

#### High quality copper, uranium, silver and gold projects

#### **Metals & Mining**

We initiate coverage of White Cliff Minerals (ASX: WCN) with a current fair valuation of A\$0.034, representing a 76% upside to the current share price of A\$0.019. The company has recently acquired two expansive and highly prospective copper, uranium, gold, and silver exploration assets in northwestern Canada. Both project areas encompass multiple mining sites that have historically produced significant quantities of different metals. Additionally, a substantial body of historical exploration data supports the prospectivity of these areas for economically viable multi-metal discoveries. This data gives White Cliff a head start in rapidly defining drill targets and advancing potential resource estimates. The company also has three other exploration projects in Western Australia, including a gold project with already defined inferred resources, providing a solid foundation for rapid resource expansion through further drilling.

#### Prospective for making big copper and uranium discoveries

The Nunavut Copper-Gold-Silver Project area includes multiple historical high-grade copper mining projects with identified high-grade copper lodes. In WCN's Radium Point Uranium-Copper-Gold-Silver Project area, significant historical mine production includes 13.7m pounds of uranium oxide (U308), 34.3m ounces of refined silver, 11.4m pounds of copper with gold credits, and 127, 227, and 104 tonnes of nickel, cobalt, and lead, respectively. This means both Canadian project areas have proven potential for economical-grade copper discoveries. WCN is planning to start field activities at both projects in Q2 2024 to define future drill targets. Given the very promising early indications, we are very optimistic about the results of any exploration activities across these two projects.

#### Exposure to a range of commodities with bullish outlooks

White Cliff has exposure to diverse commodities that are the full beneficiaries of the ongoing decarbonisation megatrend. Copper demand is set to soar by EV and AI revolutions, green energy transition, and automation of manufacturing plants while its supply growth is dwindling due to declining grades at the world's largest mines. Uranium prices are surging due to a rising demand stemming from the construction of more nuclear power plants to reduce carbon emissions, while the supply is limited due to years of underinvestment in uranium mine development owing to low uranium prices. Gold prices could go higher in the medium to long term as interest rates are expected to decline in 2025.

#### Valuation range of A\$0.031-0.036 per share

Our Sum of the Parts valuation methodology based on comparable peers' current market valuations yields a target price range of A\$0.031-0.036 per share using conservative assumptions. WCN is poised to begin its field activities across its promising Canadian projects soon and is awaiting assay results from the latest drilling at its gold project in WA. This could generate substantial news flow over the next few months, potentially leading to re-ratings of WCN. Key risks to our investment thesis include commodity price, funding, and geological risks.

White Cliff Minerals Valuation (A\$m)	Base Case	<b>Bull Case</b>
Coppermine River Project Value	23.48	28.18
Radium Point Uranium Project Value	20.06	24.07
Reedy South Gold Project Value	1.95	2.35
White Cliff's Implied EV	45.49	54.59

Date	11 June 2024
Share Price (A\$)	0.019
Target Price (A\$)	0.031-0.036
Price / NAV (x)	0.57x
Market Cap (A\$m)	30.86
52-week L/H (A\$)	0.006 / 0.02
Free Float (%)	75.4%
Bloomberg	WCN.AU
Reuters	WCN.AX

#### **Price Performance (in A\$)**



#### **Business description**

White Cliff Minerals Limited (ASX: WCN) engages in the exploration of mineral properties in Canada and Australia. The company explores for uranium, copper, gold, silver, cobalt, lithium, and rare earth elements (REE). Its flagship projects are the 100% owned Copper-Uranium-Gold-Silver Projects in northwest of Canada, covering accumulated areas in excess of 3,700km². White Cliff Minerals Limited was incorporated in 2007 and is based in West Perth, Australia.

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#### **Investment Rationale**

Listed on the ASX, White Cliff Minerals (ASX: WCN) has recently acquired two expansive and highly prospective copper, uranium, gold, and silver exploration assets in northwestern Canada. Both project areas encompass multiple mining sites that have historically produced significant quantities of copper, uranium, gold, and silver, along with smaller amounts of other metals. Additionally, a substantial body of historical exploration data supports the prospectivity of these areas for economically viable multi-metal discoveries. This data gives White Cliff a head start in rapidly defining drill targets and advancing potential resource estimates. The company also has three other exploration projects in Western Australia, including a gold project with already defined inferred resources, providing a solid foundation for rapid resource expansion through further drilling.

## Nunavut Copper-Gold-Silver Project has all the hallmarks of a major copper discovery

The Nunavut Copper-Gold-Silver Project ("the Coppermine Project") covers an area of 805km² of highly prospective mineral claims within the province of Nunavut, Canada. The project area includes multiple historic high grade copper projects in the Coppermine River area in Nunavut. High grade copper lodes that were previously mined extend throughout the project area, leaving significant exploration potential for bonanza copper discoveries at the project. Numerous high-grade mineralised occurrences have been identified at the project area using high-resolution magnetics and extensive rock chip, trench and drill results where in several instances, the strike of outcropping high-grade mineralised material can be traced at the surface for very long distances. The company has reported numerous historical rock chip samplings indicating copper grades surpassing 30% and silver grades exceeding 40g/t.

The Coppermine project area contains numerous historical non-JORC and "blue sky1" mineral estimates that could potentially be converted into JORC classifications with further drilling. As such, White Cliff has focused its initial exploration efforts on some of these high-confidence prospects due to existing outcropping pre-JORC mineral estimates. Yet, the company remains optimistic that further regions will be pinpointed, likely to harbour high-grade copper and silver mineral deposits, paving the way for additional JORC Mineral Resource Estimates (MRE) in the future.

In addition to this structurally controlled multi-metals mineralisation, another geological model proposes the existence of extensive, high-tonnage sedimentary-hosted "red bed" copper deposits at the project area, associated with volcanism, rifting, and subsequent metal deposition.

White Cliff is set to commence its field activities at the Coppermine Project in Q2 2024 to define future drill targets. Given the strong early indications of copper and silver mineralisation at the Coppermine Project, supported by historical data and the exposure of high-grade copper lodes at the surface, we are optimistic about the results of future exploration activities in the project area.

## Radium Point Uranium-Copper-Gold-Silver Project area has been a major hob of uranium and other metals production

The Radium Point Project, located in Canada's Northwest Territories, spans over 3,300km² and includes significant historical mining operations, such as the Eldorado, Echo Bay, and Contact Lake mines. The project area is in proximity to WCN's Nunavut Project. Cumulative historical production (pre-1982) from the project area includes 13,700,000lbs of Uranium oxide ("U308"), 34,200,000oz of refined silver, 11,377,040 lbs of copper with gold credits, as well as significant amounts of lead, nickel, and cobalt.

White Cliff has reported multiple examples of highly anomalous rock chip assays from sampling carried out by state survey and previous operators throughout the Radium Point Project and near mine project areas. Highlights included 14.5% U308, 729g/t Ag, 7.5% Cu and 15.15g/t Au at Thompson Showing, 22.72% Cu, 1427g/t Ag and 8.30% Zn at Spud Bay, 7.43% U308 and 2.77% Cu at Bullwinkle, 10.3% Cu and 4.05g/t Au at Doghead South, and 8.28g/t Au and 3.97% Cu at

The Nunavut
Copper-Gold-Silver
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This means the
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copper discoveries.





Significant
historical mine
production and
exceptionally highgrade rock chip
sample results from
the Radium Point
Project area
enhance our
confidence in the
project's potential.

Sparkplug Lake, 10.4% Cu and 23g/t Ag at Luv Lake, 5.4% Cu and 4g/t Au at OMNI, and 2.18% Cu, 1.95% Co and 22.26% Bi2 at HD44. See (Figure 7) on page 14 for the location of the target areas within the Radium Point Project's licence area.

White Cliff has revealed its plans to start regional mapping, sampling and airborne survey at Radium Point in Q2 2024 with the aim of commencing an extensive diamond drilling program in Q3. Substantial historical mine production, as well as the very promising historical rock chip sample results from Radium Point tenements increase our confidence in the project's prospects for significant future discoveries due to proven favourable geology for multi-metals deposits.

#### Reedy South Gold Project in WA adds to the value and appeal of White Cliff

Reedy South Gold Project covers 272km2 of the highly prospective Cue goldfields in Western Australia and has an existing JORC-compliant mineral resource estimate sitting at 42,400 ounces of gold at 1.7g/t, the majority of which are in the Inferred category. The Company is undertaking an RC drilling program at the Pegasus prospect within Reedy South, contracting Mt Magnet Drilling for the operation. White Cliff's planned campaign entails drilling 11 holes, covering up to 2,000 meters, with the objective of targeting both the strike and depth extensions of the known mineralisation. Additionally, the program will include infill drill holes aimed at upgrading the existing resource classification. Given the proven gold mineralisation at the project area we are confident about the potential success of the planned drilling program.

#### A huge copper deficit is looming

With its extensive usage across various industries, copper has become the third most utilised metal globally. The increasing demand for the base metal is expected to surge in the coming decade, driven by the accelerating trend of decarbonisation and the adoption of energy transition technologies. Renowned for its superior conductivity among non-precious metals, copper holds significant importance in energy production and is especially crucial for sustainable technologies like electric vehicles and solar photovoltaic (PV) surfaces. In addition to electric vehicles, renewable energy and power infrastructure, the uprising in Artificial Intelligence (AI) and automation sectors is also expected to add to the projected demand for copper cable used to conduct electricity.

At the same time, years of inadequate investment in the mining sector since the 2000s have led to a dearth of new projects and a stagnant supply of the metal. Additionally, diminishing copper reserves and lower ore grades in some of the world's major mines mean that any new deposit would merely be substituting existing output. Consequently, even with the launch of new projects, there might not be any significant increase in supply. With copper demand rapidly rising and supply growth lagging, our long-term outlook on copper prices remains bullish. *This bodes well for White Cliff as both of the company's Canadian projects are highly prospective for significant copper discoveries.* 

#### Uranium prices are expected to remain strong in the foreseeable future

Uranium prices are surging due to a rising demand stemming from the construction of more nuclear power plants to reduce carbon emissions, while the supply is limited due to years of underinvestment in uranium mine development owing to low uranium prices.

Canada, where White Cliff's highly prospective Radium Point Uranium Project is located, has a very established uranium mining industry. Ranking second only to Kazakhstan in uranium production, the country's uranium mining industry stands to reap substantial benefits from the projected strength in uranium prices. This outlook is particularly favorable for WCN from an investment standpoint, in our view.

#### Gold exploration to increase White Cliff's attractiveness

Ongoing heightened global geopolitical tensions grant sustained central bank gold buying and investment in gold as a safe haven, which is countered by persistently high interest rates, leading

A long-term supply deficit projection supports the idea of increasing copper prices for the foreseeable future





to our projected gold price range of US\$2,300-2,500 until end-2024, with potential for upside as interest rates are expected to decline in 2025.

#### Valuation: A Sum of the Parts approach indicates significant upside potential

The acquisition of the prospective Canadian projects has been transformational for WCN. The company now boasts two highly prospective exploration projects in Canada targeting a range of highly sought-after metals in addition to its Australian assets, including a 40,000oz defined gold resource in Western Australia. As such, we have used a Sum Of The Parts (SOTP) valuation methodology to determine WCN's current fair value.

To value the Reedy South Gold Project in Western Australia, we have utilised a resource-based valuation methodology based on comparable peer valuations, yielding a valuation of A\$1.95m based on the currently defined gold resources at the project.

To value WCN's Coppermine Project, we have looked at some similarly early stage copper explorers listed on the TSX (Toronto Stock Exchange) with their projects located in Canada. Due to the strategic benefits of the Coppermine Project compared to its peers, we have concluded that this project should be valued at at least a 25% premium to the peers' average market value of A\$18.8m.

We used a similar methodology to value WCN's Radium Point Uranium Project by examining several Canadian uranium explorers with projects in Canada. By comparing Radium Point's advantages to those of its peers, we concluded that the project should trade at a premium. Therefore, in our base case, we have applied a 25% premium to the peers' average valuation of A\$16 million for Radium Point.

To arrive at our base case valuation for WCN, we have summed our valuations of Reedy South, Coppermine and Radium Point projects. Our Sum of the Parts (SOTP) valuation methodology results in a valuation of A\$0.031 per share in the base-case scenario. Our bull case scenario is based on some recovery in explorers' valuations. We believe the general valuation for commodity stocks will improve in the next 12-18 months as interest rates are expected to have peaked and are likely to decline in the medium to long term, therefore improving the general sentiment towards pre-revenue companies. Therefore, our bull case scenario has an 18% higher valuation of A\$0.036 per share. It is important to note that we have not included any value from the company's other assets in Western Australia.

The mid-point target price of A\$0.034 represents a Price/NAV of 0.57x, indicating a significant valuation headroom of more than 60% to the current share price of A\$0.019. We think the discount to WCN's current market valuation compared to our fair valuation can be partially explained by the fact that WCN has recently made the transformational acquisition of its highly prospective Canadian assets, which the market may not yet fully recognise. Additionally, WCN's primary assets are now located in Canada but the company is not listed on the Canadian stock exchanges, further contributing to its undervaluation relative to its Canadian peers. The key risks to our investment thesis are funding risk, geological risk and commodity price risk.

We value WCN at A\$0.031 in the base case scenario and A\$0.036 in a bull case scenario based on its current peers' market valuations



### **Canadian Projects**

White Cliff saw a turnaround in its fortunes and share price trajectory after the announcement of securing two advanced Canadian copper and uranium exploration projects in the last few months. In November 2023, the company revealed its purchase of the Nunavut Copper-Gold-Silver Project, followed by the acquisition of the Radium Point Uranium-Copper-Gold-Silver Project in January 2024. The projects' tenements cover very large areas in northern Canada with proven economical grade mineralisation of various green metals as evidenced by significant historical production.

#### **Nunavut Copper-Gold-Silver Project**

The Nunavut Copper-Gold-Silver Project ("the Coppermine Project") covers an area of 805km² of highly prospective mineral claims within the province of Nunavut, Canada. The project area includes multiple historic high grade copper projects in the Coppermine River area in Nunavut. High grade copper lodes that were previously mined extend throughout the project area, leaving significant exploration potential for bonanza copper discoveries at the project. Numerous high-grade mineralised occurrences have been identified at the project area using high-resolution magnetics and extensive rock chip, trench and drill results where in several instances, the strike of outcropping high-grade mineralised material can be traced at the surface for very long distances. The company has reported numerous historical rock chip samplings indicating copper grades surpassing 30% and silver grades exceeding 40g/t.

In addition to this structurally controlled multi-metals mineralisation, another geological model proposes the existence of extensive, high-tonnage sedimentary-hosted "red bed" copper deposits at the project area, associated with volcanism, rifting, and subsequent metal deposition.

The Coppermine River area in Nunavut, where the Nunavut Copper-Gold-Silver Project is located, contains numerous historical non-JORC and "blue sky¹" mineral estimates with potential for conversion into JORC classifications with further drillings. As such, White Cliff has focused its initial exploration efforts on Don, Cu-TAR, Halo, CARL, Pickle Crow 140 and Far/NWT prospects (see Figure 1) due to existing outcropping pre-JORC mineral estimates. Yet, the company remains optimistic that further regions will be pinpointed, likely to harbour high-grade copper and silver mineral deposits, paving the way for additional JORC Mineral Resource Estimates (MRE) in the future.

The Nunavut
Copper-Gold-Silver
Project area
includes multiple
historic high grade
copper mining sites
with identified highgrade copper lodes.
This means the
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proven potential for
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copper discoveries.

<sup>&</sup>lt;sup>1</sup> "Blue sky" mineral estimates in mining refer to speculative or optimistic projections of potential mineral resources in areas where little to no exploration or drilling has been conducted. These estimates are based on limited data or geological indicators and often represent the upper range of what could possibly be present in a given area. While "blue sky" estimates can be exciting and suggest significant mineral potential, they are typically considered less reliable than estimates based on more extensive exploration and geological data. However, the reliability of these estimates can potentially be improved by further drillings.



NUNAVUT

Sign Ag

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NUNAVUT

NUNAVUT

Sign Ag

No

Nunavut

Project Area

A Nunavut Project overview with selected/significant mineralisation occurrences.

Nunavut

Project Area

A Nunavut Project overview with selected/significant mineralisation occurrences.

SAMPLES Cut/Significant mineralisation occurrences.

Sign Ag

Sign A

Figure 1: Location Map of Nunavut Copper Project outlining project tenures with 2013 processed magnetics and rock chip samples

Source: Company

The following are some of the priority targets for White Cliff's field activities in 2024:

**Don:** Representing a cropping out lode system, which has returned the highest historical copper and silver assay results within the project area. Rockchip sampling highlights along the identified mineralised vein in this area include 30.7% copper, 194g/t silver and 8.29% copper, 23g/t silver and 7.84% copper, 104g/t silver.

**Cu-TAR:** Offering at least 4 copper-silver lodes with grab samples results including 21.18% copper. 9g/t silver, and 35.54% copper and 17g/t silver with continuous chip samples returning 2.5m at 10.3% copper and 5g/t silver. The lodes can be traced for up to 457m on the surface. Despite extensive mineralisation at the surface, drilling information exists only for one lode with 160m of total drilling. In 1969, lode no. 3 was tested with 6 near-surface holes and returned a true thickness of 2.5m and 3.74% copper (weighted for mineralised intervals in the 6 drill holes), remaining open along the strike and untested at depth. Given these encouraging resutls, WCN is planning to complete rock chip samplings along the length of the exposed lodes as part of its 2024 fieldwork to give confidence in grade continuity prior to a maiden drilling campaign.





Figure 2: Map of the Cu-TAR target location illustrating the projected lengths of the identified lodes and sparse samplling efforts by previous operators.

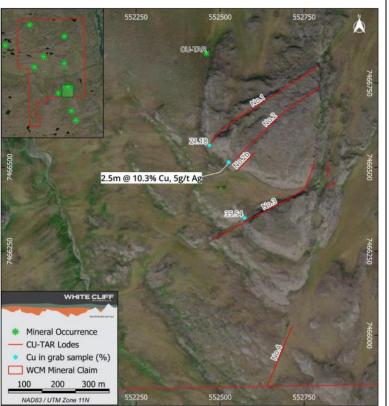


Figure 3: Field photograph of the Cu-TAR mineralisation (lode no. 2) illustrating the 2.5m continuous chip samples which returned 2.5m at 10.3% copper and 5g/t silver



ource: Company Source: Comp

**Pickle crow 140:** Historical trench sampling results at this target has returned 1.13m at 16.75% copper and 1.22m at 4.69% copper with limited historic drilling confirming continuity of the mieralised zone over 457.2m strike length and 1.8 to 5.2m width. The company intends to complete surface sampling along the strike length of exposed lodes, collecting geological and structural data to inform a future maiden drilling campaign.

**CARL:** This target has a historic, non-JORC-compliant resource estimate of 125,000t at 2% copper from a volcanic hosted lode deposit. As such, CARL offers another zone of historically confirmed mineralisation that can be efficiently converted into modern exploration results.

**HALO:** Previous operators collected a continuous chip sample at this target, using 1-meter samples across a 5-meter wide volcanic-hosted copper lode. The lode, which strikes approximately north-south, returned a weighted average grade of 4.34% copper and 5.4 g/t silver over the 5-meter width. WCN's 2024 fieldwork at the HALO target will begin with resampling and logging the historic mineral showings, using a channel saw to ensure representative sampling across the lode. The work will then focus on extending the known strike length along the north-south structure and increasing data density to inform future potential drilling efforts.





Figure 4: Photograph of the HALO lode which returned 5m at 4.34% copper and 5.4g/t silver

Source: Company

#### **Geology of Nunavut Copper-Gold-Silver Project**

Copper mineralisation at the Coppermine Project formed in an extensional tectonic setting, where basement fluids utilised structural conduits to transport and deposit copper and silver metals such as chalcocite, bornite, and chalcopyrite. Most of these copper occurrences are structurally controlled along steeply dipping fault fissures and fault-breccia zones in the basalts. The geology of the Coppermine District is characterised by an easterly trending copper bearing belt of Meso-Proterozoic continental flood basalts and associated marine sedimentary rocks of Neo-Proterozoic age. This belt extends 80 kilometres south from Kugluktuk, on the Coronation Gulf, and 174 kilometres west to 64 kilometres east of Coppermine River. The district is best known for the 'Coppermine River Group' basalts which feature extremely high grade copper showings of >45% Cu within the volcanic pile.

Extensive deep seated structural rifts can be traced for long distances within the licence area. These sutures are of particular interest; much of the identified surficial mineralisation occurs near these large fissure / fault zones indicating the high potential for large scale high grade occurrences of copper.

In addition, numerous locations occur throughout the project area where native copper or copper sulphides are found disseminated in sedimentary rocks. (Figure 5) shows a conceptual cross-section through a copper-bearing fissure zone within a Coppermine River basalt flow, showing favourable mineral horizons and conceptual grades within mineralised and amygdaliodal flow-top breccias, sub-vertical ore lodes, veins, and other ore pods. Several studies indicate that copper minerals at Coppermine River likely formed at very low pressures possibly within 40 metres from the earth's surface from hot brine of approximately 200-300 degrees Celsius. This means that economically significant copper deposits are likely to be found near the surface at Nunavut Copper-Gold-Silver Project, in our view.

The Coppermine
Project area
includes numerous
high-grade surficial
copper
occurrences, which
are controlled by
well-understood
geological
structures,
increasing the
chances of success
for future
exploration efforts.



Fissure Lode Vein Lode Fracture Fill 2.0 - 15.0 % Cu Flow-Top Replacement Lode Sedimentary Replacement Lode 0.25 - 2.0% Cu LEGEND Copper Zones Amygdaloidal Basalt Sandstone Massive Basalt LOG Metres

Figure 5: conceptual cross-section through a copper-bearing fissure zone within a Coppermine River basalt flow

Source: Company

#### Next steps to be taken at Nunavut Copper-Gold-Silver Project

On 29 January 2024, White Cliff announced that it received positive regulatory approval to start exploration activities at the Coppermine Project. The company has proposed to undertake the following exploration and study activities at the project which are broadly based on successful exploration methodologies adopted for similar sedimentary and volcanic copper deposits globally:

- Field crews to be mobilised for orientation / reconnaissance and planning for future work.
- Acquisition of all high resolution satellite hosted products, ariel photography and multispectral and electromagnetic data.
- Assessment of modern airborne geophysical techniques for targeting, particularly electromagnetic surveys, such as MobileMT
- Systematic rock and trench sampling.
- Drilling to test the extensional potential of high grade structurally controlled and stratiform copper mineralisation.

In late February 2024, WCN announced that it had appointed a Canadian-based operator to conduct an airborne geophysical survey over the Coppermine Project. The survey is scheduled to commence in Q2 2024 and aims to identify structural trends, areas of varying resistivity, and electromagnetic conductors that could potentially be linked to high-grade copper mineralization within the





subsurface of the Coppermine Project. The aim of the survey is to assist with the optimisation of future drill targets.

Given the strong early indications of copper and silver mineralization at the Coppermine Project, supported by historical data and the exposure of high-grade copper lodes at the surface, we are optimistic about the results of future exploration activities in the project area.

#### **Radium Point Uranium-Copper-Gold-Silver Project**

The Radium Point Project, located in Canada's Northwest Territories, spans over 3300km2 and includes significant historical mining operations, such as the Eldorado, Echo Bay, and Contact Lake mines. The project area is in proximity to WCN's Nunavut Project. The Eldorado/Echo Bay Mine, situated within Radium Point, holds historical significance as a major uranium and metal source during World War II, establishing itself as one of Canada's largest uranium mining districts at the time and marking the inaugural mine in the North West Territories.

Over several decades, the Radium Point project has undergone multiple phases of production, with uranium extraction notably prominent from the 1930s to the 1970s. Cumulative historical production (pre-1982) from the project area includes 13,700,000lbs of Uranium oxide ("U308"), 34,200,000oz of refined silver, 11,377,040 lbs of copper with gold credits, as well as significant amounts of lead, nickel, and cobalt. Based on current market prices, this equates to a conservative estimate of over US\$2 billion worth of metal production within the licensed area.

This production primarily centred around three major production centres at Radium Point:

**The Eldorado Mine** which operated intermittently between 1933-1940, 1942-1960, and 1975-1982. Total mine production comprised 1,366,602 tons milled, yielding 13,402,000 lbs U308, 450g Ra, 13,371,382 oz Ag, 2,389 tons Cu, 140 tons Ni, and 250 tons Co. Situated in the Echo Bay area of Great Bear Lake, the Eldorado Mine holds the distinction of being the first mine in the Northwest Territories of Canada.

**The Echo Bay Mine**, with primary development occurring from 1934-1936 and 1964-1974, and production spanning 1964-1974. Total mine production recorded 363,140 tons milled, yielding 23,564,461 oz Ag and 4,505 tons Cu at a head grade of 65oz Ag/t. Located near Port Radium on Great Bear Lake, the Echo Bay Mine stands adjacent to the renowned Eldorado Mine.

**The Contact Lake Mine** was operational during various periods from 1932-1939, 1947-1949, 1969, and 1979-1980. Total production amounted to 16,995 tons milled, yielding 678,000 oz Ag and 6,933 lbs U308. A 25-ton per day mill was transported to Contact Lake to facilitate the recovery of a silver concentrate.

Substantial
historical mine
production from
Radium Point
tenements
increases our
confidence in the
project's prospects
for significant
future discoveries
due to proven
favourable geology
for multi-metals
deposits.





Figure 6: Radium Point licence map showing historical mine workings and metal outcrops in White Cliff's licence application areas

Source: Company

#### Geology of Radium Point Uranium-Copper-Gold-Silver Project

Situated in the Echo Bay district of the northern Great Bear magmatic zone (GBMZ), the Radium Point Project comprises extensive Proterozoic continental andesites and volcano-plutonic complexes that have undergone significant hydrothermal alteration and mineralisation. This area, located on the eastern shore of Great Bear Lake, has a rich history of production (1930–1982) of uranium (U), silver (Ag), copper (Cu), radium (Ra), cobalt (Co), nickel (Ni), and lead (Pb) from quartz-carbonate-hematite-sulphide and arsenide epithermal veins.

Upon re-evaluation of the district by state geologists, it has emerged as one of Canada's most promising regions for iron oxide copper-gold (IOCG-U-U) and related styles of mineralization.

Iron oxide copper-gold (IOCG) deposits, including IOCG-U-U, are a type of mineral deposit characterized by the presence of iron oxide minerals, copper, gold, and often uranium. These deposits typically form in association with large-scale tectonic events, such as continental rifting or subduction zones. IOCG deposits are known for their polymetallic nature, meaning they usually contain multiple economically valuable minerals.

Subsequent research conducted by state surveyors further expands upon earlier studies. This recent work includes extensive and detailed geological mapping as well as structural analysis,





interpretation of aerial photographs for structural features, geophysical surveys, and meticulous geological mapping. These efforts aim to enhance the understanding of the interplay between volcano-plutonic activity, hydrothermal processes, mineralisation, and the tectonic and structural evolution of the district.

The incorporation of these datasets, alongside the latest state survey mapping and modern exploration methodologies, provides the company with an excellent foundation to define additional resources.

#### The work programme at the Radium Point Project

Given the significant historical mine production in the project area, White Cliff has determined that its focus at the project will be directed towards investigating former mining sites to identify potential extensions of previously exploited mineral deposits. Additionally, attention will be given to known outcropping prospects across the licensed area, utilising both air and ground geophysics methods. This will be complemented by rock chip sampling aimed at assessing high-grade uranium mineralisation in previously identified outcrops. Furthermore, confirmation testing will be conducted in larger geochemically anomalous regions across the broader project area, all in preparation for subsequent drilling activities.

Following the receipt of exploration regulatory approvals for the Radium Point in February 2024, White Cliff rapidly proceeded with the digitisation of historical datasets, which revealed multiple high-grade uranium and copper targets at the project. The company reported multiple examples of highly anomalous rock chip assays from sampling carried out by state survey and previous operators throughout the northern half of the Radium Point Project and near mine project areas. Highlights included 14.5% U308, 729g/t Ag, 7.5% Cu and 15.15g/t Au at Thompson Showing, 22.72% Cu, 1427g/t Ag and 8.30% Zn at Spud Bay, 7.43% U308 and 2.77% Cu at Bullwinkle, 10.3% Cu and 4.05g/t Au at Doghead South, and 8.28g/t Au and 3.97% Cu at Sparkplug Lake.

The subsequent review of the historical data from the southern part of the Radium Point Project also showed evidence of IOCG and epithermal-style mineralisation, leading to the definition of additional and new priority targets in the southern half. Highlights of historical rock chip results in the southern half included 10.4% Cu and 23g/t Ag at Luv Lake, 5.4% Cu and 4g/t Au at OMNI, and 2.18% Cu, 1.95% Co and 22.26% Bi<sup>2</sup> at HD44. See (Figure 7) for the location of the target areas within the Radium Point Project's licence area.

White Cliff has revealed its plans to start regional mapping, sampling and airborne survery at Radium Point in Q2 2024 with an aim of commencing an extensive diamond drilling program in Q3.

Rock chip samples from the Radium Point project area have returned very high grades for uranium, copper, gold, silver and zinc.

<sup>&</sup>lt;sup>2</sup> Bi is the symbol for the chemical element Bismuth, a metal that is about twice as abundant as gold in the Earth's crust and has applications in medicine, cosmetics and alloys (source: Wikipedia)

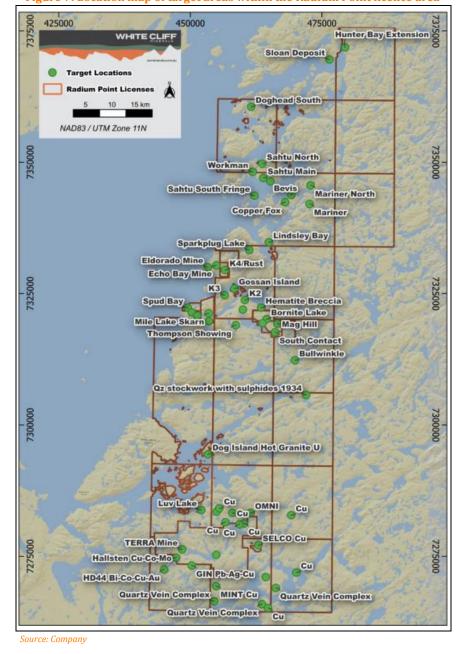


Figure 7: Location map of target areas within the Radium Point licence area

## **Australian Projects**

White Cliff also has a portfolio of four prospective exploration projects across Western Australia, Australia, focusing on various green metals, notably gold and copper. However, with the recent acquisition of highly prospective and advanced Canadian projects, the company's focus has shifted to advancing those projects. As such, White Cliff is now looking at various ways to rationalise its expenditure and/or divest and monetise its Australian assets.

White Cliff also holds a portfolio of four promising exploration projects throughout Western Australia, Australia, targeting various green metals with a particular emphasis on gold and copper. However, following the recent acquisition of the exceptionally prospective and advanced Canadian projects, the company has redirected its focus towards advancing those projects. Consequently, White Cliff is now exploring various strategies to streamline its expenses and potentially divest or monetise its Australian assets. Below is an overview of WCN's Australian projects.

WCN has a portfolio of four early-stage exploration projects in Western Australia, which it is currently exploring options to divest or monetize. This strategic move aims to sustain the company's concentration on its exceptionally promising and advanced Canadian exploration projects.



#### **Reedy South Gold Project**

Reedy South Gold Project covers 272km<sup>2</sup> of the highly prospective Cue goldfields, centred on the southern portion of the prolific Reedy Shear Zone within the Meekatharra-Wydgee greenstone belt. The Project comprises one granted mining lease covering the historic underground workings of Pegasus and King Cole, 5 granted exploration tenements, and a prospecting license. The Project is situated 40km north of Cue, via the Great Northern Highway and is 80km south of Meekatharra.

Reedy South sits within short proximity of the existing Triton/South Emu Mine, which is operated by Westgold Resources Limited (ASX: WGX) within the proven Goldfields region of Western Australia. Reedy South has an existing JORC-compliant mineral resource estimate sitting at 42,400 ounces of gold at 1.7g/t, the majority of which are in the Inferred category.

The Company is undertaking an RC drilling program at the Pegasus prospect within Reedy South, contracting Mt Magnet Drilling for the operation. White Cliff's planned campaign entails drilling 11 holes, covering up to 2,000 meters, with the objective of targeting both the strike and depth extensions of the known mineralisation. Additionally, the program will include infill drill holes aimed at upgrading the existing resource classification.

The style and controls of mineralisation within the Reedy South mining lease are akin to those observed at the Triton-South Emu goldmine situated immediately north of the project area (See Figure 8). White Cliff is optimistic about the potential for significant resource expansion at Reedy South through targeted drilling efforts aimed at both depth and along the strike.

Figure 8: The Reedy South Gold Project over simplified geology interpreted from airborne magnetics and mapping 625000m 635000mE 640000mE 620ooomE 630000mE Triton South Emu E20/972 King Cole M20/446 Cracker Jack P20/2289 8 Reedy Extended E20/938 6990oooml 6990ooomN McCaskill Hill E20/969 White Cliff Minerals Tene Targets Major Gold Mine/Deposit
 Occurrence (Non WCN) Prospects (WCN) Local Geology Felsic Volc Robin Well Bosalts Littramafics Granitoid A E20/974 Footti 5 Kilometres MGA Zone 50 (0 6350 620000mE 625ocomE

Source: Company

Reedy South Gold Project has a defined Mineral Resource Estimate of 42,400oz at 1.7g/t, where WCN is planning to expand by further drillings along the strike and depth of the known mineralisation.



#### **Lake Tay Gold and Lithium Project**

The Lake Tay Gold and Lithium Project consists of 13 exploration licenses totalling 1,990km² and is located on the south coast of Western Australia, between the towns of Lake King and Salmon Gums. The project is situated in the promising multi-metals Lake Johnson region of Western Australia, adjacent to the Lake Johnson Lithium Project operated by TG Metals (ASK: TG6) and the lithium exploration joint venture of Charger Metals (ASX: CHR) and Rio Tinto (ASX: RIO). Lake Tay has been historically explored for uranium, gold and REEs, where several drill holes reported shallow intersections of REE mineralisation with grades of above 1000ppm TREO. However, the project area remains largely unexplored.

Recent regional exploration has revealed the presence of pegmatites containing lithium mineralisation northwest of Lake Tay within the territory held by TG6 Metals Limited (ASX: TG6). This region, known as the highly promising Lake Johnston structural corridor, features prominently in White Cliff's land holdings and serves as the primary focus of the company's geochemical work programs.

Additionally, White Cliff has obtained high-resolution satellite imagery and spectral data, which will be integrated into the company's continuous assessment of exploration prospects to facilitate drill targeting at Lake Tay.

A recent soil sampling program carried out by White Cliff was completed in December 2023, with samples currently in the laboratory for assaying. Subject to favourable outcomes, the company intends to proceed with wide-spaced air core drill traverses along the numerous existing tracks as the subsequent phase of exploration efforts at Lake Tay.

#### **Diemals Multi-Metals Project**

The Diemals Gold, Copper, Lithium, and Nickel Project, spanning approximately 3,000km², is situated north of Meriden and east of Geraldton port in Western Australia. Positioned to the north and east of Nimy Resources Limited's (ASX: NIM) territory, the Diemals project area has seen minimal exploration activity. The western region of the Diemals tenement is believed to represent the northern extension of a greenstone belt that hosts copper and nickel deposits to the south. Sporadic exploration efforts for diamonds have been conducted in the eastern section of the Diemals project area. Geochemical sampling conducted by White Cliff indicates lithologies consistent with mafic and ultramafic compositions.

Next Steps at Diemals would involve acquiring high resolution magnetic and radiometric data and Surface sampling follow up work. As of now, the company has not disclosed its anticipated commencement date for any exploration activities at the project.

#### **Bentley Multi-Metals Project**

The Bentley Copper, Gold, Uranium, REE Project covers a large landholding in the West Musgraves region, situated approximately 45 kilometres north of Warburton and 550km east of Laverton. The project area has potential for IOCG-style mineralisation demonstrated through two drill holes completed previously by BHP as well as the gravity survey signatures of the area.

The Bentley project area is within vacant crown land, with heritage agreements to be negotiated. Consequently, White Cliff's next steps in the project would include completing the heritage agreement and then conducting ground gravity and geochemical soil programs to define drilling targets to be followed by rotary and diamond tail drill programs of the targets. As of now, the company has not disclosed its anticipated commencement date for any exploration activities at the project.



Copper demand is set to soar by EV and AI revolutions, green energy transition, and automation of manufacturing plants

Typical internal combustion engine cars use up to 23kg of copper but hybrid EVs use 40kg, plug-in hybrids use 60kg, EVs use 83kg and electric buses use 224-369kg of copper

### A huge copper deficit is looming

With its extensive usage across various industries, copper has become the third most utilised metal globally. The increasing demand for the base metal is expected to surge in the coming decade, driven by the accelerating trend of decarbonisation and the adoption of energy transition technologies. Renowned for its superior conductivity among non-precious metals, copper holds significant importance in energy production and is especially crucial for sustainable technologies like electric vehicles and solar photovoltaic (PV) surfaces. Moreover, copper stands out as a sustainable material, being fully recyclable without any loss of properties.

In addition to electric vehicles, renewable energy and power infrastructure, the uprising in Artificial Intelligence (AI) and automation sectors is also expected to add to the projected demand for copper cable used to conduct electricity.

While the majority of copper demand increase is expected to come from the EV sector and energy generation and transmission, new growth estimates in the data centres related to AI means more cooling systems will be manufactured which consume considerable amounts of copper. Along with the rise of AI, automation of manufacturing plants across various industries means more copper will be used to build robots and machines that will replace manual labour.

#### Copper demand to be propelled by the EV revolution

Electric vehicles (EVs) rely heavily on copper for their batteries, windings, and copper rotors in electric motors. A single car may contain up to six kilometres of copper wiring. Copper is also essential for busbars, which connect modules and cells in battery packs, as well as in charging infrastructure.

While traditional internal combustion engine cars typically require up to 23kg of copper, hybrid electric vehicles use 40kg, plug-in hybrid electric vehicles use 60kg, battery electric vehicles use 83kg, and hybrid electric buses use 89kg. A battery-powered electric bus can require between 224-369kg of copper, depending on the battery size.

The demand for EVs is expected to rise significantly in the next decade due to technological advancements, narrowing price gaps with petrol cars, and the deployment of more electric chargers. This surge in EV demand is projected to drive an increase in copper demand in the coming years. Additionally, each EV charger will contribute 0.7kg of copper use, with fast chargers potentially adding up to 8kg of copper use each.

#### Renewable energy goals to boost copper demand

During the recent COP28 climate change conference, held in December 2023 in Dubai, over 60 countries endorsed a proposal to triple global renewable energy capacity by 2030, a development that could significantly boost copper demand. According to Citibank, the higher renewable energy targets could lead to an additional 4.2 million tons of copper demand by 2030. (Figure 9) shows Critical mineral needs for clean energy technologies, demonstrating copper's widespread usage across various renewable energy technologies. It's worth noting that there's hardly any substitute for copper in the industries where it's predominantly employed because of its unique electrical characteristics.



Figure 9: Copper has a widespread usage in majority of renewable energy technologies

	Copper	Cobalt	Nickel	Lithium	REEs	Chromium	Zinc	PGMs	Aluminium
Soalr PV									
Wind									
Bioenergy									
Electricity networks									
Evs and battery storage									
Hydro									
CSP									
Nuclear									
Geothermal									
Hydrogen									
	Key								
		High	Moderate	Low					

 $Source:\ International\ Energy\ Agency,\ East\ Coast\ Research$ 

## Strong copper price outlook on the back of an expected long-term supply deficit

A long-term supply deficit projection supports the idea of increasing copper prices for the foreseeable future Copper prices in the Australian dollar made new record highs in April 2024 on the back of a weaker Australian dollar and increased demand for the metal driven by the renewable energy transition. Tight supplies of mined copper or concentrate, the feedstock for copper metal, due to disruptions such as the closure of First Quantum's Cobre mine in Panama last year have also helped fuel copper's upward price momentum this year. In late 2023, Panama announced the closure of the Cobre open-pit copper mine after the Supreme Court ruled that a 20-year concession granted to a Canadian firm to operate it was unconstitutional. Cobre Panamá copper mine is located in a biodiverse jungle area on Panama's Atlantic coast and its closure follows a series of mass protests by environmentalists, indigenous groups and labour activists. Before its closure last year the mine was responsible for about 1% of global copper supply.



Source. Trading Economic

Kitco suggests that the rise in copper prices is also a reflection of years of inadequate investment in the mining sector since the 2000s. This lack of investment has led to a dearth of new projects and a stagnant supply of the metal. Additionally, diminishing copper reserves and lower ore grades in





some of the world's major mines mean that any new deposit would merely be substituting existing output. Consequently, even with the launch of new projects, there might not be any significant increase in supply. CRU estimates that over 200 copper mines will exhaust their ore reserves before 2035, with insufficient new mines in development to fill the void.

With copper demand rapidly rising and supply growth lagging, our long-term outlook on copper prices remains bullish. This bodes well for White Cliff as both of the company's Canadian projects are highly prospective for significant copper discoveries.

# The strength in uranium prices is expected to persist in the foreseeable future

Uranium is a dense metal that is found in in various rocks, but the economically extractable deposits of it are not abundant. Uranium is primarily utilised as a fuel source in nuclear power plants. Commodity markets display cyclicality, characterised by significant price fluctuations due to rapid shifts in supply and demand dynamics. In the case of uranium, the metal saw a pattern of high prices in the late 1970s, followed by a prolonged period of depressed prices throughout the 1980s and 1990s, with spot prices falling below production costs for most mines. From 2003 to 2009, there was a recovery in spot prices, but they have remained weak since then. In 2000, utilities and producers constituted 95% of the spot market, a figure that decreased to two-thirds by 2005 and further down to one-third by 2011, maintaining a range of 30-40% since. The remaining portion involves participants from the financial sector, such as traders and financiers, who have entered the market, enhancing liquidity and efficiency.

Due to the cost dynamics inherent in nuclear power generation, characterised by high initial capital expenses and low ongoing fuel costs, the demand for uranium fuel exhibits a notably higher level of predictability compared to most other mineral commodities. Once nuclear reactors are constructed, maintaining their operation at high capacity is economically advantageous. Consequently, demand projections for uranium primarily hinge on the installed and operable capacity, irrespective of economic fluctuations. Each gigawatt of added new capacity typically necessitates approximately 150 metric tons of uranium per year of mine production, along with 300-450 metric tons for the initial fuel load.

According to the World Nuclear Association<sup>3</sup>, approximately 440 reactors with a combined capacity of around 390 gigawatts necessitate approximately 74,000 metric tons of uranium oxide concentrate, containing roughly 62,500 metric tons of uranium annually from mines, stockpiles, or secondary sources like ex-military weapons. The heightened demand resulting from increased capacity has been somewhat mitigated by the enhanced efficiency of nuclear power plants. Over the span of 20 years from 1970, there was a 25% reduction in uranium demand per kilowatt-hour output in Europe due to ongoing improvements, a trend that persists today. Consequently, uranium prices have remained relatively stagnant over the past three to four decades, except for a spike in 2007 caused by a major mine flooding, which led to a supply shock in the market. Consequently, for much of recent history, uranium prices have hovered below the production costs for many miners, making mining economically viable only for the most cost-efficient producers. However, the decarbonisation megatrend is changing the picutre for uranium prices.

The accelerating decarbonisation in the global economy is poised to drive up demand for uranium. While more developed economies are shifting towards renewable energy sources to reduce reliance on fossil fuels, emerging economies like China are ramping up their nuclear energy capacity to cut down on carbon emissions. In 2021, China unveiled plans to invest \$440 billion in constructing 150 new nuclear reactors over the next 15 years, surpassing the combined construction efforts of the rest of the world over the past 35 years. China estimates that its

Uranium prices are surging due to a rising demand stemming from the construction of more nuclear power plants to reduce carbon emissions, while the supply is limited due to years of underinvestment in uranium mine development owing to low uranium prices

<sup>&</sup>lt;sup>3</sup> https://www.world-nuclear.org/information-library/nuclear-fuel-cycle/uranium-resources/uranium-markets





initiatives could prevent approximately 1.5 billion tons of annual carbon emissions, exceeding the collective emissions of the U.K., Spain, France, and Germany.

Therefore, the combination of nations' concerns about energy security alongside their objectives to minimise carbon emissions reinforces the anticipation of robust uranium purchasing activity for the foreseeable future, in our assessment. Uranium prices have experienced a consistent ascent since the beginning of 2023, climbing from under \$50 to current levels well above \$90.

Europe's nuclear power plants faced turmoil amid Russia's invasion of Ukraine. Ukraine, housing 15 reactors reliant on Russian uranium, swiftly arranged an unusually lengthy 12-year deal with Canada. Concurrently, European utilities, also dependent on Russian supplies, maximised their allocations from alternative contracts.

The tight supply and increasing demand dynamics have driven uranium prices on an upward trajectory since 2020 (see Figure 12). This upward momentum intensified with sanctions on Russian uranium following its invasion of Ukraine in February 2022. Eventually, uranium prices surged above US\$100/lb in January 2024, exacerbated by Kazakhstan, the world's largest uranium producer, as its major producer, Kazatomprom, downgraded its 2024 production guidance due to sulfuric acid availability challenges.

Kazakhstan, responsible for approximately 44% of the global uranium supply, holds significant sway over uranium prices through changes in its production capacity. While the sulfuric acid issue appears short-term, analysts anticipate it will take years for the country to enhance its sulfuric acid production capacity until planned domestic plants come online. Consequently, analysts do not foresee a significant increase in Kazakh uranium production over the next three to four years.

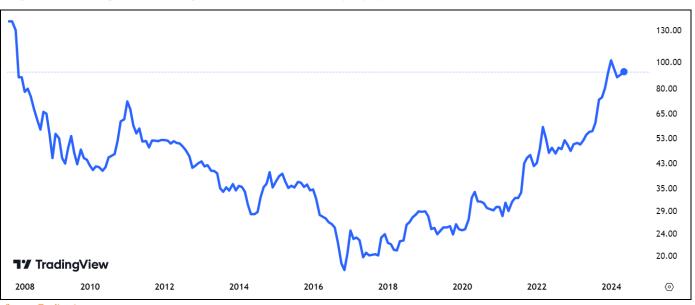


Figure 12: Uranium prices are trading at levels not seen since 2008 (US\$/lb)

Source: Tradingview

Canada, where White Cliff's highly prospective Radium Point Uranium Project is located, has a very established uranium mining industry. Ranking second only to Kazakhstan in uranium production, the country's uranium mining industry stands to reap substantial benefits from the projected strength in uranium prices. This outlook is particularly favorable for WCN from an investment standpoint, in our view.



# White Cliff's appeal is enhanced by its involvement in gold exploration

Following years of lagging behind various other metals, gold prices reached unprecedented levels by breaking through the US\$2,000 threshold in early 2024. The latest surge in gold prices commenced in late 2023, propelled by central bank acquisitions of the precious metal and robust retail demand in emerging markets, which bolstered prices. We believe the upturn in gold prices was long overdue, considering years of elevated inflation and rising gold mining costs, factors that were not adequately reflected in prices below the US\$2,000 mark.

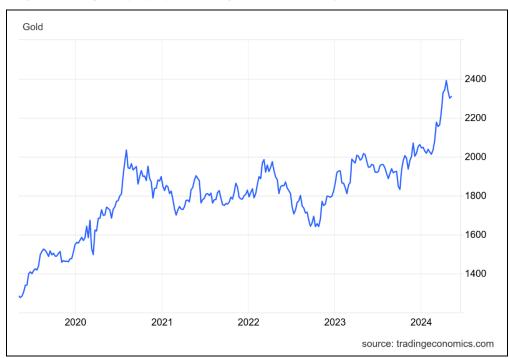


Figure 13: Gold prices (US\$/oz) had a strong breakout in February 2024

Source: Trading Economics

Ongoing heightened global geopolitical tensions grants sustained central bank gold buying and investment in gold as a safe haven, which is countered by persistently high interest rates, leading to our projected gold price range of US\$2,300-2,500 until end-2024, with potential for upside as interest rates are expected to decline

The following key factors are considered to be the main push factors behind the latest bull run in gold prices:

Robust central bank purchases: The acquisition of gold by central banks, notably from China, Turkey, Poland, and India, has seen a significant uptick since the escalation of geopolitical risks following Russia's invasion of Ukraine in February 2022. Between 2022 and 2023, central banks bought an average of 1,060 tonnes, a stark increase from the 509 tonnes procured between 2016 and 2019. This surge coincides with China's diversification of reserves away from US dollars, alongside efforts by countries like Poland, Turkey, and India to bolster their gold reserves. Given the persistent global geopolitical tensions, central banks' gold acquisition endeavours are anticipated to persist in the foreseeable future.

**Investment demand for gold:** Gold investment, particularly among retail investors, primarily occurs through gold ETFs (Exchange Traded Funds). Typically, ETF holdings fluctuate in response to changing geopolitical tensions and shifts in interest rates. One of the primary drivers behind the recent surge in gold prices has been the anticipation of interest rate cuts in the first few months of 2024. However, the expectation for interest rate cuts has been postponed to later in the year or



possibly even into 2025, as persistently high inflation rates have proven more enduring than previously forecasted. This adjustment has led to a correction in gold prices from their peak of US\$2,419 in April 2024 to current levels of around US\$2,320. We believe this could be a factor inhibiting further advances in gold prices in the medium term as the market awaits greater clarity on future interest rate movements.

We anticipate that global geopolitical tensions will remain heightened in the short to medium term, with ongoing conflicts in Eastern Europe and the Middle East showing no signs of abating. Consequently, central banks' gold buying activity and investments in gold as a safe haven are expected to remain elevated. However, the attractiveness of gold as an investment is likely to be tempered by persistently high interest rates. Given the conflicting signals from these factors influencing gold prices, we project gold prices to fluctuate within a range of US\$2,300-2,500 until the conclusion of 2024. Subsequently, we anticipate further potential upside in gold prices in alignment with expectations of declining interest rates commencing in 2025. It's important to also keep an eye on the progression of geopolitical tensions during this period.

# Valuation: A Sum of the Parts approach indicates significant upside potential

The acquisition of the prospective Canadian projects have been transformational for WCN. The company now boasts two highly prospective exploration projects in Canada targetting a range of highly sought after metals in addition to its Australian assets, including a 40,000oz defined gold resource in Western Australia. As such, we have used a Sum Of The Parts (SOTP) valuation methodology to determine the current fair value of WCN.

Presently, the company does not generate free cash flows and has not completed any feasibility studies for its projects. Hence, we have used a resource-based valuation approach (based on peer multiples) for the company's defined gold resources in WA. We have valued the Coppermine and Radium point projects in Canada using comparable peers' current market valuations separately. Ultimately, we aggregated the valuations of all three projects to ascertain the current fair value of WCN.

In order to value White Cliff's Defined gold resources at its Reedy South Gold Project in Western Australia, we have utilised a resource-based valuation methodology based on comparable peers' valuations. There are a large number of gold explorers on the ASX with defined gold resources based in Australia. As Reedy South has only defined a small gold resource of 42,400 ounces, we've opted to select some of its peers with relatively small defined deposits to make comparison more sensible. (Figure 14) shows Reedy South's peer list with their total defined resources, grades and their current EV/Resources that the market has assigned to them.

To take into account the confidence level of the companies' defined resources, we have assigned a weight of 1 to their Measured and Indicated resources and 0.5 to the Inferred resources in our calculations of total resources.

Figure 14: Peer Australian gold explorers list

Company Name	Ticker Code	Market Cap^ (A\$m)	EV^ (A\$m)	Total Resources* (Moz)	Grade (g/t)	EV/ Resource (A\$/oz)
Great Boulder Resources Limited	ASX:GBR	37.83	37.89	0.50	2.80	75.25
Yandal Resources Limited	ASX:YRL	30.80	25.07	0.28	1.40	89.34
Emmerson Resources Limited	ASX:ERM	31.04	27.23	0.28	5.20	96.70
Average		48.79	43.26	0.80		79.79

Notes: ^As of 20 May 2024, Source: Finbox and East Coast Research

st Total Mineral resources include 100% of Measured & indicated resources and 50% of inferred resources





We have used a resource-based valuation methodology based on peers' multiples to calculate the current fair value of WCN's Reedy South Gold Project in Western Australia

As you can see in (Figure 14), the EV/Resources multiple the market has assigned to the companies in our peer list varies considerably. Several factors influence the prospects for the eventual economic extraction of different defined resources. Grades and the mining method required to extract the ores are two of the most important factors affecting the economic viability of mining operations.

In our peer list, Emmerson Resources (ASX: ERM) is trading at a premium to the other two, and this is due to the very high-grade nature of its resources. However, based on our understanding, the defined deposit is very deep, which necessitates costly underground mining operations for the future extraction of the defined ore body. This is the reason why ERM's gold asset, despite its very high grade, has not been valued too much higher than that of Yandal Resources, with a much lower grade of 1.4g/t. This is because Yandal's resources are near the surface and are potentially amenable to simple open-cut mining methods.

Finally, we have Great Boulder Resources (ASX: GBR), which has the lowest valuation multiple. This is likely because its defined ore body is narrow and steeply plunges downward, potentially requiring underground mining operations to extract the mineralised zones, in our opinion.

Defined gold mineralisation at White Cliff's Reedy South Gold Project starts from the surface and plunges downward. Based on our understanding, most of the defined ore body is potentially amenable to low-cost and simple open-pit mining. And with a grade of 1.7g/t, it stands above that of Yandal with 1.4g/t gold. As such, we think the average EV/Resources multiple of A\$79.79/oz can be safely used to assert the fair value of WCN's Reedy South Gold Project. With a weighted average total resources of 24,500oz, this equates to a valuation of A\$1.95m for Reedy South.

To value WCN's Coppermine Project, we have looked at some similarly early stage copper explorers listed on the TSX (Toronto Stock Exchange) with their projects located in Canada. (Figure 15) shows the list of these companies with their current Enterprise Values (EVs). As you can see the market value of these companies vary significantly to one another. This is explainable by the meaningful differences in the prospectiveness of the companies' assets. For example, Libero Copper & Gold Corporation (TSX: LBC.V, EV of C\$19.65m) explores copper in Canada's West Coast, home to the renowned Golden Triangle of British Columbia, which hosts significant deposits of gold and copper. Amarc Resources Ltd (TSX: AHR.V, EV of C\$30.92m) also explores copper at three projects in British Colombia, Canada.

On the other hand, we have the Canadian copper explorers, Prospector Metals Corporation (TSX: PPP.V) and Gladiator Metals (TSX: GLAD.V), trading at significantly lower EVs of C\$7.35m and C\$10.39m, respectively. This is largely explainable by the fact that these companies' projects are located in the Yukon region of Canada, while LBC and AHR exploration projects are located in British Colombia, Canada, with proximity to significant copper discoveries.

Figure 15: Peer Canadian copper explorers list

Company Name	Ticker Code	Market Cap* (m)	EV* (m)
Libero Copper & Gold Corporation	TSX: LBC.V	C\$19.63	C\$19.65
Prospector Metals Corporation	TSX: PPP.V	C\$7.78	C\$7.35
Amarc Resources Ltd.	TSX: AHR.V	C\$33.87	C\$30.92
Gladiator Metals	TSX: GLAD.V	C\$17.56	C\$10.39
Median		C\$18.60	C\$15.02
Average		C\$19.71	C\$17.08

Note: \*As of 14 May 2024, Source: Yahoo Finance and East Coast Research





A look into
Canadian copper
explorers with
projects in Canada
suggest White
Cliff's Coppermine
project in Canada
alone demands a
relative valuation of
~A\$19m

In comparison, White Cliff's Coppermine project area encompasses multiple historic high-grade copper mining sites with identified high-grade copper lodes. This indicates significant potential for economically viable copper discoveries. The previously mined high-grade copper lodes extend throughout the project area, offering substantial exploration opportunities for exceptional copper discoveries. Numerous high-grade mineralised occurrences have been identified using high-resolution magnetics, extensive rock chip sampling, trenching, and drilling results. In several instances, the strike of outcropping high-grade mineralised material can be traced at the surface over long distances. The company has reported numerous rock chip samples indicating copper grades exceeding 30% and silver grades over 40g/t. This means the Coppermine project is prospective for silver discoveries as well. As such, we think WCN's Coppermine project on its own demands a premium to its peers' average in our list. Using an AUD/CAD exchange rate of 1.10 and assuming a premium of 25%, this equates to a valuation of A\$23.48m for the Coppermine project alone.

We have applied a similar methodology to value WCN's Radium Point Uranium Project by examining several Canadian uranium explorers with projects in Canada. While there are many Canadian companies listed on the TSX engaged in uranium exploration, only a few are at a comparable exploration stage to WCN's Radium Point Project. Most of these companies have already identified uranium deposits in some of their projects and are either developing or producing them. Some of these companies also have significant other assets in their portfolio besides their uranium exploration assets, which makes them of little use for our valuation of WCN's Radium Point Uranium Project. (Figure 16) shows our final uranium peer list.

Figure 16: Peer Canadian uranium explorers list

Company Name	Ticker Code	Market Cap* (m)	EV* (m)
Purepoint Uranium Group Inc	TSX: PTU.V	C\$17.53	C\$15.53
Standard Uranium Ltd.	TSX: STND.V	C\$8.30	C\$7.80
Baselode Energy Corp.	TSX: FIND.V	C\$40.76	C\$29.26
Trench Metals Corp.	TSX: TMC.V	C\$6.01	C\$5.76
Median		C\$12.92	C\$11.67
Average		C\$18.15	C\$14.59

Note: \*As of 14 May 2024, Source: Yahoo Finance and East Coast Research

Uranium production and exploration in Canada are predominantly focused in the Athabasca Basin, known for its substantial uranium deposits, contributing to 20% of the world's uranium production. Consequently, all four of our uranium peers are actively exploring in this region. Despite this common focus, their market valuations vary significantly. This disparity is primarily due to the size of their landholdings, the potential for new discoveries indicated by historical exploration data, and their proximity to major discoveries in the area.

For example, Baselode Energy (TSX: FIND.V), which has the highest market capitalisation among our peers, has completed numerous diamond drill holes across its projects, many of which have intersected high-grade uranium mineralisation. Similarly, Purepoint Uranium's (TSX: PTU.V) projects are located near historical mines, enhancing the likelihood of significant uranium discoveries within its projects.

On the other hand, Standard Uranium (TSX: STND.V) and Trench Metals (TSX: TMC.V) have relatively smaller landholdings with limited historical exploration data, leading to significant market valuations for these two companies.

Compared to our listed peers, WCN's Radium Point Uranium Project encompasses three major historical production centres that have collectively produced millions of pounds of uranium oxide

We value the Radium Point Uranium Project at ~A\$16m based on comparable peers' current market valuations





and silver, as well as significant quantities of gold and copper. This indicates a strong potential for economically viable uranium and other metal mineralisation. Additionally, the Radium Point project area spans over 3,300 km², which is larger than the combined landholdings of the companies in our peers list. The project also benefits from extensive historical exploration data, including multiple highly anomalous rock chip assays throughout the area and near historical mines. These strategic advantages suggest that the Radium Point Uranium Project alone should be valued at a premium above the peers' average of C\$14.59 million. Applying an AUD/CAD exchange rate of 1.10 and assuming a 25% premium, this translates to a valuation of A\$20.06 million for the Radium Point project alone.

To arrive at our base case valuation for WCN, we have summed our valuations of Reedy South, Coppermine and Radium Point projects. Our Sum of the Parts (SOTP) valuation methodology results in a valuation of A\$0.031 per share in the base-case scenario. Our bull case scenario is based on some recovery in explorers' valuations. We believe the general valuation for commodity stocks will improve in the next 12-18 months as interest rates are expected to have peaked and are likely to decline in the medium to long term, therefore improving the general sentiment towards prerevenue companies. As such, our bull case scenario has an 18% higher valuation of A\$0.036 per share. It is important to note that we have not included any value from the company's other assets in either scenario, including the Lake Tay Gold and Lithium Project, the Diemals Multi-Metals Project, and the Bentley Multi-Metals Project in Western Australia, which leaves a further upside potential to our current fair valuation of WCN.

The mid-point target price of A\$0.034 represents a Price/NAV of 0.57x, indicating a significant valuation headroom of more than 75% to the current share price of A\$0.019.

Figure 17: Sum of the Parts (SOTP) valuation for White Cliff Minerals

White Cliff Valuation (A\$m)	Base Case	Bull Case	
Coppermine River Project Value	23.48	28.18	
Radium Point Uranium Project Value	20.06	24.07	
Reedy South Gold Project Value	1.95	2.35	
White Cliff's Implied EV	45.49	54.59	
Cash & cash equivalent^	4.48	4.48	
Provisions and Liabilities	-	-	
Minority Interest	-	-	
Total value	49.97	59.07	
Number of shares on issue (m)*	1,624.4	1,624.4	
Implied price (A\$)	0.031	0.036	
Current price (A\$)	0.019	0.019	
Upside (%)	61.9%	91.4%	
Mid-point Target Price (A\$)	0.034		
Price / NAV (X)	0.57x		

Note: ^ As of 31 March 2024

\*Does not include 695m of listed options and 25m of unlisted options and 137m of performance rights Source: Company and East Coast Research

We think the discount to WCN's current market valuation compared to our fair valuation can be partially explained by the fact that WCN has recently made the transformational acquisition of its highly prospective Canadian asset, which the market may not yet fully recognise. Additionally, WCN's primary assets are now located in Canada but the company is not listed on the Canadian stock exchanges, further contributing to its undervaluation relative to its Canadian peers.



We believe WCN is targeting the right commodities at the right time. The company is primarily targetting copper, uranium and gold across its exploration projects in tier 1 mining jurisdictions of Canada and Australia. As you can see in (Figure 18), all three of these commodities have had their prices rising due to the macroeconomic trends and their supply-demand imbalances, providing support for WCN's share price. With the electrification megatrend supporting copper prices, the decarbonisation megatrend supporting uranium prices, and the declining real interest rates supporting gold prices, we are bullish on the future prices of these three commodities in the long-term, enhancing the appeal of WCN exploration assets.

Figure 18: WCN's share price is being supported by the strength in uranium, copper, and gold prices

Source: Indexmundi, Tradingview and East Coast Research

#### **Re-rating of WCN**

WCN is currently trading below our current fair valuation range. Meeting the following milestones can enable a re-rating of the stock, thereby narrowing the gap between the stock's price and our valuation range.

- Announcements of successful exploration results at the company's Canadian projects.
  The company aims to commence field activities at the Coppermine and Radium Point projects
  in Q2 2024 to define targets for drilling programs potentially in Q3 and Q4 2024. Given the
  strong early indications of economically viable copper, uranium, gold and silver
  mineralisation across these projects, we are optimistic about the future outcome of further
  exploration activities at WCN's Canadian projects.
- Announcements of successful exploration results at the company's Australian projects. At Reedy South, WCN is undertaking a drilling program entailing 11 holes for up to 2,000m with an objective of expanding the currently defined gold resource estimate at the project. At the Lake Tay Project, the company is awaiting the lab assay results for the recently completed soil sampling to later proceed with wide-spaced air core drill traverses to test the area's prospects for lithium and REE mineralisation. All these provide a busy news pipeline for WCN in the next several months, which can potentially provide catalysts for a rerating in the stock price. The company had around A\$4.5m in cash as of the end of March 2024, which means it's funded for its next phase of exploration programs.
- A continued strength in uranium, copper and gold prices will enhance the economics of WCN's exploration projects and will have a direct impact on the company's valuation.
- An improvement in the macroeconomic outlook and the subsequent easing of financial
  markets will positively impact the company's ability to raise funds at more favourable prices,
  enabling it to continue its value-accretive operations and thereby increase the company's
  valuation.



The key risks to our

investment thesis

execution risk and

commodity price

risk.

are funding risk, geological risk,

#### **Risks**

Although we believe that White Cliff makes up an attractive speculative opportunity, we foresee the following key risks to our investment thesis:

- **Underlying commodity price risk**: White Cliff's investment attractiveness is very sensitive to copper, uranium and gold price fluctuations, which depend on macroeconomic factors and global demand and supply dynamics of the underlying commodities. Any prolonged drop in copper, uranium or gold prices will be detrimental to our investment thesis.
- **Funding risk**: White Cliff presently does not generate cash flows and is reliant on capital raisings to fund its operations. Timely raising of funds on favourable terms will likely be a challenge for the company's management, given the currently tight financial markets.
- **Execution risk**: The majority of future growth for White Cliff is expected to come from potential copper and uranium resource discoveries at its Canadian projects. Any prolonged period until the company's drilling result announcements, as well as possible dismal drilling results, are likely to jeopardise investor sentiment.
- **Geological risk**: For an early-stage exploration company like White Cliff, there's a risk that the company never discover economically viable resources.

## **Appendix I: WCN SWOT Analysis**

Figure 19: SWOT analysis

Strengths	Weakness
(1) Historical exploration results at the Canadian projects, including the surface sampling results, are very promising.	(1) Most projects do not have any defined resource estimates as of now, making investment in WCN highly speculative in nature.
(2) Large amounts of copper, uranium, gold and silver have been mined from the Canadian projects' areas, providing further evidence of their potential for economical grade multi-metal potential	(2) White Cliff does not generate cash and is reliant on capital raisings to continue its operations.
(3) The Reedy South Gold Project in WA has a defined gold resource estimate with proven potential for expansion through further drilling.	
(4) Running multiple exploration projects with high prospects in tier 1 mining jurisdictions targeting a range of commodities with soaring demand by the ongoing decarbonisation megatrend.	
Opportunities	Threats
(1) Potential for rapidly converting blue-sky mineral resource estimates at the Coppermine project to JORC-compliant estimates with low costs.	(1) Global recession leading to high volatility in commodity prices, impacting the economics of White Cliff's various projects.
(2) Diversification across multiple projects targeting a range of commodities allow the company to quickly respond to changes in metals prices and outlook.	(2) Inflationary pressures increasing the cost of operations.
(3) A large body of historical exploration data across the Canadian projects provides the company in rapidly defining drilling targets and advancing potential resource estimates.	(3) Tight credit markets due to the currently high economic uncertainty levels make raising capital at favourable terms challenging for WCN to continue its exploration activities.

Source: East Coast Research



## **Appendix II: Management Team**

White Cliff benefits from a seasoned leadership team possessing extensive experience spanning the resources sector, encompassing exploration, mining, finance, and corporate and business development.

Figure 20: White Cliff's key management and board members

 Name and Designation	Profile
Mr. Roderick McIllree  • Executive Chairman	<ul> <li>Rod, an Australian Geologist, holds significant experience in overseeing large-scale projects in frigid environments.</li> <li>Presently located in London, he has spent nearly two decades working within the Arctic circle.</li> <li>Rod is skilled in M&amp;A, global logistics, and fundraising for small-cap enterprises.</li> <li>Rod spearheads White Cliff's expansion into a new phase of growth.</li> <li>With an extensive network spanning international borders, Rod is an integral member of the executive management team.</li> </ul>
Mr. Eric Sondergaard  • Executive Director	<ul> <li>Eric holds registration as a Professional Geoscientist.</li> <li>He completed his education at the University of Calgary in Canada.</li> <li>With more than two decades of operational experience in the mining sector, Eric has developed expertise in frontier exploration and project management.</li> </ul>
Mr. Troy Whittaker  • Managing Director	<ul> <li>Troy boasts more than two decades of executive experience.</li> <li>He specialises in assessing, developing, and managing multi-billion-dollar projects on a global scale, with a focus on diverse commodities, particularly iron ore.</li> <li>He has held high-ranking roles at leading global mining firms like Fortescue Metals Group Ltd and Anglo American UK.</li> </ul>
Mr. Dan Smith     Non-Executive     Director	<ul> <li>Mr. Smith holds a Bachelor of Arts degree and is a member of the Australian Institute of Company Directors and is a fellow of the Governance Institute of Australia.</li> <li>As a director at Minerva Corporate, a boutique advisory firm, Dan leverages over 12 years of experience in primary and secondary capital markets.</li> <li>He has advised and participated in various IPOs, RTOs, and capital raisings on exchanges like the ASX, NSX, and AIM.</li> <li>Mr. Smith holds non-executive director roles for a number of listed resources companies.</li> </ul>







Mr. Nicholas Ong

Company Secretary

- Mr Ong holds a Bachelor of Commerce and a MBA and is a member of the Governance Institute of Australia.
- Nickolas has 14 years of experience in IPO, listing rules compliance, and corporate governance and has cultivated a broad client network in the Asia-Pacific region.
- Nickolas is proficient in various aspects of mining operations including project finance, contract negotiations, and financial management. He Provides corporate and transactional advisory services through Minerva Corporate Pty Ltd.
- Nickolas is also the Non-executive chairman of Vonex Limited and Black Star Petroleum.

Source: Company

### **Appendix III: Analyst's Qualifications**

Behzad Golmohammadi, the lead analyst on this report, is an equity research analyst at Shares in Value (East Coast Research).

- Behzad has a bachelor's degree in Engineering (Industrial) and a master's degree in Applied Finance (Investing) from Sydney Business School, where he was the top performer in his cohort. He has also passed the first two levels of the CFA Program.
- Behzad has several years of experience working as an Equity Research Analyst and Technical Analyst in Australia and
  overseas and has a broad knowledge of ASX-listed companies. Combining his technical background in engineering with his
  financial analysis skills has allowed him to establish himself as a resources analyst, also capable of analysing companies in
  a variety of other industries.



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