

31 October 2018

ASX Code:
SFX

Directors:

Mr Will Burbury
Non-Executive Chairman

Mr Bruce McFadzean
Managing Director

Mr Bruce McQuitty
Non-Executive Director

Mr David Archer
Technical Director

Registered Office:

Level 2, 41-47 Colin Street
West Perth WA 6005

Share Registry:

Link Market Services
Level 12, QV1 Building
250 St Georges Terrace
Perth WA 6000

Capital Structure:

Ordinary Shares: 230.1M
Unlisted Options: 12.3M
Unlisted Rights: 2.0M

Market Capitalisation:

A\$209 million

Cash Reserves:

A\$13.7 million
(as at 30 September 2018)

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SheffieldResources
LIMITED

QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 30 SEPTEMBER 2018

HIGHLIGHTS

Thunderbird Mineral Sands Project

- All key permits now completed;
 - Mining Lease granted
 - State and Federal environmental approvals received
 - Co-existence Agreement with the Traditional Owners signed
- Authorisation Meeting facilitated by Kimberley Land Council currently underway
- NAIF Board approve offer of A\$95 million long (15+ year) tenor loan
- Sheffield continue work on access roads, village and communication system
- Execution of Debt Facility Agreement with Taurus Mining Finance expected early Q4 2018
- EPC contract execution with GR Engineering Services expected early Q4 2018

Exploration

- Drilling at Night Train returned exceptional results;
 - 27m @ 5.29% HM from 49.5m (DAAC114), inc 22.5m @ 6.17% HM from 52.5m
 - 7.5m @ 6.46% HM from 27.0m (DAAC147), inc 4.5m @ 9.70% HM from 28.5m
 - 12m @ 4.54% HM from 18.0m (DAAC102), inc 7.5m @ 6.15% HM from 19.5m
 - 6m @ 8.92% HM from 12.0m (DAAC101)
- Three new mineral sands discoveries at Cold Duck, Cisco, Porphyry Pearl, confirming the Canning Basin as a major new mineral sand province.
 - The Cold Duck Prospect returned a broad intersection of mineralisation from surface of 37.5m @ 3.56% HM including 16.5m @ 5.49% HM
- Mineral Resource and Reserve Statement updated
 - Sheffield's total in-situ valuable heavy mineral inventory contained within all Mineral Resource estimates (Measured, Indicated and Inferred, at various cut-offs) stands at 173 million tonnes including, 23 million tonnes of zircon and 132 million tonnes of ilmenite.
 - Ore Reserve estimate remains unchanged at 680.5 million tonnes @ 11.3% HM (Proved and Probable)

Corporate Activities

- Cash position of A\$13.7 million as at 30 September 2018

OPERATIONAL AND EXPLORATION SUMMARY

During the quarter, Sheffield Resources Limited (“Sheffield” or “the Company”) accelerated progress toward development of its world class Thunderbird Mineral Sands Project (Thunderbird), with the major achievement of receiving key government approvals. The Project, which is located in the Canning Basin in northern Western Australia (Figures 1 and 2) is now significantly de-risked, fully permitted and construction ready.

Following a favourable National Native Title Tribunal (NNTT) decision the Western Australian Department of Mines, Industry, Regulation and Safety granted the Mining Lease for Thunderbird.

The Company also signed a Co-existence Agreement with the Traditional Owner Negotiation Committee (TONC) that represents the Traditional Owners, allowing the Kimberley Land Council to proceed with an Authorisation Meeting. The Authorisation Meeting, scheduled over consecutive days and commencing in late October, will allow a wider group of Traditional Owners to consider authorising the Named Applicants to execute the Agreement.

The State environmental approval process was concluded with the Western Australian Minister for the Environment issuing a Ministerial Consent for the development and operation of the Thunderbird Project, after four years of environmental studies, consultation and assessment. The completion of the State environmental approval process enabled the Australian Government’s Department of the Environment and Energy to grant the Federal environmental approval for Thunderbird, delivering the final key approval required for the Project.

Sheffield’s continued its ongoing engagement with the Kimberley community with approximately 200 people attending 26 events and one-on-one meetings to ensure that the community members and stakeholders have every opportunity to understand the development opportunities of the Thunderbird Project, discuss Thunderbird’s impacts on the community, voice community sentiment and be aware of Sheffield’s community engagement plans.

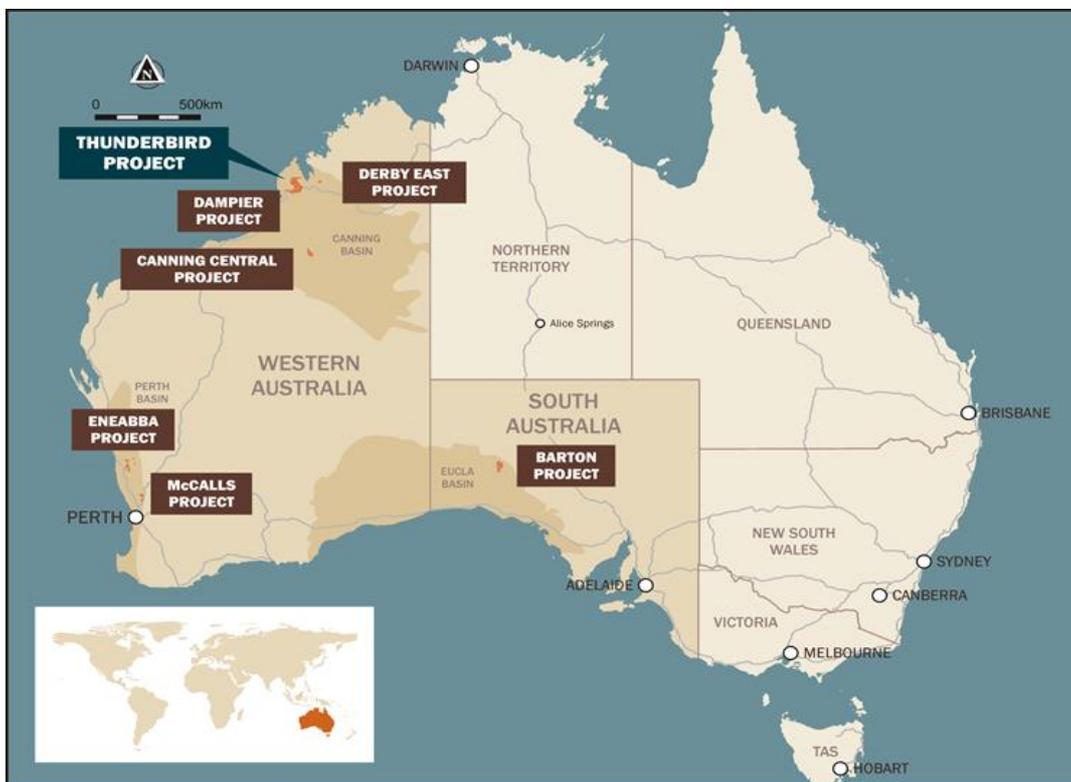


Figure 1: Location of Sheffield Mineral Sands Projects

Local employment and business opportunities, Aboriginal opportunity, environmental and safety performance, training, and retention of Kimberley lifestyle and values, continue to be most important themes in the community.

Site access and infrastructure for Thunderbird has continued to advance during the quarter, in accordance with the State Government approved Minor or Preliminary Works (MoPW). The first stage of the accommodation village and associated ancillary buildings are nearing completion and village occupancy is expected to occur during next quarter. The installation of communications infrastructure for the Project has commenced with construction of the communication tower at Jillian Ridge. This tower connects the microwave link from the Project to the fibre optic cable and at the accommodation village. The system is expected to provide high quality communications and data services at the Project during the next quarter.



Figure 2: Construction of Sheffield's village

Sheffield's contribution to local Kimberley businesses, over the previous 6 months, is estimated to be in excess of A\$4 million with a further commitment of A\$3 million by year end. This expenditure in the region demonstrates Sheffield's commitment to the community and local Kimberley businesses.

Demand for all Thunderbird products remains strong with continued interest shown by potential offtake partners. Discussions with several potential counterparties for the supply of LTR Ilmenite and Hi-Ti 88 material has continued during the quarter. As expected, zircon pricing has continued to strengthen during the quarter with further price increases announced by senior industry groups for the coming quarter. The TiO_2 market stabilised during the quarter with very consistent pricing demonstrated for all TiO_2 products throughout the quarter. Demand for sulphate pigment feedstock is expected to be stable in the near to mid-term and with the further development of chloride pigment technology in China, supply constraints for pigment feedstock are forecast in the coming years.

GR Engineering Services Limited (GRES), as preferred engineering, procurement and construction (EPC) contractor for Thunderbird, continued front end engineering design (FEED) for the Mineral Separation Plant (MSP) and the Low Temperature Roast (LTR) plant, with 30% of the engineering now complete. The LTR design has been advanced sufficiently to enable the LTR plant to be incorporated into the EPC Agreement. A review of the Thunderbird Owners Works activities resulted in the transfer of \$15 million of non-process infrastructure works into the EPC Agreement, aligning the delivery of these infrastructure works with the EPC activities. A fixed price lump sum EPC contract incorporating the improvements in design, throughput and operability was progressed with GRES. These improvements have further de-

risked the Project, with GRES likely to assume ramp up support and metallurgical performance responsibilities during the Project delivery.

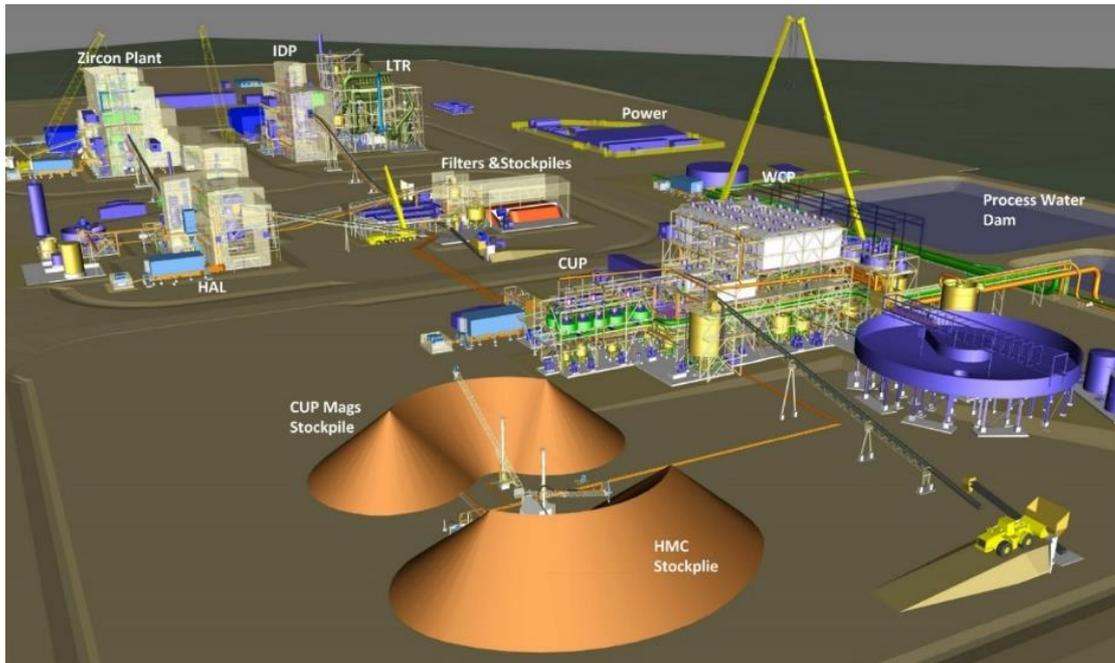


Figure 3: Final Thunderbird plant layout

The Northern Australia Infrastructure Facility (NAIF) Board made a decision to offer financial assistance to support the development of the Thunderbird Project, via the provision of long-term (15 and 20 year) debt facilities. The A\$95 million debt facilities comprise A\$30 million Project Development Facility that sits alongside the Taurus facilities and A\$65 million Infrastructure Development Facility. The A\$30 million project facility (15-year tenor) will enable improvements in throughput, material handling and operability of the Thunderbird processing plant further de-risking the project. The \$65 million facility (20 year tenor) will allow the ownership of key non-processing infrastructure that will significantly enhance long-term financial metrics material operating cost reduction to Sheffield.

The March 2017 Bankable Feasibility Study (BFS) included the power generation, gas storage infrastructure and village accommodation to be provided on a build, own and operate (BOO) basis by third party suppliers at a significant finance cost to shareholders. The direct ownership of these infrastructure assets will result in an estimated minimum A\$7.5 million per annum saving in operating costs over the 42-year life of mine and ensures Sheffield has control of the delivery and operation of key Project infrastructure.

Sheffield's funding strategy continues to advance with substantial progression of the debt facility Agreement and the related financing documentation for the US\$175 million debt facility with Taurus Mining Finance Fund is approaching completion. This follows the NAIF Board investment decision to supply A\$95 million of long-term debt facilities during the quarter. Sheffield's current estimate of the total Stage 1 capital requirement is A\$463 million. The NAIF debt facility of A\$95 million will fund 82% of the A\$115 million increase over the BFS total Stage 1 capital cost estimate, which relates predominantly to the Company's decision to in-source infrastructure along with improvements to the processing plant as described above. As a result, the Project is likely to require only an additional A\$20 million of Project funding cost to shareholders representing a modest 3% p.a. increase over two years since the BFS was completed. Project capital does not include ramp up working capital, corporate overheads or financing costs during Project delivery.

During the Quarter, the Company completed a 94 hole, 4,829 metre exploration aircore program during the quarter, at its Dampier Mineral Sands Project, which also contains the Thunderbird Project. The drilling targeted prospects located along a 160 km highly prospective horizon, targeting zircon rich heavy mineral (HM) sand mineralisation. Targets included the previously drilled prospects of Night Train and Nomad, with the follow outstanding intervals being return from Night Train;

- 27m @ 5.29% HM from 49.5m (DAAC114), including 22.5m @ 6.17% HM from 52.5m
- 7.5m @ 6.46% HM from 27.0m (DAAC147), including 4.5m @ 9.70% HM from 28.5m
- 12m @ 4.54% HM from 18.0m (DAAC102), including 7.5m @ 6.15% HM from 19.5m
- 6m @ 8.92% HM from 12.0m (DAAC101)

(see ASX announcement dated 9 October for further details)

Six new prospects were identified along the target horizon including Cold Duck, Cisco, Porphyry Pearl, Concorde, Bohemia and Buckfast. The Cold Duck Prospect returned a broad intersection of mineralisation from surface comprising;

- 37.5m @ 3.56% HM including 16.5m @ 5.49% HM

(see ASX announcement dated 17 October for further details)

The multiple new discoveries located along the prospective target horizon confirms the Canning Basin as a major new mineral sand province.

An updated Mineral Resource and Ore Reserve Statement was released subsequent to the end of the quarter. Sheffield's total in-situ valuable heavy mineral inventory contained within all Mineral Resource estimates (Measured, Indicated and Inferred at various cut-offs) stands at 173 million tonnes including, 23 million tonnes of zircon and 132 million tonnes of ilmenite. The updated Mineral Resource Statement includes the Thunderbird deposit, seven deposits from the Eneabba Project and the two deposits from the McCalls Project. Sheffield's total Ore Reserve estimate remains unchanged at 680.5 million tonnes @ 11.3% HM (Proved and Probable) which is contained within the Mineral Resource at the Thunderbird deposit. (see ASX announcement dated 3 October for further details).



Figure 4: Location of Thunderbird Mineral Sands Project

THUNDERBIRD MINERAL SANDS PROJECT

Early Works Program

Site access and infrastructure for Thunderbird has continued to advance during the quarter, in accordance with the State Government approved Minor or Preliminary Works (MoPW). The accommodation village and associated ancillary buildings are nearing completion and village occupancy is expected to occur during the next quarter. The installation of 52 accommodation units and 17 floor kitchen area has been completed by local Kimberley businesses and the potable and waste water treatment equipment has been supplied and installed by Perth based specialists.

The installation of communications infrastructure for the Project has commenced with the communication tower at Jillian Ridge, which connects the microwave link from the Project to the fibre optic cable and at the accommodation village. The system supplied by Perth based specialists is expected to provide high quality communications and data services at the Project during the next quarter.

The establishment of site access roads and other infrastructure on the Miscellaneous Licences were completed by local Kimberley businesses during the quarter. The design and layout of the Thunderbird Site Access Road from the Mt Jowlaenga Homestead Road to the Mining Lease was completed in preparation of commencing works are the approval of detailed environmental management plans and mining proposals by the relevant government agencies.

Sheffield's contribution to local Kimberley businesses, over the previous six months, is estimated to be in excess of A\$4 million with a further commitment of A\$3 million by the end of the calendar year. This expenditure in the region demonstrates Sheffield's commitment to the community and local Kimberley businesses. Significantly, expenditure of over A\$1 million was with over fifty local businesses. These groups were involved in supplying materials and services ranging from catering, electrical and plumbing services, transport, logistic, fuel and tyres. The total expenditure also includes A\$200,000 on accommodation and meals, A\$500,000 on equipment hire and vehicle rental and nearly A\$400,000 on local labour and Aboriginal training.

Front End Engineering and Design

GR Engineering Services Limited (GRES), as preferred engineering, procurement and construction (EPC) contractor for Thunderbird, continued front end engineering design (FEED) for the Mineral Separation Plant (MSP) and the Low Temperature Roast (LTR) plant, with 30% of the engineering now complete. The LTR engineering design has been advanced sufficiently to enable the LTR plant to be incorporated into the EPC Agreement.

GRES had completed detailed process design, finalised plant layouts, defined equipment specifications and created the mechanical equipment list of process plant items, updated the project scheduling and planned long lead item procurement, defined earthworks and civils contract packages and begun development of project management plans.

Based on the above engineering work, GRES moved further into detailed design and drafting. Focus was also placed on the Low Temperature Roast (LTR) plant, incorporating it into the overall project design and delivery. Work included:

- Process Design – Piping & Instrument Diagrams (PIDs), Plant Process Functional Description, review of preferred mechanical equipment vendor data
- Structural & Civil – bulk earthworks and drainage design, embedded ground-anchor and concrete foundation design, and structural steel design for all plant areas

- Mechanical, Piping and Electrical – buried services design, layouts for services and equipment throughout plant areas
- Procurement – evaluation of mechanical equipment tender bids, early works construction packages and purchase of vendor data for selected mechanical and electrical equipment
- Construction – site mobilisation plans and established site procedures and protocols.

A review of the Thunderbird Owners Works activities resulted in the transfer of \$15 million of non-process infrastructure works, into the EPC Agreement, aligning the delivery of these infrastructure works with the EPC activities.

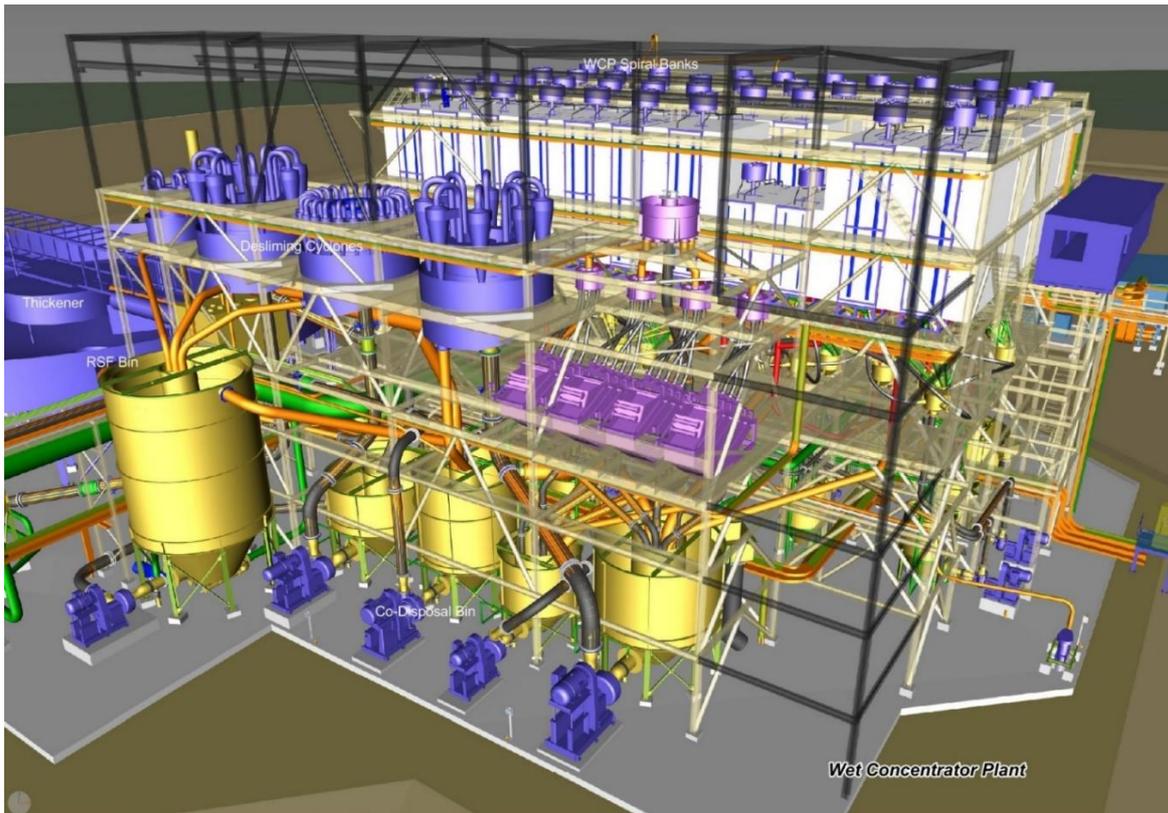


Figure 5: Wet Concentrator design and layout

A fixed price lump sum EPC contract incorporating the improvements in design, throughput and operability was progressed with GRES. The improvements are expected to significantly de-risk the Project, with GRES likely to assume ramp-up assistance, and metallurgical and performance responsibilities during the Project delivery. The Company and GRES also refined the proposed contract and associated schedules with input from independent due-diligence experts and the necessary legal and commercial advisors in preparation for execution of the EPC Contract.

Aboriginal Engagement

Sheffield Resources is committed to local jobs, training and businesses. Sheffield currently employs 47 people. Sheffield’s employment practices are focussed upon creating jobs in the Kimberley region with a specific focus on Aboriginal employment. Current workforce ethnicity statistics are shown below demonstrating that 33% of the current workforce is Aboriginal.

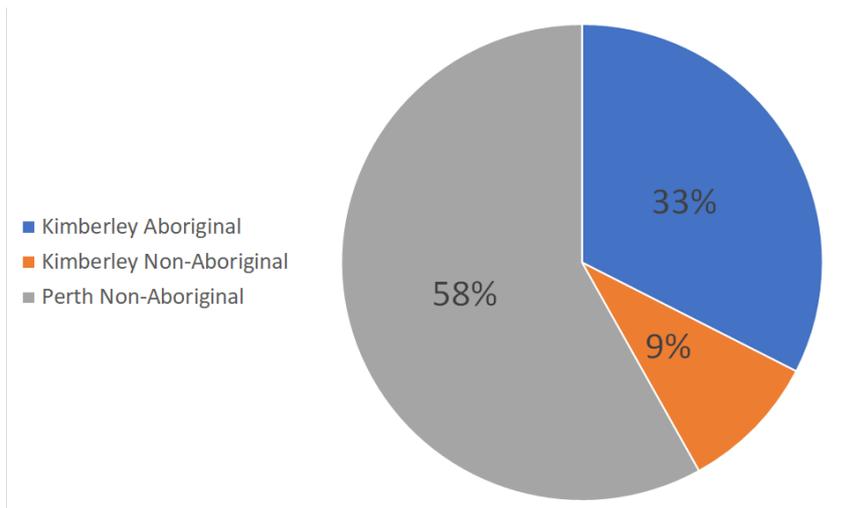


Figure 6: Workforce by Location/Ethnicity

Sheffield continues the Group Training Program run in partnership with Broome-based Nirrumbuk Group Training with four Trainees from the program attaining their Certificate III of Civil Construction and significant practical experience via job placements at the Thunderbird Project and other Kimberley based construction businesses.

A second Traineeship program is under development and will commence in November 2018 with participants from Mt Jowlaenga Polygon #2 Traditional Owner claimant group. This group of Trainees will undertake a Certificate III of Civil Construction and carry out job placements on and related to the Thunderbird Project.

Sustainability

The National Native Title Tribunal (NNTT) reconsidered the test of good faith, as directed by the Full Federal Court and determined that Sheffield had acted in good faith in the negotiations with the Mount Jowlaenga Polygon #2 claimant group (Traditional Owners). This meant that the Full Federal Court was able to lift the stay on the determination made by the NNTT on 14 June 2017 allowing the Western Australian Department of Mines, Industry, Regulation and Safety to grant the Mining Lease for Thunderbird.

Independent of, and parallel to the NNTT process, Sheffield continued working closely with the Traditional Owner Negotiation Committee (TONC) culminating in the signing of a Co-existence Agreement in early September 2018. This allows the Kimberley Land Council (KLC) to proceed with an Authorisation meeting, involving a meeting with a wider group of Traditional Owners to consider authorising the Named Applicants to execute the Agreement. The Authorisation Meeting is the final step in the process and will be held in late October 2018.

Following the completion of the State environmental approval process, the Department of Environment and Energy granted Federal environmental approval for the Thunderbird Mineral Sands Project. The Federal environmental approval represented the final key permit required to develop Thunderbird. The granting of Federal and State approvals follows four years of environmental studies, consultation and assessment, which demonstrate the Project's low environmental impact.

Sheffield's continued its ongoing engagement with the Kimberley community with approximately 200 people attending events and one-on-one meetings designed to ensure that the community and stakeholders have had every opportunity to understand the development of the Thunderbird Project.

This third phase of community consultation is central to the Project impact management process and will allow Sheffield to validate community sentiment and discuss the high-level management measures and responses required.

In Derby, ten community events were completed including the Shire of Derby West Kimberley. The events were themed as community, environment, business or employment. Twelve events were conducted in Broome, including the Shire of Broome Council and the Board of the Broome Chamber of Commerce and Industry. Four events were conducted on the Dampier Peninsula at Aboriginal communities.

The most important themes in the community continue to be local employment and business opportunities, Aboriginal opportunity, environmental and safety performance, training, and retention of Kimberley lifestyle and values.

During the Quarter, Sheffield supported several community initiatives including the Mowanjum Festival, Kimberley Art Prize, Derby Long Table Dinner, Derby Rodeo and Camp Draft, Kimberley Economic Forum, the Girls Academy and Holy Rosary School Parents and Friends.

Marketing and Offtake

With the conclusion of the maiden binding ilmenite offtake agreement with Bengbu Zhongheng New Materials S&T Co., Ltd (Bengbu), a comprehensive sampling and analysis methodology was developed to satisfy the requirements of the binding agreement. The agreement is for a minimum annual supply quantity of 150,000 metric tonnes of low temperature roast (LTR) ilmenite.

Demand for all Thunderbird products remains strong with continued interest shown by potential offtake partners. Discussions with several potential counterparties for the supply of LTR Ilmenite and Hi-Ti 88 material has continued during the quarter.

The September quarter showed a steady of the TiO₂ market with very consistent pricing for all TiO₂ products. Demand for sulphate pigment feedstock is expected to be stable in the near to mid-term and with the further development of chloride pigment technology in China supply constraints for pigment feedstock are forecast in the coming years.

As expected, zircon pricing has continued to strengthen during the quarter with further price increases announced by senior industry groups for the coming quarter. Longer term forecast supply constraints due to depletion of existing mines and lack of development of new deposits is expected to have an upward impact on pricing for the foreseeable future.

Project Financing and Funding Strategy

Sheffield's funding strategy continues to advance with substantial progression of the debt facility agreement and the related financing documentation for the US\$175 million debt facility with Taurus Mining Finance Fund is now nearing completion. This process is due to conclude early next quarter. In addition to the Taurus facilities the Company, in conjunction with the Northern Australia Infrastructure Facility (NAIF) Board announced an offer financial assistance to support the development of the Thunderbird Project via the provision of long-term debt facilities totalling A\$95 million. NAIF and Sheffield have agreed non-binding terms sheets for the NAIF Facilities, which comprise of a A\$30 million Project Development Facility (15-year tenor) and a A\$65 million Infrastructure Development Facility (20 year tenor).



Figure 7: NAIF Debt Facilities Announcement – Federal Parliament, Canberra

The NAIF Facilities will enable Sheffield to construct on-site LNG power generation and storage facilities at Thunderbird, upgrading of mine site roads, in-sourcing of mine site accommodation and facilitating the construction and revitalisation of ship loading and logistics assets within the Port of Derby in Western Australia. Whilst the NAIF Facilities will not reduce the total funding requirements, the direct ownership of these infrastructure assets will result in an estimated minimum A\$7.5 million per annum saving over the 42 year life of mine. The proposed structure provides a pathway for Sheffield to own the strategic asset infrastructure and have control of the delivery and operation of key Project infrastructure.

Sheffield's current estimate of the total Stage 1 capital requirement is A\$463 million. The A\$95 million NAIF debt facility will fund 82% of the A\$115 million increase over the BFS total Stage 1 capital cost estimate, which relates predominantly to the Companies decision to in-source infrastructure along with improvements to the processing plant. As a result, the Project is likely to require only an additional A\$20 million of Project funding cost to shareholders representing a modest 3% p.a. increase over two years since the BFS was completed. Project capital does not include ramp up working capital, corporate overheads or financing costs during Project delivery.

EXPLORATION ACTIVITIES

Sheffield completed a major regional exploration drill program of 94 aircore holes for 4,829 metres at its Dampier Mineral Sands Project containing the world class Thunderbird Mineral Sands Project, near Derby in northern Western Australia. During the Quarter, Sheffield also completed an exploration drill program at Derby East Project and updated the Company's Mineral Resource and Ore Reserve Statement.

Dampier Project

During the Quarter, regional drilling at the Dampier Project targeted additional zircon rich Heavy Mineral (HM) prospects which may be suitable for downstream processing at the proposed Thunderbird Dry Mineral Separation Plant. The targets are located along a prospective horizon of 160km strike length,

located within the Dampier Project tenements. Holes were completed at the previously drilled prospects of Night Train and Nomad and the newly identified prospects of Cold Duck, Porphyry Pearl, Cisco, Concorde, Bohemia and Buckfast (Figure 8).

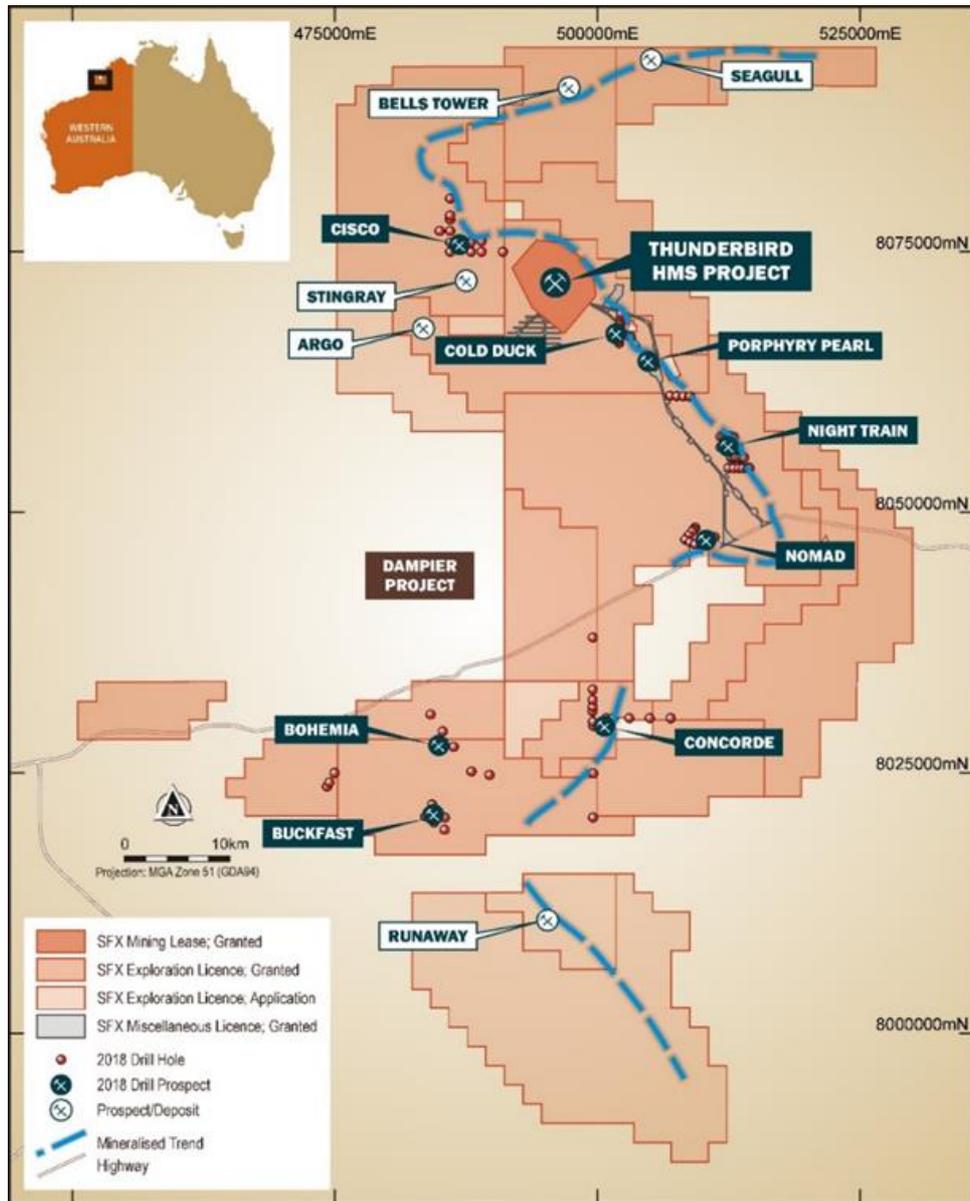


Figure 8: Location of prospects at the Dampier Heavy Mineral Project

The Night Train Prospect is located 20km southeast of Thunderbird and is within 2km of the proposed Thunderbird haulage route. Results released subsequent to the end of the quarter extend the broad, high grade mineralised interval previously identified by a single drill line at 1% HM cut-off to a strike length of over 4.5km and a width of 1.5km (see ASX release 9 October 2018 for details). A coherent high grade zone (at 3% HM cut-off) up to 22.5m thick (average 7.5m) has been outlined over an area of 4.5km² and is open along strike and down dip, thickening to the southwest. The drilling at Night Train returned some exceptional results, including;

- 27m @ 5.29% HM from 49.5m (DAAC114), including 22.5m @ 6.17% HM from 52.5m
- 7.5m @ 6.46% HM from 27.0m (DAAC147), including 4.5m @ 9.70% HM from 28.5m
- 12m @ 4.54% HM from 18.0m (DAAC102), including 7.5m @ 6.15% HM from 19.5m
- 6m @ 8.92% HM from 12.0m (DAAC101)

(intervals reported above a 1% HM cut-off, including above 3% HM cut-off refer to ASX release 9 October 2018)

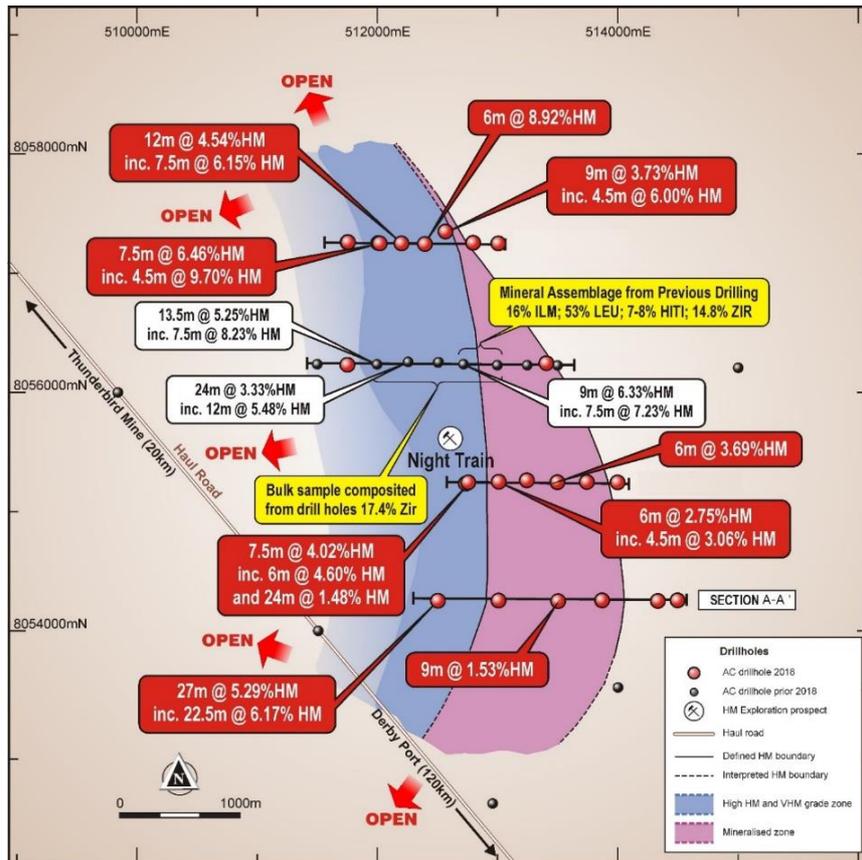


Figure 9: Drill Plan of the Night Train prospect showing significant drill intersections

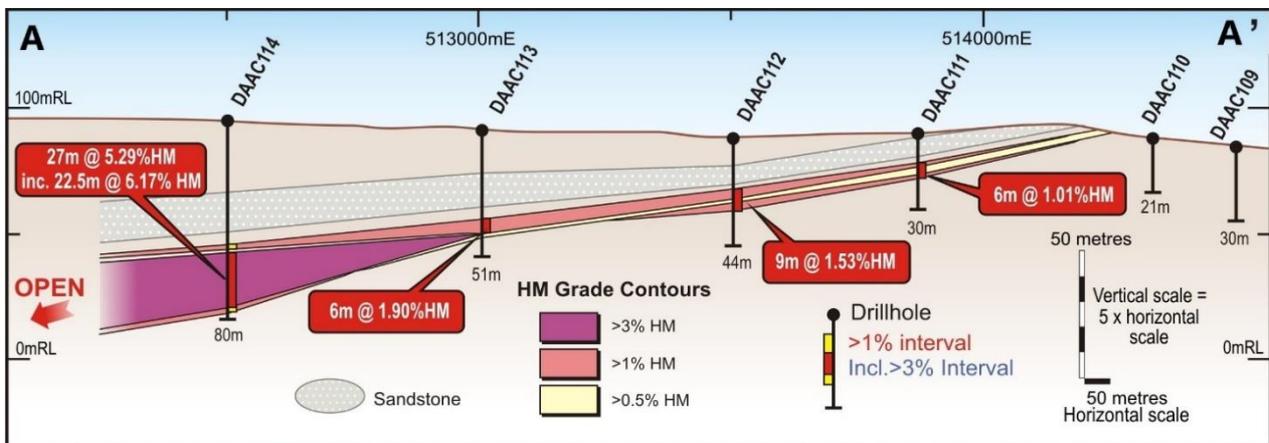


Figure 10: Night Train Section 8054250mN

Cold Duck is located to the southeast of the Thunderbird Mining lease and adjacent to the proposed haul road. The prospect is defined by 10 drill holes, predominantly in a north-south drill traverse, with mineralisation over a 3km length and 6 to 42m in thickness at a 1% HM cut-off (see ASX release 17 October 2018 for details). At 3% HM cut-off mineralisation is 2km length and 4.5m to 16.5m in thickness. Mineralisation is open in most directions with less than 9m of cover and HM grade increasing to the south.

Significant Cold Duck intersections include:

- 37.5m @ 3.56% HM from 1.5m (DAAC131), including 16.5m @ 5.49% HM from 21.0m
 - 42m @ 3.32% HM from 1.5mE (DAAC139), including 12m @ 3.96% HM from 13.5m, also including 6m @ 8.45% HM from 36.0m
- (intervals reported above a 1% HM cut-off, including above 3% HM cut-off refer to ASX release 17 October 2018)

The Prospects of Porphyry Pearl, Cisco and Nomad also returned significant results along the extent of the 160 km strike length of the prospective horizon. The multiple discoveries along the prospective horizon confirm the Canning Basin as a major new mineral sand province. The most significant result from these new prospects (see ASX release 17 October 2018 for further details) include the following intersections.

Significant intersections from Porphyry Pearl include:

- 19.5m @ 2.93% HM from 19.5m (DAAC141), including 6m @ 5.80% HM from 21.0m
- 6m @ 3.06% HM from 3m (DAAC140), including 3m @ 5.00% HM from 6.0m
(intervals reported above a 1% HM cut-off, including above 3% HM cut-off refer to ASX release 17 October 2018)

Significant intersections from Cisco include:

- 34.5m @ 2.64% HM from 58.5m (DAAC149), including 12m @ 3.74% HM from 81.0m
- 21m @ 1.33% HM from 36.0m (DAAC153)
(intervals reported above a 1% HM cut-off, including above 3% HM cut-off refer to ASX release 17 October 2018)

Significant intersections from holes the Nomad upper zone include:

- 7.5m @ 5.78% HM from 19.5m (DAAC119), including 6m @ 6.94% HM from 19.5m
- 3m @ 5.49% HM from 21.0m (DAAC121)
(intervals reported above a 1% HM cut-off, including above 3% HM cut-off refer to ASX release 17 October 2018)

Significant intersections from the Nomad lower zone include:

- 15m @ 2.51% HM from 30m (DAAC021), including 4.5m @ 4.48% HM from 34.5m
- 13.5m @ 2.99% HM from 34.5m (DAAC022), including 6m @ 4.81% HM from 36m
(intervals reported above a 1% HM cut-off, including above 3% HM cut-off refer to ASX release 25 February 2015 and ASX release 17 October 2018)

Assay results from 28 holes drilled at the Concorde, Bohemia and Buckfast prospects and are expected during Q4 2018.



Figure 11: Porphyry Pearl - Panned HM (left), Photomicrograph of HM concentrate drill hole DAAC140 (7.5 – 9.0m)

Derby East

During the Quarter, drilling at the Derby East program targeted commercial quantities of sand for construction purposes. Derby East is located 24 km east of the Derby port. In total 9 aircore drill holes for 416m were drilled, with holes up to a maximum of 66m depth.

Eight of the nine holes intersected clean, sub-angular to sub-rounded medium to coarse sands with a cover of 4.5m to 12m. Geochemical and geotechnical test work will be carried out during Q4 2018 to assess suitability for specific end-use commercial requirements.

Mineral Resource and Ore Reserve Statement

An updated Mineral Resource and Ore Reserve Statement was released subsequent to the end of the quarter with Sheffield's total in-situ tonnes of valuable heavy mineral contained within all Mineral Resource estimates (Measured, Indicated and Inferred at various cut-offs) now standing at 173 million tonnes including, 23 million tonnes of zircon and 132 million tonnes of ilmenite (see ASX release dated 3 October 2018 for details). Sheffield's Thunderbird Ore Reserve is unchanged at 680.5 million tonnes @ 11.3% HM (Proved and Probable) (see ASX release 16 March 2017 for details).

The updated Mineral Resource and Ore Reserve Statement includes an upgrade of Mineral Resource estimates at the Eneabba and McCalls Projects to comply with the requirements of the JORC Code (2012). Mineral Resource updates prepared during the quarter include Drummond Crossing, Durack, Ellengail, West Mine North and Yandanooka within the Eneabba Project. The McCalls Mineral Resource was updated to include the recently acquired tenement E70/4922 and a maiden Mineral Resource estimate for the Mindarra Springs deposit.

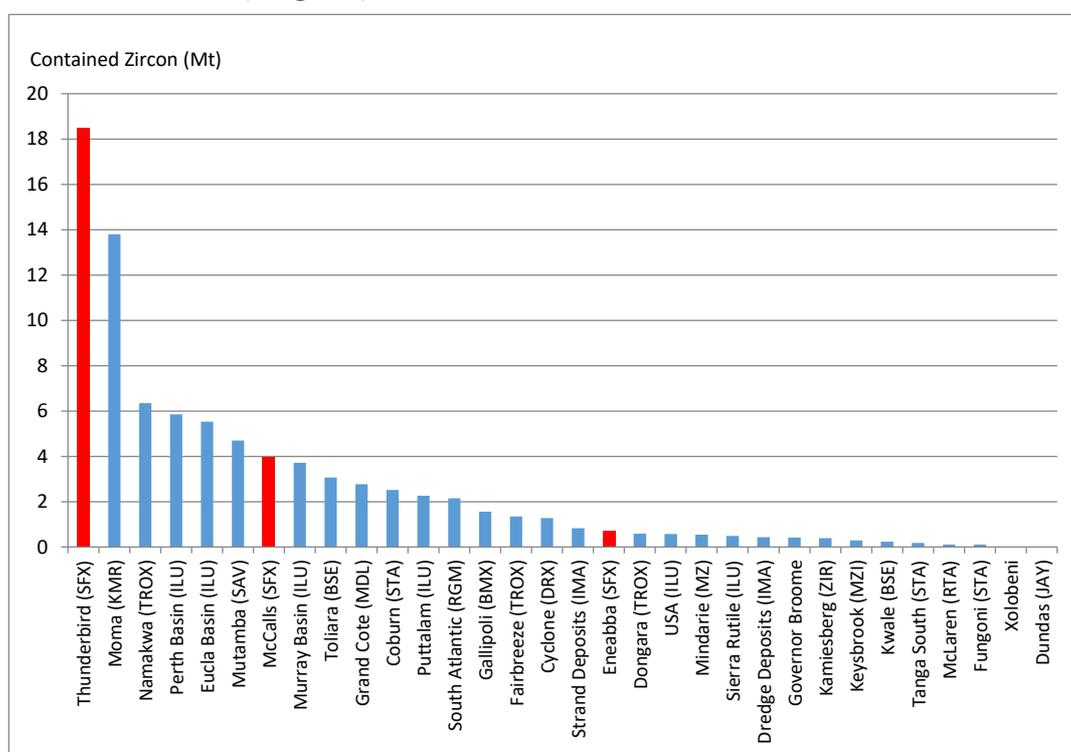


Figure 12: Sheffield Mineral Resources¹ by project displayed as contained zircon ranked against contained zircon within Mineral Resources of significant mineral sands operations and projects under investigation globally

¹Sheffield's Mineral Resources are published in Sheffield's Ore Reserve and Mineral Resource Statement (see ASX announcement dated 3 October 2018). Sheffield Mineral Resource ranked against published Mineral Resources of current mineral sands operations and projects under investigation globally. Some Mineral Resources are excluded due to lack of JORC compliant or detailed reporting.

Further Work

Mineral assemblage determination and bulk sample mineral characterisation test work for Night Train is scheduled for Q4 2018. The results of this work will be incorporated into a maiden Mineral Resource estimate for Night Train, scheduled for completion in Q1 2019.

Mineralogical test work will also be carried out at Cold Duck, Porphyry Pearl, Cisco and Nomad prospects with results expected during Q1 2019. Follow up aircore drilling to extend the regional discoveries and infill at Night Train is scheduled for Q2 2019 and Q3 2019.

Further geotechnical and geochemical test work will be undertaken on the Derby East silica sands samples.

CORPORATE ACTIVITIES

As at 30 September 2018, Sheffield held cash reserves of approximately \$13.7 million (unaudited).

A handwritten signature in black ink, appearing to read 'Bruce McFadzean', written over a circular stamp or mark.

Mr Bruce McFadzean
Managing Director
31 October 2018

Schedule 1: Interests in Mining Tenements at the end of the quarter as required under ASX Listing Rule 5.3.3

Project	Tenement	Holder	Interest	Location ³	Status
Mineral Sands	E04/2455	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2456	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2081 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2083 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2084 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2159 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2171 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2192 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2193 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2194 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2348 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2349 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2350 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2390 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2399 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2400 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2554 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2571 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Pending
Mineral Sands	L04/84 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/85 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/86 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/92 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/93 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2478	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/82	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/83	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2494 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	M04/459 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E70/3762	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3813	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3814	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3929	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3967	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4190	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4584	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4292	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4719	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4747	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	L70/150	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/872 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/965 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/1153 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	R70/35 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4922	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3859	Sheffield Resources Ltd	100%	Perth Basin	Pending
Mineral Sands	E04/2509 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2510 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Pending
Mineral Sands	ELA 2018-00046	Moora Talc Pty Ltd	100%	Eucla Basin (SA)	Pending
Mineral Sands	E45/5214 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2540 ²	Thunderbird Operations Pty Ltd	100%	Canning Basin	Pending

Notes:

¹Iluka Resources Ltd (ASX: ILU) retains a gross sales royalty of 1.5% in respect to tenements R70/35, M70/872, M70/965 & M70/1153.

²Thunderbird Operations Pty Ltd is a 100% owned subsidiary of Sheffield Resources Ltd.

Details of tenements and/or beneficial interests acquired/disposed of during the quarter are provided in Section 10 of the Company's accompanying Appendix 5B notice.

COMPLIANCE STATEMENTS

PREVIOUSLY REPORTED INFORMATION

This report includes information that relates to Exploration Results, Mineral Resources and Ore Reserves prepared and first disclosed under the JORC Code (2012) and a Bankable Feasibility Study. The information was extracted from the Company's previous ASX announcements as follows:

- Cold Duck, Porphyry Pearl, Cisco and Nomad results "THREE NEW MINERAL SANDS DISCOVERIES NEAR THUNDERBIRD", 17 October 2018
- Night Train results: "EXCEPTIONAL RESULTS CONFIRM MAJOR DISCOVERY AT NIGHT TRAIN", 09 October 2018
- Mineral Resource and Ore Statement "MINERAL RESOURCE AND RESERVE STATEMENT" 03 October, 2018
- Drilling commences: "SHEFFIELD COMMENCES 8,000m REGIONAL DRILLING PROGRAM AT THUNDERBIRD", 01 August 2018
- Ilmenite offtake: "SHEFFIELD SIGNS MAIDEN BINDING ILMENITE OFFTAKE AGREEMENT" 21 June, 2018
- Port Agreement: "SHEFFIELD SECURES DERBY PORT ACCESS AGREEMENT" 16 May, 2018
- December 2017 Quarterly Report (Robbs Cross and Thomsons Mineral Resources): "QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2017" 30 January, 2018
- September 2017 Quarterly Report: "QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 30 SEPTEMBER 2017" 31 October, 2017
- Thunderbird Ore Reserve: "THUNDERBIRD ORE RESERVE UPDATE" 16 March, 2017
- Thunderbird Bankable Feasibility Study: "THUNDERBIRD BFS DELIVERS OUTSTANDING RESULTS" 24 March, 2017
- McCalls Mineral Resource: "QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 30 JUNE 2016" 25 July 2016.
- Thunderbird Mineral Resource: "SHEFFIELD DOUBLES MEASURED MINERAL RESOURCE AT THUNDERBIRD" 5 July, 2016
- Night Train metallurgical scoping results: "PREMIUM ZIRCON AT NIGHT TRAIN", 14 April, 2016
- Night Train Discovery: "NEW MINERAL SANDS DISCOVERY AT NIGHT TRAIN" 22 September, 2015
- Robbs Cross and Thomsons Discovery: "NEXT GENERATION OF MINERAL SANDS DISCOVERIES AT ENEABBA" 23 July, 2015
- Night Train Drilling: "THREE NEW MINERAL SANDS DISCOVERIES IN CANNING BASIN" 25 February, 2015

These announcements are available to view on Sheffield's website www.sheffieldresources.com.au

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

CAUTIONARY STATEMENTS AND RISK FACTORS

The contents of this report reflect various technical and economic conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly over relatively short periods of time. Consequently, actual results may vary from those contained in this report.

Some statements in this report regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this report are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward-looking statements. So there can be no assurance that actual outcomes will not materially differ from these forward-looking statements.