

Date: 5 July 2023

ASX Code: MAN

**Capital Structure**

Ordinary Shares: 598,759,920  
Current Share Price: 4.6c  
Market Capitalisation: \$27.5M  
Cash: \$18.3M (Mar 2023)  
EV: \$9.2M  
Debt: Nil

**Directors**

Lloyd Flint  
Non-Executive Chairman  
Company Secretary

James Allchurch  
Managing Director

Roger Fitzhardinge  
Non-Executive Director

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## High-value Lithium brine wells selected for re-entry

### Highlights

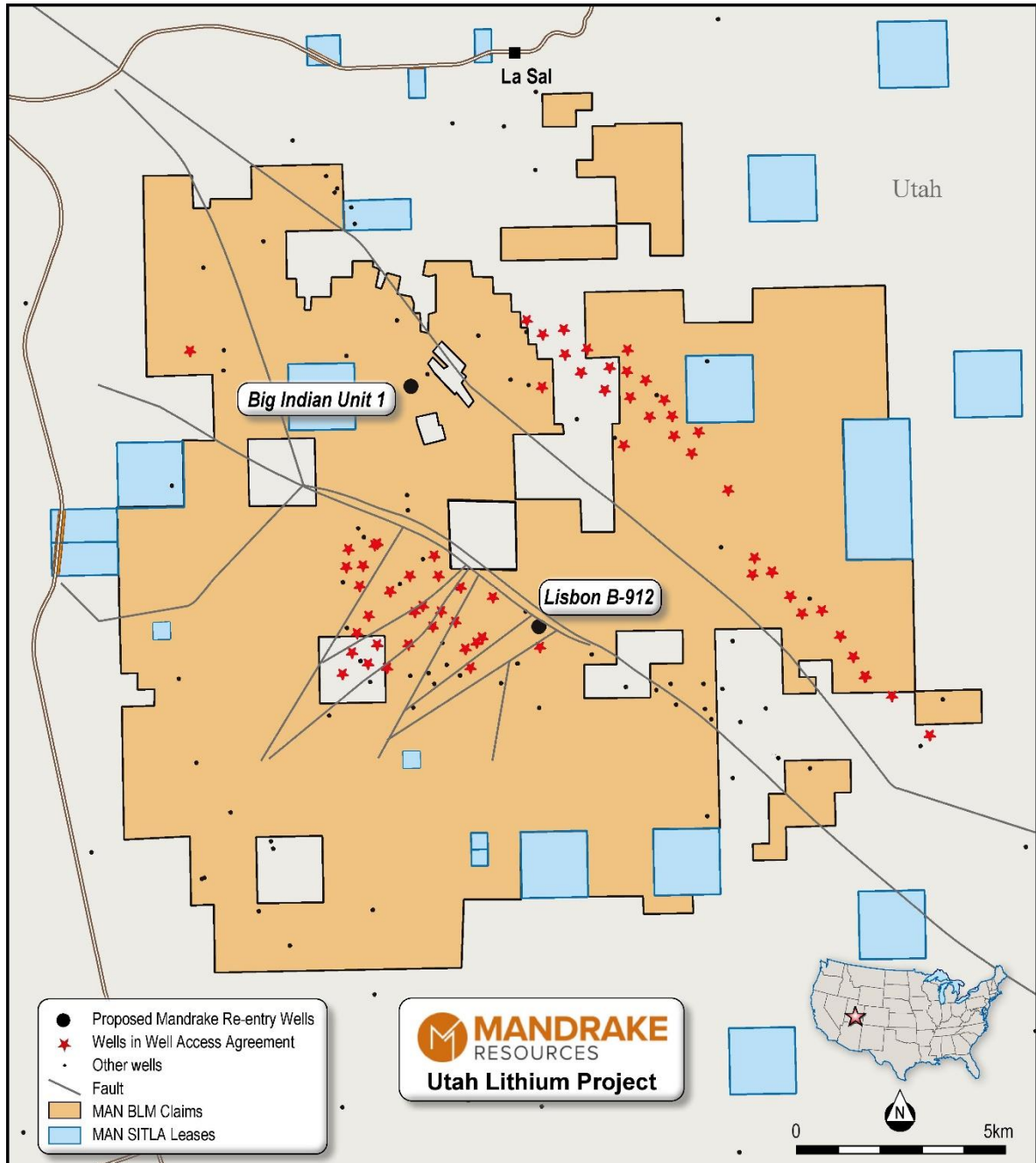
- **Mandrake has notified Well Access Agreement (WAA) partner and oilfield owner Paradox Resources of its intent to re-enter and sample the B-912 and Big Indian Unit 1 (BIU-1) wells**
- **The B-912 and BIU-1 wells have been selected, from the 84 total wells included in the WAA, due to their superior location, geology, brine reservoir potential and existing optimal well configuration**
- **Transfer documentation submitted to Utah Division of Oil, Gas and Mining to facilitate Mandrake operatorship of the selected wells**
- **Detailed re-entry workover plans produced – approx five independent formations will be tested for lithium brines per well, providing multiple chances of success**
- **84 existing oil and gas wells are incorporated in the executed WAA – work underway to establish pipeline of prospective wells to be re-entered and sampled for lithium**

Mandrake Resources Limited (ASX: MAN) (Mandrake or the Company), pursuant to the recently executed Well Access Agreement (WAA) with Paradox Resources LLC (Paradox), has provided notice that it will re-enter and sample the existing B-912 and Big Indian Unit 1 (BBIU-1) oil and gas wells at the Utah Lithium Project.



Figure 1. Re-entry and sampling - B-912 well head

Paradox Resources own the Lisbon Oil and Gas Field, operating over 150 wells and 570 miles of gas gathering lines (220 miles of which is wholly owned). Mandrake's Utah Lithium Project incorporates much of the Lisbon Field, with the WAA covering 84 Paradox oil and gas wells that can potentially be accessed by Mandrake for the purposes of sampling for lithium brine.



**Figure 2. Utah Lithium Project and selected wells**

The B-912 and BIU-1 wells are the first wells selected for lithium brine sampling by Mandrake based on their highly prospective attributes including:

1. Proximity to NW-SE trending fault structures thought to potentially control brine migration and influence lithium concentrations

2. Total well depths of over 9,000 feet, penetrating all of the highly prospective clastic units in the Paradox Salt Formation as well as the underlying Leadville Formation – approx. 5 lithium brine targets in each well
3. Interpretation of logs indicates good porosity and permeability of target zones
4. Access (roads and pad)
5. Infrastructure (power and pipelines)
6. Down-hole well conditions including casing depth, casing diameter and integrity of wellbore

As a prelude to workover operations at each well, a logging programme will be undertaken which will provide a series of datasets that will augment existing information designed to verify zones likely to host lithium-rich brines.

Upstream oil and gas consultants Vanoco Consulting LLC (Vanoco) are finalising workover plans for both the B-912 and BIU-1 wells with initial indications that approximately five independent zones will be perforated and tested for lithium brines. Multiple targets from the one well bore enhances the chance of success and provides the Company with significant upside at relatively modest cost.

To facilitate preliminary logging, re-entry, and workover operations, documentation has been submitted to the Utah Division of Oil, Gas and Mining (UDOGM) to facilitate transfer of operatorship of the B-912 and BIU-1 wells to Mandrake.

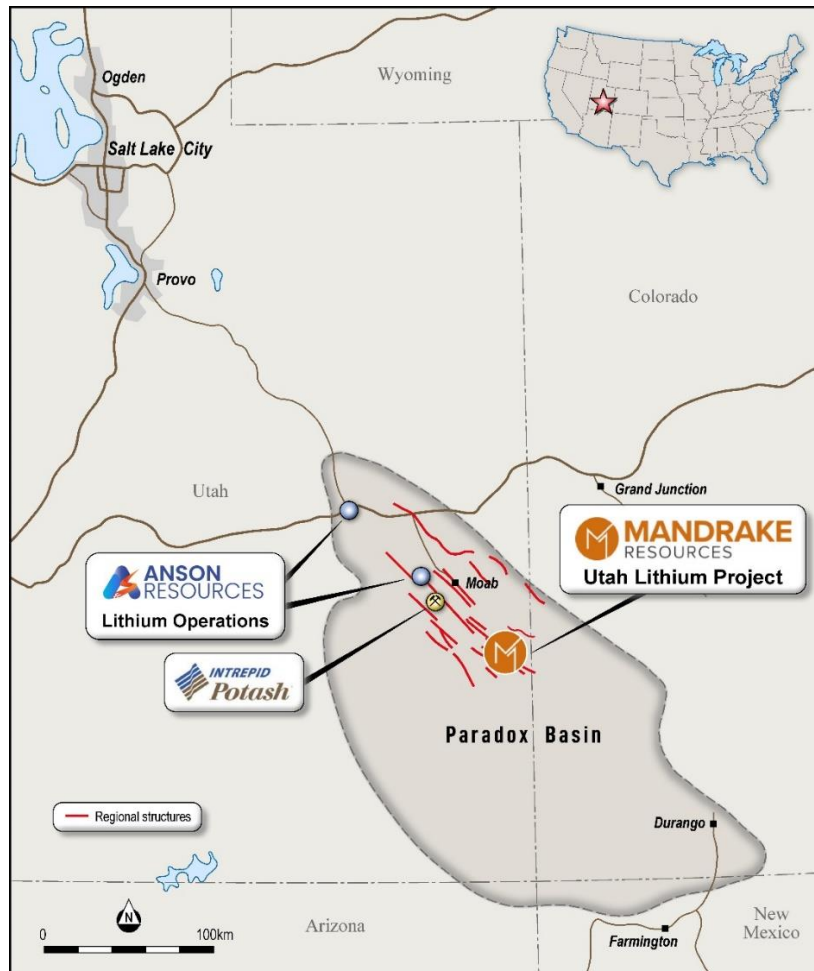
The release of this announcement is authorized by the board of directors.

### **Paradox Basin, USA**

The Paradox Basin in the south-eastern Utah 'lithium four corners' area hosts hypersaline brines historically documented to contain significant concentrations of lithium, potassium salts (potash), bromine, boron and other elements. The Paradox Basin hosts the Cane Creek potash mine operated by Intrepid Potash (NYSE: IPI) (the United States' biggest potash producer) and the operations of mid-tier ASX-listed lithium developer Anson Resources (ASX: ASN) who has an existing JORC Mineral Resource of 1.04Mt of Lithium Carbonate Equivalent (LCE) and 5.27Mt of Bromine<sup>1</sup>.

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<sup>1</sup> ASN ASX release dated 2 November 2022



**Figure 3: Location of the Utah Lithium Project**

### Competent Persons Statement

The information related in this announcement has been compiled and assessed under the supervision of Mr James Allchurch, Managing Director of Mandrake Resources. Mr Allchurch is a Member of the Australian Institute of Geoscientists. He has sufficient experience that is relevant to the information under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Allchurch consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.