

# **QUARTERLY REPORT – 31 DECEMBER 2019**

Astro Resources NL is an Australian-based mineral resources company focused on the commercial development and production of economically and environmentally sustainable mineral sands deposits, diamonds, gold and other minerals.

# **Highlights**

## Governor Broome:

- Revised Preliminary Study of Astro's 100% Governor Broome Heavy Mineral Sands Project by by leading heavy mineral sand specialists TZMI re-confirmed the economic viability of the Project. The Revised Preliminary Study is based on 22.9 million tonne (Mt) of Indicated Resources averaging 4.8% Heavy Minerals in the North and 7.9 Mt of Inferred Resources at 5.0% HM in the South.
- Planning and landholder negotiations are in process for a First Quarter 2020 drilling programme within the 100% Governor Broome Project for additional resource drilling, resource upgrade drilling, and metallurgical test-work sample drilling, subject to funding being in place.

#### Needles:

- The announcement of 19 December 2019 (Needles Announcement) indicated broad zones of pervasive silica-sericitic alteration plus anomalous precious and associated pathfinder elemental concentrations are apparent in multiple holes which is typical of the shallow levels of caldera style low sulphidation epithermal systems in south central Nevada.
- The Company intends to undertake further deeper drilling on current targets as recommended, as well as detailed follow up of historical targets that still remain untested by drilling.

### East Kimberley Diamonds:

- A program of drilling and bulk sampling was formulated.
- The arrangements for the bulk sampling drilling program are expected to be finalised in the March 2020 quarter for commencement of field work at the start of the June 2020 quarter.

# Corporate:

- No change to the facility terms with GCM, but Company continues to monitor cash flow needs. The Company had approximately \$183,000 available to draw down for its activities as at 31 December 2019.
- Investor Presentations undertaken during the quarter and further details to be advised in the March 2020 quarter.
- Continued support by directors (Messrs Khouri and Fayad)

The board of Astro Resources NL (Astro or the Company) (ASX: ARO) is pleased to release the quarterly report and appendix 5B for the period ended 31 December 2019:

fx:



## **Governor Broome**

Astro's Governor Broome Mineral Sands Project is located in the southwestern region of Western Australia. The project is broken up into two parts: R70/53, 100% owned by Astro Resources, and

R70/58, which is the subject to the Farm-in and Joint Venture Agreement with Iluka Resources Limited (Iluka Joint Venture). See below for further details.

Governor Broome (excluding Iluka Joint Venture)

## General

The R70/53 licence area contains Indicated and Inferred Mineral Resources (JORC 2012), details of which have been previously provided in the Company's quarterly activities and cash flow statement. The latest update on the resources by area (including that belonging to the Iluka Farm-in and joint venture) was announced on the 8 July 2019.

During the quarter, the Company engaged with leading heavy mineral sand specialists TZ Minerals International Pty Ltd (TZMI) to revaluate the results of the Preliminary Study announced on the 28th June 2018 (2018 Preliminary Study) of Astro's 100% Governor Broome Heavy Mineral Sands Project (Project). The re-evaluation was necessary when further exploration of the Governor Broome South-East area of the Project resulted in it being declared to be sub-economic. Full details of TZMI's revaluation were announced on 16 October 2019 (Revised Preliminary Study). Readers should take note of the assumptions and the cautionary statement set out in the Revised Preliminary Study.

## Outcome of the Revised Preliminary Study

The Revised Preliminary Study was based on the following:

- Heavy Mineral Resources;
- all JORC Code modifying factors, including mining studies, processing studies, laboratory scale metallurgical testwork, conceptual engineering, and infrastructure assessments; and
- capital and operating costs, which were based on TZMI's database of global mineral sands projects with appropriate scaling and contingencies added.

The Governor Broome Deposits are contained within a granted Retention Licence, which the Company believes it has reasonable grounds to able to be convert to a Mining Lease, should it elect to do so.

Key factors which have been used by TZMI in the Revised Preliminary Study include:

- a downward revision to the project scale, which resulted in lower capital costs;
- that the product is better being sold as heavy mineral concentrate (HMC) rather than as final products, for which the HMC needs to be toll treated;
- an extension of the mine life to nine (9) years;
- updated mineral prices and contractor information; and
- revision of expected landholder compensation costs.

The Revised Preliminary Study indicates no change to the wet and dry plant recoveries.



The Revised Preliminary Study results are based on mining 22.9 million tonne (Mt) of Indicated Resources averaging 4.8% Heavy Minerals from Governor Broome North and 7.9 Mt of Inferred

Resources at 5.0% HM from Governor Broome South. It is noted that Governor Broome North contains Indicated Resources of 30Mt @ 4.9% HM and Inferred Resources of 1.6 Mt @ 4.5% HM; Governor Broome South contains Inferred Resources of 26Mt @ 5.0% HM; Governor Broome East contains Inferred Resources of 70Mt @ 3.7% HM (ARO ASX Announcement July 8, 2019).

Both the 2018 Preliminary Study and the Revised Preliminary Study have been completed to an overall -10%/+40% level of accuracy and examined all aspects of geology, mining, processing and supporting infrastructure at mineral prices and a long term foreign exchange rate of US\$0.75: A\$1.

TZMI Revised Preliminary Study results re-confirms that economic viability of the Project, despite the fact that the South East area of the Project being declared sub-economic. The Directors of Astro believes that results from the Revised Preliminary Study has shown that the development and mining of the Project's Heavy Mineral Resources would have an attractive financial outcome. However, the results from the Revised Preliminary Study suggest that the likely value will be less than that previously indicated in the 2018 Preliminary Study.

### Planned First Quarter 2020 Drill-programme

The Company has investigated other areas within the Governor Broome Retention Licence that warrant further investigation to expand the level of economic resources in the Project. Details were included in the announcement on 16 October 2019.

Planning and landholder negotiations are in process for a First Quarter 2020 drilling programme within the 100% Governor Broome Project for additional resource drilling, resource upgrade drilling, and metallurgical test-work sample drilling, subject to funding being in place.

# Iluka Joint Venture

The Jack Track Heavy Mineral Sand Deposit is located on Retention licence R70/58. The Iluka Joint Venture is between Iluka Resources Limited (80%) and Governor Broome Sands Pty Ltd (20%), a wholly owned subsidiary of the Company.

No activity was undertaken during the quarter for the Iluka JV.

# **Needles Project**

The Needles Announcement outlined details of the results from the drilling campaign, which consisted of 11 percussion holes with a maximum depth of 200 metres. The results included in the Needles Announcement note that "...... positive with multiple holes, in particular at deeper levels (>500feet) having intersected highly anomalous multi elemental zones with sericite-silica alteration, a typical signature for low <u>sulphidation epithermal mineralisation</u> warranting further deeper drilling". As also set out in the Needles Announcement, elemental concentrations, in particular gold, silver, antimony, and arsenic are "....providing strong evidence supporting the target".

The results indicated broad zones of pervasive silica-sericitic alteration plus anomalous precious and associated pathfinder elemental concentrations are apparent in multiple holes which is typical of the shallow levels of caldera style low sulphidation epithermal systems in south central Nevada.



Shallow (less than 200m from surface) geophysical targets have been tested and support the interpretation that resistivity targets identified from IP/Resistivity surveys provide compelling drill targets and are often indicative of hydrothermal alteration as well as anomalous precious metal mineralisation.

The Needles property contains a very compelling and very large (> 4.5 sq km) target with elemental signatures typical of low-sulphidation epithermal mineralisation and associated caldera style alteration (silica-sericite). The recent drilling is highly encouraging with the deepest holes ever drilled on the property intersecting the targets and justifying further deeper drilling.

The Company intends to undertake further deeper drilling on current targets is recommended as well as detailed follow up of historical targets that still remain untested by drilling.

# **East Kimberley Diamonds**

The Company holds the Lower Smoke Creek (E80/4120) exploration licence that adjoins the Argyle, and the former Bow River diamond Mines within the East Kimberley region of Western Australia (East Kimberley Diamonds Project).

During the December Quarter the following activities were undertaken:

- the Annual Technical Report for E80/4120; and
- a program of drilling and bulk sampling formulated.

It is planned to complete in the March 2020 quarter, the arrangements for the bulk sampling drilling program, which is expected to be executed during the Kimberley field season commencing at the start of the June 2020 quarter.

## **Corporate Matters**

# **Debt facility and funding**

The Company announced on the 30th September 2019 the following in relation to the loan facility with Gun Capital Management Pty Ltd (**GCM**). The Company had approximately \$183,083 available to draw down for its activities as at 31 December 2019. In addition, there is an amount of \$232,588 available to meet future capitalised interest. The total undrawn facility is \$415,671. No changes have occurred to the facility since the above date.

The Board continues to monitor its funding needs with GCM and its Directors.

## Capital raising

The Company has been during the quarter making a number of presentations to investors in relation to a proposed capital raising. The presentations have been based on the "Investor Presentation" lodged on the 29<sup>th</sup> October 2019. A further update will be provided in the March 2020 quarter.

## Cashflow

During the quarter, the cash flow from operations continue benefited from the continued support from Messrs Jacob Khouri and Vince Fayad from not receiving payment for their services. All other creditors are to date and there is an immaterial amount owing to third party creditors.



#### **ENDS**

For enquiries, please contact:

## Vince Favad

**Director and Company Secretary** 

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E: vince.fayad@vfassociates.com.au

The information in this report as it relates to Mineral Resources and Exploration Results for the Governor Broome Deposit (excluding that of the Iluka JV) is based on information compiled by John Doepel, a Director of Continental Resource Management Pty Ltd (CRM), who is a member of the Australasian Institute of Mining and Metallurgy. Mr Doepel has sufficient experience in mineral resource estimation relevant to the style of mineralisation and type of deposit under consideration 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 Doepel consents to the inclusion in this announcement of the information in the form and context in which it appears.

The information in this report as it relates to Iluka JV is based on information compiled by Shaun Seah under the review of Brett Gibson who is a member of The Australian Institute of Geoscientists and a full time employee of Iluka. Mr Gibson has sufficient experience which is relevant to this style of mineralisation 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" and consents to the inclusion in the report of the information in the form and context in which it appears.

The information in this report that relates to Exploration Results for the Needles Property is based on information compiled by Charles Straw, a Director of Centric Minerals Management Pty Ltd. Mr Straw is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Straw consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this report as it relates to Exploration Results for the East Kimberley diamond deposits is based on information compiled by Greg Bromley who is a Director of Sardonyx Pty Ltd and a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Bromley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and are qualified as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Bromley consents to the inclusion in the report of the information in the form and context in which it appears.



# List of tenements as at 31 December 2019

Holder	Project	Lease	Location	Lease Status
Governor Broome	Governor Broome	Retention Licence R70/53 (formerly E70/2372)	Nannup - Southern WA	Granted
Governor Broome (20%), Iluka Resources Limited (80%)	Governor Broome	Retention Licence R70/58 (formerly E70/2464)	Nannup - Southern WA	Granted
East Kimberley Diamond Mines	Lower Smoke Creek	E80/4120	Kimberley - Northern WA	Granted
Needles Holdings	Needles		Nevada - USA	Granted

Astro Resources NL

# **ABN**

# Quarter ended ("current quarter")

96 00	07 090 904		31 December 2019	
Con	solidated statement of cash flow	S	Current quarter Year to date ( \$A'000 months) \$A'000	
1.	Cash flows from operating activities	es		
1.1	Receipts from customers		-	-
1.2	Payments for			
	(a) exploration & evaluation		(109)	(536)
	(b) development		-	-
	(c) production		-	-
	(d) staff costs		-	-
	(e) administration and corporate costs		(67)	(119)
1.3	Dividends received (see note 3)		-	-
1.4	Interest received		-	-
1.5	Interest and other costs of finance paid		-	-
1.6	Income taxes paid		-	-
1.7	Research and development refunds		-	-
1.8	Other (refund of council bonds paid for expired tenement)		-	-
1.9	Net cash from / (used in) operating activities		(176)	(655)

2. Ca	ash flows from investing activities	
2.1 Pa	yments to acquire:	
(a)	property, plant and equipment	-
(b)	tenements (see item 10)	-
(c)	investments	-
(d)	other non-current assets	-
2.2 Pr	oceeds from the disposal of:	
(a)	property, plant and equipment	-
(b)	tenements (see item 10)	-
(c)	investments	-
(d)	other non-current assets	-
2.3 Ca	sh flows from loans to other entities	-
2.4 Div	vidends received (see note 3)	-

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

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2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	(31)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
3.5	Proceeds from borrowings	165	490
3.6	Repayment of borrowings (previous amount owing to the Director)	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	165	490

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	14	199
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(176)	(655)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(31)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	165	490
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	3	3

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Curent quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances		
5.2	Call deposits	3	14
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	3	14

	quarter (should equal item 4.6 above)	
6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	10
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3	Include below any explanation necessary to understand the transaction items 6.1 and 6.2	ns included in
Paym	ents made during the quarter were in relation to Directors Fees (\$9,900)	•
7.	Payments to related entities of the entity and their associates	Curent quarter \$A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3	Include below any explanation necessary to understand the transaction items 7.1 and 7.2	ns included in
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<sup>+</sup> See chapter 19 for defined terms 1 September 2016

8.	Financing facilities available Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities	2,600	2,185
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

Loan facility from Gun Capital Management Pty Ltd (Gun) of \$2.6 million (increased previously from \$1.8 million) has been made available to the Company. The facility is subject to interest at the rate of 15% per annum. The facility is repayable by 31 October 2021.

The facility provides for \$300,000 being available only for capitalised interest. Accordingly, of the available balance for draw down is \$415,000 of which \$300,000 is to be used for capitalised interest, leaving \$367,500 available for the Company to fund its operations.

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	153
9.2	Development	-
9.3	Production	-
9.4	Staff costs	-
9.5	Administration and corporate costs	35
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	208

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2	Interests in mining tenements and petroleum tenements acquired or increased				

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<sup>+</sup> See chapter 19 for defined terms

# **Compliance statement**

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

Sign here:

Date: 9 January 2020

Print name: Vincent J Fayad, Company Secretary and Director

#### **Notes**

- The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

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<sup>+</sup> See chapter 19 for defined terms