



**Middle Island**  
RESOURCES LIMITED

Middle Island Resources Limited  
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## QUARTERLY REPORT

For the period ended 31 March 2021

### HIGHLIGHTS

- Aggregated cash and investments as at 31 March 2021 of A\$4.07m.
- During the quarter at the advanced Sandstone gold project in WA, the Company completed a further 5,260m of resource infill and successful sterilisation RC drilling in the Phase 3 campaign, collectively representing some 59,000m of resource definition and exploration drilling completed on this 100%-owned project since the start of CY2020.
- **Maiden and upgraded Mineral Resources at the Sandstone Project aggregate 768,100oz gold** at quarter's end.
- Sandstone's stand-alone feasibility study (FS) economic outcome is marginal, although cash flow positive at A\$2,500/oz, as advised post quarter's end on 19 April 2021.
- At the Barkly Super Project MDI secured additional permits and saw the release of the highly prospective Minex CRC stratigraphic drillholes.
- The Company remains debt free and adequately-funded.

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**ASX Code: MDI**

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**Capital Structure:**

122 million ordinary shares  
22 million unlisted options

**Board Members:**

**Peter Thomas**

Chairman

**Rick Yeates**

Managing Director

**Brad Marwood**

Non-Executive Director

**Dennis Wilkins**

Company Secretary

## **Operating Activities**

### **Corporate**

#### **Resignation of Director**

As per ASX release of 21 January 2021 Non-Executive Director, Mr Beau Nicholls, resigned from the Board of Middle Island, effective 31 January 2021. Mr Nicholls continues to provide his expertise to the Company as a Technical Geologist on a casual 'as needs' employee basis.

As Mr Dennis Wilkins was appointed as an alternate director for Mr Nicholls, his appointment as an alternate director also ceased on 31 January 2021.

#### **Finances**

Middle Island Resources Limited (**ASX:MDI, Middle Island or the Company**) held aggregated cash and investments of A\$4.07m as at 31 March 2021, comprising A\$0.71m in cash and A\$3.36m in Tajiri Resources Corporation (TSXV:TAJ) and Alto Metals Limited (ASX:AME) ordinary shares.

During the March 2021 quarter, a further 1.1 million options were exercised, enhancing the cash balance by A\$0.2m.

Subsequent to quarter end, the Company completed the sale of AME shares realising net cash proceeds of \$2.95m

#### **Exercise of Options**

In order to minimise the number and cost of option exercises, the Company has developed a policy of, where possible, processing the option exercise requests on a regular quarterly cycle. **The next planned option exercise date will therefore be Friday 28 May 2021.** Should you have any queries in relation to this matter, please do not hesitate to contact the Company Secretary on +61 (0)8 9389 2111.

#### **ASX Additional Information**

ASX Listing Rule 5.3.1: Exploration and evaluation expenditure during the 2021 March quarter was \$1,781,000, comprising tenement compliance costs, drilling and all technical studies contributing to the Sandstone feasibility study, the details of which are set out in this report.

ASX Listing Rule 5.3.2: No substantive mining production or development activities were undertaken during the 2021 March quarter.

ASX Listing Rule 5.3.5: During the 2021 March quarter, the Company made cash payments of \$90,000 to related parties and their associates, being the aggregate amount paid to Directors, including salary, Directors' fees, consulting fees and superannuation.

#### **Tenure**

At the 100%-owned Sandstone gold project in WA, the Wirraminna PL (P57/1395) was transferred to the Company during the quarter. It is intended a Mining Lease will be applied for during the June quarter.

At the 100%-owned Barkly copper-gold project in the Northern Territory (NT), a further two Exploration Licence applications, covering a combined 1,158km<sup>2</sup>, were lodged to secure remaining available tenure in proximity to the Company's new Crosswinds copper discovery.

Middle Island has been granted the initial five Barkly project Exploration Licences, following the recent Crosswinds copper discovery and the lifting of interstate COVID-19 travel restrictions.

### **Demerger of Barkly copper-gold assets**

As per ASX release of 9 March 2021 the Board resolved to demerge Barkly Operations Pty Ltd (**BOPL**) (Demerger) and ultimately IPO BOPL on the ASX (**IPO**), subject to shareholder approval at a Middle Island Shareholder Meeting. BOPL, a wholly owned subsidiary of Middle Island, is the holder of the Barkly copper-gold project (Barkly) in the NT (refer below for further details).

Following the disappointing feasibility result, views of various stakeholders were canvassed as to the spinout. Whilst a final decision is yet to be made, it is likely at this stage the spinout will be pursued. It is anticipated Eligible Shareholders of MDI will receive free shares in BOPL in the same proportions as their respective holding in Middle Island, as well as priority entitlement to apply for shares in the future Barkly IPO. Further information will be provided in the upcoming Notice of Meeting.

No assurance at this stage can be made in relation to the likelihood of BOPL making application to list or, if made, such application being successful.

It is anticipated that the Notice of Meeting, containing relevant information for Middle Island shareholders and the resolutions to be considered at the Shareholder Meeting, will be lodged with ASIC by latest mid-May.

### **Strategy**

The Company's activities during the March quarter continued to focus on the recommissioning of its 100%-owned Sandstone gold processing plant and advancing discussions on consolidation of proximal third-party deposits.

The Phase 3 RC drilling campaign was completed, successfully sterilising areas for new and expanded waste dumps, and a tailings facility expansion, along with additional resource extension and exploration drilling.

The strategy was also progressed via a final draft of the Sandstone feasibility study (FS) and a mill upgrade study, the results of which were announced 19 April 2021 (refer further details below).

Middle Island continues to consider regional consolidation opportunities at Sandstone including continuing to pursue and promote transactions that have the potential to realise value for all parties.

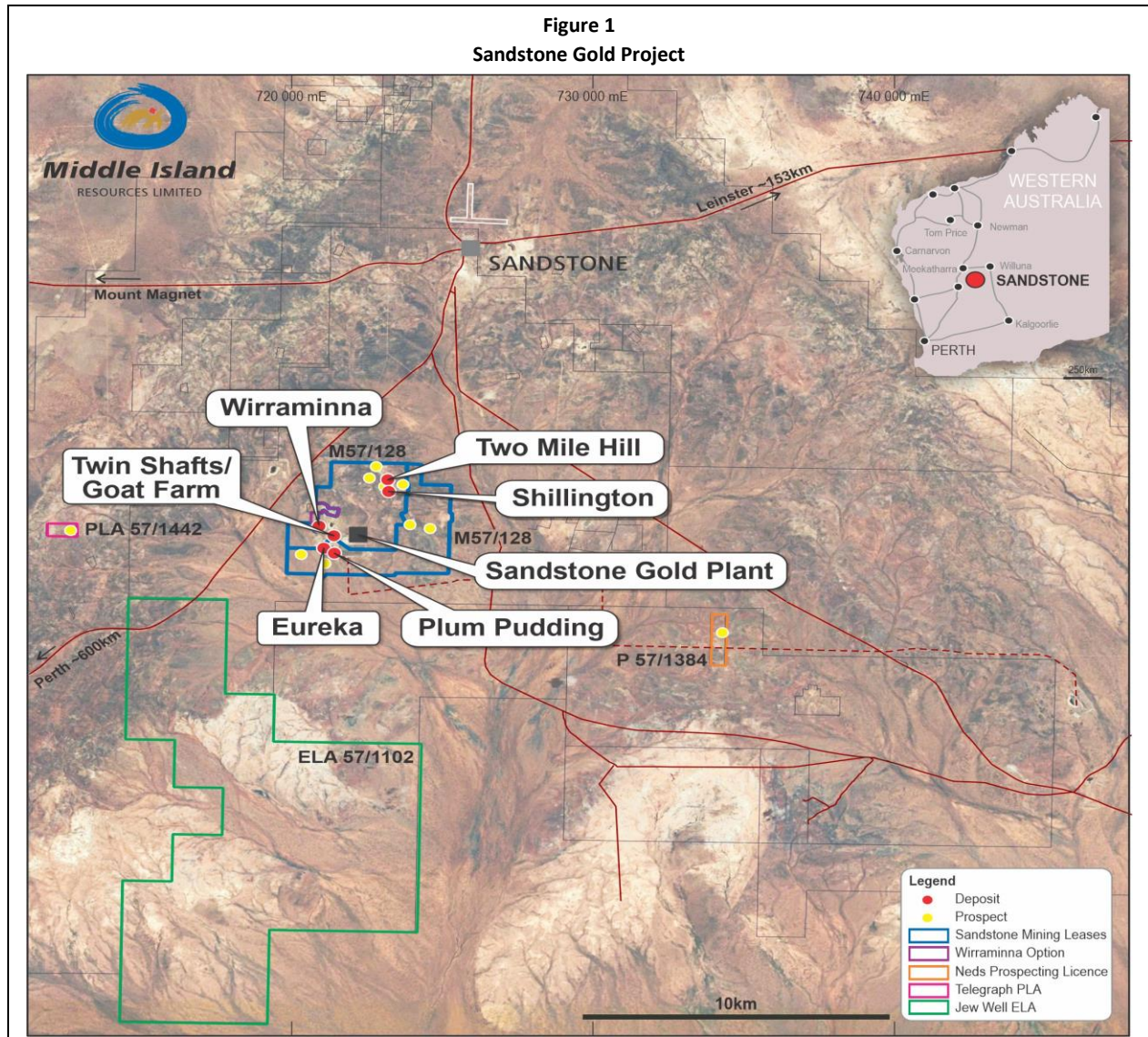
With the recent Crosswinds copper discovery at the Barkly copper-gold project in the Northern Territory and strong corporate interest, the 'spin-out' of Barkly Operations Pty Ltd was announced on 9 March 2021.

### **COVID-19 Update**

By observing stringent health and hygiene protocols, the Company's activities and operations around its projects and Perth headquarters remained relatively unaffected by the COVID-19 pandemic during the March quarter.



## **Sandstone Gold Project (100%) – Western Australia**



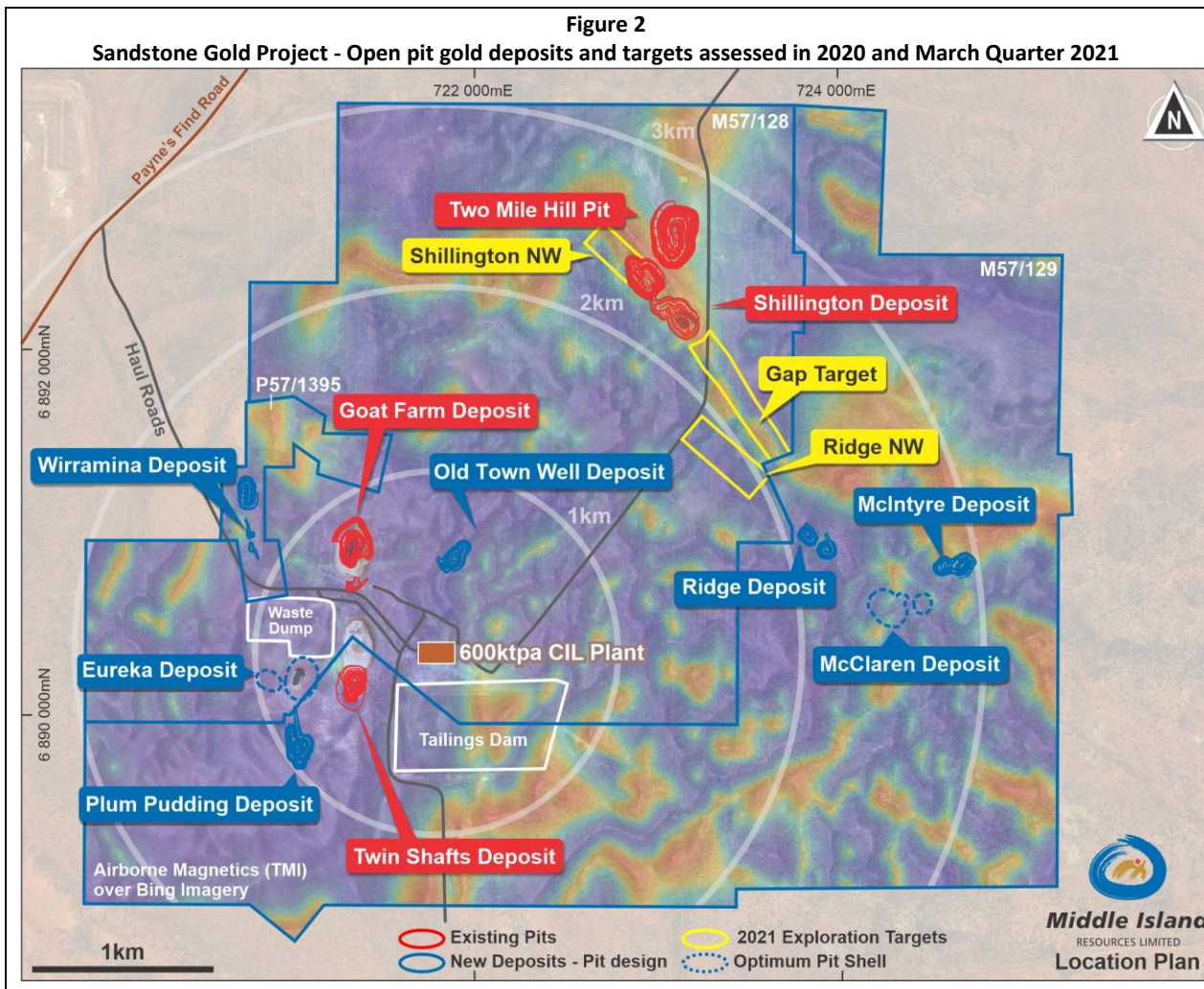
### **2020-21 Drilling Campaign**

During the March quarter, the Company completed Phase 3 of the substantial 2020 drilling campaign, collectively comprising some 59,000m of exploration, resource definition and sterilisation drilling at the Company's 100%-owned Sandstone gold project in Western Australia since the start of CY2020. Some 5,260m of the Phase 3 RC campaign was completed during the quarter.

The Phase 1 and 2 2020 drilling campaigns proved extremely successful, **defining five new satellite gold deposits (Figure 2) and doubling the open pit Mineral Resources.**

As part of the Phase 3 RC drilling campaign, infill and extension resource definition drilling was completed at the Ridge, Shillington, Eureka, McIntyre and Goat Farm deposits. The results were consistent with previous data but the Mineral Resource estimates have yet to be updated with this new data.





### **Resource Estimation**

Mineral Resource estimates have been completed for all existing and new deposits respectively as at 2 December 2020 (refer to ASX Releases dated 24 July 2020, 14 August 2020, 2 October 2020, 21 October 2020 and 17 November 2020).

**Maiden and upgraded Mineral Resources at the Sandstone Project aggregate 768,100oz gold.** The updated Sandstone gold project Mineral Resource Statement is included as Table 1 below.

### **Feasibility Study**

During the quarter, final mining costs and a number of other cost and technical inputs were received, assessed and included in the FS into re-commissioning the Sandstone gold project on a stand-alone 500 ktpa basis (even though the mill has the potential to process up to 600 ktpa, a conservative 500 ktpa was assumed for the FS).

As per the ASX release of 19 April 2021:

- The stand-alone FS economic outcome is marginal, although cash flow positive, at A\$2,500/oz.
- The decrease in the gold price, exchange rate movements, and escalation in the cost of some capital items, personnel, contract mining and fuel since mid-2020 adversely impacted the then anticipated economic outcome.

- FS technical work on pit geotechnics, water supply, tailings storage, metallurgy and environmental aspects resulted in no material issues being identified.

The total quantities for all FS pit designs is 2,068kt of mill inventory at 1.32g/t Au, at an average waste to ore strip ratio of 5.9:1. Recommissioning as a stand-alone project on the current inventory is not justified at the current gold price of <A\$2,300/oz, particularly when the Inferred Resources within the pit designs are excluded, therefore an Ore Reserve has not been declared.

Based on a gold price of A\$2,500/oz, and the costs and physicals from the FS, the project currently has an undiscounted post-tax cash flow of approximately A\$4M, insufficient to consider a stand-alone development.

Refer to the ASX release of 19 April for further details.

However, as discussed below, with a significant increase in mill feed tonnes (and ideally increased grade), a plant upgrade to 750 ktpa is a very encouraging prospect.

### **Mill Upgrade Study**

As reported in the ASX release of 19 April, as a separate study, MDI and GR Engineering Services (GRES) investigated the existing plant tonnage throughput limitations and what changes are required to increase it to 750 ktpa.

The upgrade study, to a scoping study level of detail, finds that the front end of the existing plant (ROM bin/feeder, conveyors and lime silo) can accommodate the proposed 750 ktpa capacity, following refurbishment and minor modifications.

Replacement of the existing comminution and classification circuits with a 1,600 kW rubber lined overflow ball mill and a nine-outlet cyclone distributor will allow milling of material averaging 15.0 kWh/t at a 750 ktpa throughput rate. Upgrades to the gravity and elution circuits provide the option to treat higher grade ores. The provision of three new CIL tanks at the rear of the circuit maintains circuit residence time and allows conversion to two parallel trains of six tanks each.

Based on the GRES estimate, MDI estimates that the incremental capital to upgrade the mill, if completed simultaneously with refurbishment, would be ~\$18.3 M.

High-level modelling of a larger throughput takes the simplistic, but reasonable, approach that variable costs per throughput tonne and absolute dollar fixed costs will remain the same. This means that fixed operating costs per tonne will fall by a third and overall operating costs per tonne will fall because of this more efficient fixed cost recovery. The resulting costs per ore tonne derived from the upgrade study demonstrates a 17% reduction in total operating costs.

### **Tribute Gold Production**

There was no tribute gold production at the Sandstone project during the 2021 March quarter.

### **Planned 2021 June Quarter Sandstone Activities**

Activities planned at the Sandstone project during the 2021 June quarter comprise:-

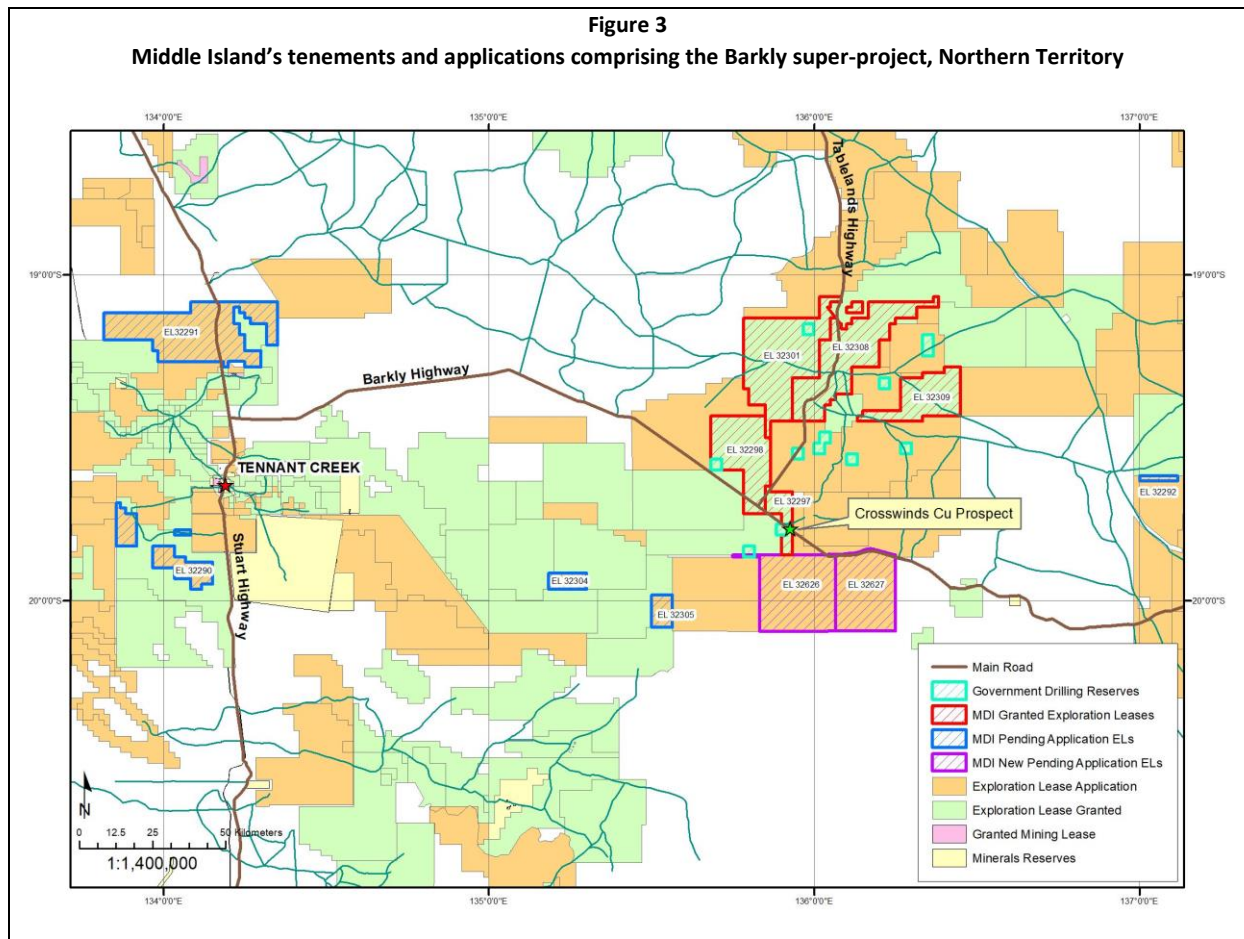
- Desk top studies to prioritise discovery drill targets.
- Continue discussions with other parties to source additional mill feed.



## **Barkly Copper-Gold Super Project (100%) – Northern Territory**

As per ASX release of 13 January 2021, Barkly Operations Pty Ltd (a wholly owned subsidiary of MDI) applied for a further two Exploration Licences proximal to the Company's recent Crosswinds copper discovery within EL32297 at its 100%-owned Barkly copper-gold project in the NT.

The new applications, EL32626 and EL32627, cover a further 1,158km<sup>2</sup>, taking the aggregate 100%-owned Barkly project tenure to 12 permits comprising 4,411km<sup>2</sup>, as shown in Figure 3 below.



The new applications lie immediately south of the Crosswinds copper prospect, securing the remaining available tenure proximal to the recent discovery (Figure 4), where spot pXRF readings between 24.8% and 76.2% Cu were recorded, along with a composite chip sampling interval of 130m at 0.76% Cu (refer ASX Release dated 23 December 2020).

Mineralisation occurs as malachite (copper carbonate), interbedded with calcrete and silcrete representing the surface expression of limestones comprising the Georgina Basin. The surface copper mineralisation is interpreted to reflect the secondary migration of copper along growth faults that extend from primary mineralisation within the Proterozoic basement rocks, through the otherwise barren, younger Georgina Basin cover.

Details of the Barkly Project can be found in MDI's ASX Releases variously dated 15/11/2019, 18/02/2020, 18/08/2020, 23/12/2020 and 13/01/21.



**Figure 4**  
**Crosswinds Copper Prospect - Malachite (copper carbonate) mineralisation exposed at surface**



### **Planned Exploration**

Following further open file research and the release of pre-competitive government drilling data in April 2021, the Company intends to complete detailed airborne magnetic and electromagnetic surveys, and a ground gravity survey during the 2021 dry season, to refine basement iron-oxide copper-gold (IOCG) targets in advance of drilling.





## **Safety, Environmental & Social**

### **Health & Safety**

No injuries or incidents were recorded at the Company's projects and premises during the March quarter.

No COVID-19 infections have been recorded amongst staff or contractors, and the Company has managed to continue its aggressive exploration and resource development campaign relatively seamlessly.

### **Environment**

No environmental incidents were recorded at the Company's projects during the March quarter.

Rehabilitation at the Sandstone gold project, primarily drill sites and temporary access tracks, is being progressively undertaken in accordance with POW and other environmental requirements.

### **Social**

The Company continues to engage with the Shire of Sandstone, pastoralists, prospectors and the local community. This process includes the procurement of labour, materials and services locally, wherever practically possible, and sponsorship of various community events and heritage activities.

A similar approach to community engagement is planned in the NT.

### **Comments by Managing Director, Mr Rick Yeates:**

*"The doubling and upgrading of the open pit Mineral Resources at the Sandstone project last year delivered a considerable improvement in the potential economic return, compared to the 2016 PFS, significantly increasing the value of your project and Company in the process."*

*"What the mill upgrade study suggests is that the 750ktpa upgrade, combining MDI's open pit Mineral Resources with those of peer companies situated within trucking distance of Sandstone, is worth pursuing as the path to rendering otherwise uneconomic projects viable."*

*"Irrespective of a consolidation or improved market conditions, the Company's other open pit targets and underground deposits represent the opportunity for organic growth, as amply demonstrated by the success of last year's feasibility drilling program, which delivered five new satellite deposits. Work on these opportunities is being considered."*

*"The significant project potential and demerger of BOPL will provide investors another opportunity to grow value as it commences greenfields exploration of an exciting new copper-gold province".*

## Resource Statement

Mineral Resources applicable to the Sandstone Gold Project as at 31 March 2021 are provided in Table 1 below.

<b>Sandstone Open Pit Deposits – Summary Mineral Resource Estimates (2012 JORC Code) at 0.5g/t cut-off</b>									
Deposit	Indicated			Inferred			Total		
	Tonnes kt	Au g/t	Au Oz	Tonnes kt	Au g/t	Au Oz	Tonnes kt	Au g/t	Au Oz
Two Mile Hill	1,901	1.1	66,000	178	0.8	5,000	2,078	1.1	71,000
Wirraminna	300	1.3	12,100	280	1.1	9,700	580	1.2	21,800
Shillington	1,440	1.2	57,200	830	1.1	29,300	2,270	1.2	86,500
Old Town Well	282	1.0	8,800	68	0.6	1,400	351	0.9	10,100
Plum Pudding	384	1.1	13,100	35	0.9	1,000	419	1.1	14,100
Twin Shafts	149	1.0	4,700	37	0.7	900	186	0.9	5,600
Goat Farm				398	1.0	13,200	398	1.0	13,200
McIntyre	496	1.2	19,400	67	0.9	1,900	562	1.2	21,300
Ridge	173	1.2	6,700	67	1.9	4,000	240	1.4	10,700
McClaren	236	1.4	10,600	60	1.7	3,200	296	1.5	13,800
<b>Open Pit Sub Total</b>	<b>5,361</b>	<b>1.2</b>	<b>198,600</b>	<b>2,020</b>	<b>1.1</b>	<b>69,600</b>	<b>7,380</b>	<b>1.2</b>	<b>268,100</b>
<b>Sandstone Underground Deposits – Summary Mineral Resource Estimates (2012 JORC Code)</b>									
Two Mile Hill –				14,000	1.10	480,000	14,000	1.10	480,000
Two Mile Hill – BIF <sup>2</sup>				200	3.10	20,000	200	3.10	20,000
<b>Underground Sub Total</b>				<b>14,200</b>	<b>1.1</b>	<b>500,000</b>	<b>14,200</b>	<b>1.1</b>	<b>500,000</b>
<b>TOTAL</b>	<b>5,361</b>	<b>1.2</b>	<b>198,600</b>	<b>16,220</b>	<b>1.2</b>	<b>569,600</b>	<b>21,580</b>	<b>1.2</b>	<b>768,100</b>

The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimates, which may result in some computational discrepancies.

\*The Two Mile Hill Tonalite Deeps and BIF Deeps have been reported within optimised wireframes. All wireframes include waste and have an aggregate grade at or above the cut-off of 0.64g/t Au.

This Statement includes information extracted from the Company's previous ASX announcements, which are available to view on the Company's website, as follows:

<sup>1</sup> ASX Release dated 14 December 2016.

<sup>2</sup> ASX Release dated 14 April 2020.

<sup>3</sup> ASX Release dated 24 July 2020.

<sup>4</sup> ASX Release dated 2 October 2020.

<sup>5</sup> ASX Release dated 21 October 2020.

<sup>6</sup> ASX Release dated 17 November 2020

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

In addition to the Mineral Resources reported above, the residual portion of the Two Mile Hill tonalite deeps Exploration Target, lying between 500m and 700m below surface, is not included and remains to be re-quantified as an Exploration Target or, with further drilling, a Mineral Resource.

There are no Ore Reserves currently reported in relation to the Sandstone gold project.

In all cases, Mineral Resources are estimated and reported in accordance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Information in this release relating to Mineral Resources is based on, and fairly reflects, information and supporting documentation variously prepared by Mr Brett Gossage of EGRM Consulting Pty Ltd, Mr Shaun Searle of Ashmore Advisory Pty Ltd and Ms Lisa Bascombe of Mining Plus Pty Ltd on behalf of Middle Island Resources Limited. The Competent Persons' are Members of the Australasian Institute of Mining and Metallurgy (AusIMM) or the Australian Institute of Geoscientists (AIG) and qualify as Competent Persons' as defined in the JORC Code.



## **Mining Tenements**

Middle Island Resources Limited advises the following information required under ASX Listing Rule 5.3.3 as at 31 March 2020.

Tenements	Mining tenements acquired during the quarter	Mining tenements disposed during the quarter	Mining tenements held at the end of the quarter	Tenement location
M57/128	-	-	100%	Western Australia
M57/129	-	-	100%	Western Australia
P57/1384	-	-	100%	Western Australia
P57/1395	Option exercised; transfer lodged	-	100%	Western Australia
P57/1442	-	-	100%	Western Australia
E57/1102	-	-	100%	Western Australia
EL 32290	-	-	Pending Grant – 100%	Northern Territory
EL 32291	-	-	Pending Grant – 100%	Northern Territory
EL 32292	-	-	Pending Grant – 100%	Northern Territory
EL 32297	Granted	-	100%	Northern Territory
EL 32298	Granted	-	100%	Northern Territory
EL 32301	Granted	-	100%	Northern Territory
EL 32304	-	-	Pending Grant – 100%	Northern Territory
EL 32305	-	-	Pending Grant – 100%	Northern Territory
EL 32308	Granted	-	100%	Northern Territory
EL 32309	Granted	-	100%	Northern Territory
EL 32626	New Application	-	Application – 100%	Northern Territory
EL 32627	New Application	-	Application – 100%	Northern Territory

EL32290, EL32291, EL32304, EL32305, EL32292 -received Notice of Intention to Grant 12 April. Rent has been paid 22 April.

EL32626 and EL32627 – “Consent to Negotiate” received 11 March. Application due 12 June.

### RELEASE AUTHORISED BY:

Board of Middle Island Resources Limited

### COMPANY CONTACTS:

Linton Kirk

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WEBSITE: [www.middleisland.com.au](http://www.middleisland.com.au)

### Forward Looking Statements

Certain statements made during or in connection with this communication, including, without limitation, those concerning the economic outlook for the mining industry, expectations regarding gold prices, exploration costs and other operating results, growth prospects and the outlook of Middle Island’s operations contain or comprise certain forward looking statements regarding Middle Island’s exploration operations, economic performance and financial condition. Although Middle Island believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct.

Accordingly, results could differ materially from those set out in the forward looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes that could result from future acquisitions of new exploration properties, the risks and hazards inherent in the mining business (including industrial accidents, environmental hazards or geologically related conditions), changes in the regulatory environment and other government actions, risks inherent in the ownership, exploration and operation of or investment in mining properties in foreign countries, fluctuations in gold prices and exchange rates and business and operations risks management, as well as generally those additional factors set forth in our periodic filings with ASX. Middle Island undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today’s date or to reflect the occurrence of unanticipated events.





### Competent Person's Statements

Information in this report relates to exploration results that are based on information compiled by Mr Rick Yeates (Member of the Australasian Institute of Mining and Metallurgy). Mr Yeates is a fulltime employee of Middle Island and has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities 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'. Mr Yeates consents to the inclusion in the release of the statements based on his information in the form and context in which they appear.

The Feasibility Study is being managed by Linton Kirk, a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Kirk has sufficient experience that is 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'. Mr Kirk is a director of Kirk Mining Consultants Pty Ltd (KMC). KMC and the Competent Person are independent of the Company and are paid fees for services for managing the Feasibility Study and mill upgrade study. Through a related entity, Mr Kirk holds approximately 243,000 shares in Middle Island Resources Limited.

### Previously Reported Information

This report includes information that relates to previously reported Exploration Results, which were prepared and first disclosed under the JORC Code 2012. The information was extracted from the Company's previous announcements, which are available to view on the Company's website and variously include the following:-

Mineral Resources: ASX Releases dated 14 April 2020, 24 July 2020, 14 August 2020, 2 October 2020, 21 October 2020 & 17 November 2020.

Exploration Results: ASX Releases dated 18 January 2017, 12 September 2017, 14 November 2017, 19 December 2018, 14 April 2020, 21 April 2020, 28 April 2020, 8 May 2020, 22 May 2020, 29 May 2020, 26 June 2020, 2 July 2020, 29 July 2020, 30 July 2020, 6 August 2020, 18 August 2020, 27 August 2020, 9 October 2020, 30 October 2020 & 23 December 2020.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcements.