



ASX Announcement
 29 January 2020

DECEMBER 2019 QUARTERLY ACTIVITIES REPORT

Northern Star set for more growth in cashflow with outstanding results in Australia, further strong progress at Pogo and acquisition of 50% KCGM Super Pit

Pogo strategy gaining momentum with production continuing to rise and costs falling

- Gold sold in the December quarter of 214,635oz at an AISC of A\$1,421/oz (US\$971/oz)*
 - Australian operations sold 169,584oz at an AISC of A\$1,263/oz (US\$863/oz) (Sep-Qtr: 155,043oz at A\$1,250/oz), exceeding the top-end of guidance on an annualised basis
 - Pogo operations sold 45,051oz at an AISC of US\$1,380/oz (Sep-Qtr: 28,961oz at US\$1,919/oz); 56% increase in gold sold and a 28% decrease in costs from the September quarter
- Underlying free cash flow of A\$88M for the December quarter; this was despite investing ~A\$53M in growth capital and exploration
- AISC for the group was elevated by approximately A\$117/oz compared to historical levels due to;
 - A\$60/oz in mine development and sustaining capital establishing multiple new mining production areas at Pogo. This cost is expected to substantially decrease as long hole stoping ounces increase
 - A\$42/oz in non-cash ore stockpile movements
 - A\$15/oz in extra royalty costs associated with the higher prevailing gold price to budget
- Cash, bullion and investments at 31 December was A\$1.4B (A\$372M at 30 September) predominantly reflecting the funding proceeds to complete the US\$800M acquisition of KCGM which occurred January 3, 2020
- December quarter production:
 - Jundee Gold Operations:
 - 96,944oz mined and 82,434oz sold at an AISC A\$1,030/oz (US\$704/oz)
 - Kalgoorlie Gold Operations:
 - 90,724oz mined and 87,150oz sold at an AISC A\$1,483/oz (US\$1,013/oz)
 - Pogo Gold Operations:
 - 53,339oz mined and 45,051oz sold at an AISC A\$2,019/oz (US\$1,380/oz)
- December quarter results put Northern Star on track to meet FY20 guidance of 920,000 – 1,040,000oz at AISC of A\$1,240 – A\$1,340/oz (incl 50% share of KCGM from January 1, 2020)
- More strong progress at Pogo, with key performance indicators continuing to significantly improve month-on-month through the quarter

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- Gold production increased 56% over the September quarter and was: 9,800oz in October, 14,776oz in November and 21,570oz in December
- Stopping provided 60% of total mined ore tonnages in the December quarter, up from 37% in the September quarter and 33% in the March quarter (stopping tonnes target is 65,000t per month and 60% of total mill feed)
- Pogo performance in the month of December marked the inflection point for the operation with 24,708oz mined at 9.8gpt, 22,574oz sold at an AISC of A\$1,410/oz (US\$964/oz)
- Northern Star acquired a 50% interest in KCGM and associated assets for US\$800M; Economic ownership effective from January 1, 2020
- Jundee's A\$22M mill expansion to 2.7Mtpa, Board approved and due for commissioning in the June Qtr
- During the quarter, Northern Star took full ownership of Echo Resources (ASX: EAR)
- Northern Star will host a quarterly conference call today, 29 January 2020 at 9:30am AEDT (6:30am AWST). The call can be accessed: <https://webcasting.boardroom.media/broadcast/5e1d5fe5faf62d3f0d92484f>

Northern Star Resources (ASX: NST) is pleased to report on a highly successful quarter which saw the Company emerge as a +1 million-ounce-a-year gold producer with four Tier-1 assets in Tier-1 locations.

Northern Star's acquisition of a 50 per cent share of the KCGM Super Pit in Kalgoorlie, which took financial effect from January 1, 2020, combined with the outstanding performance of its Australian operations and more strong progress at the Pogo mine in Alaska during the quarter, puts the Company on track to meet its FY20 guidance of 920,000 – 1,040,000oz at an all-in sustaining cost (AISC) of A\$1,240-A\$1,340/oz.

The Company's capacity to generate outstanding cashflow from this world-class asset base is highlighted by the A\$88M in underlying free cashflow recorded in the December quarter, excluding KCGM. This strong result came despite investing A\$53M in growth capital and exploration.

The increased production profile stemming from the KCGM acquisition will also have a direct impact on Northern Star's dividend payments due to the Company's policy of paying out the equivalent of 6 per cent of annual revenue.

During the quarter, Northern Star's Australian operations exceeded guidance, with gold sales totalling 169,584oz at an AISC of A\$1,263/oz. This included a stellar performance at Jundee, where the total gold mined was 96,944oz with sales of 82,434oz at an AISC of A\$1,030/oz. At the Kalgoorlie Operations, gold mined totalled 90,724oz and sales were 87,150oz at an AISC of A\$1,483/oz.

AISC for the group was elevated by approximately A\$117/oz compared to historical levels due to; A\$60/oz in mine development and sustaining capital establishing multiple new mining production areas at Pogo (this cost is expected to substantially decrease as long hole stopping ounces increase), A\$42/oz in non-cash ore stockpile movements and A\$15/oz in extra royalty costs associated with the higher prevailing gold price compared to the Company's budget.

At Pogo, the introduction of long-hole open stopping and other strategic initiatives continued to deliver significant benefits, as demonstrated by a range of key performance indicators. The performance in the month of December marked the inflection point for the operation with 24,708oz mined at 9.8gpt, 22,574oz sold at an AISC of A\$1,410/oz (US\$964/oz).

For the quarter, production at Pogo rose 56% to 46,146oz from 29,468oz in the September quarter while the AISC fell 28% to US\$1,380/oz from US\$1,919/oz in the September quarter. Stopping tonnages rose to 134,764t in the December quarter, this was almost double the September quarter figure. Importantly, they accounted for 60 per cent of all tonnes mined, up from 37 per cent in the September quarter.

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At KCGM, Northern Star and its joint venture partner Saracen Mineral Holdings (ASX: SAR) have moved quickly to establish a new Executive Management Committee comprising two representatives each of Northern Star and Saracen.

The JV partners have also initiated an extensive strategic review with three JV sub-committees established covering Technical/Operations, Financial/Commercial and Exploration/Growth.

Northern Star Executive Chairman Bill Beament said it was a pivotal quarter for the Company which further strengthened its key investment qualities of strong financial returns, scale and long-life assets in Tier-1 jurisdictions.

“This will go down as a remarkable quarter in the history of Northern Star,” Mr Beament said. “We are delighted with the performance of our Australian operations, our strategy at Pogo delivered substantial improvements and we acquired a half-share in one of the most significant gold systems in the world through the KCGM deal.

“We now have four Tier-1 assets in Tier-1 locations delivering well over a million ounces a year, underpinned by long mine lives and generating vast amounts of free cashflow.

“Moreover, all our assets boast significant potential for ongoing organic growth, which, as we have shown in the past, delivers exceptional financial returns.”

Mr Beament said the strong progress was already being made at KCGM, with Northern Star and Saracen quickly establishing a new Executive Management Committee and initiating an extensive review of all aspects of the project.

“It is already clear that the strong co-operative approach adopted by the two companies will enable us to further unlock this exceptional opportunity and create significant value,” he said.

“Both companies will also benefit enormously from the complementary skills sets given Saracen’s well-established open pit capability and Northern Star’s extensive underground and large-scale operational experience.”

Northern Star	Units	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr	FYTD
Ore Hoisted	Tonnes	1,379,931	1,583,079	1,439,654	1,502,172	2,941,826
Mined Grade	gpt Au	4.6	4.8	4.4	4.7	4.5
Gold in Ore Hoisted	Oz	205,332	245,436	204,590	224,494	429,084
Open Pit Ore Mined	Tonnes	-	214,388	302,093	339,961	642,054
Mined Grade	gpt Au	-	1.5	1.6	1.5	1.5
Gold in Open Pit Ore Mined	Oz	-	10,245	15,272	16,513	31,785
Total Mined Ounces	Oz	205,332	255,681	219,862	241,007	460,869
Milled Tonnes	Tonnes	1,454,762	1,620,301	1,530,243	1,588,428	3,118,671
Head Grade	gpt Au	4.4	4.8	4.3	4.6	4.5
Ounces Produced	Oz	206,731	250,572	211,553	235,428	446,981
Recovery	%	90	90	89	90	90
Gold Recovered	Oz	186,254	226,028	188,175	212,571	400,746
Ounces Sold	Oz	185,296	232,042	184,005	214,635	398,640
Cash Operating Cost	A\$/oz	1,164	1,074	1,170	1,106	1,136
All-in Sustaining Cost	A\$/oz	1,369	1,238	1,493	1,421	1,454
Total Stockpiles Contained Gold	Oz	78,721	84,857	93,474	95,226	95,226
Gold in Circuit (GIC)	Oz	26,991	21,753	25,429	23,656	23,656
Gold in transit	Oz	358	-	-	-	-

Northern Star	Units	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr	FYTD
Revenue – Gold	A\$M	329.7	426.8	372.9	442.7	815.6
Average Price	A\$/oz	1,779	1,839	2,027	2,063	2,046

Table 1: Key Group Performance Figures (Quarterly)

DECEMBER 2019 QUARTERLY ACTIVITIES REPORT

Northern Star	Units	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr	FYTD
Underground Mining	A\$/oz	718	629	728	630	673
Open Pit Mining	A\$/oz	2	14	28	25	27
Processing	A\$/oz	311	279	354	303	327
Site Services	A\$/oz	97	83	90	68	78
Ore Stock & GIC Movements	A\$/oz	5	40	(74)	42	(11)
Royalties	A\$/oz	33	32	46	41	44
Ore Purchase	A\$/oz	1	-	-	-	-
By Product Credits	A\$/oz	(3)	(3)	(3)	(3)	(3)
Rehabilitation-Accretion & Amortisation	A\$/oz	9	7	6	5	6
Corporate Overheads	A\$/oz	44	48	58	60	59
Mine Development/Sustaining CAPEX	A\$/oz	123	82	225	214	219
Mine Exploration	A\$/oz	28	27	35	36	35
All-in Sustaining Costs	A\$/oz	1,368	1,238	1,493	1,421	1,454
Depreciation & Amortisation	A\$/oz	354	345	415	371	392

Table 2: Key Group Cost per Ounce Measures

Production KPIs December Quarter	Units	Jundee	Kalgoorlie Operations	Pogo	Total
Ore Hoisted	Tonnes	525,253	753,080	223,839	1,502,172
Mined Grade	gpt Au	4.8	3.8	7.4	4.7
Gold in Ore Hoisted	Oz	80,431	90,724	53,339	224,494
Open Pit Ore Mined	Tonnes	339,961	-	-	339,961
Mined Grade	gpt Au	1.5	-	-	1.5
Gold in Open Pit Ore Mined	Oz	16,513	-	-	16,513
Total Mined Ounces	Oz	96,944	90,724	53,339	241,007
Milled Tonnes	Tonnes	572,576	793,862	221,990	1,588,428
Head Grade	gpt Au	4.7	3.7	7.5	4.6
Recovery	%	92	91	87	90
Gold Recovered	Oz	80,069	86,356	46,146	212,571
Gold Sold	Oz	82,434	87,150	45,051	214,635
Cash Operating Costs	A\$/oz	783	1,134	1,645	1,106
All-in Sustaining Costs	A\$/oz	1,030	1,483	2,019	1,421
Depreciation & Amortisation	A\$/oz	345	374	391	371

Table 3: Key Quarterly Mine Production Performance

FINANCE

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

		Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Cash at bank ⁽¹⁾	A\$M	\$218.8	\$266.2	\$319.1	\$1,365.3
Bullion awaiting settlement ⁽²⁾	A\$M	\$20.1	\$44.3	\$0.1	\$24.1
Equity Investments	A\$M	\$48.8	\$50.9	\$52.9	\$27.3
Total	A\$M	\$287.7	\$361.4	\$372.1	\$1,416.7

⁽¹⁾ As at 31 December Cash at bank includes US\$800 million (A\$1,142 million) for KCGM acquisition, which completed 3 January 2020.

⁽²⁾ Bullion awaiting settlement is dore which has been received by the refiner in the quarter and is awaiting settlement.

Table 4: Cash, bullion and equity investments

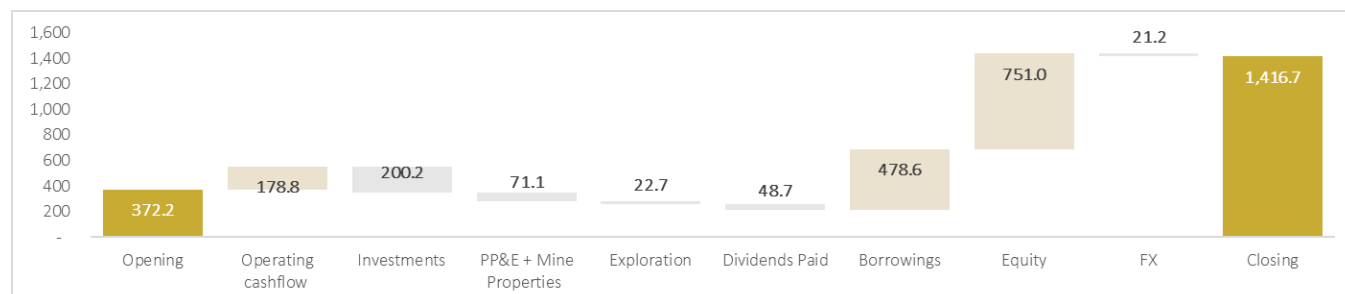
The below table sets out the total of surface gold inventories:

Gold Inventories	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Stockpiles contained gold (oz)	78,721	84,857	93,474	95,226
Gold in circuit (oz)	26,991	21,753	25,429	23,656
Gold in transit (oz)	358	-	-	-
Total Gold Inventories (oz)	106,070	106,610	118,903	118,882

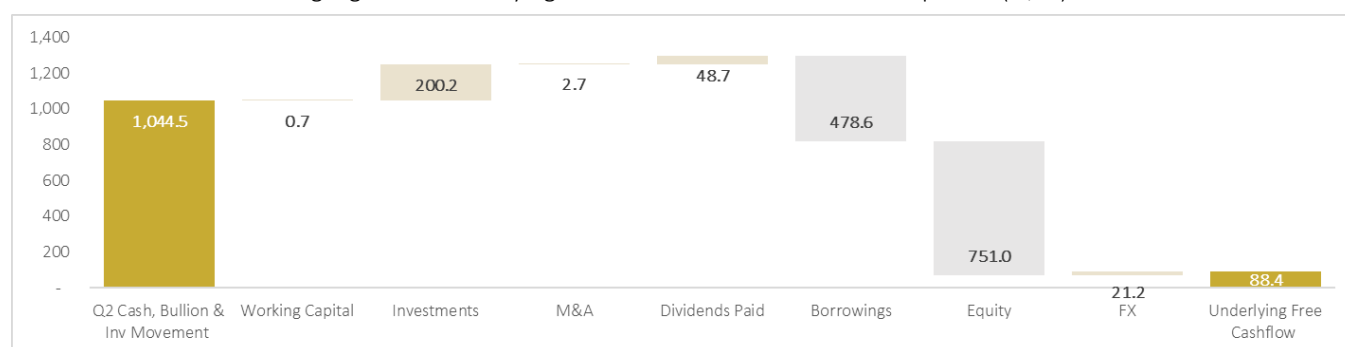
Table 5: Gold Inventories

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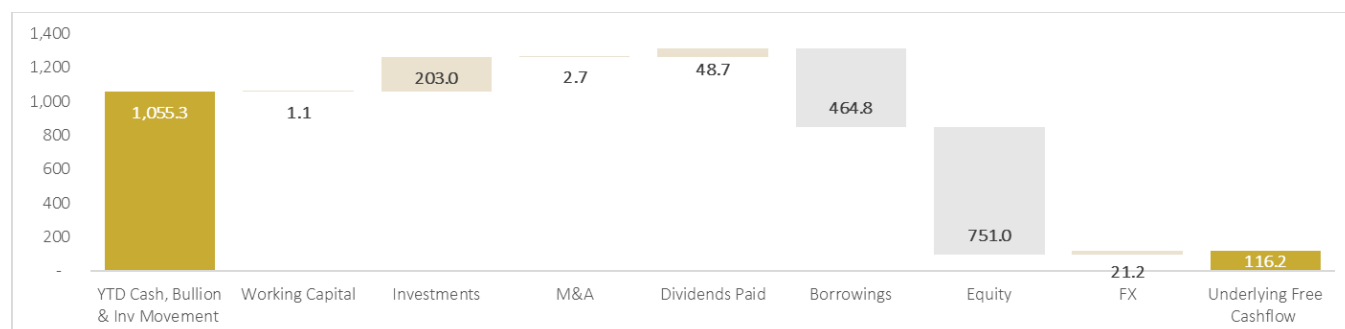
The below waterfall chart highlights the December quarter's operating cash flow together with movements in cash, bullion and investments (A\$M):



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



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



Banking Facilities

At 31 December 2019, NST had drawn corporate debt totalling A\$500 million predominately in anticipation of completing the KCGM acquisition which occurred 3 January 2020. A\$425 million of debt was utilised to part fund the acquisition consideration.

Hedging

The below table outlines the Company's outstanding hedges at 31 December 2019:

Term	Jun-20 Half	Dec-20 Half	Jun-21 Half	Dec-21 Half	Jun-22 Half	Dec-22 Half	Total
Ounces	115,000	130,000	114,000	54,000	54,000	54,000	521,000
Gold Price/oz	A\$1,897	A\$1,888	A\$2,029	A\$2,170	A\$2,175	A\$2,180	A\$2,010
Ounces	22,500	-	-	-	-	-	22,500
Gold Price/oz	US\$1,357	-	-	-	-	-	US\$1,357

Table 6: Hedging commitments

During the quarter 276,000 ounces of gold were hedged at A\$2,172 per ounce and 7,500 at US\$1,509 per ounce. The additional cover placed results in Northern Star having ~16% of production hedged over the next 3 calendar years, when using FY20 midpoint guidance (inclusive of 50% KCGM).

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OPERATIONS

Jundee Gold Operations

Production Summary Jundee Operations		Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr	FYTD
Ore Mined - Underground	Tonnes	508,361	575,181	540,226	525,253	1,065,479
Mined Grade	gpt Au	5.0	4.8	5.2	4.8	5.0
Ounces Mined - Underground	Oz	81,089	89,549	89,993	80,431	170,424
Ore Mined - Open Pit	Tonnes	-	214,388	302,093	339,961	642,054
Mined Grade	gpt Au	-	1.5	1.6	1.5	1.5
Ounces Mined - Open Pit	Oz	-	10,245	15,272	16,513	31,785
Total Mined Ounces	Oz	81,089	99,794	105,265	96,944	202,209
Milled Tonnes	Tonnes	490,934	634,216	586,588	572,576	1,159,164
Head Grade	gpt Au	4.9	4.6	5.0	4.7	4.9
Recovery	%	90	91	90	92	91
Gold Recovered	Oz	70,154	84,647	84,847	80,069	164,916
Gold Sold	Oz	67,420	89,395	81,428	82,434	163,862
Cost per Ounce						
Underground Mining	A\$/oz	637	550	496	497	497
Open Pit Mining	A\$/oz	-	33	59	66	62
Processing	A\$/oz	188	204	167	168	168
Site Services	A\$/oz	45	33	39	37	38
Ore Stock Movements	A\$/oz	(38)	2	(46)	(36)	(41)
Royalties	A\$/oz	43	45	58	54	56
By Product Credits	A\$/oz	(3)	(3)	(3)	(3)	(3)
Cash Operating Costs	A\$/oz	872	864	770	783	777
Rehabilitation - Accretion & Amortisation	A\$/oz	4	3	2	2	2
Corporate Overheads	A\$/oz	43	49	56	67	61
Mine Development / Sustaining CAPEX	A\$/oz	76	19	127	158	143
Jundee Mine Exploration	A\$/oz	26	22	30	20	25
All-in Sustaining Costs	A\$/oz	1,021	957	985	1,030	1,008
Depreciation & Amortisation	A\$/oz	210	254	371	345	358

Table 7: Summary Details – Jundee Operations

Kalgoorlie Gold Operations

Production Summary Kalgoorlie Operations		Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr	FYTD
Ore Mined	Tonnes	699,750	804,985	703,942	753,080	1,457,022
Mined Grade	gpt Au	3.8	4.1	3.5	3.8	3.6
Ounces Mined	Oz	84,492	105,321	78,714	90,724	169,438
Milled Tonnes	Tonnes	772,960	780,451	743,532	793,862	1,537,394
Head Grade	gpt Au	3.7	4.2	3.4	3.7	3.6
Recovery	%	91	91	90	91	90
Gold Recovered	Oz	82,720	95,787	73,860	86,356	160,216
Gold Sold	Oz	81,648	94,638	73,617	87,150	160,767
Cost per Ounce						
Mining	A\$/oz	686	631	814	645	725
Ore Purchase	A\$/oz	3	-	-	-	-
Processing	A\$/oz	273	244	382	264	315
Site Services	A\$/oz	63	64	66	45	54
Ore Stock Movements	A\$/oz	14	50	(111)	132	21
Royalties	A\$/oz	39	37	52	51	51
By Product Credits	A\$/oz	(4)	(3)	(4)	(3)	(3)
Cash Operating Costs	A\$/oz	1,074	1,023	1,199	1,134	1,163
Rehabilitation - Accretion & Amortisation	A\$/oz	6	5	7	6	7
Corporate Overheads	A\$/oz	44	49	57	65	62
Mine Development / Sustaining CAPEX	A\$/oz	180	136	232	210	220
Kalgoorlie Operations Mine Exploration	A\$/oz	43	44	47	68	58
All-in Sustaining Costs	A\$/oz	1,347	1,257	1,542	1,483	1,510
Depreciation & Amortisation	A\$/oz	447	434	441	374	405

Table 8: Summary Details – Kalgoorlie Operations

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Pogo Gold Operations

Production Summary		Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr	FYTD
Pogo Operations						
Ore Mined	Tonnes	171,820	202,913	195,486	223,839	419,325
Mined Grade	gpt Au	7.2	7.8	5.7	7.4	6.6
Ounces Mined	Oz	39,750	50,566	35,883	53,339	89,222
Milled Tonnes	Tonnes	190,868	205,634	200,123	221,990	422,113
Head Grade	gpt Au	6.2	7.8	5.5	7.5	6.5
Recovery	%	89	88	83	87	85
Gold Recovered	Oz	33,381	45,594	29,468	46,146	75,614
Gold Sold	Oz	36,227	48,009	28,961	45,051	74,012
Cost per Ounce						
Mining	A\$/oz	953	774	1,162	842	967
Processing	A\$/oz	623	488	825	625	703
Site Services	A\$/oz	268	216	295	170	219
Ore Stock Movements	A\$/oz	68	91	(58)	10	(16)
By Product Credits	A\$/oz	(3)	(3)	(3)	(2)	(3)
Cash Operating Costs	A\$/oz	1,909	1,566	2,221	1,645	1,870
Rehabilitation - Accretion & Amortisation	A\$/oz	25	16	15	10	12
Corporate Overheads	A\$/oz	44	46	61	39	48
Mine Development / Sustaining CAPEX	A\$/oz	84	96	478	325	385
Pogo Mine Exploration	A\$/oz	-	-	23	-	9
All-in Sustaining Costs	A\$/oz	2,062	1,724	2,798	2,019	2,324
Depreciation & Amortisation	A\$/oz	420	312	441	391	411

Table 9: Summary Details - Pogo Operations

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

EXPLORATION AND DEVELOPMENT - OPERATIONS

The Group's significant in-mine drilling activity continued across the Australian operations with an increased level of activity at Pogo accompanying the ramp up of the new underground drilling contractor at Pogo.

Jundee

At Jundee, the underground diamond drill fleet increased to 14 rigs with an expanded focus on resource extension and exploration drilling across all mining areas.

Reserve definition programs were completed within the Armada, Barton North, Gateway, Hughes, NIM Deeps, Nexus, Throssell and Westside systems with all results within expectations.

Resource extension drilling within historical systems targeted several areas within Armada, Cardassian, Deakin, Gringotts, Nexus, Westside and Westside Deeps with particularly strong results recorded in the extensions to the Deakin system both north and south of the current infrastructure.

Exploration programs continued on targets associated with the Lyons South/Hughes area, Revelation trend, the "Invicta Gap" and Gateway South area. Excellent results continued to be recorded from Lyons South/Hughes area, southern areas of the Invicta Gap (Deakin, Cardassian) while initial drilling into the Cook and Gateway South areas also indicated potential extensions to the mineralised trends.

Kanowna Belle

Underground diamond drilling continued across the upper levels of the Kanowna Belle mine with a strong focus on the hanging wall Sims and Troy systems.

Extensional drilling in the hanging wall of the main Lowes ore system focussed continues to refine strongly mineralised structures on the Sims and Troy trends across C Block areas with scattered high-grade intersections now extending up-dip into the B Block hanging wall.

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At Velvet, extensional drilling on the Velvet East and main VM01 Velvet trend highlighted potential extensions both up and down plunge on these systems.

Kundana

Underground diamond drilling resource definition programs were completed at Millennium, Pope John, Moonbeam and Xmas deposits during the quarter with modest depth extensions identified at Millennium.

Exploration drilling recommenced late in the quarter at Pope John testing potential northward extensions to the main K2 trend at depth.

EKJV (NST 51%)

Underground diamond drilling from underground platforms at Pegasus and Raleigh was largely focussed on extensional and in-fill resource definition programs into the new Falcon trend located midway between Pegasus and Raleigh mines with continued success. Exploratory underground development to access the Falcon mineralised corridor from the Pegasus infrastructure commenced during the quarter.

Resource definition drilling in the Hera Lode within the Pegasus hanging wall achieved better than anticipated results while late in the quarter, exploration drilling from a platform at Hornet commenced targeting possible southern extensions to the Falcon trend with early positive indications.

South Kalgoorlie

In-mine underground resource definition drilling programs continued targeting extensions to both the NOZ and Jubilee ore trends. Drilling results continue to confirm the NOZ trend down plunge and expanded a new mineralised trend in the footwall of the NOZ.

In addition, surface exploration diamond drilling continued further extending the NOZ mineralisation northward down plunge in the Mutooroo area.

Pogo

The underground diamond drill fleet changeover was completed in the quarter with eight rigs fully operational within the mine areas.

Underground drilling was focussed on in-fill and reserve definition extension drilling across all the major Liese Vein systems (L1, L2, L3), North Zone, X-Vein, South Pogo and Fun Zone areas with results generally within expectations. In addition, excellent intersections were recorded from numerous unmodelled structures in all areas, particularly the Fun Zone, North Zone and X-vein areas, providing possible extensions to all known systems.

REGIONAL EXPLORATION

Regional exploration activity continued at a high level across all areas during the quarter.

Jundee

Regional exploration continued in the Deep Well region, located 35 kilometres south east of the Jundee mill, focussed on the areas surrounding the new Ramone open pit.

Follow on RC drilling programs continued at Tosh, Barrett and Marley North prospects to test anomalous gold trends revealed by regional aircore drilling. Assay results confirmed the shallow mineralised trends at Tosh while results for Marley North are pending. Further drilling is planned for next quarter.

Regional surface geochemical programs continued over the Eastern Bloc area, located 10 kilometres north of Ramone, where several new target areas have been identified for future drilling.

Kanowna

A regional diamond drilling program targeting the southern portion of the two-kilometre zone between Kanowna Belle Mine eastwards to the BLC-Red Hill deposit area (Fitzroy Chasers) commenced during the quarter with four holes completed. In

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In addition to confirming the eastward extension of the prospective stratigraphy from the Kanowna Belle mine, the holes encountered several zones of quartz-sulphide veining associated with the contacts of felsic intrusive bodies. All assay results are pending.

Pogo

Surface exploration drilling at Pogo continued over the Goodpaster Project area with two diamond drill rigs in operation from road positions early in the quarter. The Goodpaster Project is considered the continuation of the main Pogo mineralised trend focussed approximately 1km west of the recently announced Central Veins discovery area adjacent to the existing Pogo production areas.

The initial Goodpaster drilling program completed in mid-November, continued to confirm the continuity of the principal stacked flat-dipping (Liese-type) and steeply dipping (North Zone type) vein structures across the south-central part of the known mineralisation footprint. A significant number of assay results remain pending for the program however results have continued to confirm grade, thickness and continuity of the main G1 and G2 structures.

A single diamond drill hole completed at West Knoll, between the Burn and Goodpaster mineralised areas, intersected several narrow structures with all assays pending.

An initial surface diamond drilling program commenced on the new Lily Zone target in early November and continued until the shutdown for the Christmas period. The Lily Zone is a series of flat-dipping vein structures mapped from surface exposures and historic drill hole intersections located approximately 400 metres into the hangingwall from the main Liese vein system. The target area outcrops on the main ridge to the southwest of the Pogo mill site.

A total of ten drill holes were completed prior to the Christmas shutdown with most holes intersecting one or more stacked quartz-sulphide ± visible gold veins interpreted to represent main Lily vein structure(s) close to a WNW-striking graphitic fault zone. All assay results are pending.

South Kalgoorlie

Regional exploration continued across the extensive South Kalgoorlie tenements on selected project areas with further success in several areas.

Results from resource development drilling at West Mutooroo which intersected a series of east-west oriented quartz veins indicated two broad zones of low-grade gold mineralisation the host quartz dolerite unit. Further drilling is planned.

Following the significant results revealed last quarter from the Triumph deposit, located 6 kilometres north west of HBJ, RC and diamond drilling is in progress further define the extent and continuity of shallow-dipping mineralised zones beneath the Triumph open pit. A total of six RC pre-collars and two diamond drill tails were completed during the quarter with visual results indicating intervals of significant quartz-carbonate ± visible gold veining at target depths within the granophyric gabbro unit of the Condenser Dolerite. Initial assay results received for the two RC pre-collars revealed additional intersections of low-grade gold mineralisation located outside the principal target zones. All other assays are pending.

RC drilling programs testing for continuations of near-surface mineralisation both north and south of the Samphire open pit last quarter returned only isolated intersections. Final assay results for diamond drilling beneath the northern portion of the Samphire open pit confirmed the presence of three main mineralised trends within the host dolerite unit. Geological modelling of the results is in progress to outline the economic potential of the area.

An initial diamond drilling program at the Golden Eagle prospect, located 10 kilometres southeast of Coolgardie, successfully extended the zone of shallow mineralisation. Visual inspection of the core from both holes revealed a thick, laminated quartz-sulphide vein structure over a strike length of approximately 100 metres. All assays results are pending at the end of the quarter with further drilling planned.

Full assay results are also pending for RC drilling programs completed at a range of prospects including Stockyard Dam (Loc 51), Abattoir Shear, Greenback, Steinway and Aeneas (Enigma South).

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Carbine

Further RC drilling at Phantom continued to successfully outline potential extensions to the Phantom main lode trend together with significant new, parallel hangingwall trends above the Carbine shear zone.

Central Tanami Project (NST 40%)

Several aircore and RC drilling programs were completed during the quarter.

A 12 hole RC drilling program completed at the Ripcord prospect, located south east of Groundrush mining area, targeted potential strike extensions to the north. Early assay results from the northern most holes are encouraging with assay results for the remainder of the program still pending. Reconnaissance aircore drilling also targeted the untested Groundrush-Ripcord corridor generating several anomalies for future drilling.

In the Suplejack area, located approximately 120 kilometres north of the Central Tanami plant site, early results from RC drilling at the Crusade deposit indicated potential strike extensions to the existing resource model. Further north at Kokoda, RC drilling on an untested geochemical anomaly intersected minor gold mineralisation with further drilling planned.

Tanami Regional Project (100% NST)

A co-funded airborne gravity survey (1,422 line kilometres) was flown during the quarter over the southern margin of the Browns Range area within the Northern Territory. The acquired data is undergoing analysis and inversion modelling.

Western Tanami

The surface RC/diamond drilling at the Gremlin prospect was completed during of the quarter. The program was co-funded by the WA Exploration Incentive Scheme and is designed to test a newly defined composite geophysical anomaly. Initial results indicate the presence of several mafic intrusive bodies at depth exhibiting significantly elevated base metal anomalism.

CORPORATE

- On 21 October 2019 the 9,345,200 Performance Rights which were awarded in December 2016 as the single and only grant of long term incentives under the Company's Long Term Incentive Plan to the Company's Key Management Personnel and other senior employees, vested following outperformance on shareholder value and long term safety performance hurdles over a three year performance period from 16 October 2016 to 16 October 2019. Of the 9,345,200 shares issued, 2,120,000 are escrowed until 17 October 2020 and 2,120,000 are escrowed until 17 October 2021.
- On 6 November 2019 the Company's US subsidiaries were included as co-defendants in proceedings issued by Great American Minerals Exploration, Inc (GAME) against Sumitomo subsidiaries and their financial adviser RCI Capital Group, Inc, and Sumitomo's joint venture partner SC Minerals, seeking damages for alleged conduct detrimental to capital raising by GAME since 2016, in relation to GAME's option to purchase the Monte Cristo project from Sumitomo and SC Minerals subsidiaries under a 2016 Monte Cristo Option Agreement. Breach of the Monte Cristo Option Agreement is also alleged by GAME. The matter is before the Superior Court for the State of Alaska. The Monte Cristo project is a greenfields exploration project on which GAME has been sole funding exploration since 2016 under the terms of the Monte Cristo Option Agreement. The Monte Cristo project is located approximately 50km west of Northern Star's Pogo mine. Northern Star's subsidiary Stone Boy, Inc, acquired on 23 April 2019, is the registered holder of the Monte Cristo tenure and Sumitomo and SC Minerals subsidiaries are the beneficial owners of the Monte Cristo Project subject to the rights of GAME under the Monte Cristo Option Agreement.
- In relation to the Company's off market takeover bid for Echo Resources Limited, at close of the takeover offer period on 11 November 2019, Northern Star had a relevant interest in 98.14% of Echo shares. The Company acquired the remaining 1.86% of Echo shares under the compulsory acquisition regime in the Corporations Act on 6 December 2019.
- All resolutions were passed on a poll at the Company's Annual General Meeting on 14 November 2019.
- A fully franked final dividend of 7.5 cents per share with a record date of 30 October 2019 was paid on 20 November 2019.
- On 17 December 2019 the Company announced the execution of a binding share sale agreement with Newmont Goldcorp Australia Pty Ltd, a subsidiary of Newmont Goldcorp Corporation, to acquire all the shares in Kalgoorlie Lake View Pty Ltd

DECEMBER 2019 QUARTERLY ACTIVITIES REPORT

(KLV), which holds a 50% interest in Kalgoorlie Consolidated Gold Mines Pty Ltd (KCGM) and in the operations and assets managed by KCGM (KCGM Operations), for US\$775 million and associated assets for US\$25 million, for a total consideration of US\$800 million. The Company completed the acquisition on 3 January 2020, funding the purchase price with A\$425 million of secured debt, the proceeds of a heavily oversubscribed A\$765 million underwritten placement (Placement) of 85 million shares issued at A\$9 each to institutional shareholders, and existing cash.

- On 17 December 2019 the Company announced a Share Purchase Plan (SPP) entitling Eligible Shareholders in Australia and New Zealand registered on the record date of 16 December 2019 to subscribe for shares at the same issue price as the Placement, up to the value of the limit of A\$30,000 per Shareholder, targeting a total raising of A\$50 million. The SPP proceeds will be used to pay the transaction costs associated with the acquisition of Kalgoorlie Lake View Pty Ltd announced on 17 December 2019 and completed on 3 January 2020, and for ongoing working capital requirements. The SPP closed heavily oversubscribed on 24 January 2020. The Northern Star Board has determined to maintain the originally targeted cap of A\$50 million, and will apply a scale back and allocation policy at its discretion. Further details will follow in due course.
- The Company completed a tenement exchange agreement with Horizon Minerals Limited on 19 December 2019, acquiring Horizon's 100% interest in the Anthill, Blister Dam, New Mexico, White Flag and Kanowna North tenements in Western Australia.
- On 20 December 2019, the Company despatched a Notice of General Meeting for Shareholders to approve a placement of shares at the same issue price as the Placement, to two directors and a former director of up to A\$5M, amongst other resolutions. All resolutions were passed on a poll at the General Meeting on 22 January 2020. This placement of shares to related parties will be issued in February 2020 to pay the transaction costs associated with the acquisition of Kalgoorlie Lake View Pty Ltd announced on 17 December 2019.
- On 20 December 2019 following Shareholder approval of the new FY20 Share Plan at the Company's Annual General Meeting on 14 November 2019, the Company awarded the Company's Key Management Personnel and other senior employees with a total 1,187,759 long term incentive Performance Rights, with a three year performance period, and 494,422 short term incentive Performance Rights with a one year performance period, as the FY20 annual grant forming part of their FY20 remuneration packages.
- On 20 December 2019 a Writ of Summons was served by Tribune Resources Limited, Rand Mining Limited and Rand Exploration NL against Northern Star subsidiaries EKJV Management Pty Ltd, Northern Star (Kanowna) Pty Ltd and Gilt-Edged Mining Pty Ltd seeking interlocutory injunctions, and permanent relief in the form of declarations, as to the East Kundana Joint Venture parties' rights under the East Kundana Joint Venture Agreement, and the rights of the parties under the Ore Treatment Agreement relating to the processing of Tribune and Rand owned ore at Northern Star's Kanowna Belle processing plant. Tribune and Rand's interlocutory injunction applications (seeking to restrain Northern Star from processing its share of EKJV ore, and, from reducing the tonnes of Tribune and Rand ore to be processed at Kanowna Belle, and, from using its standard operating procedure in splitting and stockpiling ore) did not succeed at the hearing held in the Supreme Court of Western Australia on 24 January 2020.
- On 20 December 2019 following Shareholder approval of the new FY20 Non-Executive Directors' Share Plan at the Company's Annual General Meeting on 14 November 2019, the Company awarded the Company's Non-Executive Directors with a total 24,845 Share Rights, vesting on 30 June 2020, as part of their FY20 remuneration. The issued capital of the Company at the date of this report is:

Class of Securities	Issued Capital
Fully Paid Ordinary Shares (NST)	733,937,834
FY17 Long Term Incentive Plan – Unlisted Performance Rights issued in FY18 to employees other than the KMP, to be measured for vesting on 30 June 2020 (NSTAA)	468,967
FY17 Long Term Incentive Plan – Unlisted Performance Rights issued in FY19 to employees other than the KMP, to be measured for vesting on 30 June 2021 (NSTAA)	361,620
FY20 Share Plan - Unlisted short term incentive Performance Rights, to be measured for vesting on 30 June 2020 (NSTAA)	494,422
FY20 Share Plan - Unlisted long term incentive Performance Rights, to be measured for vesting on 30 June 2022 (NSTAA)	1,187,759
FY20 Non-Executive Directors Share Plan - Unlisted Share Rights, vesting on 30 June 2020 (NSTAB)	24,845

Table 10: Issued Capital

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- During the quarter, Northern Star attended the annual Citi and UBS conferences in Sydney, and the annual Macquarie WA conference. The Company also hosted a site tour to its Kalgoorlie Operations. The Company maintains a proactive presentation calendar to stockbroking firms, institutional and retail investors to promote the Company and its activities.

Authorised for release to ASX by Bill Beament, Executive Chairman.

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Forward Looking Statements

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Currency Conversion Rate

*All currency conversions in this announcement have been converted at a currency of A\$/US\$ conversion rate of A\$0.6833.

DECEMBER 2019 QUARTERLY ACTIVITIES REPORT

APPENDIX 1 – ADDITIONAL INFORMATION - OPERATIONS

Jundee Gold Operations

► Safety

There were zero Lost Time Injuries during the quarter.

► Underground Production

Mine Development:

	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Decline	394m	259m	334m	460m
Level	670m	129m	963m	1,149m
Operating	3,175m	3,383m	3,461m	3,768m
Total (metres)	4,239m	3,771m	4,758m	5,377m

Table 1: Underground Production – Mine Development

Decline development continued in the Wilson, Nexus, Deakin South, Nimary and Upper Gringotts. Capital development continued through the Nexus Fresh Air connection, the Nimary and Nimary East, Upper and Lower Gringotts, Nexus, Invicta, Deakin North and West Side South. Drill drive development continued for Throssel and Deakin North.

	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Development ore (t)	120,531	131,109	159,292	160,703
Development grade (gpt)	1.5	3.2	3.7	3.2
Stope ore (t)	387,830	444,072	380,934	364,550
Stope grade (gpt)	6.0	5.3	5.8	5.4
Total ore (t)	508,361	575,181	540,226	525,253
Total grade (gpt)	5.0	4.8	5.2	4.8
Contained gold (oz)	81,089	89,549	89,993	80,431

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

Table 2: Underground Production – Ore production

► Open Pit Production

Open pit mining continued in December 2019 at Ramone, south of the Jundee with mining continuing to the 0515 level bench.

Mine Movements:

	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Waste Mined (BCM)	1,323	917,661	685,837	438,175
Ore Mined (BCM)		111,085	127,733	144,881
Total Mine Movement (BCM)		1,028,746	813,570	583,056

Table 3: Open Pit Movement

	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Total Ore (t)		214,388	302,093	339,961
Total Grade (gpt)		1.5	1.6	1.5
Contained gold (oz)		10,245	15,272	16,513

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

Table 4: Open Pit Production – Ore Mined

► Gold Production

Jundee ore milled in the December quarter was 572,576 tonnes at 4.7gpt and 92% recovery for 80,069oz ounces produced.

Ore stocks at the end of the quarter totalled 55,280oz of gold, with a further 5,158oz in GIC.

► Gold Sales

82,434oz were sold.

Kalgoorlie Gold Operations

► Introduction

Kalgoorlie Gold Operations consist of the Kundana, EKJV (East Kundana Joint Venture), Kanowna Belle and HBJ (South Kalgoorlie) operations.

► Safety

There was 1 Lost Time Injury during the quarter.

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► Underground Production

Mine Development:

	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Decline	296m	641m	647m	1,435m
Level	2,649m	1,410m	3,230m	3,233m
Operating	3,514m	4,786m	4,064m	3,220m
Total (metres)	6,459m	6,836m	7,941m	7,888m

Table 5: Underground Production – Mine Development (physicals represent 100% share of EKJV development metres)

Access and strike development was the priority across all Kalgoorlie mines. Development at the Kundana operation continued to advance the Moonbeam portal via both incline and decline, with breakthrough to be established during January. Kanowna Belle's focus remained on A-Block opportunities, along with establishment of SIMS. Decline and level access is a priority in the NOZ area at HBJ. EKJV development focussed on the lower Pegasus decline and associated ore drives, along with continuation of both lower and upper Podge mining area.

	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Development ore (t)	167,610	203,250	196,877	202,844
Development grade (gpt)	3.0	3.1	2.7	2.9
Stope ore (t)	532,139	601,735	507,065	550,236
Stope grade (gpt)	4.0	4.4	3.8	4.1
Total ore (t)	699,750	804,985	703,942	753,080
Total grade (gpt)	3.8	4.1	3.5	3.8
Contained gold (oz)	84,492	105,321	78,714	90,724

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

Table 6: Underground Production – Ore Production (physicals represent Northern Star's 51% share of JV ore)

Ore development performance across the operations continued strongly for the December quarter.

► Gold Production

A total of 793,862 (NST) tonnes of ore was milled in the December quarter at 3.7gpt and 91% recovery for 86,356oz produced utilising the Northern Star owned processing plants and additional contracted third-party facilities.

Ore stocks at the end of the quarter totalled 39,947oz of gold, with a further 14,367oz in GIC.

► Gold Sales

87,150oz were sold.

Pogo Operations

► Safety

There were no Lost Time Injuries during the quarter.

► Underground Production

Mine Development:

	Mar-19 Qtr	Jun-19 Qtr	Sept-19 Qtr	Dec-19 Qtr
Decline	41m	82m	143m	123m
Level	78m	252m	1,157m	1,580m
Operating	2,637m	2,781m	2,619m	1,888m
Total (metres)	2,756m	3,114m	3,919m	3,591m

Table 7: Underground Production – Mine Development

	Mar-19 Qtr	Jun-19 Qtr	Sep-19 Qtr	Dec-19 Qtr
Development ore (t)	152,360	134,653	122,840	89,074
Development grade (gpt)	6.9	6.4	4.8	6.9
Stope ore (t)	19,460	68,260	72,647	134,764
Stope grade (gpt)	9.9	10.3	7.2	7.8
Total ore (t)	171,820	202,913	195,486	223,839
Total grade (gpt)	7.2	7.8	5.71	7.4
Contained gold (oz)	39,750	50,556	35,883	53,339

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

Table 8: Underground Production – Ore production

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The operation continued to access new areas of the mine with higher grade and ore during the December quarter was sourced from the Liese, South Pogo, X Vein, North and Fun Zones. As well as accessing new areas, capital level meters increased to excavate and upgrade the long-term pumping system and establish diamond drill drives.

December month showed significant improvement with 21,570oz produced at 9.8gpt and 87.6% recovery. This inflection point occurred as all low grade supplementary feed ceased in December and increased stoping tonnes accounted for 80% of the feed and 82% of the ounces for the month.

▶ **Gold Production**

Pogo ore milled in the December quarter was 221,990 tonnes at 7.5gpt and 87% recovery for 46,146oz.

There was a total of 4,131oz in GIC.

▶ **Gold Sales**

45,051 oz were sold.