted to lie at approximately 184 metres below surface, around 150 metres beneath historic shallow air-core holes, which returned elevated levels of copper (750ppm) and nickel (592ppm).

The alignment of the modelled magnetic body with the Ni and Cu geochemical anomaly and the interpreted mafic-ultramafic bedrock, provides the Company confidence to drill-test Target 04 at the earliest opportunity. The modelled magnetic body is at similar depth and strike to that at Target 01 (which was also coincident with anomalous drill results from historical shallow air-core drilling).



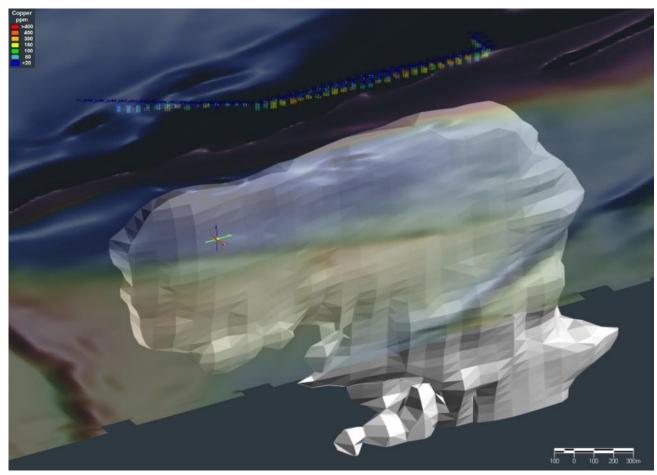


Figure 11: 3D view of the inverted magnetic anomaly at Target 04, including the air-core drill holes and original magnetic survey image before inversion (shaded).

The magnetic inversion results for Target 04 are interpreted to be robust since several inversion models were run by Newexco, each yielding consistent susceptibilities and geometries.

# **EM Survey**

An EM Survey was conducted during the quarter over two areas covering high priority Targets 01 to 04 together with a number of other targets identified from historical geochemical results and airborne magnetics (ASX:CXU 11 May 2023).

In total, the survey consisted of 361.3 line kilometres comprising 105 E-W lines, spacing 150 metres N-S from each other. Some infill at 75m line spacing was included in the survey.

As shown on Figure 12 (over), a linear trend of coincident trend of magnetic, geochemical, and now EM targets has emerged. It is hypothesised that the magnetic and geochemical signatures indicate mafic/ultramafic intrusive rocks potentially carrying nickel-copper-PGE mineralisation, and that the EM anomalies indicate zones where more conductive sulphides might be present.



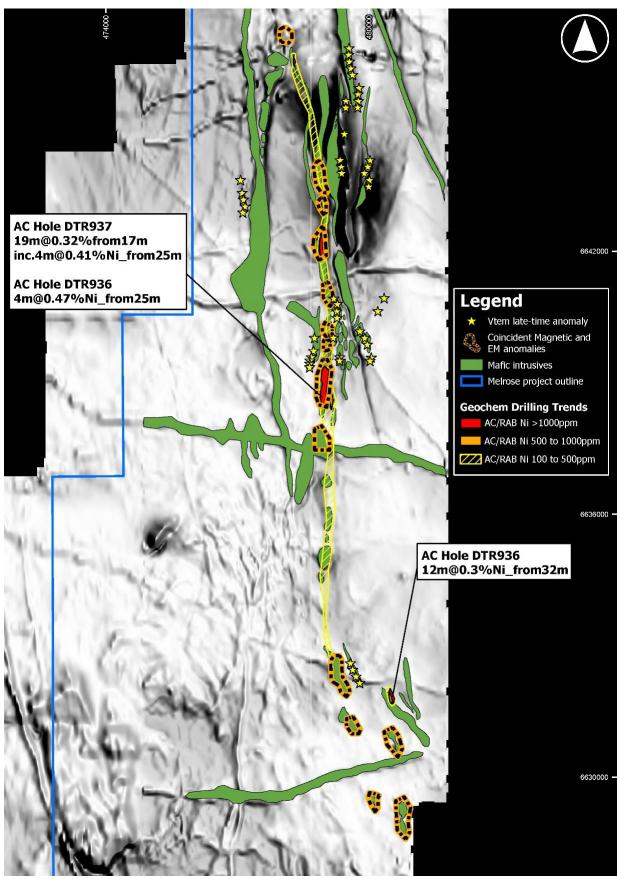


Figure 12: Coincident EM and Magnetic anomalies along a linear trend, with geochemical anomalies also shown over a background of grey-scale aeromagnetics



The EM response was very strong from surface saline conductive material, but more subtle anomalies away from this surface material were able to be discerned.

Drill testing (a combination of aircore and RC) is planned to occur as soon as access can be gained after the agricultural cropping season, probably within the next two months.

Target 1 (see Figure 12) is a 1km long zone of anomalous geochemistry (>1,000pmm Ni) with a coincident magnetic and EM anomaly. Previous drilling there returned 19m @ 0.32% Ni from 17m depth and 4m @ 0.47% Ni from 25m depth. Another target further north (Target 3) shows similar features. The previous geochemical drilling coverage was quite sparse, so it is highly likely further targets will be produced once drilling is completed.



Below various recent pictures from EM Survey and Melrose Project field trip:

Above: Cauldron CEO Jonathan Fisher with the Geotech Airborne team at the Dalwallinu air strip





#### YANREY PROJECT

The Yanrey Project comprises a collection of 12 exploration tenements in northwest Western Australia (**Figure 12**) and is regionally prospective for large sedimentary-hosted uranium deposit systems that are amenable to mining by the In Situ Recovery (ISR) technique. The uranium mineralisation within the Yanrey Project typically occurs in unconsolidated sands (less than 100m depth) in Cretaceous sedimentary units of the North Carnarvon Basin.

The Yanrey uranium Project is host to Bennett Well, Western Australia's fifth largest uranium deposit, which comprises four spatially separate mineralised zones; namely Bennet Well East, Bennet Well Central, Bennet Well South and Bennet Well Channel (**Figures 13** and **Figure 14**).

A Mineral Resource (JORC 2012) for the Bennet Well deposit was completed by Ravensgate Mining Industry Consultants (Ravensgate) in 2015.

At a 150 ppm eU<sub>3</sub>O<sub>8</sub> cut-off the Bennett Well JORC 2012 Mineral Resource Estimate is: Inferred: 16.9 Mt @ 335 ppm eU<sub>3</sub>O<sub>8</sub> for 12.5 Mlb (5,670 t) contained uranium oxide Indicated:21.9 Mt @ 375 ppm eU<sub>3</sub>O<sub>8</sub> for 18.1 Mlb (8,230 t) contained uranium oxide TOTAL: 38.9 Mt @ 360 ppm eU<sub>3</sub>O<sub>8</sub> for 30.9 Mlb (13,900 t) contained uranium oxide

Historical work performed by Cauldron reinforces the Yanrey region as an emerging uranium province, containing potentially significant, as-yet undiscovered, economic uranium resources.

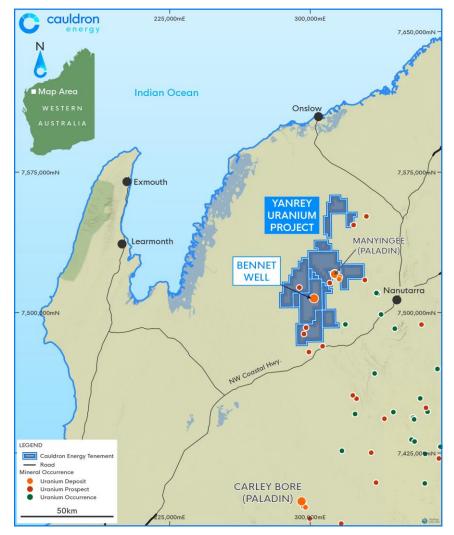


Figure 13: Yanrey Uranium Project Location (Western Australia)



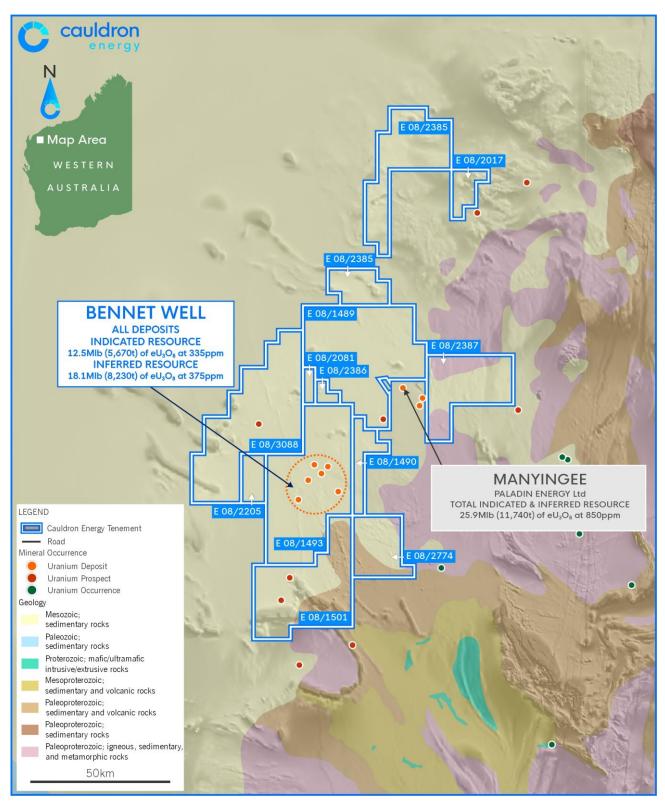


Figure 14 – Location map of the Yanrey Uranium Project and Bennet Well Uranium Deposit



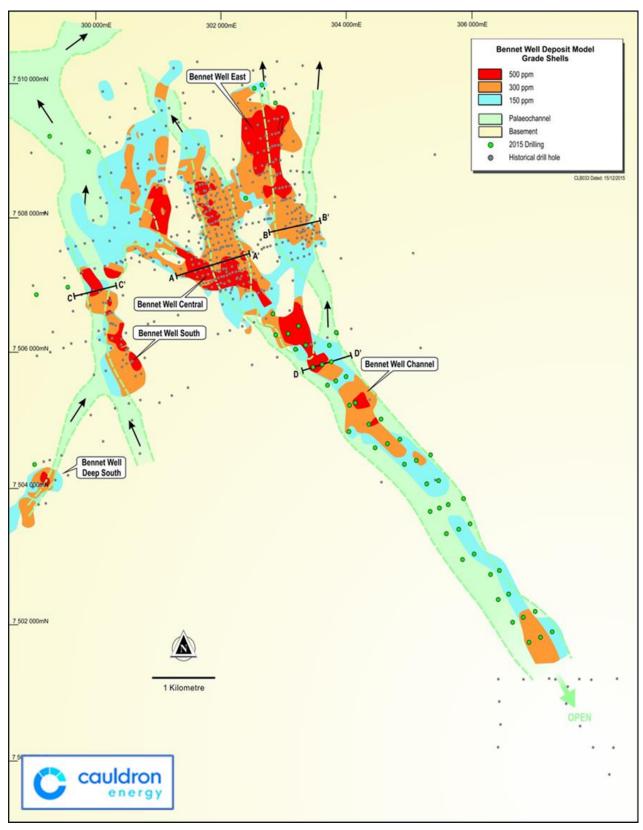


Figure 15 – Bennet Well Uranium Deposit and spatial distribution of U<sub>3</sub>O<sub>8</sub> domains.



# Historical Work Completed – Yanrey Uranium Project

Prior period exploration activity at Yanrey by Cauldron has delivered the following:

- a Mineral Resource (JORC 2012) at Bennet Well containing 30.9 million pounds of uranium oxide, comprising 38.9 Mt grading 360 ppm eU<sub>3</sub>O<sub>8</sub><sup>1</sup> using a cut-off of 150 ppm eU<sub>3</sub>O<sub>8</sub> (Indicated: 21.9 Mt @ 375 ppm e U<sub>3</sub>O<sub>8</sub>, Inferred: 16.9 Mt @ 335 ppm e U<sub>3</sub>O<sub>8</sub>) (see Appendix A),
- an Exploration Target<sup>2</sup> for the Yanrey project area of between 21 million pounds and 53 million pounds of uranium oxide grading between 300 and 600 ppm U<sub>3</sub>O<sub>8</sub>,
- eleven<sup>2</sup> favourable palaeochannels in the Yanrey project area all capable of hosting uranium mineralisation, and
- a robust exploration model capable of quickly and efficiently targeting economic zones of uranium mineralisation.

Prior period exploration activity at Bennet Well Deposit by Cauldron has delivered the following:

- proven understanding of a favourable host setting for InSitu Recovery (ISR) type mining extraction; where a permeable host unit to mineralisation is overlain by an impermeable sediment that will act as a seal for ISR-type mining fluids,
- confirmation of a lack of carbonate mineralogy, and the ability to extract uranium via an acid leachate with high extraction rates<sup>3</sup>,
- correlation of uranium mineralogy between ANSTO (2014) and CSIRO (2017) metallurgical test work programs<sup>7</sup>,
- suitable resin identified for use in the ion exchange process of uranium extraction during future field leach trials<sup>7</sup>, and
- predictive transport and hydrological models that identified key reactions for the control of mining fluids.

This above work will now be brought together into a project scale Scoping Study over the next few months. Work on the scoping study is already well advanced.

# Work Completed During Reporting Period – Yanrey Uranium Project

The Company undertook a short site visit as part of its planning for its future drill program and to view areas that have the potential for other commodities including vanadium, Ni-Cu-PGE and REE mineralisation, with a decision taken to run remote science high resolution evaluation to define possible targets for follow up in the 2024 calendar year.

## Future Proposed Work – Yanrey Uranium Project

## Scoping Study

The Company is well advanced on a scoping study for the Yanrey Project and specifically the Bennet Well Deposit and expects to release the study early in the new year, prior to it undertaking its first drill campaign for a number for years, due to the ban on uranium mining in the State of Western Australia imposed by the Labor Government when it came into government in 2017.

<sup>&</sup>lt;sup>1</sup> eU<sub>3</sub>O<sub>8</sub> means equivalent U<sub>3</sub>O<sub>8</sub>, based on a correlation between downhole gamma readings and assayed drill core

<sup>&</sup>lt;sup>2</sup> See ASX announcement (ASX:CXU 22 September 2015)

<sup>&</sup>lt;sup>3</sup> See ASX announcement (ASX:CXU 25 May 2017)



## Planning for future drill campaign

The Company has developed an exploration model for the Yanrey project, and previously identified several targets for potential resource extension<sup>2</sup>. Drilling is planned over some of these targets in the coming months, weather permitting, with the aim of extending the potential project mineral resource, dependent on field access and seasonal climatic conditions.

A Program of Works for this drilling has been approved and is valid for four years.

#### Investigation of Potential for Other Commodities

The Company is of the view that the Yanrey project area has the potential for vanadium, Ni-Cu-PGE and REE mineralization and intends on undertaking remote science high resolution evaluation to define possible targets for follow up in the 2024 calendar year.

## URANIUM PRICE INFORMATION

The current sentiment for uranium is extremely positive driven by a strong nuclear renaissance which is underway globally. Nuclear power (fuelled by uranium) is seen by many countries as the only practical way of delivering on their net zero obligations.

Uranium has performed extremely strongly in recent months, trading through a key barrier of US\$70 per pound, to a decade high level , see graph below, before settling back a little in most recent trading.

Overall there currently exists significant concern about a structural deficit in supply in the uranium market, giving rise to an expected continuation of a strong uranium price driven by a broad range of factors including:

- New nuclear reactor builds (data on this is very well known and available from the World Nuclear Association) – as the global nuclear renaissance continues, more new reactors are either announced as under construction, or in various stages of planning and approval;
- Restarts of previously idled nuclear reactors, such as those in Japan;
- Existing operating nuclear reactors having their life extended; this means that more uranium than was previously expected will be required. For example, France has just announced a significant programme of nuclear reactor life extensions;
- Reduction going forward in the level of secondary uranium sources available in the market (for many years, the market has relied on secondary sources to cover demand);
- A slow response from the uranium supply market; with market pricing not yet reaching a level which is expected to incentivise new supply into the market;
- Geopolitical issues and a potential bifurcation of the nuclear supply chain including uranium mining; driven by the Russian invasion of Ukraine and further exacerbated by the recent coup in Niger.
- Production difficulties at existing operations. Cameco Corporation, one of the world's largest
  producers of uranium accounting for an estimated 16% of global production, has released
  revised production guidance recently stating that it will produce approximately 2.7 million pounds
  less this year than previous guidance<sup>4</sup>. Cameco also noted that it may be forced to buy physical
  uranium on the market in order to meet the delivery commitments to its customers, likely
  reducing inventories available for other spot purchasers of uranium.
- Redirection of uranium production away from the spot market recent reports suggest that BHP Olympic Dam, historically a major supplier of uranium to the spot market, may no longer supply that market, instead directing its production on a contracted basis.<sup>5</sup> Reduction of volume in the

<sup>&</sup>lt;sup>4</sup> <u>https://www.cameco.com/media/news/cameco-provides-production-and-market-update</u> (September 2023)

<sup>&</sup>lt;sup>5</sup> see <u>https://greeninvesting.co/2023/09/olympic-dam-uranium-not-going-to-spot-market-report/</u>



spot market is expected to increase volatility and generate further upward price pressure in the spot price of uranium.

• Expected impacts of physical uranium trusts, the largest of which is Sprott. As momentum builds in the uranium markets, the physical trusts may trade above their net asset value; allowing them to issue further units in the trust and buy more physical uranium inventories. Such activity can end up having a significant impact on spot uranium price.

This structural deficit in supply existing in the uranium market suggests that the price must increase towards a new equilibrium to enable new production to come on-line.

With such interest in the uranium market and its fundamentals; the Company expects that investors are looking for leverage to the expected positive uranium market momentum. We continue to highlight to investment markets the attractive current entry price Yanrey provides for exposure to the fundamental uranium market.

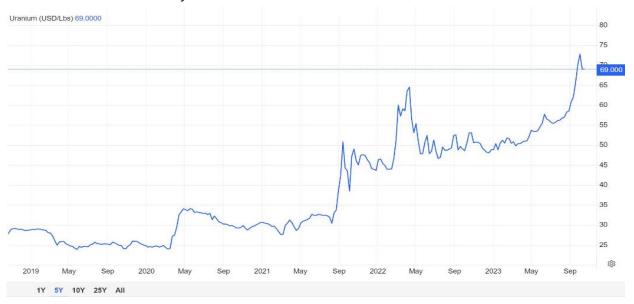
Uranium does not trade on an open market like other commodities. Buyers and sellers negotiate contracts privately. Prices are published by independent market consultants.

According to Trading Economics, the Uranium spot price strengthened significantly during the quarter to 30 September 2023 and is currently trading at the highest price levels since 2011. Uranium finished the September 2023 quarter slightly higher at ~US\$73/lb (30 June 2023: ~US\$55/lb) and has since held firm and is currently trading at circa US\$69/lb (Source: Trading Economics).

According to Trading Economics, the firming in the uranium spot price is as a result of:

"lower supply risks mounted and investors continued to assess demand projections worldwide"

Trading Economics reports that: "Uranium prices remained below \$70 per pound, holding the correction from the 12-year high of \$73 touched in the first week of October and halting twelve consecutive weeks of increases as sellers took advantage of higher prices. Despite the correction, the benchmark remains over 40% higher year-to-date as low inventories coincide with threats to supply. Amid uncertain oil supply and decarbonization goals, China unveiled plans to build another 32 nuclear reactors by the end of the decade, while Japan authorized plans to restart multiple plants and build new facilities. This drove the World Nuclear Association's upwardly revised forecasts for global nuclear power production. The developments coincided with renewed concerns about supply after shipments of nuclear fuel from Russia were once again halted due to insurance troubles. Political turmoil in Niger also drove Orano to suspend operations in the country, while Canada's Cameco revised production downwards for the current year."





#### WA SANDS PROJECT

Cauldron has a 100% ownership interest in several river sand tenements over substantial portions of three of the largest river systems crossing the coast in central to northern Western Australia, covering the mouths of the Fitzroy River at Derby, the Ashburton River at Onslow and the Gascoyne River at Carnarvon, with each prospective for sand suitable for the construction and reclamation industries .

Having held these tenements for some time, the Company recently conducted an internal strategic review of this Project which demonstrated the strategic importance of its Onslow tenements in a region undergoing significant development and the potential value to be gained from the Company's sands tenements. The Company is focussed on maximising this value for shareholders.

The Fitzroy, Ashburton River and Gascoyne rivers drain huge areas of granitic rocks from their respective headwaters all the way to the project areas, at the mouths of the rivers (see **Figure 15**).

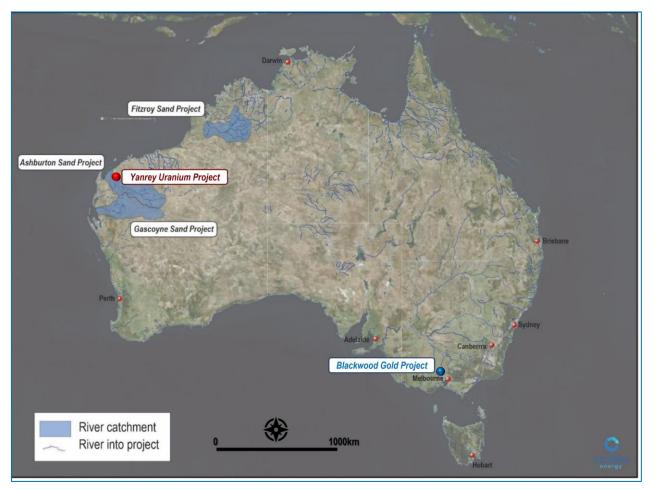


Figure 16: Cauldron River Sands Project – Catchment areas draining into each project area.

Each time there is a flooding event somewhere in the catchment area, sand is deposited into the project areas, replenishing the supply of sand and re-establishing the river mouth in its original condition. Some river mouths are being 'swamped' from flooding events, with excessive sand build-up preventing the use of high value infrastructure facilities, which adversely affect these regional economies. Harvesting of this material can therefore provide important benefits to local communities in addition to the significant revenue opportunities for the Company.

Sand is the most consumed natural resource on the planet besides water and by far the largest globally mined commodity. It is estimated that over 50 billion tonnes of aggregate (sand and gravel) are consumed annually.



Cauldron expects to benefit from the significant pressure on existing sources of sand supply; with exhaustion of many sources, which do not regenerate naturally at the same pace for example as River Sand; or such sources being in areas which are no longer suitable for extraction due to environmental concerns. Cauldron's WA sand tenements present a major new potential source of sustainable sand supply for global markets.

Cauldron's sand tenements are in differing stages of readiness to supply sand. The Company does have a stockpile of already mined material capable of near term supply.

#### **Acquisition Status**

The acquisition of the licences is partially complete as at the date of this report, with ownership of four of the eight licences having transferred to Cauldron. The licences transferred are EL08/2328, EL08/2329 and EL08/2462 and miscellaneous licence L08/71 and are located at the mouth of the Ashburton River in Onslow (see **Figure 16**) below:

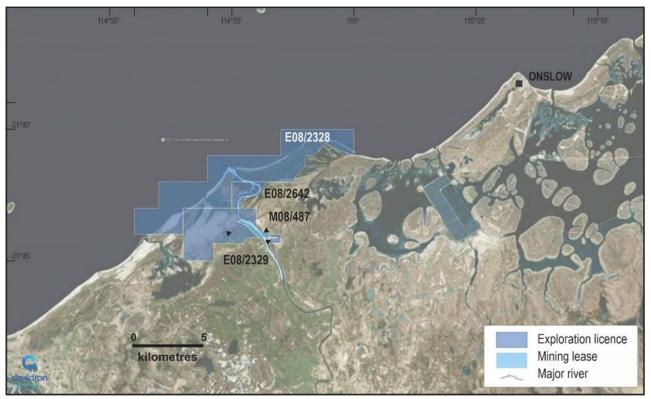


Figure 17: Ashburton River Sand Project – Mining Title (aerial photo underlay courtesy of Bing)

## Work Completed During Reporting Period – WA Sands Project

During the quarter, the Company received additional several expressions of interest to acquire the Company's sand tenements, which are subject to confidentiality, none of which have yet progressed to a stage warranting disclosure

## Future Proposed Work Completed During Reporting Period – WA Sands Project

Focus will be on continuing to work with parties who have expressed interest in the Company's sand tenements; continuing to investigate the opportunities for involvement in the bulk export sand market as well as participation in the significant regional development occurring in and around Onslow. In addition, the Company will continue to undertake all matters necessary to keep the licences in good standing and to convert exploration licences into mining leases.



## **EXPLORATION COSTS (ALL PROJECTS) FOR THE QUARTER**

In accordance with the requirements of ASX Listing Rule 5.3.1 the Company advises that during the quarter ended 30 September 2023, the Company expended \$284k on exploration related items (including salaries). The major cost areas were tenement rents and rates: \$19k; tenement applications: \$19k; salaries: \$45k; consultants: \$198k and miscellaneous items: \$3k. In addition, the Company expended \$10k on tenement acquisition re E70/6160.

#### **CHANGES IN OWNERSHIP INTERESTS OF MINERAL TENEMENTS**

In accordance with the requirements of ASX Listing Rule 5.3.3 the Company confirms that no tenements (including beneficial interests in tenements) were acquired, disposed or lapsed during the quarter, except as follows:

Acquisition of Melrose project tenement E70/6160, pegged by Cauldron of Applications E70/6463, 6466, 6467, 6468 and 6469, (E70/6467 and E70/6468 subsequently granted).

Sale of interest in Blackwood Gold project - EL 5479

#### SCHEDULE OF MINERAL TENEMENTS refer Appendix A.

#### **CORPORATE**

#### **RELATED PARTY PAYMENT INFORMATION**

In accordance with the requirements of ASX Listing Rule 5.3.5 the Company advises that during the quarter ended 30 September 2023 the Company paid a total of \$60k to directors and their related entities in respect of directors' fees (\$25k) and consulting fees (\$35k).

#### SALE OF BLACKWOOD GOLD PROJECT

During the quarter, the Company entered into an agreement for sale of its 51% interest in the Blackwood Gold Project in Victoria, subject to certain Conditions Precedent, refer Company's ASX Announcement of 5 September 2023 titled "Sale of Blackwood Gold Project" for further details.

Post quarter end, on 11 October 2023, following the satisfaction of all Conditions Precedent and receipt of \$200,000 in cash in respect of the sale of its 51% interest, the Company announced that the sale had been completed, refer Company's ASX Announcement titled "Completion of Sale of Blackwood Gold Project" for further details.

Pursuant to the sale, the Company is due to receive a further amount of \$100,000 in cash no later than 25 September 2024.

#### PLACEMENT AND RIGHTS ISSUE

Post the end of the quarter, the Company announced that it had received firm commitments from sophisticated and professional investors to raise \$198,000 via a placement at \$0.009 per share (**Placement**) and that it had entered into an Underwriting Agreement to raise a further amount of up to \$1,427,352.99 via a fully Underwritten Renounceable Rights Issue also at \$0.009 per share (**Rights Issue**).

The Placement was subsequently completed on 16 October 2023.

The Rights Issue is on the basis of one (1) fully paid ordinary share in the capital of the Company (New Share) for every six (6) Shares held by eligible shareholders at 5:00pm (AWST) on Friday, 13 October 2023, together with one (1) free attaching option (exercisable at \$0.015, expiring 30 December 2025) for every three (3) Shares subscribed for and issued (New Option), to Eligible Shareholders.



The Closing Date under the Rights Issue is 5pm AWST on Wednesday, 1 November 2023.

Cauldron plans to use the funds to:

- advance its Yanrey Uranium Project, which contains the Bennet Well Deposit of 38.9 Mt @ 360 ppm U<sub>3</sub>O<sub>8</sub> for 30.9 Mlb (~14,000t) uranium oxide (refer to the Mineral Resource table and Competent Persons' Statement in Appendix A), making it one of the largest deposits in Western Australia, through further drilling, scoping study and metallurgical testwork in anticipation of a future lifting of the ban on uranium mining in Western Australia; and
- 2. to advance its highly prospective Melrose Ni-Cu-PGE Project, which has geological characteristics similar to Chalice's Jubilee project, with planning nearing completion for a drilling program later this calendar year; and
- 3. To pursue new project opportunities; and
- 4. For general working capital purposes.

# **AUTHORISATION FOR RELEASE**

This report has been authorised for release by the Company's Non-Executive Chairman, Ian Mulholland.

#### End

For further information, visit <u>www.cauldronenergy.com.au</u> or contact:

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## **Forward Looking Statements**

This announcement may include forward-looking statements, based on Cauldron's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Cauldron, which could cause actual results to differ materially from such statements. Cauldron makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of the announcement.



#### **APPENDIX A**

#### **Bennet Well Mineral Resource**

A Mineral Resource (JORC 2012) for the mineralisation at Bennet Well was completed by Ravensgate Mining Industry Consultants (Ravensgate) in 2015 and is based on information compiled by Mr Jess Oram, Executive Director of Cauldron Energy and Mr Stephen Hyland, who was a Principal Consultant of Ravensgate. Mr Oram is a Member of the Australasian Institute of Geoscientists and Mr Hyland is a Fellow of the Australasian Institute of Mining and Metallurgy.

The mineralisation at Bennet Well is a shallow accumulation of uranium hosted in unconsolidated sands close to surface (less than 100 m downhole depth) in Cretaceous sedimentary units of the Ashburton Embayment.

The Mineral Resource (JORC 2012) estimate is:

- Inferred Resource: 16.9 Mt at 335 ppm eU3O8 for total contained uranium-oxide of 12.5 Mlb (5,670 t) at 150 ppm cut-off.
- Indicated Resource: 21.9 Mt at 375 ppm eU3O8 for total contained uranium-oxide of 18.1 Mlb (8,230 t) at 150 ppm cut-off.
- total combined Mineral Resource: 38.9 Mt at 360 ppm eU3O8, for total contained uranium-oxide of 30.9 Mlb (13,990 t) at 150 ppm cut-off.

Deposit	Cut-off	Deposit Mass (t)	Deposit Grade (ppm	Mass U₃O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
	(ppm eU₃Oଃ)		eU₃Oଃ)		
Bennet Well_Total	125	39,207,000	355	13,920,000	30,700,000
Bennet Well_Total	150	38,871,000	360	13,990,000	30,900,000
Bennet Well_Total	175	36,205,000	375	13,580,000	29,900,000
Bennet Well_Total	200	34,205,000	385	13,170,000	29,000,000
Bennet Well_Total	250	26,484,000	430	11,390,000	25,100,000
Bennet Well_Total	300	19,310,000	490	9,460,000	20,900,000
Bennet Well_Total	400	10,157,000	620	6,300,000	13,900,000
Bennet Well_Total	500	6,494,000	715	4,640,000	10,200,000
Bennet Well_Total	800	1,206,000	1175	1,420,000	3,100,000

Table 1: Mineral Resource (JORC 2012) at various cut-off

Deposit	Cut-off	Deposit Mass (t)	Deposit Grade (ppm	Mass U₃O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
	(ppm U₃Oଃ)		U₃O8)		
BenWell_Indicated	125	22,028,000	375	8,260,000	18,200,000
BenWell_Indicated	150	21,939,000	375	8,230,000	18,100,000
BenWell_Indicated	175	21,732,000	380	8,260,000	18,200,000
BenWell_Indicated	200	20,916,000	385	8,050,000	17,800,000
BenWell_Indicated	250	17,404,000	415	7,220,000	15,900,000
BenWell_Indicated	300	13,044,000	465	6,070,000	13,400,000
BenWell_Indicated	400	7,421,000	560	4,160,000	9,200,000
BenWell_Indicated	500	4,496,000	635	2,850,000	6,300,000
BenWell Indicated	800	353,000	910	320,000	700,000

Deposit	Cut-off (ppm U₃Oଃ)	Deposit Mass (t)	Deposit Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Mass U₃O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
BenWell_Inferred	125	17,179,000	335	5,750,000	12,700,000
BenWell_Inferred	150	16,932,000	335	5,670,000	12,500,000
BenWell_Inferred	175	14,474,000	365	5,280,000	11,600,000
BenWell_Inferred	200	13,288,000	380	5,050,000	11,100,000
BenWell_Inferred	250	9,080,000	455	4,130,000	9,100,000
BenWell_Inferred	300	6,266,000	535	3,350,000	7,400,000
BenWell_Inferred	400	2,736,000	780	2,130,000	4,700,000
BenWell_Inferred	500	1,998,000	900	1,800,000	4,000,000
BenWell_Inferred	800	853,000	1285	1,100,000	2,400,000

Note: table shows rounded numbers therefore units may not convert nor sum exactly



#### **Competent Person Statements**

#### Mineral Resource Estimate – Bennett Well Deposit

The information in this report that relates to Mineral Resources for the Bennett Well Deposit is extracted from a report released to the Australian Securities Exchange (ASX) on 17 December 2015 titled "Substantial Increase in Tonnes and Grade Confirms Bennet Well as Globally Significant ISR Project" and available to view at <u>www.cauldronenergy.com.au</u> and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 17 December 2015 and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original ASX announcement.

#### Exploration Results – Melrose Project

The information in this report that relates to exploration results of the Melrose Project is extracted from reports released to the Australian Securities Exchange (ASX) listed in the table below and which are available to view at www.cauldroneneergy.com.au and for which Competent Persons' consents were obtained. The Competent Persons' consents remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcements released.

Unless otherwise stated, where reference is made to previous releases of exploration results in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the exploration results included in those announcements continue to apply and have not materially changed.

Date of Release	Title
11-May-2023	Option over Melrose Project, Dalwalinu, WA
11-May-2023	Additional Information - Melrose Project
03-Jul-2023	Highly promising Geophysical Response at Melrose Project
26-Jul-2023	Another Highly promising Geophysical Response at Melrose Project
31-Jul-2023	Exercise of Option over Key Melrose Project Tenement
17-Aug-2023	EM Survey Commenced at Melrose Project
09-Oct-2023	Melrose EM Survey Identifies Several Drill Targets



# **APPENDIX B**

# **Schedule of Tenements**

Mining tenements held at 31 March 2023, including tenements acquired and disposed of during the quarter:

Tenement	Project	Tenement Holder	Acquired interest during the quarter	Disposed interest during the quarter	Interest at end of quarter
E70/6160 <sup>2</sup>	Melrose	Beau Resources	100%		100%
E70/64631	Melrose	Cauldron Energy	100%		100%
E70/6466 <sup>1</sup>	Melrose	Cauldron Energy	100%		100%
E70/6467	Melrose	Cauldron Energy	100%		100%
E70/6468	Melrose	Cauldron Energy	100%		100%
E70/6469 <sup>1</sup>	Melrose	Cauldron Energy	100%		100%
E08/1489			-	-	100%
E08/1490			-	-	100%
E08/1493			-	-	100%
E08/1501			-	-	100%
E08/2017			-	-	100%
E08/2081			-	-	100%
E08/2205	Variation	Cauldron Energy	-	-	100%
E08/2385	Yanrey		-	-	100%
E08/2386			-	-	100%
E08/2387			-	-	100%
E08/2774			-	-	100%
E08/3088			-	-	100%
E08/3520			-	-	100%
E08/3521			-	-	100%
E08/2328		Cauldron Energy	-	-	100%
E08/2329		Cauldron Energy	-	-	100%
E08/2642		Cauldron Energy	-	-	100%
L08/71	Onslow	Cauldron Energy	-	-	100%
M09/96		Cauldron Energy	-	-	100%
M08/487		Quarry Park	-	-	100%*
P08/798		Cauldron Energy	-	-	100%
P08/800		Cauldron Energy	-	-	100%
E09/2715	Camaryon	Cauldron Energy	-	-	100%
M09/180	Carnarvon	Onslow Resources	-	-	100%*
E04/2548	Derby	Rand Mining	-	-	100%*
EL 5479	Blackwood	Blackwood Gold JV	-	51%*	-

\* Cauldron Energy beneficial interest 1: Tenement application; not yet granted 2: Tenement acquired

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
CAULDRON ENERGY LIMITED	
ABN	Quarter ended ("current quarter")
22 102 912 783	30 September 2023

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	(284)	(284)
	(b) development		
	(c) production		
	(d) staff costs	(120)	(120)
	(e) administration and corporate costs	(75)	(75)
1.3	Dividends received (see note 3)		
1.4	Interest received	3	3
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)	(12)	(12)
1.9	Net cash from / (used in) operating activities	(488)	(488)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) tenements	(10)	(10)
	(c) property, plant and equipment		
	(d) exploration & evaluation		
	(e) investments		
	(f) other non-current assets		

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
2.6	Net cash from / (used in) investing activities	(10)	(10)

3.	Cash flows from financing activities	
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	
3.2	Proceeds from issue of convertible debt securities	
3.3	Proceeds from exercise of options	
3.4	Transaction costs related to issues of equity securities or convertible debt securities	
3.5	Proceeds from borrowings	
3.6	Repayment of borrowings	
3.7	Transaction costs related to loans and borrowings	
3.8	Dividends paid	
3.9	Other (provide details if material)	
3.10	Net cash from / (used in) financing activities	

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	771	771
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(488)	(488)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(10)	(10)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	273	273

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	273	273
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)		

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	60
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ nation for, such payments.	le a description of, and an

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	Total financing facilities		
7.5	Unused financing facilities available at qu	uarter end	
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000	
8.1	Net cash from / (used in) operating activities (item 1.9)	(488)	
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-	
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(488)	
8.4	Cash and cash equivalents at quarter end (item 4.6)	273	
8.5	Unused finance facilities available at quarter end (item 7.5)		
8.6	Total available funding (item 8.4 + item 8.5)	273	
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	0.56	
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?		
	Answer: Yes		
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?		
	Answer: Yes, the Company announced on 6 October 2023 that it had received commitments for a Placement of \$198,000 and had entered into an Underwriting Agreement to raise a further amount of up to \$1,427,352.99 via a fully Underwritten Renounceable Rights Issue.		

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes, refer 8.8.2

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

## **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

#### 31 October 2023

Date:

#### MICHAEL FRY - DIRCETOR

Authorised by: (Name of body or officer authorising release – see note 4)

#### Notes

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.