

### **ASX ANNOUNCEMENT** 25 January 2018

**Australian Securities Exchange Code: NST** 

#### **Board of Directors**

Mr Bill Beament Executive Chairman

Mr Chris Rowe Non-Executive Director

Mr Peter O'Connor Non-Executive Director

Mr John Fitzgerald Non-Executive Director

Ms Shirley In'tVeld Non-Executive Director

Mr David Flanagan Non-Executive Director

#### **Issued Capital**

Shares 603.2 million Options 0.8 million Performance Rights 10 million

Current Share Price A\$6.14

Market Capitalisation A\$3.7 billion

Cash, Bullion & Investments 31 Dec 2017 - A\$433.1 million

#### **Projects**

Paulsens Mine Kanowna Belle Mine Kundana Mine Kundana Mines (51% of EKJV) Jundee Mine Central Tanami (25% of JV) Western Tanami

**Listed Investments** ASX: VXR, DAU, RND, TBR, ALY, EAR TSX-V:SGI

### **December 2017 Quarterly Activities Report**

## Production and costs on track: growth strategy accelerated

Latest results ensure Northern Star is on target to meet FY2018 guidance while implementing plan to continue growing production and inventory

### **KEY POINTS**

- Gold sold totalled 128,819oz in the December Quarter; all-in sustaining costs (AISC) were A\$1,067/oz
- Gold sold in the six months to 31 December 2017 totalled 267,278oz; AISC for the six months were A\$1,043/oz
- Results ensure Northern Star is on track to meet FY2018 guidance of 525,000-575,000oz at an AISC of A\$1,000-A\$1,050/oz
- Underlying free cash flow of A\$35M in the December Quarter; this was despite bringing forward ~A\$5M in expansionary capital, including exploration, to accelerate growth in production and the mineral inventory
- Cash and equivalents at 31 Dec of A\$433.1M after paying A\$35M for FY2017 tax and A\$4M to acquire the Western Tanami Project; Northern Star has no bank debt
- **December Quarter production:** 
  - **Jundee Gold Operations:** 
    - 66,673oz mined and 61,965oz sold at an AISC of A\$946/oz
    - FY2018 guidance is 245,000-265,000oz at an AISC A\$950-A\$1,000/oz
  - Kalgoorlie Gold Operations:
    - 61,289oz mined and 54,923oz sold at an AISC of A\$1,195/oz\*
    - FY2018 guidance is 245,000-265,000oz at an AISC A\$1,000-A\$1,050/oz
  - Paulsens Gold Operations:
    - 11,602oz mined and 11,931oz sold at an AISC of A\$1,170/oz
    - FY2018 guidance is 35,000-45,000oz at an AISC A\$1,300-A\$1,400/oz
- Paulsens production paused for review in December; staff and contractors were relocated to other operations as part of the organic growth strategy
- Northern Star will host a quarterly conference call today at 8:00am AWST (11:00am AEDT), Thursday, 25 January 2018. The call can be accessed at https://boardroom.media/broadcast/?eid=5a5e7b80dcb03733b3f8b5c9

Northern Star Resources Limited (ASX: NST) is pleased to report on a solid December Quarter which saw the Company continue to meet its key operational and growth objectives.

Gold sold in the December Quarter totalled 128,819oz at an AISC of A\$1,067/oz, taking the results for the six months to 31 December to 267,278oz at an AISC of A\$1,043/oz.

During the quarter, Northern Star continued to accelerate the implementation of its growth strategy, bringing forward A\$5 million in expansionary capital expenditure, including exploration. This took the total figure for the guarter to A\$28 million.

This investment was part of the Company's strategy to increase production to an annual rate of 600,000oz this calendar year and to continue growing its Reserves and Resources.

After allowing for this expansionary capital, Northern Star generated free cash flow of A\$35 million in the December Quarter, leaving it with cash and equivalents of A\$433.1 million at 31 December 2017.

Northern Star Executive Chairman Bill Beament said the Company's staff and contractors had done extremely well to meet the operational targets set for the quarter while at the same time executing the growth strategy.

"Our production and costs were in line with our targets, ensuring we remain well on track to meet our full-year guidance on both fronts," Mr Beament said.



"This was a particularly strong achievement given we expedited what was already a heavy program of expansion.

"The decision to accelerate the growth strategy was made partly in light of the strong exploration results we have been achieving, which are creating opportunities to continue growing our inventory and also providing more development options down the track.

"We anticipate being in a position to provide further details of our exploration activity in an update next month."

| Northern Star                   | Units  | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr* | Dec-17 Qtr* | FYTD      |
|---------------------------------|--------|------------|------------|-------------|-------------|-----------|
| Ore Hoisted                     | Tonnes | 749,727    | 892,454    | 955,552     | 947,946     | 1,903,498 |
| Mined Grade                     | gpt Au | 5.3        | 5.9        | 5.0         | 4.6         | 4.8       |
| Gold in Ore Hoisted             | Oz     | 126,749    | 167,818    | 154,426     | 139,564     | 293,990   |
| Milled Tonnes                   | Tonnes | 871,461    | 943,018    | 941,560     | 986,139     | 1,927,699 |
| Head Grade                      | gpt Au | 4.9        | 5.5        | 5.1         | 4.6         | 4.8       |
| Ounces Produced                 | Oz     | 136,673    | 167,359    | 152,872     | 144,258     | 297,130   |
| Recovery                        | %      | 92         | 92         | 91          | 89          | 90        |
| Gold Recovered                  | Oz     | 125,753    | 154,116    | 138,422     | 128,836     | 267,258   |
| Ounces Sold                     | Oz     | 132,558    | 147,728    | 138,459     | 128,819     | 267,278   |
| Average Gold Price              | A\$/oz | 1,651      | 1,681      | 1,665       | 1,693       | 1,678     |
| Revenue                         | A\$M   | 218.9      | 248.4      | 226.1       | 208.4       | 434.5     |
| Cash Operating Cost             | A\$/oz | 763        | 723        | 780         | 838         | 807       |
| All-in Sustaining Cost          | A\$/oz | 988        | 938        | 1,021       | 1,067       | 1,043     |
|                                 |        |            |            |             |             |           |
| Total Stockpiles Contained Gold | Oz     | 75,101     | 75,616     | 75,221      | 73,652      | 73,652    |
| Gold in Circuit (GIC)           | Oz     | 13,858     | 20,005     | 20,556      | 17,279      | 17,279    |
| Gold in transit (oz)            | Oz     | -          | 1          | -           | 3,782       | 3,782     |

<sup>\*</sup> Includes mine production performance from Millennium operations 7,072 ounces mined, 7,515 ounces recovered and 5,744 ounces sold for the December Quarter (12,143 ounces mined, 10,130 ounces recovered and 8,359 ounces sold for the year). Costs incurred at Millennium operations will be capitalised until commercial production rates are achieved and therefore do not impact AISC measures.

Table 1: Key Group Performance Figures (Quarterly)

| Northern Star                           | Units  | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr | FYTD  |
|---|--------|------------|------------|------------|------------|-------|
| Mining                                  | A\$/oz | 443        | 489        | 525        | 556        | 540   |
| Processing                              | A\$/oz | 167        | 175        | 188        | 211        | 199   |
| Site Services                           | A\$/oz | 50         | 41         | 59         | 59         | 59    |
| Ore Stock & GIC Movements               | A\$/oz | 65         | (22)       | (27)       | (27)       | (27)  |
| Royalties                               | A\$/oz | 40         | 42         | 38         | 41         | 40    |
| By Product Credits                      | A\$/oz | (4)        | (4)        | (3)        | (3)        | (3)   |
| Rehabilitation-Accretion & Amortisation | A\$/oz | 4          | 4          | 4          | 3          | 3     |
| Corporate Overheads                     | A\$/oz | 39         | 56         | 45         | 57         | 50    |
| Mine Development/Sustaining CAPEX       | A\$/oz | 165        | 131        | 163        | 151        | 157   |
| Mine Exploration                        | A\$/oz | 19         | 25         | 29         | 19         | 25    |
| All-in Sustaining Costs                 | A\$/oz | 988        | 938        | 1,021      | 1,067      | 1,043 |
| Depreciation & Amortisation             | A\$/oz | 245        | 288        | 338        | 351        | 344   |

Table 2: Key Group Cost per Ounce Measures

| Production KPIs December Quarter | Units  | Paulsens | Kalgoorlie<br>Operations* | Jundee  | Total   |
|----------------------------------|--------|----------|---------------------------|---------|---------|
| Total Ore Hoisted                | Tonnes | 75,612   | 465,312                   | 407,022 | 947,946 |
| Mine Grade                       | gpt Au | 4.8      | 4.1                       | 5.1     | 4.6     |
| Gold in Ore Hoisted              | Oz     | 11,602   | 61,289                    | 66,673  | 139,564 |
| Milled Tonnes                    | Tonnes | 115,592  | 430,376                   | 440,172 | 986,140 |
| Head Grade                       | gpt Au | 3.8      | 4.3                       | 5.0     | 4.6     |
| Recovery                         | %      | 77       | 93                        | 89      | 89      |
| Gold Recovered                   | Oz     | 10,808   | 55,113                    | 62,915  | 128,836 |
| Gold Sold                        | Oz     | 11,931   | 54,923                    | 61,965  | 128,819 |
| Cash Operating Costs             | A\$/oz | 1,058    | 911                       | 737     | 838     |
| All-In Sustaining Costs          | A\$/oz | 1,170    | 1,195                     | 946     | 1,067   |
| Depreciation & Amortisation      | A\$/oz | 1,867    | 260                       | 132     | 351     |

<sup>\*</sup> Including Millennium operations

Table 3: Key Quarterly Mine Production Performance

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### **FINANCE**

The following is a table of the cash, bullion and investments held at the end of each quarter:

|                                 |      | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|---------------------------------|------|------------|------------|------------|------------|
| Cash at bank                    | A\$M | \$351.2    | \$403.0    | \$385.5    | \$368.0    |
| Bullion awaiting settlement (1) | A\$M | \$13.2     | \$14.1     | \$17.1     | \$1.5      |
| Equity Investments              | A\$M | \$28.5     | \$30.1     | \$40.1     | \$63.6     |
| Total                           | A\$M | \$392.9    | \$447.2    | \$442.7    | \$433.1    |

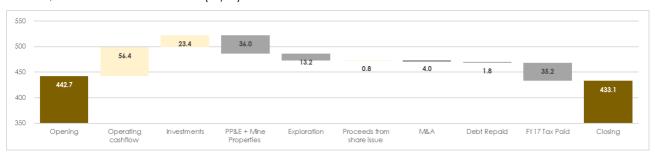
<sup>(1)</sup> Bullion awaiting settlement is dore which has been received by the refiner in the quarter and is awaiting settlement.

The below table sets out the total of surface gold inventories:

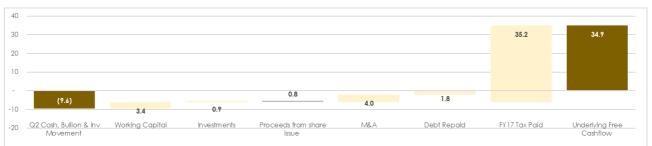
| Gold Inventories               | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|--------------------------------|------------|------------|------------|------------|
| Stockpiles contained gold (oz) | 75,101     | 75,616     | 75,221     | 73,652     |
| Gold in circuit (oz)           | 13,858     | 20,005     | 20,556     | 17,279     |
| Gold in transit (oz)           | -          | -          | =          | 3,782      |
| Total Gold Inventories (oz)    | 88,959     | 95,621     | 95,777     | 94,713     |

Table 5: Gold Inventories

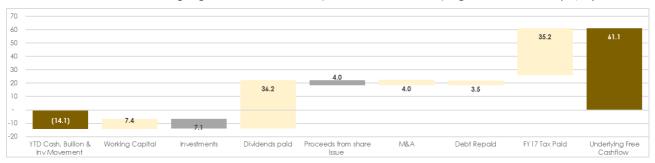
The below waterfall chart highlights the December Quarter's operating cash flow together with movements in cash, bullion and investments (A\$M):



The below waterfall chart highlights the underlying free cash flow for the December Quarter (A\$M):



The below waterfall chart highlights an overview of year to date underlying free cash flow (A\$M):



### **Banking Facilities**

Northern Star has in place an undrawn three-year A\$100 million revolving debt facility with a self-arranged syndicate of Australian and International banks.

#### Hedging

The below table outlines the Company's current hedging position:

| Term       | Jun-18 Half | Dec-18 Half | Jun-19 Half | Dec-19 Half | Total    |
|------------|-------------|-------------|-------------|-------------|----------|
| Ounces     | 83,000      | 73,500      | 64,000      | 50,000      | 270,500  |
| Gold Price | A\$1,767    | A\$1,756    | A\$1,730    | A\$1,739    | A\$1,750 |

Table 6: Hedging commitments

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Table 4: Cash, Bullion and equity investments



## OPERATIONS Jundee Gold Operations

| Production Summary                        |        | 44 17 Ob   | l 17 Oh    | C 17 Oh-   | D 17 Ob    | EVED    |
|---|--------|------------|------------|------------|------------|---------|
| Jundee                                    |        | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr | FYTD    |
| Ore Mined                                 | Tonnes | 356,573    | 405,063    | 407,808    | 407,022    | 814,830 |
| Mined Grade                               | gpt Au | 4.8        | 7.1        | 5.8        | 5.1        | 5.5     |
| Ounces Mined                              | Oz     | 55,438     | 92,377     | 76,326     | 66,673     | 142,999 |
| Milled Tonnes                             | Tonnes | 403,613    | 431,788    | 408,067    | 440,172    | 848,239 |
| Head Grade                                | gpt Au | 4.5        | 6.6        | 6.1        | 5.0        | 5.5     |
| Recovery                                  | %      | 90         | 92         | 91         | 89         | 90      |
| Gold Recovered                            | Oz     | 51,926     | 84,854     | 72,471     | 62,915     | 135,386 |
| Gold Sold                                 | Oz     | 53,914     | 78,649     | 75,131     | 61,965     | 137,095 |
|   |        |            |            |            |            |         |
| Cost per Ounce                            |        |            |            |            |            |         |
| Mining                                    | A\$/oz | 517        | 398        | 384        | 495        | 434     |
| Processing                                | A\$/oz | 206        | 142        | 149        | 175        | 161     |
| Site Services                             | A\$/oz | 55         | 30         | 37         | 44         | 41      |
| Ore Stock Movements                       | A\$/oz | 15         | 19         | 7          | (15)       | (3)     |
| Royalties                                 | A\$/oz | 40         | 42         | 39         | 41         | 39      |
| By Product Credits                        | A\$/oz | (3)        | (3)        | (3)        | (3)        | (3)     |
| Cash Operating Costs                      | A\$/oz | 830        | 628        | 613        | 737        | 669     |
| Rehabilitation - Accretion & Amortisation | A\$/oz | 4          | 2          | 3          | 3          | 3       |
| Corporate Overheads                       | A\$/oz | 39         | 56         | 45         | 56         | 50      |
| Mine Development / Sustaining CAPEX       | A\$/oz | 157        | 56         | 111        | 125        | 118     |
| Jundee Mine Exploration                   | A\$/oz | 13         | 12         | 22         | 25         | 23      |
| All-in Sustaining Costs                   | A\$/oz | 1,043      | 754        | 794        | 946        | 863     |
| Depreciation & Amortisation               | A\$/oz | 247        | 280        | 215        | 132        | 177     |

Table 7: Summary Details – Jundee

### **Kalgoorlie Gold Operations**

| Production Summary Kalgoorlie Operations  |        | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr* | Dec-17 Qtr* | FYTD    |
|---|--------|------------|------------|-------------|-------------|---------|
| Ore Mined                                 | Tonnes | 319,922    | 379,815    | 448,382     | 465,312     | 913,695 |
| Mined Grade                               | apt Au | 5.7        | 5.0        | 4.5         | 4.1         | 4.3     |
| Ounces Mined                              | Oz     | 58,857     | 60,765     | 65,178      | 61,289      | 126,467 |
| Milled Tonnes                             | Tonnes | 360,082    | 391,170    | 415,793     | 430,376     | 846,168 |
| Head Grade                                | gpt Au | 5.6        | 4.8        | 4.4         | 4.3         | 4.3     |
| Recovery                                  | %      | 95         | 94         | 93          | 93          | 93      |
| Gold Recovered                            | Oz     | 61,130     | 57,173     | 54,323      | 55,113      | 109,435 |
| Gold Sold                                 | Oz     | 65,532     | 56,549     | 52,049      | 54,923      | 106,972 |
|   |        |            |            |             |             |         |
| Cost per Ounce                            |        |            |            |             |             |         |
| Mining                                    | A\$/oz | 377        | 573        | 666         | 648         | 657     |
| Processing                                | A\$/oz | 100        | 181        | 205         | 221         | 213     |
| Site Services                             | A\$/oz | 34         | 44         | 75          | 64          | 70      |
| Ore Stock Movements                       | A\$/oz | 115        | (78)       | (101)       | (60)        | (81)    |
| Royalties                                 | A\$/oz | 40         | 42         | 38          | 42          | 40      |
| By Product Credits                        | A\$/oz | (5)        | (4)        | (4)         | (4)         | (4)     |
| Cash Operating Costs                      | A\$/oz | 661        | 758        | 879         | 911         | 895     |
| Rehabilitation - Accretion & Amortisation | A\$/oz | 4          | 4          | 5           | 2           | 4       |
| Corporate Overheads                       | A\$/oz | 40         | 54         | 45          | 57          | 51      |
| Mine Development / Sustaining CAPEX       | A\$/oz | 136        | 185        | 207         | 207         | 207     |
| Kalgoorlie Operations Mine Exploration    | A\$/oz | 26         | 48         | 48          | 18          | 32      |
| All-in Sustaining Costs                   | A\$/oz | 867        | 1,049      | 1,184       | 1,195       | 1,189   |
| Depreciation & Amortisation               | A\$/oz | 210        | 248        | 226         | 260         | 243     |

<sup>\*</sup> Including Millennium operations

Table 8: Summary Details – Kalgoorlie Operations

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### **Paulsens Gold Operations**

| Production Summary Paulsens               |        | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr | FYTD    |
|---|--------|------------|------------|------------|------------|---------|
| Ore Mined                                 | Tonnes | 73,232     | 107,576    | 99,362     | 75,612     | 174,974 |
| Mined Grade                               | gpt Au | 5.3        | 4.2        | 4.0        | 4.8        | 4.4     |
| Ounces Mined                              | Oz     | 12,454     | 14,676     | 12,922     | 11,602     | 24,523  |
| Milled Tonnes                             | Tonnes | 107,766    | 120,060    | 117,700    | 115,592    | 233,292 |
| Head Grade                                | gpt Au | 4.2        | 3.7        | 3.9        | 3.8        | 3.8     |
| Recovery                                  | %      | 87         | 84         | 80         | 77         | 78      |
| Gold Recovered                            | Oz     | 12,697     | 12,089     | 11,628     | 10,808     | 22,436  |
| Gold Sold                                 | Oz     | 13,112     | 12,530     | 11,280     | 11,931     | 23,211  |
| Cost per Ounce                            |        |            |            |            |            |         |
| Mining                                    | A\$/oz | 471        | 692        | 849        | 500        | 670     |
| Processing                                | A\$/oz | 347        | 355        | 376        | 354        | 365     |
| Site Services                             | A\$/oz | 112        | 99         | 133        | 112        | 122     |
| Ore Stock Movements                       | A\$/oz | 24         | (29)       | 70         | 52         | 60      |
| Royalties                                 | A\$/oz | 40         | 42         | 32         | 42         | 37      |
| By Product Credits                        | A\$/oz | (2)        | (2)        | (2)        | (2)        | (2)     |
| Cash Operating Costs                      | A\$/oz | 992        | 1,157      | 1,458      | 1,058      | 1,252   |
| Rehabilitation - Accretion & Amortisation | A\$/oz | 4          | 8          | 2          | 2          | 2       |
| Corporate Overheads                       | A\$/oz | 38         | 60         | 43         | 56         | 50      |
| Mine Development / Sustaining CAPEX       | A\$/oz | 335        | 368        | 313        | 54         | 180     |
| Paulsens Mine Exploration                 | A\$/oz | 1          | -          | 2          | -          | 1       |
| All-in Sustaining Costs                   | A\$/oz | 1,370      | 1,593      | 1,818      | 1,170      | 1,485   |
| Depreciation & Amortisation               | A\$/oz | 417        | 518        | 1,645      | 1,867      | 1,759   |

Table 9: Summary Details – Paulsens

Additional information on the individual Operations can be found in Appendix 1.

### **EXPLORATION AND DEVELOPMENT - OPERATIONS**

The major focus of the Group's in-mine drilling activity was concentrated at Jundee and EKJV operations with continuing programs at the Group's other projects.

#### Kanowna Belle

Underground diamond drilling continued with up to three rigs operating within the Kanowna Belle mine on grade control and resource extension programs.

Resource definition and exploration drilling progressed in the upper levels of the Lowes orebody targeting B Block, C Block and D Block areas from existing platforms. Drilling into the Lowes extension target continued from the 9245 DDR. At Velvet, resource definition and extension programs were completed at Velvet Central, Velvet East, Velvet NW and Velvet Lower areas from several platforms.

#### **EKJV (NST 51%)**

Underground diamond drilling across the Rubicon-Hornet-Pegasus complex continued during the quarter with up to five diamond rigs operating.

Resource drilling from the new Link Drill Drive at Rubicon South focussed on testing the depth extensions to the main K2 and associated hanging wall structures.

Similarly, resource definition and infill drilling at Hornet targeted extensions of K2 and adjacent hanging wall mineralisation beneath the new Link Drill Drive.

Resource definition drilling programs at Pegasus Central successfully targeted high grade extensions of the Pode system adjacent to the current mining operations in preparation for the commencement of mining operations on the Pode structure.

At Raleigh, diamond drilling programs successfully targeted extensions to the Skinners Vein resource and new structures in both the hanging wall and footwall to the Raleigh Main Vein.

#### Kundana (100% NST)

Underground grade control drilling continued at Millennium during the quarter in planned stoping blocks in the central portion of the mine.

A short resource definition drilling program successfully defined extensions to the Helga's Vein structure within the upper levels of the rehabilitated Barkers Mine.

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#### Jundee

Within the Jundee mine, the underground drill rig fleet (seven rigs) focussed on grade control, in-mine resource development and exploration programs during the quarter.

In-mine resource development and infill programs were completed at Cardassian, Nim3, Deakin South, Westside, Gateway-Gringotts, Nexus, Moneyline and Revelation areas.

Grade control drilling programs at Armada commenced from footwall drilling platforms underway from the 37L access decline.

Two rigs continued the exploratory fan drilling from the southern end of the 39 Level drill drive targeting down dip extensions to the Westside and Gateway systems with some holes continued to depth targeting the new Zodiac mineralised system.

At Zodiac, two surface diamond drill rigs continued to target the upper part of the current model of the Zodiac mineralisation north of the Stirling fault system together with the possible northward extension of the Gateway system. Two additional surface diamond rigs focussed on step-out holes testing the southern extents of the Zodiac system completing three holes to 2,000 -2,400m depths.

#### **Paulsens**

Underground extensional and exploration diamond drilling at Paulsens continued during the quarter targeting the Voyager 2 West and Voyager 2 North offsets from the excavated 160L drill drive position. Extensional drilling programs also tested down plunge extensions to the Miranda and Galileo zones from several drill platforms.

Surface diamond drilling was completed at the Southern Gabbro prospect to test for a parallel mineralised system south of Paulsens, along an interpreted structural break in the Mine Gabbro unit. Late in the quarter, underground diamond drilling testing of this area commenced from the new 660L drill drive position.

### **REGIONAL EXPLORATION**

Regional exploration activity progressed steadily across most sites during the quarter with some weather interruptions in the northern areas.

### <u>Pilbara</u>

At Paulsens, surface diamond drilling at the Southern Gabbro break area located the target structural corridor with modest anomalous results recorded. Interpretation of multielement data from underground drilling in this area has identified a new exploration target several hundred metres south of the Southern Gabbro break area.

Field mapping and sampling programs completed across interbedded conglomerate and sandstone sequences at the Metawandy Well prospect.

#### Jundee

Regional aircore drilling programs continued during the quarter within the Deep Well and Desert Dragon geological domains.

#### Kanowna

Exploration aircore drilling programs identified new anomalies at Koura and Reidy Swamp prospects to the north-west of Kanowna Belle.

#### **EKJV (NST 51%)**

EKJV regional exploration for the quarter consisted of surface RC and diamond drilling at Falcon and Papa Bear prospects.

At Papa Bear, RC and diamond drilling continued to test the anomalous grade trend on the Kurrawang structure generated from previous aircore drilling.

A five-hole diamond drilling program at Falcon, located 400m west of Pegasus, confirmed the southern extension of previous economic intercepts at Falcon.

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#### Carbine

At Paradigm, step-out diamond drilling successfully extended the Arina structure northwards from the defined resource together with additional mineralisation located in the footwall to the main Arina structure.

At Zorro, the RC and diamond drilling commenced the previous quarter was completed. The Zorro mineralised trend is highlighted by coincident pathfinder anomalies and displays a similar mineralisation style to that of the adjacent Carbine deposit. Diamond drilling indicated the presence of several stacked shear zones with significant alteration. Assay results are pending.

The SAM geophysical coverage of the greater Carbine area was extended during the quarter with multiple new targets generated for drill testing.

#### Carnage

At the Red Wedding prospect, additional RC and diamond drilling tested a broad zone corresponding to the interpreted position of the Zuleika Shear Zone. Assay results are pending.

At the Three Eights prospect, one diamond hole was completed to a depth of 202m (CGDD17087), targeting significant gold intercepts returned from the recent resampling of historical RC drill spoils. CGDD17087 intersected komatiite and porphyritic basalt lithologies, together with intervals of sericite alteration and quartz-calcite-pyrite veining. Logging and sampling is in progress.

#### **Acra Joint Venture (NST 25%)**

During the quarter, the reconnaissance aircore drilling program at the Camel Dam project was completed at the end of the quarter. Several anomalous pathfinder trends were identified for future drill testing.

Geological field mapping was carried out over the Lady Lauren, Quartz Ridge and Mayday North prospects in the central-western part of the Acra project area. Exposures of quartz veining/quartz breccia and sulphide mineralisation were mapped at each prospect, along sheared contacts between mafic and felsic rocks. A total of 16 rock chip samples were collected and submitted for analysis.

Further drilling of selected targets is awaiting the finalisation of heritage clearance activities.

#### Central Tanami Project (25% NST)

Geological mapping and sampling continued over Black Hills area and the Jim's, Camelbore and Gailfrey prospects at the CTP South area.

Aircore drilling programs for both areas have been being designed and will be commenced following the Wet season.

#### Tanami Regional Project (100% NST)

A helicopter-assisted field reconnaissance and sampling survey was completed to ground truth areas of geological interest identified from interpretation of the new aeromagnetic data. Assay results are pending.

#### **Western Tanami**

During the quarter, Northern Star (Tanami) Pty Ltd completed a sale and purchase agreement dated 2 October 2017 with Tanami Gold NL for the acquisition of control of their Western Tanami Project. The project includes 600km² of land tenure, a 350,000 tonne per annum carbon-in-leach treatment plant, camp accommodation and related infrastructure.

Drilling immediately commenced in December, with RC and diamond drilling programs (2,846m) completed at the Pebbles and Road Runner prospects. Targeted mineralised zones were successfully intercepted at both prospects before diamond drilling was suspended due to inclement weather. Assay results are pending.

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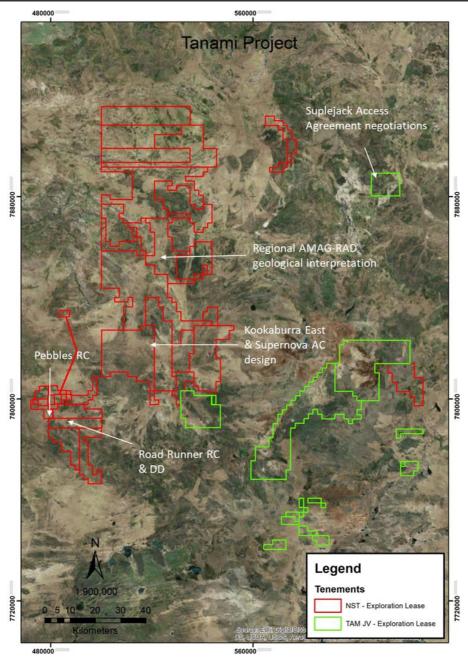


Figure 1 - Exploration activities completed on the Tanami project in December Quarter.

### **CORPORATE**

- The Company released an updated Securities Trading Policy effective 25 October 2017.
- The Company's 2017 Annual General Meeting of Shareholders was held on Thursday, 16 November 2017 with all resolutions being passed by an overwhelming majority.
- The Company released its inaugural 2017 Sustainability Report on 16 November 2017.
- Settlement of the acquisition of the Western Tanami Project from Tanami Gold NL occurred on 28 November 2017.
- During the quarter, Northern Star presented at the annual Citibank conference in Sydney, the annual UBS conference in Sydney, and the Resources Rising Stars Summer series in Sydney and Brisbane. Throughout the quarter Northern Star also hosted several investor and analyst groups to site. The Company maintains a proactive presentation calendar to stockbroking firms, institutional and retail investors to promote the Company and its activities.
- The Company's holding in Venturex Resources Limited (VXR) decreased from 20.2% to 19.0% on 24 November 2017 following a capital raising.
- Northern Star became a substantial shareholder in Echo Resources Limited, acquiring 16.4% of the issued capital in December 2017, and subsequently increased its holding to 19.2% in January 2018.

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- The following changes occurred to the issued capital of the Company subsequent to the release of the September 2017 Quarterly Report:
  - 505,940 unlisted FY2018 performance rights were issued to 35 employees on 22 December 2017 in accordance with the Company's 2016 Long Term Incentive Plan; and
  - 62,870 ordinary fully paid shares were released from voluntary escrow on 4 January 2018 in accordance with the Company's 2011 and 2017 Employee Share Plans.

The issued capital of the Company at the date of this report is:

| Class of Securities                     | Issued capital |
|---|----------------|
| Fully Paid Ordinary Shares              | 603,171,969    |
| Unlisted Options (various expiry dates) | 789,561        |
| Unlisted Performance Rights             | 10,047,140     |

Table 10: Issued Capital

Yours faithfully

**BILL BEAMENT Executive Chairman** 

Bill Bennent

Northern Star Resources Limited

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#### **Competent Persons Statements**

The information in this announcement that relates to exploration results, data quality and geological interpretations, is based on information compiled by Darren Cooke, a Competent Person who is a Member of the Australian Institute of Geoscientists and a full-time employee of Northern Star Resources Limited. Mr Cooke 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" for the Company's Jundee, Kanowna and Kundana Project areas. Mr Cooke consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

#### **Forward Looking Statements**

Northern Star Resources Limited has prepared this announcement based on information available to it. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement. To the maximum extent permitted by law, none of Northern Star Resources Limited, its directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this announcement or its contents or otherwise arising in connection with it.

This announcement is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any security, and neither this announcement nor anything in it shall form the basis of any contract or commitment whatsoever. This announcement may contain forward looking statements that are subject to risk factors associated with gold exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, Reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

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### **APPENDIX 1 – ADDITIONAL INFORMATION - OPERATIONS**

#### **Paulsens Gold Operations**

#### Safety

There were zero (0) Lost Time Injuries (LTI) during the quarter.

#### Underground Production

Mine Development:

|                | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|----------------|------------|------------|------------|------------|
| Decline        | 210m       | 184m       | 95m        | 0m         |
| Level          | 510m       | 582m       | 329m       | 233m       |
| Strike driving | 284m       | 817m       | 739m       | 21m        |
| Total (metres) | 1,004m     | 1,583m     | 1,163m     | 254m       |

Table 1: Underground Production - Mine Development

Capital development focussed on completing the 660mRL drill drive and the 110-RAW.

There were no operating development or development ore tonnes hoisted during the December Quarter.

|                         | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|-------------------------|------------|------------|------------|------------|
| Development ore (t)     | 18,522     | 44,331     | 34,296     | -          |
| Development grade (gpt) | 5.2        | 3.5        | 3.4        | -          |
| Stope ore (t)           | 54,709     | 63,244     | 65,066     | 75,612     |
| Stope grade (gpt)       | 5.3        | 4.7        | 4.4        | 4.8        |
| Low grade ore (t)       | 1,241      | 7,691      | 7,410      | -          |
| Low grade (gpt)         | 1.8        | 1.1        | 1.6        | _          |
| Total ore (t)           | 74,473     | 115,267    | 106,772    | 75,612     |
| Total grade (gpt)       | 5.2        | 4.0        | 3.9        | 4.8        |
| Contained gold (oz)     | 15,525     | 14,944     | 13,292     | 11,602     |

t=tonnes, gpt=grams per tonne, oz=ounces

Table 2: Ore Development - Mine Development

Stope production was 75,612 tonnes at 4.8gpt sourced predominately from the Voyager 2 Upper Zone orebody at the 137, 120 & 103mRL levels (28% of tonnes). Additional stope tonnes were sourced from the Voyager 1 Lower Zone orebody on the 737 & 726mRL levels (19% of stope tonnes), the Titan orebody at the 390 & 375mRL levels (17% of tonnes), the Cassini ore body at the 1110 & 1104mRL (12% of tonnes), the Galileo ore body at the 775mRL (20% of tonnes) and the Paulsens Lower Zone ore body at the 976 & 803mRL (4% of tonnes).

#### Gold Production

115,592 tonnes were milled during the quarter at 3.8gpt and 77% recovery for 10,808oz produced. Mill feed primarily consisted of Voyager 2 Upper Zone, additional sources included Titan, Voyager 1 Lower Zone and Cassini.

#### Gold Sales

11,931oz were sold.

#### Kanowna Belle Gold Operations

#### Safety

There were zero (0) Lost Time Injuries (LTI) during the quarter.

#### Underground Production

Mine Development:

|                    | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|--------------------|------------|------------|------------|------------|
| Decline            | 0m         | 0m         | 106m       | 57m        |
| Level              | 509m       | 409m       | 319m       | 498m       |
| Strike driving (1) | 456m       | 758m       | 768m       | 544m       |
| Total (metres)     | 965m       | 1,167m     | 1,193m     | 1,099m     |

Note (1) includes development through paste-fill

Table 3: Underground Production – Mine Development

Decline development continued in Velvet to open access extension of resource at depth, whilst continuing level development in Velvet Upper. Development to extract ore in A, B & C blocks continues, and D block development commences in the March Quarter.

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|                         | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|-------------------------|------------|------------|------------|------------|
| Development ore (t)     | 18,133     | 32,187     | 36,712     | 26,861     |
| Development grade (gpt) | 2.8        | 3.1        | 2.3        | 2.9        |
| Stope ore (t)           | 169,748    | 204,187    | 220,859    | 238,617    |
| Stope grade (gpt)       | 5.3        | 4.0        | 4.1        | 3.3        |
| Low grade ore (t)       | Nil        | Nil        | Nil        | Nil        |
| Low grade (gpt)         | Nil        | Nil        | Nil        | Nil        |
| Total ore (t)           | 187,881    | 236,374    | 257,570    | 265,478    |
| Total grade (gpt)       | 5.0        | 3.8        | 3.9        | 3.2        |
| Contained gold (oz)     | 30,326     | 29,160     | 32,035     | 27,603     |
|                         |            |            |            |            |

t=tonnes, gpt=grams per tonne, oz=ounces

Table 4: Underground Production - Ore Production

The continued combination of stoping from multiple areas (blocks) across Kanowna Belle has allowed the operation to optimise the production and ounce profile for the quarter. Velvet accounted for 35% of production ore.

#### Gold Production

Kanowna Belle milled 248,388 tonnes in the December Quarter at 3.2gpt and 91.0% recovery for 22,895oz produced. Ore stocks at the end of the quarter totalled 10,652oz of gold.

#### Gold Sales

24,477oz were sold.

#### **Millennium Gold Operations**

#### Introduction

The Millennium Gold Operation is a development project located on Northern Star's 100% owned Kundana tenements. The operation commenced stoping in the September Quarter and continues to meet its milestones to bring the operation in to full production.

#### Safety

There was one (1) Lost Time Injury (LTI) during the quarter.

#### Underground Production

Mine Development:

|                             | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|-----------------------------|------------|------------|------------|------------|
| Decline                     | 1,044m     | 1,106m     | 844m       | 463m       |
| Level                       |            | 231m       |            | 936m       |
| Strike driving (incl paste) |            |            | 729m       | 675m       |
| Total (metres)              | 1,044m     | 1,127m     | 1,573m     | 2,074m     |

Table 5: Underground Production – Mine Development

The development is now focussing on establishing ore drives whilst continuing to push the decline to establish additional levels and stoping fronts.

|                         | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|-------------------------|------------|------------|------------|------------|
| Development ore (t)     | Nil        | 13,345     | 48,431     | 33,465     |
| Development grade (gpt) | Nil        | 2.4        | 3.2        | 4.5        |
| Stope ore (t)           | Nil        | Nil        | 453        | 22,177     |
| Stope grade (gpt)       | Nil        | Nil        | 4.7        | 3.1        |
| Low grade ore (t)       | Nil        | Nil        | Nil        | Nil        |
| Low grade (gpt)         | Nil        | Nil        | Nil        | Nil        |
| Total ore (t)           | Nil        | 13,345     | 48,884     | 55,462     |
| Total grade (gpt)       | Nil        | 2.4        | 3.2        | 4.0        |
| Contained gold (oz)     | Nil        | 1,019      | 5,071      | 7,071      |

t=tonnes, gpt=grams per tonne, oz=ounces

Table 6: Underground Production – Ore Production

#### Gold Production

Millennium Ore was processed at the Greenfields Mill plant with 75,257 tonnes at 3.5gpt at 89.0% for 7,514oz produced.

#### Gold Sales

5,744oz were sold.

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#### **Kundana Gold JV Operations**

#### Introduction

The Kundana Gold Operations includes the Raleigh, Rubicon, Hornet and Pegasus deposits. These mines are part of the East Kundana Joint Venture (EKJV) with companies Rand Mining Ltd and Tribune Resources Ltd.

#### Safety

There were zero (0) Lost Time Injuries (LTI) during the quarter.

#### Underground Production

All mine production physicals associated with the EKJV are reported as 100% of those physicals to better represent overall mine performance.

#### Mine Development:

|                             | Mar-17 Qtr | Jun -17 Qtr | Sep -17 Qtr | Dec -17 Qtr |
|-----------------------------|------------|-------------|-------------|-------------|
| Decline                     | 428m       | 267m        | 330m        | 340m        |
| Level                       | 1,290m     | 1,475m      | 893m        | 1,564m      |
| Strike driving (incl paste) | 2,523m     | 2,476m      | 2,397m      | 2,056m      |
| Total (metres)              | 4,241m     | 4,218m      | 3,620m      | 3,960m      |

Table 7: Underground Production - Mine Development (physicals represent 100% EKJV)

Development has occurred across all capital headings - Pegasus Incline, Pegasus Decline, Rubicon Decline and the Hornet drill drive. Significant strike driving of 2,056m continues to set up and build the operations for continued and future production growth.

Development yielded 96,368 tonnes at an average reconciled grade of 3.0gpt.

|                         | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|-------------------------|------------|------------|------------|------------|
| Development ore (t)     | 134,031    | 135,356    | 124,623    | 96,369     |
| Development grade (gpt) | 4.4        | 4.3        | 4.8        | 3.0        |
| Stope ore (t)           | 125,611    | 146,862    | 154,806    | 187,582    |
| Stope grade (gpt)       | 9.2        | 9.2        | 7.3        | 7.2        |
| Low grade ore (†)       | NA         | NA         | NA         | NA         |
| Low grade (gpt)         | NA         | NA         | NA         | NA         |
| Total ore (t)           | 259,642    | 282,218    | 279,429    | 283,951    |
| Total grade (gpt)       | 6.7        | 6.9        | 6.2        | 5.7        |
| Contained gold (oz)     | 56,097     | 62,230     | 55,323     | 52,418     |

t=tonnes, gpt=grams per tonne, oz=ounces

Table 8: Underground Production - Ore production (physicals represent 100% EKJV)

The focus on stope ore tonnes continues Northern Star's emphasis on bringing higher grade tonnes on line.

### Gold Production

EKJV ore that was milled in December Quarter (NST share) was 106,730 tonnes at 7.5gpt and 96.1% recovery for 24,702 gold ounces.

Ore stocks at the end of the quarter (NST share) totalled 15,475oz of gold.

#### Gold Sales

24,702oz were sold (NST share).

#### **Jundee Gold Operations**

#### Safety

There were zero (0) Lost Time Injuries (LTI) during the quarter.

#### Underground Production

Mine Development:

|                | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|----------------|------------|------------|------------|------------|
| Decline        | 558m       | 742m       | 648m       | 553m       |
| Level          | 767m       | 661m       | 1036m      | 1040m      |
| Operating      | 2,890m     | 2,741m     | 2,614m     | 2,770m     |
| Total (metres) | 4,215m     | 4,144m     | 4,298m     | 4,362m     |

Table 9: Underground Production – Mine Development

Decline development continued across multiple mining fronts during the December Quarter, including lower Gateway, Deakin, Armada and Upper Wilson. Level development focussed on the continued progress of Armada capital and drill drives, along with Wilson, NIM and Deakin.

Operating development remained consistent with previous quarters, undertaken across all mining areas.

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Total of 2,770 operating metres were completed, yielding 127,256 tonnes at an average grade of 4.1gpt.

| -                       | Mar-17 Qtr | Jun-17 Qtr | Sep-17 Qtr | Dec-17 Qtr |
|-------------------------|------------|------------|------------|------------|
| Development ore (t)     | 139,647    | 120,110    | 127,134    | 127,257    |
| Development grade (gpt) | 3.1        | 2.5        | 3.9        | 4.1        |
| Stope ore (t)           | 216,865    | 284,954    | 280,673    | 279,765    |
| Stope grade (gpt)       | 6.0        | 9.0        | 6.7        | 5.6        |
| Total ore (t)           | 356,513    | 405,064    | 407,807    | 407,022    |
| Total grade (gpt)       | 4.8        | 7.1        | 5.8        | 5.1        |
| Contained gold (oz)     | 55,438     | 92,376     | 76,326     | 66,673     |

t=tonnes, gpt=grams per tonne, oz=ounces

Table 10: Underground Production – Ore production

Stoping ore during the December Quarter was sourced from high grade, narrow vein stoping panels, at a rate of 90,000 tonnes per month, for 279,765 tonnes at 5.6gpt. Mining fronts included Gateway, Deakin, Cardassian, Upper Nimary, Lower West Side North and West Side South.

#### Gold Production

Jundee ore milled in the December Quarter was 440,172 tonnes at 5.0gpt and 89% recovery for 62,915oz.

With completion of construction and optimisation of permanent secondary crushing circuit, a blend of 85% crushed material (-25mm) was achieved throughout the quarter. Work was also undertaken to optimise mill set points and Manta control system, resulting in an increase in mill throughput. This was highlighted by 162,766 tonnes processed at 221tph of hard-rock underground material in December.

Ore stocks at the end of the quarter totalled 40,270oz of gold.

#### Gold Sales

61,965oz were sold.

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