

# QUARTERLY ACTIVITIES REPORT

- Grant applications lodged with two US Government agencies (Defense and Energy) with strong support from state politicians, agencies and potential industry partners
- Exceptional metallurgical testwork results to feed into McDermitt PFS, with value enhancement opportunities identified
- Board and management enhanced with the commencement of Ian Rodger as CEO and Wayne Zekulich as Non-Executive Chair

## US LITHIUM

### McDermitt Lithium Project (Jindalee 100%)

In February 2023, Jindalee Lithium Limited (**Jindalee** or the **Company**) announced an updated Mineral Resource Estimate (**MRE**) at Jindalee's 100% owned McDermitt Lithium Project (USA) (Figure 1)<sup>1</sup>.

The 2023 MRE for McDermitt contains a combined Indicated and Inferred Mineral Resource Inventory of 3.0 Billion tonnes at 1,340 ppm lithium (Li) for a total of 21.5 Million tonnes lithium carbonate equivalent (**LCE**) at 1,000 ppm cut-off grade. At 21.5 Mt LCE, McDermitt is the largest lithium deposit in the United States (US) by contained lithium in Mineral Resource, and a globally significant resource (Table 1), with the deposit remaining open to the west and south (Figure 1).

Cut-off Grade (ppm Li)	Indicated Resource			Inferred Resource			Indicated and Inferred Resource		
	Tonnage (Mt)	Li Grade (ppm)	LCE (Mt)	Tonnage (Mt)	Li Grade (ppm)	LCE (Mt)	Tonnage (Mt)	Li Grade (ppm)	LCE (Mt)
<b>1,000</b>	1,470	1,420	11.1	1,540	1,270	10.4	3,000	1340	21.5

Table 1 – Summary of 2023 McDermitt MRE<sup>1</sup> at the reporting cut-off of 1,000 ppm. Note: totals may vary due to rounding.

### Exploration Target

On 21 November 2023 Jindalee announced an independently estimated Exploration Target Range (**ETR**) at McDermitt of **300 – 700 Million tonnes at 1,100 – 1,400 ppm Li** (at 1,000ppm Li cut-off) (Table 2, Figure 1)<sup>2</sup>.

The Exploration Target surrounds and abuts the 2023 MRE and is extrapolated from 62 holes drilled at McDermitt from 2018 to 2022. Material for the MRE extends to a maximum distance of 1,200m from the nearest hole, with the ETR extending to a maximum of 1,500m from the nearest hole (Figure 1).

### Cautionary Statement

*The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource for all target areas reported. It is uncertain if further exploration will result in the estimation of a Mineral Resource.*



Cut-off Grade (ppm Li)	Lower Limit (Mt)	Upper Limit (Mt)	Grade Range (ppm Li)	Mid-point Contained LCE (Mt)
1,000	300	700	1100 - 1400	3.3

Table 2 – Summary of Exploration Target Range at cut-off of 1,000ppm. LCE calculated using the midpoint of the range.

Furthermore, sampling of weathered sediments exposed in drainages west and south of the Mineral Resource and Exploration Target areas returned strongly anomalous lithium values, indicating excellent potential to locate additional lithium mineralisation in these areas over and above the Exploration Target (Figure 1).

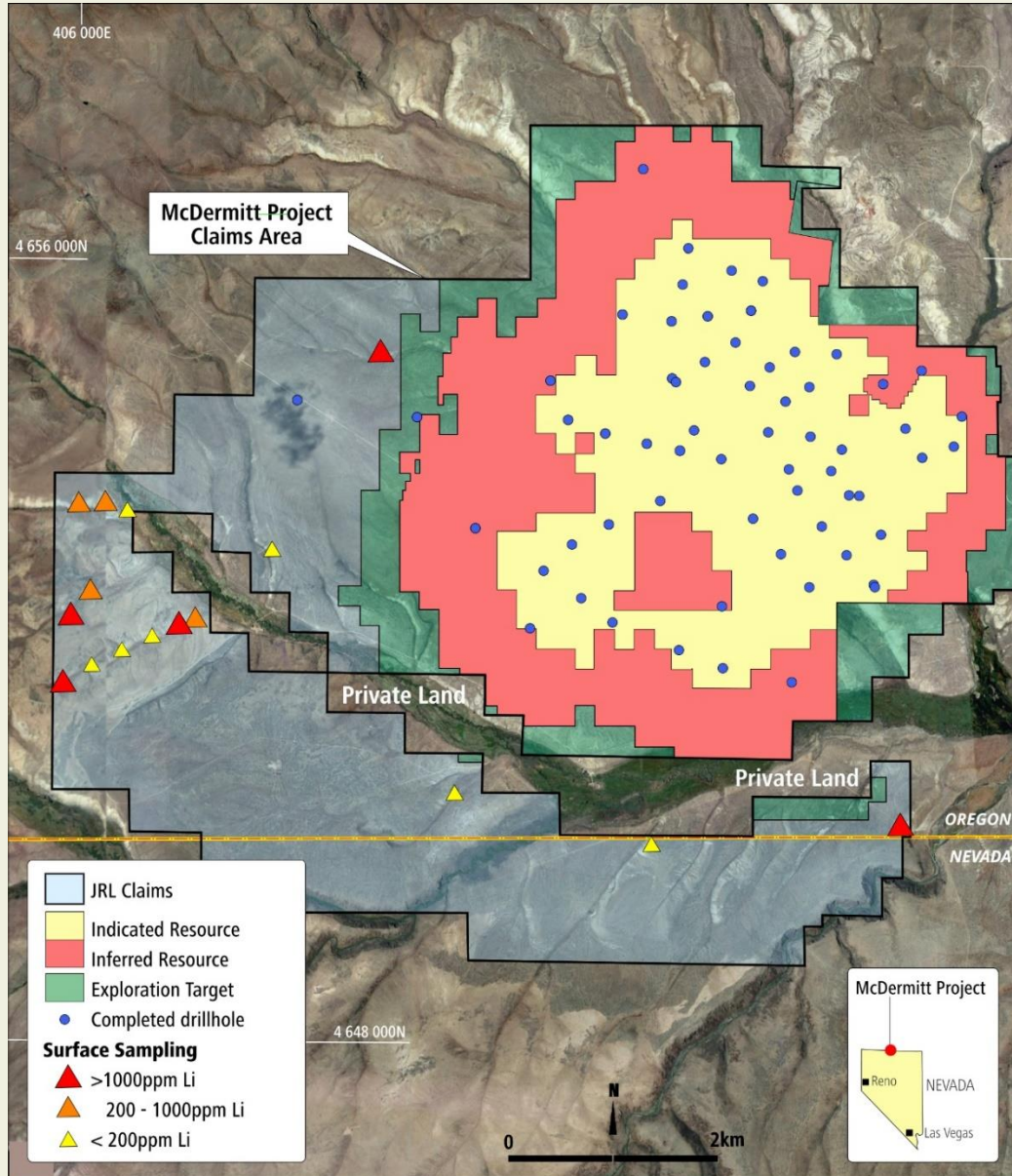


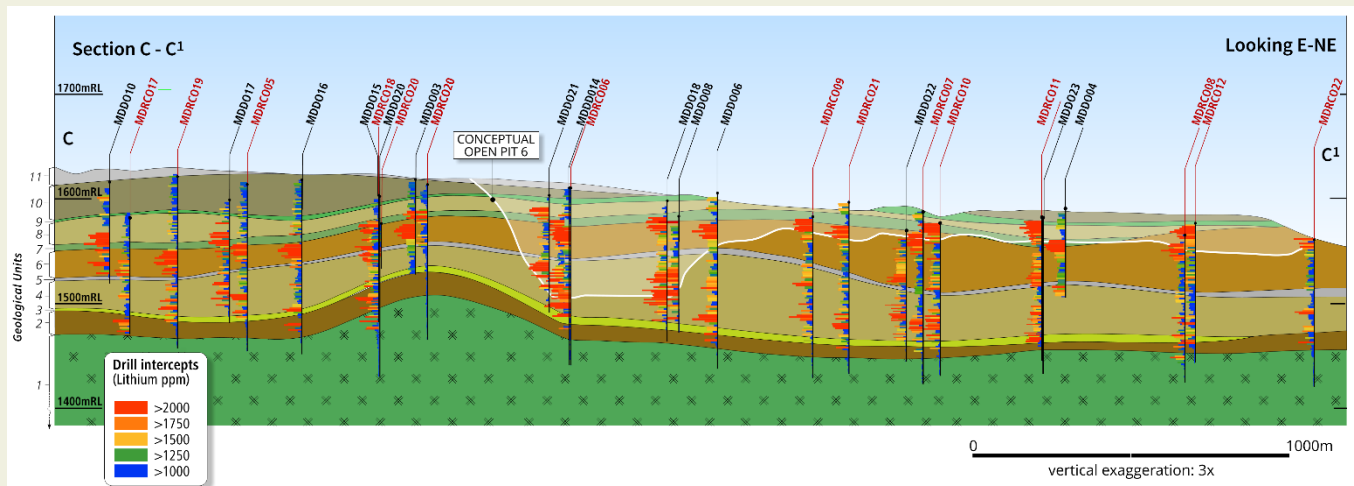
Figure 1 – Plan view of the McDermitt Lithium Project with 2023 Mineral Resource<sup>1</sup> (at 1523mRL), completed drilling, Exploration Target<sup>2</sup> and Surface Sampling locations outside the Mineral Resource and Exploration Target areas.

## Metallurgical Testwork

In March 2023 Jindalee announced that global engineering, procurement, construction and maintenance (EPCM) company Fluor Corporation (Fluor) had reviewed metallurgical testwork undertaken at McDermitt and had determined that acid leaching with ore beneficiation (to upgrade the leach head grade) delivered the lowest operating costs and best financial outcome among the alternatives considered<sup>3</sup>.

Fluor also noted that the very large Mineral Resource at McDermitt (21.5 Mt LCE, Table 1)<sup>1</sup> allows flexibility in development, providing the opportunity to optimise mining and ore feed grade early in the mine life and recommended that a comprehensive metallurgical testwork program be undertaken to provide information upon which the preferred flowsheet for the processing of McDermitt ore could be defined.

In June 2023 leading mine engineering group Cube Consulting generated conceptual pit shells using the McDermitt MRE geological model to assist with selection of samples for the metallurgical testwork program, which is being managed by Fluor. Samples from Units 4, 6, 8 and 10 (units recognised by Jindalee geologists as carrying elevated lithium values) within the Indicated portion of Pit Shell 6 (nominal 43 years) (Figure 2) were selected and approximately 700 kg of drill core was despatched to consultant metallurgists Hazen for testing.



**Figure 2 – Schematic Section C-C' with completed drilling, simplified geology and conceptual Pit Shell 6 (nominal 43 years).**  
(Note: lateral projection onto section plane and 3x vertical exaggeration may cause distortion)

In October 2023, Jindalee announced initial head assay results had been received for Units 4, 6, 8 and 10<sup>4</sup>. These samples averaged 0.179% Li (1,790 ppm), 34% higher than the average grade of the current McDermitt Indicated and Inferred resource grade of 0.134% Li (1,340 ppm)<sup>1</sup>, suggesting excellent potential to selectively mine and process units of higher-grade ore early in the mine life, with positive implications for Project economics.

In mid-November 2023 the Company announced excellent results from beneficiation of the individual unit samples via attrition scrubbing<sup>5</sup>. The calculated recovery for a composite sample (representing a nominal life-of-mine average feed) recovered 92.0% of the lithium to leach feed and rejected 25.3% of the mass at a cut size of 250 microns (Table 3). The average grade to leach was 2,107 ppm Li, 18% higher than the average head grade of the metallurgical samples (1,790 ppm Li)<sup>4</sup> and 57% higher than the average Mineral Resource grade (1,340 ppm Li; refer Table 1).

Cut Size (µm)	Pit Shell	Li Recovery	Mass Rejection	Li to Leach
250	6	92.0%	25.3%	2,107 ppm

**Table 3 – Summary of Lithium Recoveries via Attrition Scrubbing at 250 micron cut size (Pit Shell 6).**

On 18 January 2024<sup>6</sup>, initial acid leaching results from the metallurgical testwork were announced, demonstrating exceptional lithium extraction rates. The tests were performed on two leach feeds: one with a 250 micron (µm) beneficiation cut size that underwent leaching without additional grinding (250 µm leach feed), and another that was further ground to achieve 100% passing at 75 µm (75 µm leach feed). Using 500 kg of acid per tonne of leach feed, both feeds demonstrated very high lithium extraction rates. Furthermore, the 250 µm leach feed, when treated with a higher strength acid (850 kg/t), achieved extremely high extraction rates exceeding 98% (Table 4). The leach testwork extended for up to four hours with most of the Li extraction occurring in the first hour.

Unit	Cut Size (µm)	Leach Feed (100% passing µm)	Li Extraction (500 kg/t)	Li Extraction (850 kg/t)
4	250	250	96.8%	98.7%
		75	99.1%	N/A
6		250	91.9%	99.1%
		75	92.1%	N/A
8		250	91.5%	99.0%
		75	90.7%	N/A
10		250	89.2%	100.0%
		75	88.0%	N/A
Composite		250	92.9%*	N/A
		75	94.0%	N/A

**Table 4 – Maximum Lithium Extraction at variable feed sizes and acid strengths - Units 4, 6, 8 and 10 (\* calculated)**

The calculated Li extraction for a composite sample using 250 µm leach feed was 92.9% which compares favourably with the extraction rate (94.0%) achieved through testwork from the finer (75 µm) leach feed (Table 4) using 500 kg/t acid. Leaching of a bulk composite has commenced to provide lithium in solution for downstream testwork. This test work encompasses a number of purification steps with a target to produce battery grade Lithium Carbonate in the third quarter of 2024.

### Pre-Feasibility Study (PFS)

The McDermit PFS commenced in June 2023 with Fluor appointed as lead engineer and Michael Elias engaged as the Company’s Study Manager. Fluor has extensive experience with sediment hosted lithium deposits in the US and has assembled a team of highly credentialled metallurgists and engineers to work on the study.

In December 2023 Jindalee reported that additional study work was underway with US West Coast based engineering firms for supporting works including pit geotechnical, mine waste and tailings storage management, hydrology and water supply and grid power supply. Draft reports have now been received from these consultants and are under review.

A mine planning consultancy was awarded in mid-January 2024 to Cube Consulting. During the quarter, updated pit shells were developed and a preliminary mine schedule run. The PFS will also leverage the baseline environmental studies and Native American heritage investigations undertaken for the Exploration Plan of Operations (EPO) (refer below).

Recent work undertaken as part of the PFS has highlighted potential opportunities to add significant further value to the Project, which were not included in original PFS scope. The Company is working with Fluor to prioritise opportunities and develop a workplan to address<sup>17</sup>.

## **POSCO MoU**

Beneficiated samples (250 µm) for testwork were successfully shipped to POSCO Holdings (NYSE: PKX) during the quarter, pursuant to the Memorandum of Understanding signed in February 2023<sup>7</sup>. Jindalee continues to engage in productive discussions with POSCO, with further updates to be provided as test results become available in coming months.

## **Permitting**

In May 2023 Jindalee announced that the EPO for McDermitt, originally submitted to the US Bureau of Land Management (BLM) in August 2022 (with additional information provided early 2023), had been deemed complete<sup>9</sup>.

The public comment period on the EPO closed mid-September 2023 and the environmental review process required by the National Environmental Policy Act (NEPA) commenced 10 January 2024. The final decision of the NEPA assessment will be incorporated into the EPO, with this process expected to take up to 12 months. During the quarter an initial, internal draft of the Environmental Assessment (EA) was completed that identified topics where additional detail would enhance the EA and provide greater protection to environmental and cultural resources in the project area, with cooperative work between Jindalee, the BLM, and additional state and federal agencies continuing to further define mitigation measures. Progress on the EA is tracking on schedule with submission for public comment targeted for Q4 2024.

Commencement of the NEPA review is a significant milestone as once approved, the EPO will allow Jindalee to significantly increase on-site activity, including infill drilling and providing additional, fresh samples for site investigations (e.g. geotechnical, hydrological) and further metallurgical testwork.

## **US Government Support**

Jindalee continues to engage with US Government agencies (both State and Federal) regarding opportunities to advance the Project, including technical cooperation between agencies and the potential for US Government funding for the Project. Specifically, Jindalee has lodged applications for non-dilutive grant funding with both the Department of Defense (DoD) and the Department of Energy (DoE) (Battery Manufacturing and Recycling Grant)<sup>15</sup>.

If successful, the DoD grant application is expected to co-fund an accelerated Feasibility Study and associated drilling and testwork, while the DoE grant application is designed to potentially co-fund the engineering, procurement, construction and development of a lithium processing facility at McDermitt.

Both grant applications have passed initial reviews by the agencies, with the DoE grant application accompanied by letters of support from Oregon and Nevada politicians and agencies, as well as potential Project partners. The Company expects to provide updates regarding the status of applications and any potential award decision in the second half of 2024.

## CORPORATE

### Management Changes

As announced in December 2023<sup>10 11</sup>, Ian Rodger commenced as Jindalee's Chief Executive Officer (**CEO**) in January 2024, and Wayne Zekulich joined the Board as Non-Executive Chair in February 2024. These appointments represent significant additions to the management team as the Company transitions from explorer to developer.

As part of Ian Rodger's appointment, 4.5 million unquoted Company options were issued during the quarter, with various exercise prices, expiry dates and vesting conditions.

### General

In addition to its US lithium projects, Jindalee provides shareholders with indirect exposure to hard rock lithium, gold, base and strategic metals, iron ore, uranium and magnesite in Australia through holdings in spin-out companies Dynamic Metals Ltd (ASX: DYM or "Dynamic") and Energy Metals (ASX: EME).

On 5 March 2024, Dynamic announced a binding joint venture and farm-in agreement with Mineral Resources (ASX: MIN) (**MinRes**)<sup>12</sup> whereby MinRes can earn up to 80% of the lithium rights at Dynamic's Widgiemooltha Project (WA) in three stages (subject to satisfaction of certain conditions):

1. Dynamic sells 40% of its lithium rights at the Widgiemooltha Project to MinRes for \$5M cash,
2. MinRes can sole fund \$15M of exploration over 4 years to increase its interest to 65%,
3. MinRes can elect to increase its interest to 80% by sole funding expenditure to a Decision to Mine.

Dynamic was spun-out of Jindalee in January 2023 with Jindalee shareholders receiving a priority offer to subscribe for Dynamic shares in the IPO. Jindalee remains Dynamic's largest shareholder with 25.5% of issued capital.

Jindalee currently has 60.5M shares on issue with cash and listed securities at 31 March 2024 of approximately \$5.27M<sup>13</sup>.

The provider of shareholder registry services for the Company changed from Advanced Share Registry Limited to Automic Pty Ltd in March 2024<sup>14</sup>.

One million unquoted Company options exercisable at \$3.50 expired during the quarter.

Subsequent to the end of the quarter Jindalee formally launched its interactive Investor Hub<sup>16</sup>. The Investor Hub is a dedicated platform for investors and stakeholders to directly engage with and learn more about Jindalee. Jindalee will be regularly uploading new content to the hub, including videos accompanying select announcements, education material, interviews and corporate research. Jindalee encourages investors to post questions and feedback through the Q&A portal, which will be monitored and responded to in a timely manner. Visit the Investor Hub here: <https://investorhub.jindaleelithium.com/welcome>

## FINANCIAL COMMENTARY

The Quarterly Cashflow Report (Appendix 5B) for the period ending 31 March 2024 provides an overview of the Company's financial activities<sup>13</sup>.

Exploration and evaluation expenditure for the reporting period was \$1,082m and was dominated by expenditure on McDermit. Net corporate expenditure was \$714k. The total amount paid to directors of the entity and their associates in the period (item 6.1 of the Appendix 5B) was \$87k and includes directors' fees, consulting fees and superannuation.

Authorised for release by the Jindalee Board of Directors.

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## ADDITIONAL INFORMATION

Additional details including JORC 2012 reporting tables, where applicable, can be found in the ASX announcements referenced in this report and announcements lodged with the ASX during the quarter:

### References

1. Jindalee Lithium ASX announcement 27/02/2023: "Resource at McDermit increases to 21.5 Mt LCE"
2. Jindalee Lithium ASX announcement 21/11/2023: "Exploration Target Highlights Further Upside at McDermit"
3. Jindalee Lithium ASX announcement 24/03/2023: "Preferred Lithium Extraction Process for McDermit Project"
4. Jindalee Lithium ASX announcement 23/10/2023: "First results from Metallurgical Testwork at McDermit"
5. Jindalee Lithium ASX announcement 15/11/2023: "Exceptional Metallurgical Results from McDermit"
6. Jindalee Lithium ASX announcement 18/01/2024: "More Exceptional Metallurgical Results from McDermit"
7. Jindalee Lithium ASX announcement 13/02/2023: "MOU Executed with POSCO Holdings"
8. Jindalee Lithium ASX announcement 19/12/2023: "McDermit Lithium Project Update"
9. Jindalee Lithium ASX announcement 16/05/2023: "McDermit Progress Update"
10. Jindalee Lithium ASX announcement 04/12/2023: "Appointment of Ian Rodger as CEO"
11. Jindalee Lithium ASX announcement 27/12/2023: "Non-Executive Chair Transition"
12. DYM ASX announcement 05/03/2024: "Dynamic signs landmark \$20M Lithium focussed JV with Mineral Resources"
13. Jindalee Lithium ASX announcement 30/04/2024: "Quarterly Cashflow Report - March 2024"
14. Jindalee Lithium ASX announcement 01/04/2024: "Change of Share Registry Details"
15. Jindalee Lithium ASX announcement 30/04/2024: "Jindalee Advances US Government Funding for McDermit"
16. Jindalee Lithium ASX announcement: 12/04/2024: "Launch of Interactive Investor Hub"
17. Jindalee Lithium ASX announcement: 26/03/2024: "Corporate Presentation"

### Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Lindsay Dudfield and Mr. Brett Marsh. Mr. Dudfield is a director, shareholder and consultant to the Company and a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Marsh is an employee of the Company and an American Institute of Professional Geologists (AIPG) Certified Professional Geologist and a Registered Member of the Society for Mining, Metallurgy & Exploration (SME). Both Mr. Dudfield and Mr. Marsh have sufficient experience relevant to the styles of mineralisation and types of deposits under consideration, and to the activity being undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves' (JORC Code). Mr. Dudfield and Mr. Marsh consent to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the Exploration Target and the Mineral Resource Estimate for the McDermit deposit is based on information compiled by Mr. Arnold van der Heyden, who is a Member and Chartered Professional (Geology) of the Australasian Institute of Mining and Metallurgy and a Director of H&S Consultants Pty Ltd. Mr. van der Heyden has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code).

The Company confirms that it is not aware of any further new information or data that materially affects the information included in the original market announcements by JLL listed above, and in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. To the extent disclosed above, the Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

### Forward-Looking Statements

This document may contain certain forward-looking statements. Forward-looking statements include but are not limited to statements concerning Jindalee's current expectations, estimates and projections about the industry in which Jindalee operates, and beliefs and assumptions regarding Jindalee's future performance. When used in this document, the words such as "anticipate", "could", "plan", "estimate", "expects", "seeks", "intends", "may", "potential", "should", and similar expressions are forward-looking statements. Although Jindalee believes that its expectations reflected in these forward-looking statements are reasonable, such statements are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Jindalee and no assurance can be given that actual results will be consistent with these forward-looking statements.

Such factors may include, among others, risks related to regulatory approvals of or in connection with the proposed transaction, actual results of current or planned exploration activities, change in market conditions which affect the completion of the transaction, obtaining appropriate approvals to undertake exploration activities in the portfolio of projects, changes in exploration programs and budgets based upon the results of exploration, future prices of minerals resources; grade or recovery rates; accidents, labour disputes and other risks of the mining industry; delays in obtaining government approvals or financing or in the completion of development or construction activities; movements in the share price of investments and the timing and proceeds realised on future disposals of investments, the impact of the COVID 19 pandemic as well as those factors detailed from time to time in the Company's interim and annual financial statements and reports, all over which are available for review on ASX at [asx.com.au](http://asx.com.au) and OTC Markets at [otcm Markets.com](http://otcm Markets.com).

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.



**Tenement Information in accordance with Listing Rule 5.3.3**

**As at 31 March 2024**

Project	Tenement ID	Location	Status	Interest at beginning of Qtr	Interest at end of Qtr
McDermitt*	HTM 16-20, 24-35, 39-55, 59-77, 81-101, 105-125, 130-149, 152-172, 176-195, 199-213, 217-225, 231-235, 238-242, 258-260, 340-342, 348, 349, 355, 356, 362, 363, 369, 376-380, 387-391, 398, 399, 420-445, 448-456, 460-469, 480-493, 496, 497, 500-517, 532-585, 685-687. HTX 1-113, 116-442.  HTM 586-682.	Oregon, USA  Nevada, USA	Granted	100%	100%
Clayton North*	HTC 1-6, 12-18, 25-28.	Nevada, USA	Granted	100%	100%
Sherlock	E47/4345	Western Australia	Granted	20%	20%

\* Tenements held by Jindalee’s wholly owned US subsidiary, HiTech Minerals Inc.