Location and Climate

Jundee Operations is located 790km (1,150km by road) NE of Perth Western Australia and is situated in the Northern Yandal Greenstone Belt. The mine, which commenced production in 1995, is currently owned by Northern Star Resources Limited (ASX: NST). The operation controls some 48,000ha of mining and exploration leases over a 45km strike. Northern Star is the head lease holder of the Jundee Pastoral Station covering ~131,887ha, and has access rights to the leases covering the Lake Violet and Mill Rose Pastoral Stations.

The climate is classed as arid with annual rainfall of ~250mm per year – pan evaporation exceeds 3,500mm per year.

Average maximum temperature in January is 38°C and for July is 19°C.

Average minimum temperature in January is 23°C and for July is 6.5°C

History of Exploration - Jundee/Nimary Goldfield

There is little recorded exploration activity in the Northern Yandal Belt prior to the early 1970s, which is surprising given the proximity of the belt to the historic Wiluna Gold Camp (40km SW).

Modern exploration of the Jundee area began in 1978, when the ground was taken up by Chevron Exploration. Chevron explored the felsic sequence to the west of Jundee for base metals but was unsuccessful, and the ground was surrendered in 1983.

In 1983 the area was pegged by Mark Creasy after he had identified gold bearing gossanous outcrops at Plover Bore whilst Chevron held the ground. He entered into a partnership with several others, forming a company called ‘Mineral Estates’, who tried to raise funds to explore but were unsuccessful due to the economic climate that prevailed at the time. The ground was relinquished through non-payment of rent (Lewington, 1995).

Creasy then re-applied for the ground in 1985, and set about exploring the area using geochemical sampling, panning and mapping. He located nuggets on the Jundee ground, but was unable to locate any on the Nimary ground. Creasy approached Chevron in 1988 with regard to forming an alliance to explore the Jundee-Nimary tenements. Chevron procrastinated, taking 12 months to come to terms, and soon after an agreement was reached Chevron decided to pull out of Australia. This left Creasy in a difficult position, he had done no work on the Jundee-Nimary tenements for a year, having expected that Chevron would have done the necessary work, and needed to make a statutory 50% reduction to his exploration licence. He decided to drop the western part, including the Nimary area, where he hadn’t found any nuggets. He then had to wait for 90-days to reapply for the ground. One week before the end of the waiting period, the Nimary tenements were picked up by Hunter Resources (Lewington, 1995).

In 1989, Creasy employed Geochemix Australia to complete a LAG sampling program over the Jundee tenements, which identified two prospective anomalies. This was followed up with a program of 83 RAB holes, of which only four had intersections greater than 1gpt Au. In late 1990, Creasy approached Great Central Mines (GCM), with regard to forming a joint venture to explore the tenements. GCM reviewed the results of exploration to date, and felt that there was a good chance that there was an economic gold deposit within the tenements (Wright and Herbison, 1995). A joint venture agreement was signed in late 1991.

A program of 152 RAB holes was drilled at Jundee early in 1992, with 17 holes returning composite grades >1gpt Au, and 4 returning >2gpt Au. RAB drilling was stopped due to heavy rain, and GCM’s exploration focus moved south, where they had success with the discovery of the Bronzewing Deposit. RAB and RC follow up recommenced at Jundee in August 1993, and by September 1995 eight deposits had been identified (Hughes, Main, Barton, Northwest, Deakin, Fisher, Cook and Reid), with a total contained resource of 15,000,000 tonnes at 2.7gpt Au for 1.3 million ounces (Wright and Herbison, 1995). In 1995, GCM purchased Mark Creasy’s tenements at Jundee and Bronzewing for $117 million dollars. Mining commenced at Jundee in late 1995, with the first gold pour on 27 of December 1995.

Meanwhile on the Nimary tenements picked-up by Hunter Resources, exploration for gold based on the Boddington laterite-hosted gold model commenced and a regional LAG sampling program was completed in
1990. From this program a 3km x 1.5km gold anomaly was identified, which was followed up by a program of 343 RAB holes, 21 RC holes and 4 diamond holes. Four gold prospects were identified (Nim1, Nim2, Nim3 and Nim4), which in 1990 were estimated to contain an inferred resource of 290,000 tonnes at 3.9 gpt Au for 36,366 ounces. No further work was carried out on the Nimary tenements until 1993, when Eagle Mining and Matlock Mining became involved in the project through a farm in agreement with Hunter Resources (the Wiluna Joint Venture). Exploration activity was stepped up, and by June 1995, a resource of 3,485,000 tonnes at 6.67 gpt Au had been identified (Lewington, 1995).

Mining commenced in October 1995, with the first gold poured on Christmas Day 1995. Eagle Mining acquired full control of the Wiluna Joint Venture through acquisition of the remaining partners in 1996.

In 1996, GCM geologists recognised that the Hughes, Main and Barton Deposits were hosted by several differentiated dolerite sills, which had intruded layer parallel within a thin sequence of sedimentary rocks. Similarities between the Jundee dolerites and the Golden Mile Dolerite were noted, and this led to a program of deep diamond drilling. As a result of this drilling Barton Deeps was discovered (hosted within the Barton Dolerite) in August 1996, and by June 1997 a resource of 5,740,000 tonnes at 12.4 gpt Au for 2,293,000 ounces had been delineated. Underground development commenced in August 1997, with the first development ore produced in December 1997.

In October 1997, GCM took over Eagle Mining and Wiluna Mines, gaining control of the Nimary gold deposits, and consolidating exploration land holdings within the Yandal Belt. GCM paid $330 million for the two companies, which was largely financed by Normandy, who took a 25% stake in GCM.

The exploration focus for the later part of 1997 and early 1998 was on the Nimary tenements. Exploration drilling targeted the Nim3, Nim4, and Nim6 areas, with additional resources added along strike and down dip. Several new structures were identified, and small new resources were delineated at Kestrel and Gateway.

In mid-1998 it was proposed that a super pit (the ‘Boomerang-pit’), encompassing Nim1, Nim2, Nim3, Nim4, Nim6, Nim7, Hughes, Deakin, and Northwest, might be a viable option, and exploration drilling testing to 300m below surface was completed. Optimisation studies early in 1999 indicated that the ‘super pit’ option was not feasible given the narrowness of the mineralised lodes, the high strip ratio, and prevailing low gold prices.

In January 1999, Normandy and Joseph Gutnick's private company Edensor, launched a bid (using an entity called Yandal Gold) to buyout the remaining 60% of shares of GCM not held by the two companies. This was successfully completed in May 1999, which left Normandy holding a controlling 58% interest in GCM. During this time there was no exploration drilling completed at Jundee.

Exploration recommenced in June 1999, and with the end of the Jundee deposits open pit life rapidly approaching, the focus was on testing areas immediately below and along strike from the existing pit designs to try and deepen the pits. For the most part this drilling had little impact, although Nim3 and Northwest pits were deepened.

From late 1999, the focus of exploration was on exploring for underground mineable resources, which could replace production when the open-pits were completed. New high-grade resources were discovered beneath Nim3 and Hughes.

In April 2000, Normandy secured 100% ownership of GCM, after acquiring the remaining 42% of the company from Edensor. Newmont acquired Normandy mining in early 2002.

In April 2001, the Westside high-grade system was discovered, lying immediately to the west of the lower levels of the Barton Deeps underground development (within the Hughes Dolerite). In September 2013, the field poured its 6 millionth ounce.

On the 13 May 2014, Northern Star announced that it had entered into an agreement with Newmont Mining Corporation to purchase the Jundee Gold Operations for a consideration of A$82.5M. Settlement of the transaction took place on 1 July 2014.
Processing History

Both entities, GCM and Eagle Mining established separate processing plants, at Jundee and Nimary some 4km apart. GCM established the milling circuit and support infrastructure by agreement on the adjacent Plover Bore lease (M53/193), a lease owned by Mark Creasy. This Access Deed enabled GCM to conduct its mining activities within part of the Mining Lease.

On 24 August 2012, a contractual agreement between Newmont Mining Corporation and Creasy was agreed and executed which allowed for a General Purpose Lease (GPL) to be applied for by Creasy over the existing Jundee Mine and infrastructure. This GPL was granted in April 2013 and as per the agreement was successfully transferred to Newmont Mining Corporation in October 2013; the Access Deed was terminated upon the transfer of the GPL.

The milling circuit constructed by GCM had a single SAG mill supported by a jaw crushe – it used all new materials. The workforce was housed at the newly constructed Jundee Accommodation Village some 5km from the processing plant located on a tenement owned by GCM.

The Nimary processing plant, established by Eagle Mining, comprising a SAG/Ball Mill configuration was a second-hand plant secured from Dominion Mining. The workforce was housed at the newly constructed Nimary Accommodation Village some 3km from the Nimary Plant.

In 2007 the Nimary Mill and Village were decommissioned. The Nimary Ball Mill was transferred and incorporated into the Jundee process circuit and the Nimary Village accommodation units were similarly transferred and incorporated into the Jundee accommodation Village – this project cost ~$10M AUD and resulted in the operations shedding some 40 personnel and reducing its energy and water demand.

Up to June 2017 the Jundee-Nimary operations has processed 44.7M dry tonnes of ore and poured 6.9M fine ounces of gold (~214 tonnes) at an average head grade of 5.1g/t with a recovery of 93.6%. A secondary crusher circuit expansion completed in September 2017 returned the plant throughput to in excess of 1.8 Mt/y of hard rock underground ore.

Geology

The Jundee-Nimary gold is hosted within a 4km (long) and 2.5km (wide) sequence of westerly dipping Archaean basalts and weakly differentiated dolerite sills separated by sedimentary rocks (carbonaceous shales, cherts, and siltstone) and dacitic porphyries. Younger felsic and intermediate porphyries and dolerite dykes intrude the sequence. The mine sequence is bounded to the west by a thick succession of felsic volcanics and volcaniclastics, and mineralisation diminishes eastwards as the mafic package becomes more magnesium–rich to ultramafic in composition.

The age of the gold mineralisation is approximately 2,700 million years (Archaean), and is controlled by a series of complex brittle fractures. Over 70% of the gold is hosted within the more brittle dolerite units with the remaining 30% associated with the basalts. The field has undergone multiphase deformation – folds, thrusts, strike and oblique slip faults. The gold is hosted within narrow, discontinuous quartz +/- carbonate veins (typically <0.5m wide) which contain abundant visible gold.

Low grade mineralisation occurred with the first phase of faulting. This was followed by the emplacement of large dacitic intrusions which locked up the initial fault lines causing some abutment pressure – during the second faulting phase this abutment pressure prevented the faults from slipping as easily as before causing a “ripping” between the two fault lines fracturing the rock and causing a relatively large low pressure zone. Gold-rich fluids then flowed into these low pressure zones (main mineralization event). There is minor post mineralisation faulting which causes some minor offsets of the loads.

Mining Operations

Prior to the commencement of underground operations and the Barton Decline in 1998, ore was sourced solely from several open pits. These open pit operations around the immediate Jundee-Nimary environ continued until 2002 when the last of the near surface material was mined. In 2003, open pit operations were recommenced approximately 30km to the south of Jundee when several small pits (Gourdis-Vause area) continued until September 2007.

Currently, all ore is sourced from Jundee underground operations, yielding ~1.8M tonnes each year. Three underground portals are in use which provide access to the various underground lode structures, namely the
Barton, Gateway and Invicta portals. The Barton portal contains three active ore bodies (Nim3, Lyons and Westside) with development access well advanced in the Armada lode, whilst Invicta consists of the Invicta (remnants), Cardassian, Wilson and Deakin ore bodies. Gateway and Gringotts ore bodies are both mined via the Gateway portal, again with development access well advanced in the Revelation and Nexus lodes. Recent exploration has uncovered a new prospective mining area at depth (Zodiac), which is currently undergoing additional drilling for insight and assessment.

The mining process is a geological driven model and production intensive due to the narrow vein nature and lithology of the ore bodies. There is a necessity for controlled mining practices to minimise the amount of waste dilution incurred during the ore extraction process. In general, the ore is mined using top-down long-hole (uphole) open stope bench retreat mining. The benches are nominally 20m apart (vertically). The lode structures have a dip of between 35-70 degrees and have multiple orientations. The mining method typically extracts the ore in 30-50m panels separated by 5-10m rib pillars which remain in-situ to provide geo-mechanical stability and support. For ore structures that dip between 25.0 degrees and 35.0 degrees the ore is extracted using manual mining techniques (air-leg mining) to optimise recovery and reduce costs. Ore is hauled to the surface from the underground stope and development areas by 55 tonne articulated dump trucks.

The combination of multiple lode orientations, host lithology and complex structural geology found in the Jundee ore body is providing Northern Star with the opportunity to add new resources through a process of reviewing and testing previous geological models and assumptions. This process is supported by a large amount of information from a drilling database containing more than eight million metres of underground and surface drilling completed to date (~A$1B spent). The mine is currently developing and stapping at various depths (ranging from 150m to 800m below surface) and employs various mining methods and extraction rates depending on the ore body or area being mined.

The lode domains across the operation are geographically expansive, resulting in a complex ventilation system that includes capacity limiting cascading ventilation in lower reaches of the mines. Each of the three mines has distinct characteristics that provide challenges for ventilation. The Barton mine has four primary return air rises (RAR) each equipped with a 350kW axial fan. The Invicta mine presently has two RAR, each with a 350kW fan drawing air directly from the Invicta, Deakin and Cardassian ore bodies. At Gateway, two 450kW exhaust fans are installed underground and two large internal rises, one for return air (exhaust) and one for intake air (fresh) have been completed to extend the primary ventilation. During the warmer periods of the year, the mine utilises 3 refrigeration units to provide cooled air to the deeper extents of the mine. These units can be moved to alternative locations to maximise its impact on active work areas. Current active ventilation projects include the addition of 3 primary fan installations, with variable speed drives, across the Barton, Deakin and Gateway mines.

The underground mining fleet comprises:

- 4 development drills (completing ~18km of lateral development per annum)
- 3 production drills (70mm - 89mm diameter holes)
- 7 Sandvik TH663 haul trucks
- 7 R2900 loaders
- 3 charge-up units
- 10 service vehicles (integrated tool carriers, trucks, etc.)

To maximise the utilisation of the underground fleet, autonomous and semi-autonomous capabilities are employed in jumbo drilling, production drilling and remote bogging processes at Jundee.

The underground mining and fleet maintenance is carried out by the contract underground mining company Byrnecut Australia (BAPL). Daily mine management is shared by BAPL and Northern Star personnel who form an integrated management structure to ensure that functional duplication is eliminated. BAPL are also responsible for the supply of surface mining equipment which facilitates secondary haulage, road maintenance, mill crusher feed and waste rock management operations.

All mine design, blast design, production geology, survey, geotechnical and mine planning is undertaken by Northern Star personnel.
Process Operations

The Jundee Processing circuit is a conventional CIL plant with a hard rock processing capacity in excess of 1.8M tonnes per annum. The current blend ratio is 100% underground ore.

The crushing circuit is two-stage consisting of a C125 jaw crusher and HP6 secondary crusher closed by a double deck banana screen with a nominal 400 tonne per hour crushing capacity. The crushing circuit can operate in either full secondary crush or partial secondary crush modes to suit milling requirements. The crushing circuit feeds a reclaim stockpile with a 25,000 tonne capacity. Three variable speed belt feeders below the reclaim feeders ensure steady and controlled grinding circuit feed.

The grinding circuit comprises two mills. The 5.5m diameter x 8.2m EGL ANI SAG mill is low aspect with a 3,850 kilowatt motor. The SAG mill normally operates in open circuit, but has the capability to be operated in closed circuit SAG only configuration. The 4.3m diameter x 6.7m EGL Nordberg ball mill fitted with a 2,205 kw motor operates in closed circuit with hydrocyclones. The grinding circuit throughput is greater than 220 dry tonnes per operating hour on 100% blend of underground ore. Oversize material from the SAG mill trommel screen reports to a pebble crusher for size reduction. The HP100 pebble crusher is driven by a 90kW motor. The crusher typically operates with a closed side setting of 14mm. The crushed product from the pebble crusher is fed back into the SAG mill feed.

Classification is achieved using a cyclone cluster consisting of 22 cyclones. Eight to 15 of the cyclones are operated at any one time depending volume of slurry in the milling circuit. The cyclones are operated at a feed pressure of 110-130kpa to achieve a leach feed sizing target of 80% passing 106 microns.

The Jundee mill feed contains sufficient coarse gold to support the inclusion of a gravity concentration process in the milling circuit. The cyclone underflow product of up to four cyclones is diverted to a gravity circuit that comprises 2 x 30” Knelson concentrators. Approximately 40% of gold in the mill feed is recovered via the gravity circuit. The concentrate produced by the Knelson’s is fed to an in-line leach reactor (ILR) that uses a high concentration cyanide-caustic solution to rapidly leach the gold. Gold is recovered from this solution by means of an electro-winning process in the gold room.

The cyclone overflow slurry reports to the carbon-in-lead circuit for the processing of non-gravity recoverable gold. The circuit comprises two leach tanks and six adsorption tanks where the gold is leached into a solution and adsorbed onto carbon. Carbon containing adsorbed gold is referred to as loaded carbon. Each tank has a volumetric capacity of 1,700m³ allowing a minimum slurry residence time in the leach and adsorption circuit of approximately 30 hours. A balance of approximately 70 tonnes of carbon is maintained in the adsorption to ensure optimal gold recovery.

Six tonne batches of loaded carbon are recovered from adsorption tank 1 daily. Gold is then recovered from the loaded carbon in a desorption process in the elution circuit. The Jundee elution circuit is based on the Anglo-American Research Laboratories elution process in which the loaded carbon is first acid washed to remove impurities that may hinder the refining process. The gold is then eluted using hot (120°C) caustic cyanide solution. This process removes gold adsorbed onto carbon into a pregnant solution.

The pregnant solution produced from the desorption and gravity ILR process is then circulated through separate electrowinning cells for approximately 20 hours. During this stage gold is electroplated onto cathodes that have been wrapped with steel wool. The barren solution remaining at the end of the electrowinning cycle is returned to the first leach tank to fully utilise the cyanide in solution and allow for the recovery of any residual gold.

The gold laden steel wool cathodes are removed from the electrowinning cells, oxidized in a calcining oven and combined with a flux in the smelting process. The flux is used to ensure the gold bars produced in this process are as pure as possible. Impurities report to a vitreous slag and gold doré bars produced contain approximately 86.5% gold and 12% silver.

The electrowinning, calcination and smelting processes are performed inside a secure gold room.
Tailings Storage Facilities

The Jundee operation maintains three active Tailings Storage Facilities (TSFs); the Fisher In-pit TSF, TSF1 and TSF2.

TSF1 is a paddock style TSF and covers approximately 90ha in surface area. It operated from 1995-1999 and discharge activities recommenced in late 2017 after regulatory approvals were received for a 2.0m raise, which was completed in early 2017. TSF1 has a remaining capacity of approximately 24 months.

The Fisher In-pit TSF was commissioned in 2004 and comprises a mined-out pit with a surface area of approximately 14.5ha. The facility is currently filled to 98% capacity. Water recovery from the Fisher TSF can be as high as 95% in the summer months. To prevent seepage from entering the adjacent underground works and water system, the pit is supported by three seepage recovery bores and numerous monitoring bores.

TSF2 is a paddock style TSF, conjoined with TSF1, which also covers approximately 90ha in surface area. TSF2 was last raised by 2.0m in 2016, and has a remaining capacity of approximately 6 months.

Water recovery averages 50-55% for both paddock style TSF’s, with remaining water lost through evaporation, seepage and interstitial lock-up. A network of recovery bores is employed around the facilities to compliment the under drainage and perimeter toe drain systems which also recover seepage.

Exploration

Jundee has a significant land holding of some 420sqkms with over 1,000 mineralised lode structures containing many high point anomalies. Up to 30 June 2017 - 6.86M ounces of au has been recovered from the field, with a gold inventory declared at 1.44Moz Reserve and a total Resource mineralization (inclusive of reserves) of 23.15M tonnes at 4.3 g/t Au for 3.2Moz au at that time.

The Westside lodes have historically been the dominant ore source however a lack of drilling has limited future significant additions to this system and they currently hold only 11% of the remaining in situ resource. At June 2017, the Gateway mineralization which sits to the south-west of the main field is currently the largest deposit with 609k ounces of resource with the Barton area holding 538k ounces of resource. Exploration of the Armada deposit (maiden resource of 288k oz declared in FY2017) and trend continues along strike and depth. The Armada trend, which is a combined system that includes the Nexus and Revelation deposits, is open along strike and depth, with only 30% of the currently known mineralisation have been drill tested.

The current site exploration strategies are focusing on the following six areas:

- defining incremental in mine additions adjacent to and amongst readily accessible infrastructure through detail geological analysis of current and historic-operational in-mine areas (Barton, Invicta, and Westside).
- lateral In-mine expansion into known new mining areas – of which the Armada deposit (located west of the Barton/Westside) and the Revelation deposit (located south-east of Gateway), will be the main focus for in mine additions in FY2018. These areas are being accessed via development from current underground infrastructure in the Gateway and Barton mines and are supported by extensive underground exploration drilling.
- aggressive In-mine exploration of Jundee below the current mine infrastructure via the 39drill-drive project. (Initial exploration fan drilling is only 65% complete with indications of depth and lateral extensions to most of the existing Jundee mining areas).
- identifying lateral Near-mine extensions through surface exploration along known mineralized trends of which the Armada trend North will be the focus in FY2018.
- identifying new Near-mine deposits though surface exploration drilling into 3D Seismic- and Geological model- targets (which in FY2017 - led to the discovery of the Zodiac system located 1,000m south of the Jundee underground mine, in the Fisher Basalt, at a depth of 1.300m).
- regional surface exploration outside the Jundee Golden Triangle is a focus for Northern Star with priority focussed on some key near mine areas identified in FY2017 for testing during FY2018.
Support Infrastructure

Electricity generation - Jundee has 2 Power stations, the original operating a section of diesel fired sets (5MW and distributes at 3.3KV) along with a section fired on gas which can produce ~16MW and distributes at 11KV. The second station was commissioned in 2017 and consists of 6 gas fired sets which can produce 18MW at 11KV.

NST Jundee owns a lateral pipeline which runs 42km to connect to the Goldfields Gas Transmission pipeline which passes east of Wiluna – its transport off take agreement is limited to 3.8 Tj/day. Jundee presently obtains gas from Apache which owns sub sea level gas reserves off the Western Australian coast.

Water supply – Jundee operates in a semi-arid climate and water resources are scarce. Accordingly, water quantity and quality is a key risk to business continuity and as such water conservation and recovery has a high priority at the site – the site has a negative water balance of 3.75m/year. Jundee has two operating bore fields located 10 and 14km NE of the operation which provide process water. There are also several low TDS and potable water bores located in areas immediately adjacent to the Mill and camp.

The Jundee Accommodation Village has rooms for 600+ employees and boasts some excellent recreation facilities including two squash courts, a fully equipped gymnasium, Tennis court, Basketball court, Beach volleyball court, mini AFL ground, a swimming pool and a well-equipped Tavern/shop.

The Jundee Airstrip is a 2.300m gravel strip and caters for turbo-prop and Jet aircraft – flights to and from Perth-Jundee are scheduled on Tuesday and Wednesday. There is a local regional airport located at Wiluna some 50km away.

The site operates on a fly-in fly-out basis 24/365 with work rosters predominantly either 8 days on and 6 days off or 14 days on and 7 days off.

The Jundee operation has a reputation of having a positive and well balanced social climate – it has an active social club, a golf club which operates off-site during R&R breaks, an excellent Kids Club which sponsors activities for the children of Jundee employees, teams participate in organised sporting events against the local Wiluna community and nearby mine sites, and it has a proud history of supporting charitable causes.

An emergency response capability is paramount in such a remote location as Jundee and the operation receives a tremendous service from the many individuals that have volunteered to provide this essential service.
**Occupational Health and Safety**

Jundee utilises Northern Star’s safety program and management systems, which include detailed standards and procedures. Together, these programs and systems form the cornerstone of safety at Northern Star, ensuring that employees have the tools they need to work safely.

The Company also strives to ensure employees are fit to conduct their work in a safe manner. With this goal in mind, Northern Star offers healthy meal alternatives, fitness equipment, physiotherapy services and a quality medical service for live-in employees.

Mining is not dangerous but it is hazardous and reducing residual risk to acceptable levels by driving the use of higher order controls from the hierarchy of controls remains a focus.

**Community**

Jundee maintains a school food program aimed at supporting youth attendance, with appropriate diet in remote communities a barrier to learning outcomes. The School food program for Jundee is now in its 7th year.

Jundee also develops specific training programs to help the local Indigenous people acquire work ready skills and has successfully developed indigenous business enterprises, to provide short-term labour resources to the mine such as the current Martu Ranger Program (6th year). The Martu Ranger Group provide environmental and land management services to the Jundee operations and associated pastoral tenements. The Martu Survey (the Munjiltjarra Wurgumu Group) project, developed under the banner of the Regional Partnership Agreement, was also a finalist in the 2014 Reconciliation Australia Indigenous Governance Awards and now also a finalist in the DMP Community Partnerships Awards.

**Jundee Life of Mine visibility and Production Outlook**

Jundee have been a significant contributor to the production and financial metrics of the previous and current owner of the deposit, with a 10Moz endowment of which approximately 7Moz has been produced to date. The system remains open in multiple positions and directions.

As seen in the chart below, Northern Star since the acquisition of Jundee in July 2014 has successfully concentrated on growing Resources, Reserves and production profile. This has restored Jundee back to the world class status it had during the 10 Year period of 2002-2011. The expanded inventory and upgraded production capacity positions Jundee to be a ~300,000ozpa producer with current mine life visibility of 10 years.
Closure and Reclamation

The site has undergone four changes of ownership in its operating history and accordingly has been subjected to various internal reclamation standards. Newmont rationalised the operation’s infrastructure during 2007, decommissioning the Nimary processing and accommodation facilities. Open pit mining at the southern leases also ceased in 2007 and NST Jundee became a purely underground operation based at the main Jundee mining area. Surface operations are likely to recommence at some stage with recently discovered surface deposits in the Vause area. Jundee commenced a major progressive rehabilitation and closure program in 2008 coinciding with the decommissioning of the Nimary processing facility and associated infrastructure and the suspension of open pit mining in the southern lease areas. Major rehabilitation earthworks ceased in October 2013. Only one WRL has not been rehabilitated in the Nimary mining area as the facility will be utilised for future waste rock material. Some rehabilitation was undertaken on the Nimary WRL to trial a new seeding product in 2016. A comprehensive rehabilitation and closure plan has been developed and this is supported by a detailed works schedule. Since April 2008 the site has completed approximately 280ha of rehabilitation earthworks.

For further information, please contact:

Luke Gleeson
Investor Relations
M: +61 412 977 923
E: lgleeson@nsrltd.com

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