



7 January 2020

Pilbara Iron Ore Project (PIOP) Scoping Study Results

Highlights

- The Scoping Study identifies a viable and significant open cut mining opportunity at the Pilbara Iron Ore Project (PIOP).
- The Scoping Study assessed the mining potential using the PIOP Measured, Indicated and Inferred Mineral Resources of 1,484 Mt announced to the market on 1 March 2018.
- The Scoping Study is based on the data acquired and developed during the Maturation Programme undertaken in 2017 and 2018, including updated metallurgical, hydrogeological and geotechnical assessments.
- An Exploration Results update reported in accordance with the JORC Code accompanies this Scoping Study announcement to clarify the reasonable basis for the technical studies underpinning the mining modifying factors employed in the Scoping Study.
- The proposed Transaction with BBI Group Ltd (BBIG) as announced on 28 November 2019 provides
 the reasonable basis for a number of required Modifying Factors, including providing the
 infrastructure pathway to export the PIOP product in this Scoping Study.
- The Scoping Study includes consideration of an indicative Production Target of approximately 615 Mt(dry) /675 Mt(wet) over the Life of Mine (LoM) at PIOP and is based on an assumed LoM grade of greater than 60 %Fe¹.

Mr Neil Warburton Chairman of Flinders said: Having now finalised the Transaction Agreements with BBIG, ready for the EGM shareholder vote in 2020, Flinders has now been able to complete a Scoping Study to enable the release of a Production Target statement for the PIOP. The Company believes it now has a reasonable basis for all of its assumptions including finance, development, infrastructure and marketing and is the next step in bringing the PIOP into potential production.

Cautionary Statements

The Scoping Study referred to in this announcement has been undertaken to provide an understanding of the possible size and form of the Pilbara Iron Ore Project (**PIOP**), and to support the technical assessment and valuation of the current proposed joint venture, and funding proposal provided by BBIG.

The Scoping Study is a preliminary technical and economic study of the potential viability of the PIOP. It is based on differing levels of technical and economic assessments that are not sufficient to support the estimation of Ore Reserves reportable in accordance with the JORC Code. Further feasibility work, and appropriate studies are required before the Company will be in a position to estimate the Ore Reserves at PIOP or to provide assurance of an economic and financial development case.

The Scoping Study is based on the material assumptions described below and summarised in Appendix D: Production Target Modifying Factor Table. These include assumptions about the potential of a positive result of voting on the proposed BBIG Transaction at a proposed EGM of Flinders' Shareholders, finalisation of the availability of finance, and the ability to secure finalised offtake agreements for proposed production. While Flinders considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct, or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, funding in the order of A\$3,650 million will be required to develop the PIOP project. Investors should note that there is no certainty that Flinders, its proposed joint venture partners or future funding equity partners, will be able to raise that amount of funding when needed. It is also likely that any such funding may only be available on terms that may be dilutive to or otherwise affect the value of existing Flinders shares.

Given the many uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Location of PIOP and BBIG Infrastructure

The PIOP is located in the Pilbara region of Western Australia, approximately 60km north-west of the town of Tom Price. The PIOP consists of comprises the Blacksmith and Anvil tenements. The proposed BBIG Infrastructure (including conveyor, rail, and port infrastructure) would link the PIOP to the Balla Balla Port, which is located approximately midway between Port Hedland and Dampier.



Figure 1: PIOP Regional Location Plan

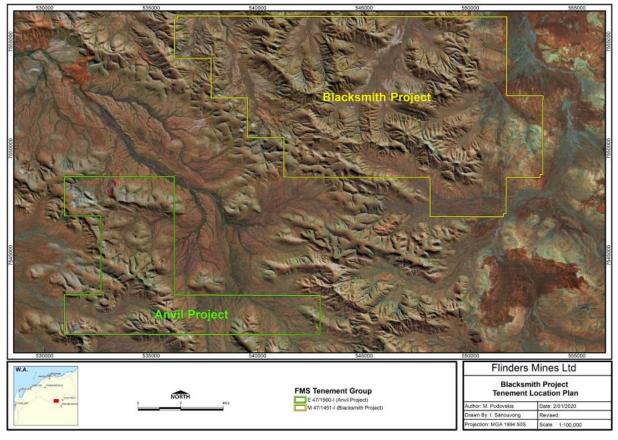


Figure 2: PIOP Tenement Location Plan

Basis of Scoping Study

The basis of this Scoping Study and Production Target is the result of operational and corporate developments by Flinders over the past three years – since the Strategic Review in March 2017. These inputs are summarised in Table 9 – Production Target Modification Factors.

The key technical inputs are the results of engineering and development from data acquired during the 2017 and 2018 Maturation Programme, which is further covered in detail later in this announcement – including an Exploration Update to cover all drilling completed during the Maturation Programme.

The other inputs to the Scoping Study are largely the result of the recently announced proposed Farm-In Joint Venture with BBIG. This Farm-In Joint Venture, is still subject to Flinders' Shareholder approval. This Farm-In Joint Venture has the potential to fund a Feasibility Study for PIOP, finance the PIOP mine's development, provide an infrastructure solution for the currently stranded PIOP, secure off-take agreements, and provide management services.

These technical and corporate inputs, including the proposed mine development and infrastructure service, has given Flinders the confidence in the required inputs and Modifying Factors to announce this indicative Production Target and Scoping Study.

Mine Development and Infrastructure Services Information

Note: The deal description below covering the Proposed Transaction is a high-level summary and is not intended as a replacement for the Notice of Meeting, which will be released to Shareholders as part of the proposed EGM documents.

In summary, the Proposed Transaction which is subject to Flinders' shareholder vote, with Flinders' majority shareholder TIO (NZ) Limited (TIO) excluded from voting, provides a pathway for the financing and development of the PIOP, including an infrastructure solution for transport of iron ore to port, and sale to end customers which in effect unlocks the PIOP's route to market.

It will involve Flinders and BBIG forming an incorporated joint venture, PIOP Mine Co, to develop the PIOP. A subsidiary of BBIG will be appointed Manager and initially fund a PIOP Feasibility Study in return for an initial 10% voting interest in PIOP Mine Co. If a Final Investment Decision (FID) proposal is made, BBIG and its funding partners (the Equity Funding Party) will then fund construction and development of the PIOP to production. At FID, Flinders can retain the Mining Option, in which case it will continue as a 40% shareholder in PIOP Mine Co; or subject to Flinders Shareholder approval at that time, with TIO excluded from voting, select the Royalty Option, in which case Flinders will cease to be a shareholder in PIOP Mine Co and will receive an ongoing 2.5% gross revenue (FOB) royalty on all minerals produced and sold from PIOP.

While the PIOP development is being progressed, BBIG will develop the BBIG Project, an integrated rail and port infrastructure solution. PIOP Mine Co will become a foundation customer for the BBIG Project under a long-term Infrastructure Services Agreement, thus providing an infrastructure solution for the PIOP development.

The Transaction Documents include:

- a Farm-In Agreement, which outlines the key terms to establish the joint venture;
- an Infrastructure Services Agreement, which provides the terms including pricing under which PIOP Mine Co will have access to the infrastructure operated by BBIG;
- a Royalty Agreement, which provides the pre-agreed terms for the 2.5% gross revenue (FOB) royalty in the event that Flinders selects the Royalty Option (subject to Flinders' Shareholder approval at that time, with TIO excluded from voting); and various ancillary documents.

A summary of these Transaction Documents is provided in Appendix E.

Mineral Resource estimate

Flinders announced an update to the Mineral Resource at the PIOP in March 2018 (1-March-2018 ASX Announcement: PIOP Mineral Resource Estimate Update). The update to the Mineral Resource estimate was completed by Snowden Mining Industry Consultants (Snowden) following the completion of drilling in 2017, and subsequent metallurgical laboratory analysis.

Area	CLASS	Tonnes (Mt)	Fe %	SiO2 %	Al2O3 %	P %	LOI %
	Measured	54.1	59.8	6.24	4.28	0.064	2.98
Blacksmith	Indicated	1,148.0	52.6	14.06	4.81	0.067	4.93
	Inferred	105.2	51.6	15.71	5.13	0.057	4.40
Blacksmith Total		1,307.3	52.8	13.87	4.81	0.066	4.81
Anvil	Inferred	176.4	47.1	21.34	6.05	0.044	4.13
Anvil Total		176.4	47.1	21.34	6.05	0.044	4.13
PIOP	Measured	54.1	59.8	6.24	4.28	0.064	2.98
	Indicated	1,148.0	52.6	14.06	4.81	0.067	4.93
(Blacksmith & Anvil)	Inferred	281.6	98.6	37.05	11.18	0.102	8.53
Grand Total		1,483.7	52.2	14.76	4.96	0.064	4.73

Small discrepancies may occur due to rounding. Cut Off: Ore types DID1, DID2, DID3 reported using Fe>40% and Al_2O_3 <8%; material types DID4, CID, BID reported using Fe>50% and Al_2O_3 <6%

Table 1: PIOP Mineral Resource estimate (March 2018, Snowden)

The Mineral Resource for the PIOP was reported above cut-off grades as follows:

DID1, DID2, DID3 (OPF2): Fe>40% and Al₂O₃<8%
 DID4, CID, BID (OPF1): Fe>50% and Al₂O₃<6%

where DID is Detrital Iron Deposit, CID is Channel Iron Deposit, and BID is Bedded Iron Deposit.

The cut-off grades are based on product optimisation carried out by Snowden based on metallurgical regressions provided by James McFarlane (Competent Person as defined in the JORC Code) for two ore processing facilities – known as Ore Processing Facility 1 (OPF1) and Ore Processing Facility 2 (OPF2).

OPF1 comprises crushing, wet scrubbing, wet screening and hydro-cyclone desliming.

Flinders proposes to beneficiate relatively low-grade DID1, DID2 and DID3 (detrital) material using a second (the OPF2) processing route, which consists of crushing, scrubbing, wet screening, and dense media separation (DMS).

The metallurgical regressions (which are largely based on the 2017 drilling campaign samples) support this twinned processing strategy as being a viable processing approach for the PIOP.

Exploration Results from Metallurgical, Geotechnical and Hydrogeological Drilling

Flinders released an ASX announcement on 21 May 2018 titled "PIOP Maturation Programme Update and Retraction", summarising the Maturation Programme findings. The release did not include any results from on-going exploration programmes at the time as Flinders was of the opinion that the progress of the Maturation Programme, and release of the updated Mineral Resource estimate numbers, were the most material and appropriate releases to fully inform the market of the development and progress of the project. With the completion of this Scoping Study, Flinders has included the results from the now completed exploration programme as part of the body of information demonstrating the reasonable basis for the Scoping Study.

The new exploration results provided in this announcement comprise outputs from metallurgical, geotechnical and hydrogeological drilling (including associated lab work and reporting) conducted during the Maturation programme in 2017 and 2018 and evaluated in 2018 and 2019.

A summary of sampling techniques and data (including the metallurgical details), and estimation and reporting methodologies is contained in JORC Code Table 1 (see Appendix C), which is included as an attachment to this announcement. Figure 3 (Blacksmith) and Figure 4 (Anvil) show all collars from mineral resource definition, metallurgical, geotechnical, and hydrogeological drilling at PIOP.

A tabulation of all metallurgical, geotechnical and hydrogeological drill hole collar information included in the Maturation programme studies is included in Appendix A.

Metallurgical Sampling and Development

The Phase 7 Metallurgy programme was conducted between July 2017 and April 2018 as part of the Maturation Works Programme work on the Pilbara Iron Ore Project (PIOP).

The two aims of the Phase 7 Metallurgy programme were:

- 1. To define robust processing flowsheets (OPF1 and OPF2) for the production of a single -10mm sinter fines product at 45Mtpa(dry).
- 2. To develop representative metallurgical regressions that could be used as Modifying Factors to be applied to the Mineral Resource estimate and for future mine planning studies, including this Production Target.

The process for OPF1 was to be suitable for the material types BID, DID4 and CID, and the process for OPF2 was to be suitable for the material types DID1, DID2 and DID3.

Samples were selected from PQ diamond and sonic core from all of the deposits: Delta, Eagle, Champion, Blackjack, Badger, Paragon, Ajax from the Blacksmith tenement, as well as the Anvil tenement at PIOP. A total of 62,932 kg (wet) of material was collected from (3,755 m of drill core), from which 45 metallurgical samples were selected for OPF1 and 55 for OPF2.

The laboratory work was conducted at the Nagrom Laboratory in Kelmscott WA. Sample selection and compositing was managed by the Flinders metallurgist James McFarlane (Competent Person as defined in the JORC Code).

In 2017, five bulk samples were collected by excavator at PIOP, providing 56,557 kg (gross) of material in total. These bulk samples were collected to provide industrial-scale confirmation of the earlier bench-scale results. Pilot-scale tests of the OPF1 and OPF2 flowsheets were completed with five bulk samples of DID1, DID2 and DID3 material for OPF2, and three bulk samples of BID, DID4 and CID material for OPF1.

The relationship between head grade assays and product grades (and mass yields) was analysed by means of scatter plots and regression analysis. The resulting regression equations, which were based on the bench-scale laboratory testing of both the 45 samples for OPF1, and the 55 samples for OPF2, were used as an input for mine planning.

The metallurgical drill holes formed the basis on which the metallurgical upgrade regression formulae were created – which supported both the cut-off grades of the Mineral Resource reported in accordance with the JORC Code, and the modifying factors used to derive the Production Target.

Representative samples of tailings were prepared from pilot-scale testing for engineering tests associated with tailings dam design, thickening and filtration.

Geotechnical Sampling and Development

Snowden, on behalf of Flinders, completed a Feasibility Study-level geotechnical assessment, leading to the delivery of batter and inter-ramp slope angle design recommendations for mine planning purposes. The field work comprised drilling 44 holes by a combination of diamond core and sonic methods, targeting areas of mineralisation, and potential pits other than Delta. Previously, Delta had adequate geotechnical drilling and investigations completed and this data was used in the subsequent geotechnical assessments as well.

Sonic drilling, like the metallurgical sampling, was employed to improve core recovery through the loose detrital material.

All drill samples were geologically logged, and laboratory tested for UCS, triaxial shear strength, rock triaxial, direct shear, moisture density and soil index tests.

The results were analysed, assessed and developed into batter and inter-ramp slope design recommendations for the PIOP pits.

Hydrogeological Sampling and Development

Between October to November 2017, Advisian, on behalf of Flinders completed 14 hydrogeological monitoring bores by RC percussion drilling (included the re- drilling and casing of nine existing RCP exploration drill holes), which were installed with monitoring loggers to assess water levels, level of saturation, and seasonal fluctuation.

This programme was designed to complement the 2011 work by WorleyParsons, who were commissioned by Flinders to undertake hydrogeological studies and modelling to assess the potential groundwater effects associated with the PIOP. This work included the completion of three production bores (one each over Delta, Champion and Eagle), and 60 monitoring bores (43 were from the re drilling, screening and casing of existing RCP drill holes).

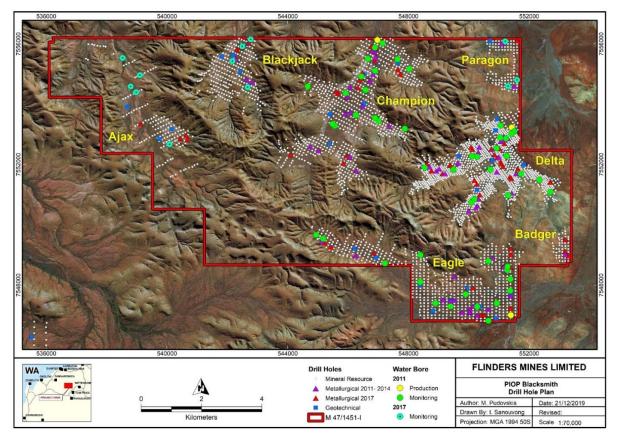


Figure 3: PIOP Blacksmith mineral resource, metallurgical, geotechnical and hydrogeological sampling locations

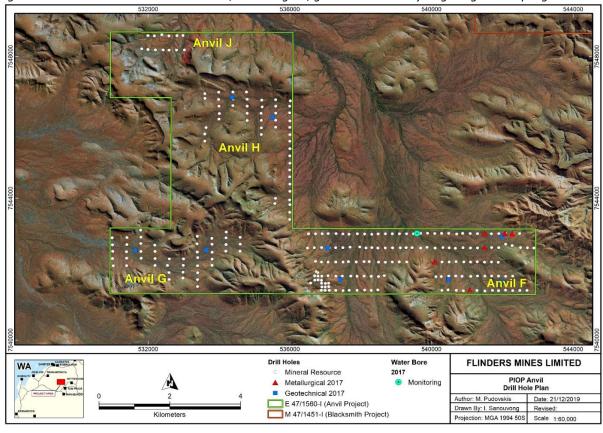


Figure 4: PIOP Anvil mineral resource, metallurgical, geotechnical and hydrogeological sampling locations

Ore Processing Facilities (OPF1 and OPF2)

Following the Maturation Programme and the Phase 7 Metallurgy programme in 2018, Flinders conducted inhouse process engineering design of the flow-sheets referred to as OPF1 and OPF2. The process engineering design resulted in the following Flinders documents:

- 1. Process Flow Diagram (PFD).
- 2. Process Design Criteria (PDC).
- 3. Mass and Water Balance.

Engineering design of OPF1 and OPF2 has not yet progressed to detailed civil, mechanical, electrical and control drawings and specifications, as engagement with process engineering contractors was not commenced. This stage of project development will form part of the Feasibility Study stage, at the appropriate time.

The processing plant for OPF1 includes the following major facilities:

- Primary crushing utilising a primary and secondary sizer;
- Coarse ore stockpile;
- Washing plant, including scrubbers and wet scalping screens;
- Secondary crushing;
- Tertiary crushing;
- Product screens;
- Desliming plant; and
- Sampling.

The processing plant for OPF2 includes the following major facilities:

- Primary crushing utilising a primary and secondary sizer;
- Coarse ore stockpile;
- Washing plant, including scrubbers and wet scalping screens;
- Secondary crushing;
- Tertiary crushing;
- Product screens;
- Dense media (DMS) cyclone plant;
- Desliming plant to separate sand tails and slimes tails; and
- Sampling.

Conceptual process flow-sheet drawings, drafted by Engenuity Solutions, under the direction of Flinders, are included in Appendix B. A block flow diagram has been included in Figure 5. The blue arrows represent the flow of OPF1 material types, whist the red arrows represent the flow of the OPF2 material types through the process plant stages.

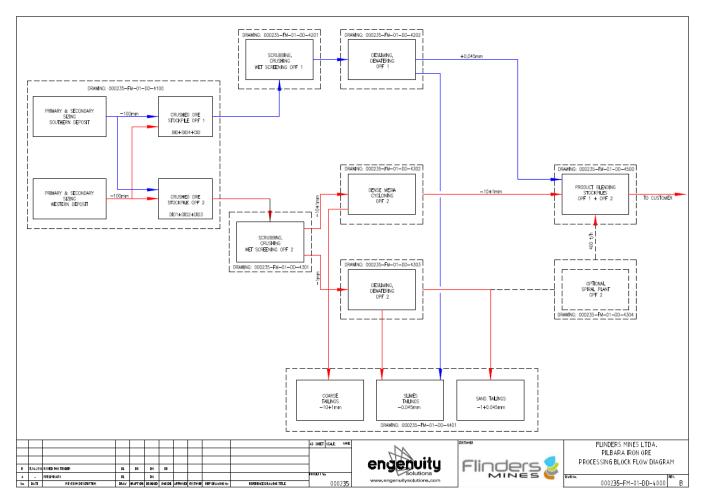


Figure 5: Concept Processing Block Flow Diagram

A set of Flinders processing flow sheets are available in Appendix B

Mining Scoping Study

Cautionary statements

This study presents an indicative Production Target for the purpose of providing an understanding of the possible size and form of the Pilbara Iron Ore Project (PIOP), and to support the assessment and valuation of the Proposed Transaction offered by BBIG.

The Company believes it has a reasonable basis for this indicative target, derived as a preliminary technical and economic study of the potential viability of the PIOP. It is based on differing-levels of technical and economic assessments that are not sufficient to support the estimation of Ore Reserves reportable in accordance with the JORC Code. Further feasibility work, and appropriate studies are required before the PIOP will be in a position to estimate the Ore Reserves or to provide assurance of an economic and financial development case.

This target is based primarily on Measured and Indicated Mineral Resources, but includes capture of approximately 17% Inferred material, which does not form a material component of the conceptual economic case.

Please note that there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

The stated indicative Production Target is based on the Company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

Background

Snowden was engaged by Flinders to undertake a mining Scoping Study of the PIOP, with the aim of reporting a Production Target for the purpose of informing Flinders' Shareholders of commercial arrangements underway.

Snowden has previously completed the following studies on the project for Flinders:

- Strategic review, 2017
- Mineral Resource estimate, 2017–2018.
- High-level mine plan, 2018.

The objective of this study was to determine a conceptual high-level mine plan for a nominal 45 million dry tonne per annum (Mtpa) product operation, considering simultaneous processing through two processing plants (OPF1 and OPF2), producing a conceptual average 60% Fe product, and identify further work to firm up the options under consideration as the project progresses into Pre-feasibility and Feasibility Study stages as appropriate.

Key Findings

The proposed mining cycle is conventional drill, blast, load and haul. The proposed equipment sizes are 350 t excavators, 225 t rigid body dump trucks and 40 t rotary drills.

A general conceptual layout of the mine, for this study, is shown in Figure 6. Overland conveyors are proposed (when appropriate) to transport ore from each of the deposits to the process plants, which are conceptually located at the north of the Delta pit. Crushers will nominally be located at one or more locations at each deposit to feed the conveyors, as required. The terrain challenges have been noted, and future conveyor optimisation studies will include investigations of any need for civil earthwork profiling.

The processing plants, OPF2 in particular, produces a significant amount of rejects (tailings) that requires storage. At this stage these rejects will be stored in previously mined pit voids. Initial mining would commence ahead of processing to create an initial area for storage at Paragon (south). Where possible, mine waste would be backfilled into the pit. Detailed rejects management (including mine waste) has not been completed.

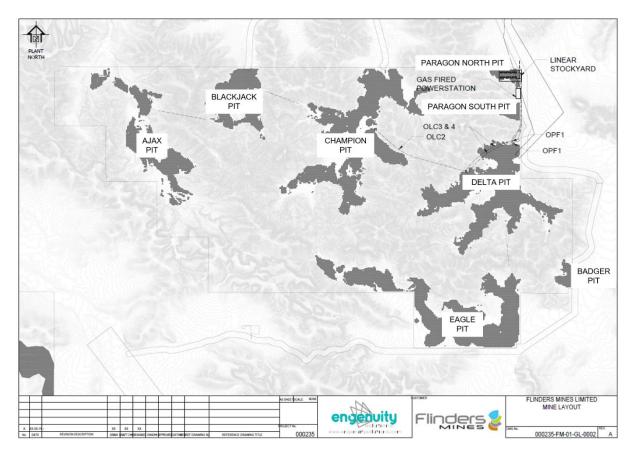


Figure 6: Conceptual Site Layout

Snowden completed the following tasks in developing the indicative Production Target:

- · Conceptual mining model generation to apply appropriate nominal levels of dilution and ore loss
- Nominal product optimisation to determine appropriate cut-offs
- Conceptual pit optimisation for both Blacksmith and Anvil tenements
- High-level schedules for a notional combined 45 Mtpa product case
- Consideration of site layout issues at a conceptual level

Key Inputs and Assumptions

The Production Target Modifying Factors Table is included in Appendix D: Production Target Modifying Factor Table and the major inputs have been summarised below:

Input	Value	Supplied by	Reasonable Basis
Mineral Resource	1,484 Mt at 52.2% Fe, 14.8% SiO ₂ and 4.96% Al ₂ O ₃	Snowden	John Graindorge - Competent Person (Geology)
Metallurgical Regressions	OPF1 and OPF2 Regressions	FMS	James McFarlane - Competent Person (Metallurgy)
Operating Costs	Unit rates (see Cost Factors in Appendix D)	FMS	Combination of market tested and qualified contractor estimates
Total Capital Costs	A\$3,650 million	FMS	BBI cost estimates reviewed (during Due Diligence) and accepted as appropriate by FMS for Scoping Study
Infrastructure opex cost	A\$7.60/wmt	FMS	BBI cost estimates reviewed (during Due Diligence) and accepted as appropriate by FMS for Scoping Study

Infrastructure access tariff	A\$16.95/wmt	FMS	Announced BBI Deal. Base cost of \$14.75/dmt adjusted by \$2.20/dmt commodity charge based on A\$/dmt for CFR Received Price.
Iron Ore Price (62% Index)	US\$70/dmt	FMS	Bloomberg Broker Consensus Q4-2019
Product Discount (after Fe% adj)	15.6%	FMS	BBIG Value in Use analysis - adjusted from 13.6% to 15.6% to account for higher levels of Al ₂ O ₃ and SiO ₂ in this Production Target.
AUD: USD Exchange Rate	1:0.7	FMS	Bloomberg Broker Consensus Q4-2019
WA State Royalty	7.5% FOB OGV	Gov	WA Legislated value
Native Title Royalty	0.5-0.8% FOB OGV	FMS	Blacksmith Native Title Agreement
Corporate Tax Rate	30%	FMS	Company Tax Rate
Discount Rate (WACC)	10%	FMS	Industry typical discount rate

Conceptual Mining Schedule

Figure 7 shows the schematic nominal total ex-pit movement by deposit. Mining conceptually commences at Paragon (North and South) during the construction years (Year 1 and Year 2) to prepare the stockyard and provide an area for initial tailings deposition. Delta nominally provides the baseload of initial production, as (the current Mineral Resource model suggests it has the lowest strip ratio and better grades). In Year 3, operational mining conceptually commences at Eagle to balance grade and provide waste storage areas. Champion then commences mining in Year 5. The other deposits conceptually come into the schedule from Year 8 onwards. Sections of these deposits (low strip ratio areas) were notionally delayed to minimise simultaneous mining locations.

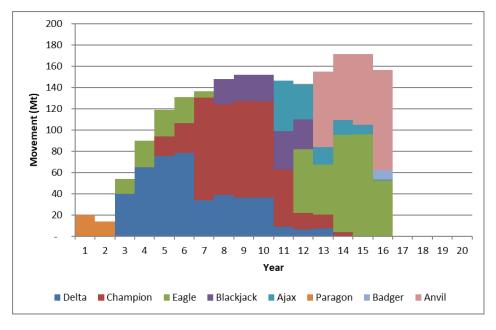


Figure 7: Total conceptual ex-pit movement by deposit

Deposit ROM feed was managed to the number of crushers required (Figure 8). A nominal crushing capacity of 25 Mtpa was applied per crusher. The results suggest that five crushers are may be required during the mine life, although with some relaxation of the notional grade profile it may be possible to reduce this to four (as additional areas are anticipated to be required later in the mine life to maintain product impurity grade levels).

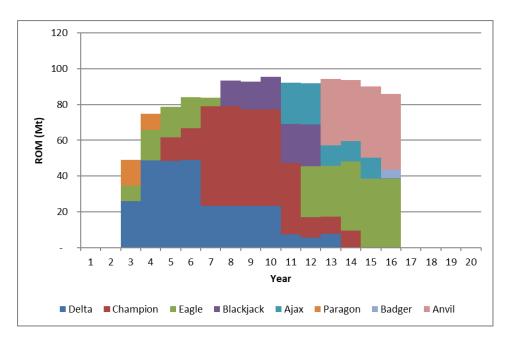


Figure 8: Conceptual process feed by deposit

Figure 9 shows the conceptual ROM feed to the processing plant by Mineral Resource classification. Most of the Inferred Resources are processed at the end of the mine life (predominately located in Ajax and Anvil deposits).

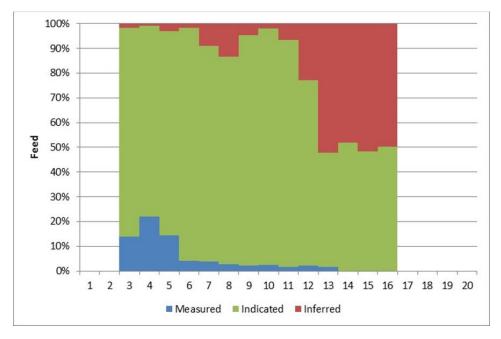


Figure 9: ROM feed by resource classification

Production Target

An indicative Production Target by Mineral Resource categorisation is summarised in Table 2. As indicated by Figure 9 the Inferred Mineral Resources do not comprise a material component of the first four years of the conceptual mine plan; and it is anticipated that what is currently classified as Inferred Mineral Resources will have been upgraded as the project is developed.

Table 2 summarises the Production Target by rock Mineral Resource classification.

			RO	M feed						P	roduct			
Mineral Resource classification	Wet (Mwt)	Dry (Mt)	Mt (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	Wet (Mwt)	Dry (Mt)	Mt (%)	Fe (%)	SiO₂ (%)	Al ₂ O ₃ (%)	P (%)
Measured	57	53	4.5	59.1	7.0	4.3	0.07	46	42	6.9	61.7	4.5	3.5	0.07
Indicated	974	905	75.4	50.4	17.8	5.8	0.05	513	467	76.2	60.1	6.6	3.8	0.06
Inferred	260	242	20.1	47.1	21.1	6.5	0.04	114	104	16.9	59.5	7.7	4.2	0.05
Total	1291	1201	100.0	50.1	18.0	5.9	0.05	674	613	100.0	60.1	6.6	3.9	0.06

Table 2: Indicative Production Target by Mineral Resource classification

Figure 10 details the evolution from Mineral Resource (dry tonnes) to Indicative Production Target (dry tonnes) to assist with the understanding of how the indicative Production Target is modified/developed. The black bars represent (positive, +) tonnages, the red bars represent (negative, -) adjustments.

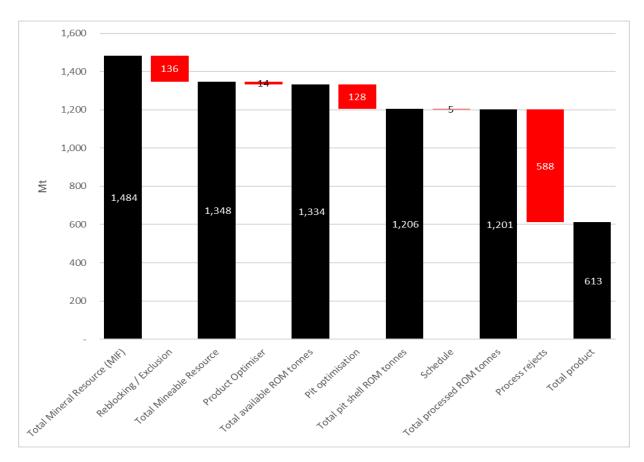


Figure 10: Indicative Production Target evolution from total Mineral Resource (dry tonnes).

Future Work

This study has shown, at a conceptual level, that it is likely that a viable mine plan can be developed based on a nominal 45 Mtpa operation.

The success of the project will depend on, amongst other things, the eventual declaration of an Ore Reserve in accordance with the principles and guidelines of the JORC Code. Considerations include:

- Securing (and financing) a viable rail and port solution, as commercial negotiations progress.
- Iron ore pricing, particularly in later years of the mine life, which have elevated SiO₂ and Al₂O₃ product grades and lower Fe product grade.
- Ongoing metallurgical and process plant engineering development to finalise infrastructure and processing designs.

The remaining workstreams including progressing to detailed mine planning, including resolving the complexity of the site layout, materials handling, water management and waste/tailings storage.

Proposed Infrastructure Solution

This Scoping Study and indicative Production Target are to inform Flinders' Shareholders about the potential outcomes that could arise from the proposed transaction with BBIG. This transaction is still subject to a positive Flinders Shareholder vote at a proposed EGM and has the potential to finance feasibility studies, finance the mine's development, provide an infrastructure solution for the currently stranded PIOP, secure off-take agreements, and provide management services.

The BBIG Project represents a potential infrastructure solution for the currently stranded PIOP orebody. The BBIG Project is proposed to include conveyor, rail and port infrastructure that has the potential to transport PIOP Mine Co product to ocean going vessels for transportation to end customers. Flinders has, over several years, considered various infrastructure alternatives for PIOP and other options that could be considered other than the Proposed Transaction.

Most recently, Flinders commissioned PwC to complete an independent review. This concluded that the BBIG Project would be the most favourable transport option for the PIOP to meet Flinders' criteria and performance requirements (2-Sep-2019 ASX Announcement: Flinders Enters non-binding Term Sheet with BBIG). The Flinders PIOP Infrastructure Committee considered the available infrastructure options and also determined that the BBIG Project was the most favourable infrastructure pathway for the PIOP.

The Independent Flinders Directors believe it is critical to have a viable infrastructure solution in order to attract the substantial capital required to develop the PIOP. The Proposed Transaction represents the outcome of extensive commercial negotiations with BBIG to provide that solution and facilitate the integrated development of both the PIOP and BBIG Project.

Under the proposed deal (if approved by Flinders' Shareholders), BBIG will develop the BBIG Project and PIOP Mine Co will be its foundation customer. The Infrastructure Services Agreement (Infrastructure Agreement) outlines the terms under which BBIG will provide infrastructure services to PIOP Mine Co under a take or pay arrangement. Under the Infrastructure Agreement, PIOP Mine Co will pay BBIG a tariff for the services provided, which will consist of the actual ongoing operating costs of providing the services plus a capacity charge and a commodity charge, which has been indicatively set to result in a tariff between A\$10.25 – 19.25 / wmt (Tariff).

Development Strategy

Under the Proposed Transaction with BBIG, BBIG will be responsible for following items, amongst other things:

- Developing a Feasibility Study for the PIOP, at their cost;
- Managing the end to end development of the Integrated Project, including feasibility studies, design and construction;
- Arranging the necessary debt and equity funding required for development of the Integrated Project;

- Arranging off-take agreements to sell and market PIOP product;
- Meeting the project schedule including finalisation of project design to bring a FID proposal;
- Meeting its obligations under the State Agreement for the BBIG Project;
- Attracting and acquiring the necessary people to deliver the Integrated Project, given the nature and scale of the proposed development and operations;
- Deliver the infrastructure services necessary to transport PIOP product from the PIOP mine to ocean going vessels; and manage the mining operations of the PIOP.

Finance Summary

As previously noted, Flinders has entered into detailed Transaction Documents with BBIG, still subject to a shareholder vote at an EGM in 2020. This deal presents a clear and structured pathway to finance, and whilst not yet finalised, has more substance than is typical for a project at a Scoping Study level.

The finance plan is at an advanced stage of development due to BBIG developing strong partnerships to finance their infrastructure over the past few years. It is envisaged that the same equity and debt consortium that will fund the BBIG Infrastructure will also fund the PIOP mine. The intended equity and financing consortium involve China- sourced equity finance, and long-term project debt structured in accordance with the China State financing requirements for an F-EPC financing, that is essentially debt financing supporting an EPC contract provided by a major China engineering and construction group:

- Head Contractor: China State Construction Engineering Corporation (CSCEC).
- Equity Consortium: A syndicate currently referred to as China Australia Development Investment
 ("CADI") would include China Zhong Chong Group Co Ltd and others, including China State Owned
 Enterprises engaged in the steel and iron ore industry.
- Debt Consortium: Expected to be substantially, but not exclusively China based banks.

It is noted that, assuming a positive shareholder vote at the EGM and satisfaction of conditions precedent, there is a commitment by BBIG to fund all work required to get to a Final Investment Decision (FID) and Flinders is free carried in this process under the terms of the Proposed Transaction.

Competent Persons Statements

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Mark Pudovskis. Mr Pudovskis is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pudovskis has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Pudovskis consents to the disclosure of the information in this report in the form and context in which it appears.

The information in this announcement that relates to Metallurgical Results is based on and fairly reflects, information compiled by James McFarlane, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy who was a full-time employee of Flinders. Mr McFarlane has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). The Company confirms that the form and context in which the information is presented has not been materially modified and it is not aware of any new information or data that materially affects the information included in the relevant market announcements, as detailed in the body of this announcement.

The information in this report that relates to the PIOP Mineral Resource estimate is based on information compiled by John Graindorge who is a Chartered Professional (Geology) and a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". John Graindorge is a full-time employee of Snowden Mining Industry Consultants Pty Ltd and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the mining aspects of the Production Target estimate was completed under the supervision of Mr Frank Blanchfield, who is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Frank Blanchfield is an employee of Snowden Mining Industry Consultants Pty Ltd and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this announcement that relate to the non-mining aspects of the Production Target estimate has been prepared by Flinders. The Directors of the Company believe that the Company has a reasonable basis for these assumptions, as is required by the Corporations Act of Australia.

Authorised by:

Board of Flinders Mines Limited

For further information please contact:

Shareholders

David McAdam CEO – 0407 708875

Media

Michael Weir Citadel-MAGNUS - 0402 347 032

Appendix A - 2017 Maturation Programme Sampling

Drill Hole ID	Tenement	Prospect	Hole Type	Easting	Northing	Elevation	Dip	Azimuth	Depth (m)
METDD0001	M47/1451-I	Blacksmith	DD DD	549021.3	7551863	577.115	-90	0	66
METDD0001	M47/1451-I	Blacksmith	DD	550349.8	7552578	556.247	-90	0	66
METDD0002	M47/1451-I	Blacksmith	DD	550315	7552407	556.4	-90	0	70.2
METDD0003		Blacksmith	DD		7552407	556.769	-90	0	
	M47/1451-I			550315					66.1
METDD0004	M47/1451-I	Blacksmith	DD	548920.7	7551781	578.889	-90	0	56
METDD0004A	M47/1451-I	Blacksmith	DD	548920.7	7551781	578.889	-90	0	56
METDD0005	M47/1451-I	Blacksmith	DD	550318.1	7550852	575.977	-90	0	42
METDD0006	M47/1451-I	Blacksmith	DD	550005.2	7550462	587.995	-90	0	36
METDD0006A	M47/1451-I	Blacksmith	DD	550003.2	7550460	588.096	-90	0	34.4
METDD0007	M47/1451-I	Blacksmith	DD	551153.2	7548595	595.1	-90	0	46
METDD0008	M47/1451-I	Blacksmith	DD	551573.9	7551702	560.7	-90	0	39
METDD0008A	M47/1451-I	Blacksmith	DD	551574	7551703	560.7	-90	0	54.05
METDD0009	M47/1451-I	Blacksmith	DD	549645.9	7552053.7	567.516	-90	0	52
METDD0010	M47/1451-I	Blacksmith	DD	550927	7551759	559.2	-90	0	42.6
METDD0011	M47/1451-I	Blacksmith	DD	551400.8	7546996	583.3	-90	0	119.4
METDD0012	M47/1451-I	Blacksmith	DD	550774.4	7548895	606.8	-90	0	51.9
METDD0013	M47/1451-I	Blacksmith	DD	550278	7546998	604	-90	0	64.3
METDD0013A	M47/1451-I	Blacksmith	DD	550278	7546996	604	-90	0	63.05
METDD0014	M47/1451-I	Blacksmith	DD	550148	7547296	616	-90	0	106.6
METDD0015	M47/1451-I	Blacksmith	DD	550030	7547097	605	-90	0	85.2
METDD0015A	M47/1451-I	Blacksmith	DD	550029	7547096	605	-90	0	84
METDD0016	M47/1451-I	Blacksmith	DD	550028	7547200	602	-90	0	110.8
METDD0017	M47/1451-I	Blacksmith	DD	549520	7548296	623	-90	0	44.8
METDD0017A	M47/1451-I	Blacksmith	DD	549522	7548294	623	-90	0	44.5
METDD0018	M47/1451-I	Blacksmith	DD	551153.2	7548595	595.1	-90	0	64.6
METDD0019	M47/1451-I	Blacksmith	DD	546878.9	7555874	550.593	-90	0	90
METDD0020	M47/1451-I	Blacksmith	DD	546809.5	7555767	549.977	-90	0	74.5
METDD0021	M47/1451-I	Blacksmith	DD	546835.4	7554989	553.7	-90	0	56
METDD0022	M47/1451-I	Blacksmith	DD	546732.7	7554758	555.678	-90	0	56
METDD0022A	M47/1451-I	Blacksmith	DD	546732.7	7554758	555.678	-90	0	56
METDD0023	M47/1451-I	Blacksmith	DD	546070.6	7554571	565.752	-90	0	60
METDD0024	M47/1451-I	Blacksmith	DD	547366.1	7553269	583.417	-90	0	46
METDD0025	M47/1451-I	Blacksmith	DD	546481.6	7553934	564.648	-90	0	56
METDD0026	M47/1451-I	Blacksmith	DD	545967.7	7554244	566.718	-90	0	58.5
METDD0027	M47/1451-I	Blacksmith	DD	551395	7547008	587	-90	0	117.8
METDD0028	M47/1451-I	Blacksmith	DD	550029	7547086	606	-90	0	83.5
METDD0029	M47/1451-I	Blacksmith	DD	551153	7548595	595	-90	0	64.5
METDD0030	M47/1451-I	Blacksmith	DD	548706	7551922	596	-90	0	75.5
METDD0031	M47/1451-I	Blacksmith	DD	551571.8	7551696	560.81	-90	0	55.5
METDD0032	M47/1451-I	Blacksmith	DD	553200	7549011	579	-90	0	36.3
METDD0033	M47/1451-I	Blacksmith	DD	551093	7556010	538	-90	0	50
METDD0034	M47/1451-I	Blacksmith	DD	551511	7554597	541	-90	0	30.7
METDD0035	M47/1451-I	Blacksmith	DD	542820	7554738	589	-90	0	40.5
METDD0036	M47/1451-I	Blacksmith	DD	542636.7	7554827	581.71	-90	0	33
METDD0037	M47/1451-I	Blacksmith	DD	542281	7555505	569	-90	0	52
METDD0038	M47/1451-I	Blacksmith	DD	545130.7	7549450	665.326	-90	0	28
METDD0039	M47/1451-I	Blacksmith	DD	546256.9	7548974	646.11	-90	0	36.5
METDD0039A	M47/1451-I	Blacksmith	DD	546256.9	7548974	646.11	-90	0	20
METDD0033A	M47/1451-I	Blacksmith	DD	548887.8	7547403	607.8	-90	0	74.1
METDD0040	M47/1451-I	Blacksmith	DD	549157.7	7547514	604.931	-90	0	80
							-90	0	94
METDD0042	M47/1451-I	Blacksmith	DD	549393.3	7547473	603.28			
METDD0044	M47/1451-I	Blacksmith	DD	549518.8	7547496	601.986	-90	0	75
METDD0044	M47/1451-I	Blacksmith	DD	549780.4	7547092	599.213	-90	0	105
METDD0045	M47/1451-I	Blacksmith	DD	550646.1	7547199	591.468	-90	0	103.4
METDD0046	M47/1451-I	Blacksmith	DD	551382.4	7547639	584.222	-90	0	116.7
METDD0047	M47/1451-I	Blacksmith	DD	548396.8	7548116	620.27	-90	0	62

METDD0048	M47/1451-I	Blacksmith	DD	545021.9	7552462	590.617	-90	0	27
METDD0049	M47/1451-I	Blacksmith	DD	544758	7552589	595.715	-90	0	32
METDD0050	M47/1451-I	Blacksmith	DD	546272.7	7551799	602.425	-90	0	24
METDD0050A	M47/1451-I	Blacksmith	DD	546271.7	7551800	602.405	-90	0	26
METDD0051	M47/1451-I	Blacksmith	DD	546058.2	7552255	592.111	-90	0	30.1
METDD0051A	M47/1451-I	Blacksmith	DD	546057.4	7552254	592.127	-90	0	30
METDD0052	M47/1451-I	Blacksmith	DD	545902	7553681	570	-90	0	50
METDD0053	M47/1451-I	Blacksmith	DD	546087	7553734	570	-90	0	57
METDD0054	M47/1451-I	Blacksmith	DD	546885	7555733	551	-90	0	82
METDD0055	M47/1451-I	Blacksmith	DD	546925	7555560	548	-90	0	70
METDD0056	M47/1451-I	Blacksmith	DD	546436	7554909	567	-90	0	66.2
METDD0057	M47/1451-I	Blacksmith	DD	551303.7	7552858	542.755	-90	0	74
METDD0058	M47/1451-I	Blacksmith	DD	551161	7552936	544.151	-90	0	84.2
METDD0059	M47/1451-I	Blacksmith	DD	551182.3	7552823	543.661	-90	0	98.2
METDD0060	M47/1451-I	Blacksmith	DD	551060.4	7552772	544.986	-90	0	67.3
METDD0061	M47/1451-I	Blacksmith	DD	550847.6	7552521	549.881	-90	0	84
METDD0062	M47/1451-I	Blacksmith	DD	550998.5	7552247	551.631	-90	0	78
METDD0063	M47/1451-I	Blacksmith	DD	549219.9	7551694	575.695	-90	0	47.2
METDD0064	M47/1451-I	Blacksmith	DD	550274.2	7550628	582.687	-90	0	28
METDD0065	M47/1451-I	Blacksmith	DD	550232.3	7550565	585.49	-90	0	24
METDD0066	M47/1451-I	Blacksmith	DD	551426.3	7551051	577.399	-90	0	26
METDD0067	M47/1451-I	Blacksmith	DD	551394.1	7549208	610.77	-90	0	24
METDD0068	M47/1451-I	Blacksmith	DD	551403.3	7549011	605.258	-90	0	43.4
METDD0069	M47/1451-I	Blacksmith	DD	551157.4	7548623	595.623	-90	0	65.7
METDD0070	M47/1451-I	Blacksmith	DD	551388.7	7547234	584.14	-90	0	100.8
METDD0071	M47/1451-I	Blacksmith	DD	550514.7	7547008	591.149	-90	0	88.2
METDD0072	M47/1451-I	Blacksmith	DD	553199.3	7549511	576.412	-90	0	29
METDD0073	M47/1451-I	Blacksmith	DD	550186.9	7551480	575.054	-90	0	53.5
METDD0074	M47/1451-I	Blacksmith	DD	550077	7552577	562.701	-90	0	36
METDD0075	M47/1451-I	Blacksmith	DD	550125.5	7552501	561.198	-90	0	49.6
METDD0076	M47/1451-I	Blacksmith	DD	549389.5	7551982	571.199	-90	0	51.4
METDD0077	M47/1451-I	Blacksmith	DD	546870.9	7555868	551.732	-90	0	88
METDD0078	M47/1451-I	Blacksmith	DD	546775.1	7555914	546.705	-90	0	62.8
METDD0079	M47/1451-I	Blacksmith	DD	547740.6	7554990	564.996	-90	0	25.8
METDD0080	M47/1451-I	Blacksmith	DD	547655.4	7555139	561.591	-90	0	28.4
METDD0081	M47/1451-I	Blacksmith	DD	546474.5	7555042	563.457	-90	0	48
METDD0082	M47/1451-I	Blacksmith	DD	545845.3	7552047	595.035	-90	0	27
METDD0083	M47/1451-I	Blacksmith	DD	544961.8	7549652	672.869	-90	0	31.5
METDD0091	M47/1451-I	Blacksmith	DD	551383.3	7548597	594.879	-90	0	42
METDD0092	M47/1451-I	Blacksmith	DD	550663.1	7548802	610.207	-90	0	50.6
METDD0093	M47/1451-I	Blacksmith	DD	551381.2	7546990	584.192	-90	0	86.9
METDD0094	M47/1451-I	Blacksmith	DD	550402.8	7547005	592.343	-90	0	73.7
METDD0095	M47/1451-I	Blacksmith	DD	549393.8	7547388	603.176	-90	0	85
METDD0096	M47/1451-I	Blacksmith	DD	548392.4	7548123	620.393	-90	0	61.9
METDD0097	M47/1451-I	Blacksmith	DD	548763	7551790	582.676	-90	0	58.3
METDD0098	M47/1451-I	Blacksmith	DD	548614.4	7552028	590.303	-90	0	27.7
METDD0099	M47/1451-I	Blacksmith	DD	549135.5	7551701	576.231	-90	0	49.2
METDD0100	M47/1451-I	Blacksmith	DD	549485.8	7551823	569.863	-90	0	37.5
METDD0101	M47/1451-I	Blacksmith	DD	551628	7551856	557.746	-90	0	57.6
METDD0102	M47/1451-I	Blacksmith	DD	552694.7	7551413	574.04	-90	0	44.2
METDD0103	M47/1451-I	Blacksmith	DD	542717.5	7556042	562.542	-90	0	69
METDD0104	M47/1451-I	Blacksmith	SN	551383.7	7548593	594.905	-90	0	44
METDD0105	M47/1451-I	Blacksmith	SN	550517.1	7547010	591.166	-90	0	53
METDD0106	M47/1451-I	Blacksmith	SN	548386.9	7548119	620.347	-90	0	53
METDD0107	M47/1451-I	Blacksmith	SN	546861.9	7549066	636.793	-90	0	50
METDD0107	M47/1451-I	Blacksmith	SN/DD	546260.1	7548971	645.714	-90	0	34.5
METDD0100	M47/1451-I	Blacksmith	SN	545433.1	7549262	657.331	-90	0	29
1415 1 0 0 0 1 0 3	1417/1431-1	DIUCKSIIIIIII	JIV	J-J4J3.1	, 543202	037.331	.50	U	23

METDD0110	M47/1451-I	Blacksmith	SN	545237	7549391	660.978	-90	0	35
METDD0111	M47/1451-I	Blacksmith	SN	549905.5	7547800	600.837	-90	0	59
METDD0112	M47/1451-I	Blacksmith	SN/DD	550141.2	7547908	599.169	-90	0	59.7
METDD0121	M47/1451-I	Blacksmith	SN	550271.4	7551347	570.865	-90	0	47.5
METDD0122	M47/1451-I	Blacksmith	SN	550366.2	7550998	572.636	-90	0	40
METDD0123	M47/1451-I	Blacksmith	SN	551020.7	7552529	547.394	-90	0	86
METDD0124	M47/1451-I	Blacksmith	SN	551090.2	7552029	554.042	-90	0	56
METDD0125	M47/1451-I	Blacksmith	SN	551132.6	7551932	555.147	-90	0	38
METDD0126	M47/1451-I	Blacksmith	SN	550752.6	7552518	550.729	-90	0	60
METDD0127	M47/1451-I	Blacksmith	SN	551182.9	7552701	545.073	-90	0	74
METDD0128	M47/1451-I	Blacksmith	SN	550844.4	7552324	550.989	-90	0	74
METDD0129	M47/1451-I	Blacksmith	SN	550939.7	7552225	552.904	-90	0	63
METDD0130	M47/1451-I	Blacksmith	SN	551058.9	7552089	553.824	-90	0	45
METDD0131	M47/1451-I	Blacksmith	SN	551363.1	7551588	564.045	-90	0	35
METDD0132	M47/1451-I	Blacksmith	SN	551415.7	7551536	564.701	-90	0	44
METDD0133	M47/1451-I	Blacksmith	SN	551434.7	7553231	540.518	-90	0	75
METDD0134	M47/1451-I	Blacksmith	SN	544111.6	7552331	607.02	-90	0	29
METDD0135	M47/1451-I	Blacksmith	SN	545962.6	7552289	590.756	-90	0	41
METDD0136	M47/1451-I	Blacksmith	SN	545972.1	7554235	566.685	-90	0	62
METDD0137	M47/1451-I	Blacksmith	SN	545682	7554357	572.438	-90	0	51
METDD0138	M47/1451-I	Blacksmith	SN/DD	546400.9	7554798	558.222	-90	0	62.5
METDD0139	M47/1451-I	Blacksmith	SN/DD	546940.4	7555849	554.889	-90	0	90.5
METDD0140	M47/1451-I	Blacksmith	SN/DD	545601.5	7554423	574.214	-90	0	34.5
METDD0141	M47/1451-I	Blacksmith	SN/DD	546326.9	7554555	560.689	-90	0	63
METDD0142	M47/1451-I	Blacksmith	SN	546887.6	7555446	549.659	-90	0	71
METDD0143	E47/1560-I	Anvil	SN	541084.3	7541409	713.47	-90	0	13
METDD0144	E47/1560-I	Anvil	SN	540094.4	7542207	705.315	-90	0	11
METDD0145	E47/1560-I	Anvil	SN	541504.1	7542598	713.204	-90	0	27.5
METDD0146	E47/1560-I	Anvil	SN	542284.8	7542995	730.457	-90	0	33
METDD0147	E47/1560-I	Anvil	SN	542078.5	7543004	723.517	-90	0	28.5
METDD0148	E47/1560-I	Anvil	SN	541500.7	7543005.234	713.248	-90	0	29
METDD0149	M47/1451	Blacksmith	SN	540442.5	7552867	621.42	-90	0	30
METDD0150	M47/1451	Blacksmith	SN	539130	7553355	603.633	-90	0	30
METDD0151	M47/1451	Blacksmith	SN	540640.3	7552967	634.25	-90	0	32.6
METDD0152	M47/1451	Blacksmith	SN	540675	7552824	629.377	-90	0	39.5
METDD0153	M47/1451	Blacksmith	SN/DD	546432.5	7554909	566.696	-90	0	67.1
METDD0154	M47/1451	Blacksmith	SN/DD	551597.5	7554804	534.51	-90	0	53.2
METDD0155	M47/1451	Blacksmith	SN	551606.2	7556100	527.43	-90	0	59
METDD0156	M47/1451	Blacksmith	SN	553192.5	7549119	581.756	-90	0	41
METDD0157	M47/1451	Blacksmith	SN	553302.3	7548978	575.554	-90	0	44
METDD0158	M47/1451	Blacksmith	SN	542325	7555810	564.468	-90	0	49
METDD0159	M47/1451	Blacksmith	SN	542464.5	7555883	562.464	-90	0	59

Table 3: Summary of Metallurgical Drill Hole Locations (Coordinates MGA 1994 50S)

SN: Sonic Drilling Technique

DD: Diamond Drilling Techniques

SN/DD: Sonic Drilling Techniques with a diamond tail

Туре	Bore	Tenement	Deposit	Easting	Northing	Drill depth (m)
Monitoring	AJX-MB1	M47/1451-I	Ajax	538532	7555534	18
Monitoring	AJX-MB2	M47/1451-I	Ajax	538798	7554590	17
Monitoring	AJX-MB3	M47/1451-I	Ajax	539103	7554962	49
Monitoring	AJX-MB4	M47/1451-I	Ajax	538980	7554397	36
Monitoring	AJX-MB5	M47/1451-I	Ajax	540086	7552675	39
Monitoring	BLJK-MB1S	M47/1451-I	Blackjack	542495	7555920	44
Monitoring	BLJK-MB1D	M47/1451-I	Blackjack	542497	7555918	55
Monitoring	BLJK-MB2	M47/1451-I	Blackjack	542774	7556150	17
Monitoring	BLJK-MB3	M47/1451-I	Blackjack	542174	7555433	49
Monitoring	BLJK-MB4	M47/1451-I	Blackjack	542677	7554567	36
Monitoring	PGNN-MB1	M47/1451-I	Paragon	551210	7556085	74
Monitoring	PGNS-MB1	M47/1451-I	Paragon	551597	7554804	52
Monitoring	PGNS-MB2	M47/1451-I	Paragon	551301	7554599	35
Monitoring	ANV-MB1	E47/1560-I	Anvil	539593	7543005	25

Table 4: PIOP 2017 hydrogeological monitoring bores

Drill Hole ID	Tenement	Prospect	Hole Type	Easting	Northing	Elevation	Dip	Azimuth	Depth (m)
HDT001	M47/1451-I	Blacksmith	DD	551542	7553159	538.606	-90	0	120
HDT002	M47/1451-I	Blacksmith	DD	550937.1	7553502	555.33	-90	0	100
HDT003	M47/1451-I	Blacksmith	DD	550890	7553130	553.436	-90	0	100
HDT004	M47/1451-I	Blacksmith	DD	549659	7552273	568.098	-90	0	60
HDT005	M47/1451-I	Blacksmith	DD	548547.2	7551905	591.6	-90	0	85
HDT006	M47/1451-I	Blacksmith	DD	550785	7552149	553.792	-90	0	80
HDT007	M47/1451-I	Blacksmith	DD	550270.9	7551159	572.68	-90	0	60
HDT008	M47/1451-I	Blacksmith	DD	551834	7551999	555.956	-90	0	60
HDT008A	M47/1451-I	Blacksmith	DD	551832	7552002	555.971	-90	0	60
HDT009	M47/1451-I	Blacksmith	DD	542485.3	7555924	561.212	-90	0	55
HDT010	M47/1451-I	Blacksmith	DD	542691.8	7555998	563.567	-90	0	55
HDT011	M47/1451-I	Blacksmith	DD	542193.1	7555623	567.142	-90	0	45
HDT012	M47/1451-I	Blacksmith	DD	542419.3	7555073	574.781	-90	0	34
HDT013	M47/1451-I	Blacksmith	DD	546872.3	7555859	551.708	-90	0	56
HDT014	M47/1451-I	Blacksmith	DD	546883.9	7555401	549.881	-90	0	70
HDT015	M47/1451-I	Blacksmith	DD	546547.8	7554996	567.181	-90	0	74.8
HDT016	M47/1451-I	Blacksmith	DD	545385	7552686	583.97	-90	0	45
HDT017	M47/1451-I	Blacksmith	DD	545402.6	7553674	575.029	-90	0	50
HDT018	M47/1451-I	Blacksmith	DD	546530.9	7554021	564.845	-90	0	65
HDT019	M47/1451-I	Blacksmith	DD	547645.5	7555370	555.997	-90	0	59
HDT020	M47/1451-I	Blacksmith	DD	549408.6	7547476	603.017	-90	0	95.5
HDT021	M47/1451-I	Blacksmith	DD	541814.6	7555574	579.62	-90	0	40
HDT022	M47/1451-I	Blacksmith	DD	550713.1	7556088	546.144	-90	0	35
HDT023	M47/1451-I	Blacksmith	DD	551197.7	7556108	535.037	-90	0	75
HDT030	M47/1451-I	Blacksmith	DD	538693.5	7553915	597.533	-90	0	30
HDT031	M47/1451-I	Blacksmith	DD	539756.7	7552849	608.59	-90	0	30
HDT032	M47/1451-I	Blacksmith	DD	540167.6	7553178	616.703	-90	0	30
HDT033	M47/1451-I	Blacksmith	DD	550906	7546897	588.987	-90	0	47
HDT040	M47/1451-I	Blacksmith	DD	549949.6	7547890	602.378	-90	0	62
HDT041	M47/1451-I	Blacksmith	DD	553212.2	7549007	578.086	-90	0	45
HDT042	M47/1451-I	Blacksmith	DD	551389.9	7547716	584.201	-90	0	110.5
HDT043	M47/1451-I	Blacksmith	DD	550391.5	7547289	593.597	-90	0	107.6
HDT044	M47/1451-I	Blacksmith	DD	548812.7	7547144	608.209	-90	0	95
HDT045	M47/1451-I	Blacksmith	DD	546223.1	7549204	643.006	-90	0	38
HDT046	M47/1451-I	Blacksmith	DD	546926.5	7548907	633.59	-90	0	50
HDT047	M47/1451-I	Blacksmith	DD	548385.2	7548004	617.833	-90	0	65
HDT034	E47/1451-I	Anvil	DD	534377.7	7546851	685.92	-90	0	29
HDT034	E47/1451-I	Anvil	DD	535515.2	7546284	679.648	-90	0	5
HDT035	E47/1451-I	Anvil	DD	531635.4	7542529	694.304	-90	0	40
HDT030	E47/1451-I	Anvil	DD	533649	7542538	722.71	-90	0	35
HDT037	E47/1451-I	Anvil	DD	537062			-90	0	
HDT038	E47/1451-I	Anvil	DD		7542586	705.544	-90	0	5
	E47/1451-I	Anvil	DD	537419.1	7541712	713.982	-90	0	40.1
HDT050	E47/1451-I	Anvil	DD	541979.5	7541645	716.861	-90	0	33.5
HDT051	E47/1451-I	Anvil	DD	540477.3 541994.63	7541698	714.102	-90	0	29
HDT052		yootooknieel e			7542916	720.882			33.5

Table 5: PIOP 2017 geotechnical drill holes (Drill holes HDT001 to HDT008a were completed in 2007 over Delta)

Appendix B - Proposed Process Flowsheets and Mine-site Infrastructure PROCESS FM-01-DD-4401 NO ES FM-01-00-4401 1. KEY ROCK BREAKER ROCK BREAKER RB-201 MA MD MG BELT WEIGHER MOISTURE ANALYZER METAL DETECTOR TRAMP METAL MAGNET ROM BIN BN-101 ELEVENTAL ANALYZER SOUTHERN DEPOSIT DEPOSIT VIBRATING GRIZZLY GR-201 VIBRATING GRIZZLY GR-101 -80mm 80mm PRIMARY SIZER SZ-201 PRIMARY SIZER SECONDARY SIZER SZ-102 SECONDARY SIZER SZ-202 SURGE VAULT SURGE VAULT SIZER DISCHARGE CONVEYOR SHUTTLE CS-201 STOCKPILE OPF2 FEEDER STOCKPILE OPF1 FEEDER () FE-101 FE-201 SIZER DISCHARGE CONVEYOR CV-201 SIZER O DISCHARGE CONVEYOR FM CV-101 SIZER DISCHARGE CONVEYOR SHUTTLE BW MD MG CRUSHED ORE STOCKPILE OPF2 PRODUCT CRUSHED ORE STOCKPLE OPF1 PRODUCT STOCKPLE OPF2 DISCHARGE FEEDER FE-202 STOCKPLE OPF2 DISCHARGE FEEDER FE-203 STOCKPILE OPF DISCHARGE FEEDER FE-102 STOCKPILE OPF1 DISCHARGE FEEDER FE-103 OPF2 FEED CONVEYOR CV-202 OPF2 SCRUBBER OPF1 FEED CONVEYOR CV-102 OPF1 SCRUBBER FM-01-00-4201 BW AS SHEET SCALES NONE FLINDERS MINES LTD. PILBARA IRON ORE Flinders PROCESS FLOW DIAGRAM B IS.N. W ISSUED FOR TEXTER HL DI IN-PIT SIZING AND CONVEYING - PERLITHNARY DL. Dis www.engenultysolutions.com 000235-FM-01-DD-4100 DRAW DRAFF (ID IDSIGNED) DISCUIT AFFRONDO COSTONES - REF INTENTING NA

Figure 11 OPF1 and OPF2 In-Pit Sizing and Conveying

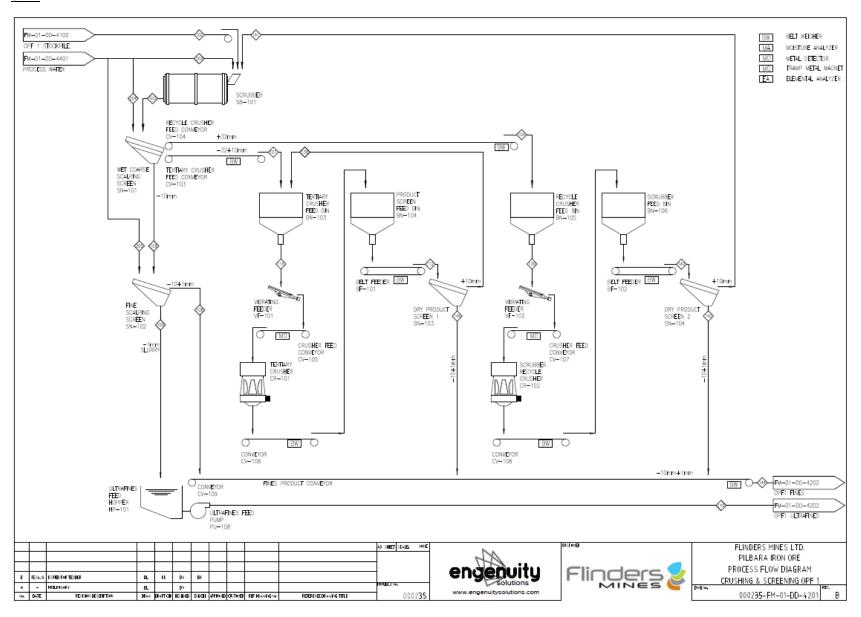
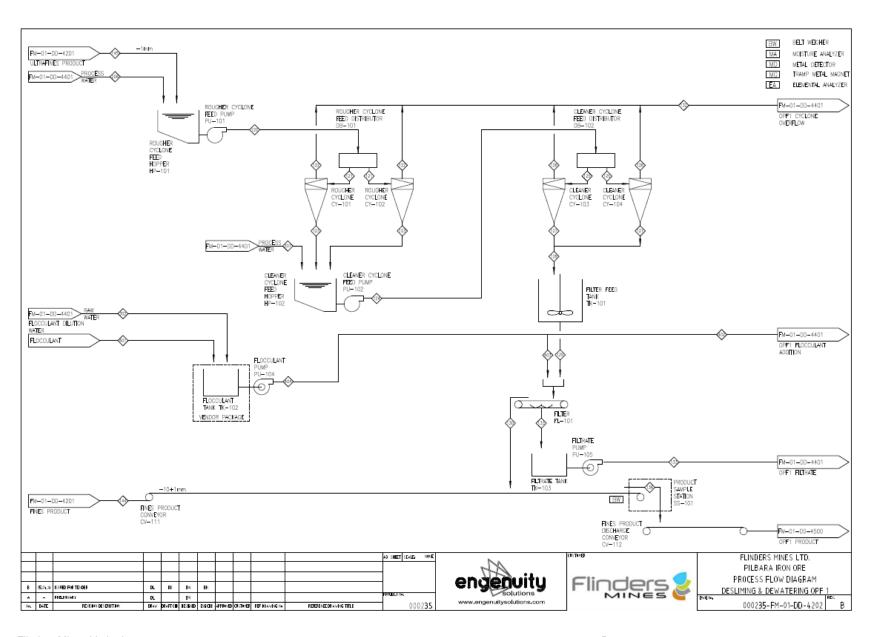


Figure 12 OPF1 Crushing and Screening



OPF2

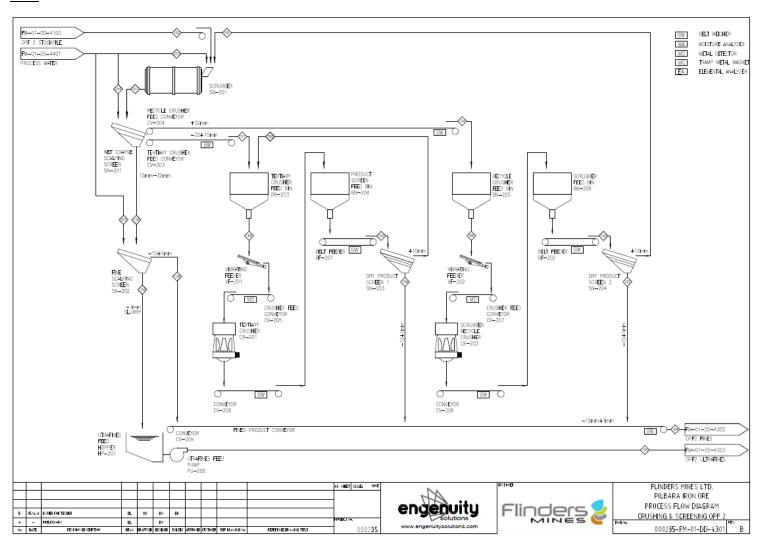


Figure 14 OPF2 Crushing and Screening

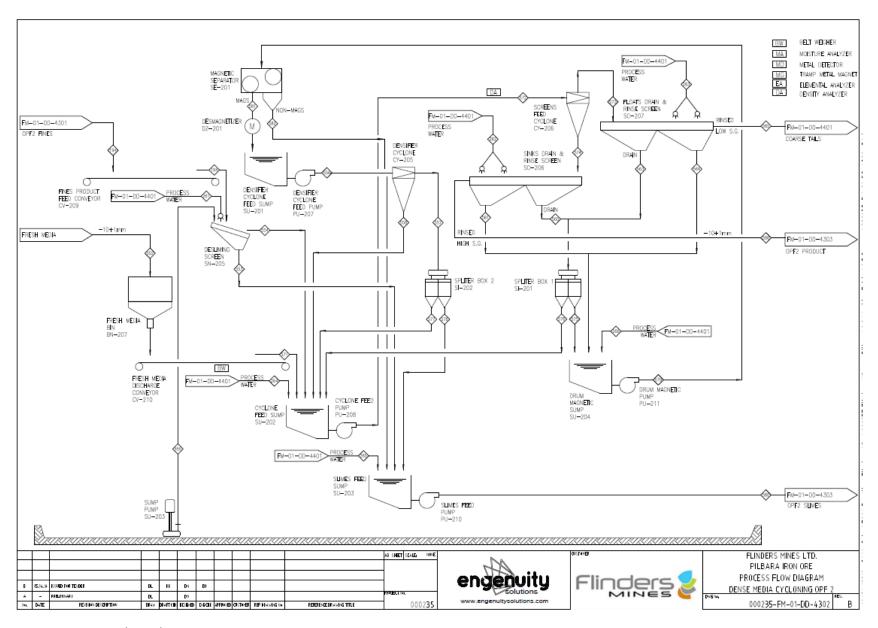


Figure 15 Dense Media Cycloning

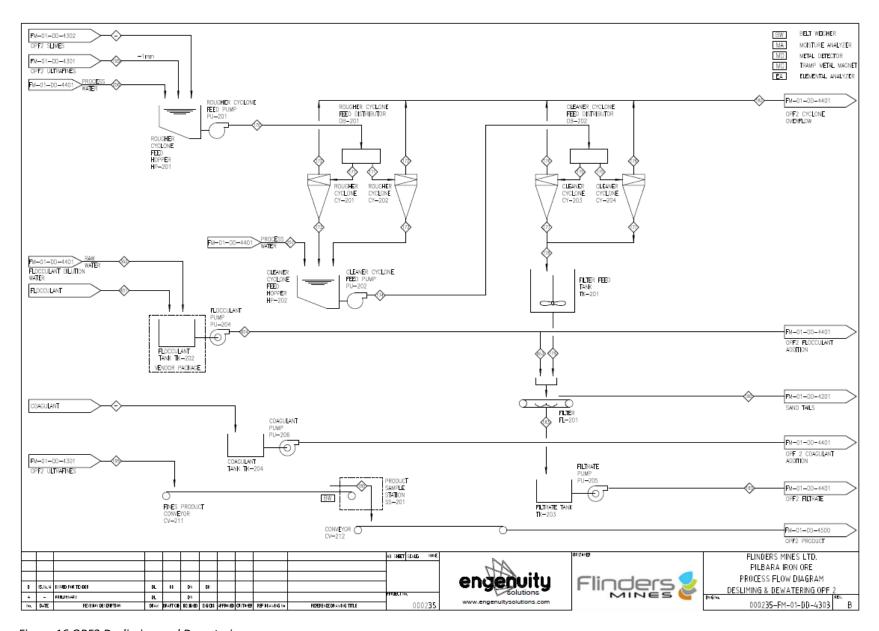


Figure 16 OPF2 Desliming and Dewatering

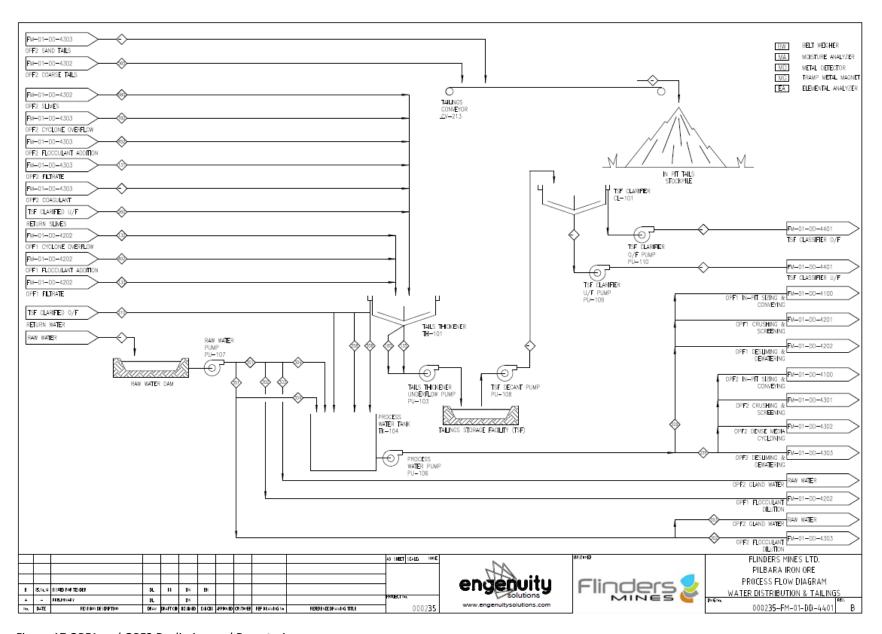


Figure 17 OPF1 and OPF2 Desliming and Dewatering

Appendix C – PIOP JORC 2012 Code Table 1

Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. "RC drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay"). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 Samples used in reporting the Mineral Resource were obtained through reverse circulation percussion (RCP), diamond (DD) and sonic drilling methods. An average sample size of 4-5 kg was collected from RC drilling and sent for major and trace element analysis via fused bead XRF. All samples were submitted for analysis. Standards (Certified Reference Materials – CRM's) and field duplicates were used to ensure sample representivity and quality of assay results. All diamond drill holes were triple tubed with half core used for QAQC purposes and whole core used for metallurgical or geotechnical test work. All sonic drill holes were full core. The Competent Person (CP) considers that the sample techniques adopted by Flinders were appropriate for the style of mineralisation and for reporting a Mineral Resource.
Drilling techniques	Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	 The majority of drilling was RC drill holes of approximately 140mm (5.5 in) diameter utilising a face sampling hammer button bit. PQ sized diamond holes were drilled for metallurgical work and HQ sized holes for geotechnical and QAQC purposes. Some geotechnical holes were angled and oriented. Sonic drill holes (95mm diameter) were also completed by metallurgical and geotechnical purposes. A summary table of all drill holes by drill technique on a year basis is included below.

Criteria	JORC Code explanation	Commentary						
		Total Dri	ill Programr	me 2008 - 2017				
		5.1		Anvi		Blacks	mith	
		Drii	I Туре	Drill Holes	Metres	Drill Holes	Metres	
		Mineral	Resource	256	10,854.0	3708	178,958.0	
		Geote	echnical	9	250.1	36	2,289.4	
		Meta	llurgical	6	142.0	149	8,418.0	
		Hydro	ological*	1		78		
		Mineral Reso	urce Drill Pro	gramme Summa	у			
				Anvil		RC	smith D	
		Year		Anvil	Drill Hole	RC s Metres	D Drill Holes	Metres
		Year 2008	Drill I	Anvil RC Holes Metres	Drill Hole	RC s Metres 17,176.2	Drill Holes	Metres 356.0
		Year 2008 2009	Drill I	Anvil RC	Drill Hole 337 516	RC s Metres 17,176.2 26,648.3	D Drill Holes	Metres 356.6
		Year 2008 2009 2010	Drill I	Anvil RC Holes Metres	Drill Hole 337 516 725	RC s Metres 17,176.2 26,648.3 36,433.2	Drill Holes	Metres 356. 1,570.
		Year 2008 2009	Drill I	Anvil RC Holes Metres	Drill Hole 337 516	RC s Metres 17,176.2 26,648.3	Drill Holes 6 32	Metres 356.6 1,570.3
		Year 2008 2009 2010 2011	Drill I	Anvil RC Holes Metres	Drill Hole 337 516 725	RC s Metres 17,176.2 26,648.3 36,433.2	Drill Holes 6 32	Metres 356.6 1,570.3
		Year 2008 2009 2010 2011 2012 2013	Drill I	Anvil RC Holes Metres	Drill Hole 337 516 725 1120	RC s Metres 17,176.2 26,648.3 36,433.2 57,749.0	Drill Holes 6 32	Metres 356.6 1,570.3
		Year 2008 2009 2010 2011 2012 2013 2014 2015	Drill I	Anvil RC Holes Metres 40 10,464.	Drill Hole 337 516 725 1120	RC s Metres 17,176.2 26,648.3 36,433.2 57,749.0	Drill Holes 6 32	Metres 356.6 1,570.3
		Year 2008 2009 2010 2011 2012 2013 2014 2015 2016	Drill I	Anvil RC Holes Metres 40 10,464.	Drill Hole 337 516 725 1120	RC s Metres 17,176.2 26,648.3 36,433.2 57,749.0	Drill Holes 6 32	
		Year 2008 2009 2010 2011 2012 2013 2014 2015	Drill I	Anvil RC Holes Metres 40 10,464.	Drill Hole 337 516 725 1120 71 939	RC s Metres 17,176.2 26,648.3 36,433.2 57,749.0	Drill Holes 6 32 17	Metres 356.6 1,570.3

riteria	JORC Code explanation	Commentary						
		Metallurgical Dr	ill Programme Sun	nmary				
			Anvi			Black	smith	
			Sonic	:	Diam		Sor	nic
		Year	Drill Holes	Metres	Drill Holes	Metres	Drill Holes	Metres
		2009						
		2010						
		2011			34	2118.5		
		2012			5	396.8		
		2013						
		2014			38	2142.4		
		2015						
		2016						
		2017	6	142	30	1596.7	42*	2163.3
		Total	6	142	107	6254.4	42	2163.3
		* Eight drill holes	completed with a	diamond t	ail			
		_	·					
		_	Drill Programme S	ummary		Rlad	ksmith	
		_	·	ummary			ksmith	nic
		_	Drill Programme S	ummary	Dian	Black nond Metres		nic Metres
		Geotechnical Year 2009	Drill Programme S	ummary vil	Dian	nond	So	
		Year 2009 2010	Drill Programme S	ummary vil	Dian	nond	So	
		Year 2009 2010 2011	Drill Programme S	ummary vil	Dian Drill Holes	nond Metres	So	
		Year 2009 2010 2011	Drill Programme S	ummary vil	Dian	nond	So	
		Year 2009 2010 2011 2012 2013	Drill Programme S	ummary vil	Dian Drill Holes	nond Metres	So	
		Year 2009 2010 2011	Drill Programme S	ummary vil	Dian Drill Holes	nond Metres	So	
		Year 2009 2010 2011 2012 2013	Drill Programme S	ummary vil	Dian Drill Holes	nond Metres	So	
		Year 2009 2010 2011 2012 2013 2014 2015 2016	Drill Programme S An Drill Holes	ummary vil Metres	Dian Drill Holes	Metres 725	So Drill Holes	Metres 1564.4
		Year 2009 2010 2011 2012 2013 2014 2015 2016 2017	Drill Programme S An Drill Holes	wmmary vil Metres 250.1 250.1	Dian Drill Holes	nond Metres	So Drill Holes	

Criteria	JORC Code explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 Sample quality and recovery of both RC and diamond drilling was continuously monitored during drilling to ensure that samples were representative and recoveries maximised. RC sample recovery was recorded as good (G) or poor (P) based on a visual estimate of the amount of cuttings recovered. 93% of all samples were logged as good. Diamond core recoveries are routinely logged and recorded in the database as a measure of length of core recovered versus the depth drilled. The global length weighted average core recovery is 87%. Average core recovery is 75% within DID1, 80% for DID2, 87% for DID3, 85% for DID4, 91% for CID and 85% for BID. Results of previous RC-diamond twin holes indicate that there is no significant bias in the RC assays compared to the diamond core assays. However, there is some uncertainty associated with these comparisons due to poor diamond core recoveries in some units (e.g. DID1). The recoveries from the sonic drilling were reported as very good. The CP considers that the drill sample recovery was appropriate for reporting a Mineral Resource.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 Detailed geological logging of all RC and diamond holes captured various qualitative and quantitative parameters such as mineralogy, colour, texture and sample quality. RC holes were logged at 2m intervals. The logging data is relevant for both mineral resource estimation and future mining and processing studies. All diamond and sonic core have been photographed. All intervals were logged. The CP considers that the geological logging was appropriate for reporting a Mineral Resource.

Criteria	JORC Code explanation	Commentary
Subsampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 RC drilling samples are collected in pre-labelled bags via a cone splitter mounted directly below the cyclone. Wet and dry samples are collected via the same technique. Samples were stored on site prior to being transported to the laboratory. Wet samples were allowed to dry before being processed. At the laboratory the samples are sorted, dried at 105°C and weighed. They are crushed and split via a riffle splitter to obtain a sub-fraction. This fraction is pulverized and used for analysis. Field duplicates were taken at a rate of 4 per 100 samples in the same manner as the original sample. Field standards (commercial pulp CRM's sourced from Geostats Pty Ltd) were inserted at a rate of 5 per 100 samples. Internal laboratory duplicates and standards were also used as quality control measures at different sub-sampling stages. No significant issues have been identified. No formal analysis of sample size versus grain size has been undertaken, however, the sampling techniques employed are standard industry practice. The CP considers that the sub sampling techniques and sample preparation was appropriate for reporting a Mineral Resource. Metallurgical core trays from diamond and Sonic drilling were plastic wrapped at site to preserve in-situ moisture and mass, and then transported as soon as practicable to laboratory in Perth. The core was logged by Flinders metallurgist and recorded by digital photography. Representative samples were selected for physical parameters such as moisture, hydrostatic density, UCS, Cwi and Ai. The core was divided into representative 2m intervals and sealed in plastic bags to preserve moisture prior to subsequent metallurgical testing. Metallurgical bulk samples were transferred by excavator into plastic lined bulka bags under the supervision of a contract geologist. The samples were transported to Nagrom laboratory in Kelmscott WA as soon as practicable. A grab sample was taken from each bag

Criteria	JORC Code explanation	Commentary
		by rotary splitter for Head Assay. Composite Samples for scrubber testing were selected by mixing together 2m interval samples after review of assays. Sample size for dense media tests were reduced by means of rotary splitter.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 Samples were forwarded primarily to the Ultra Trace laboratory in Perth or the Amdel laboratory in Cardiff, NSW for sample preparation and analysis. Pulp samples were also sent to the SGS laboratory in Perth for umpire analysis as part of FMS's QAQC procedures. All laboratories used are NATA accredited for ISO17025. All samples were analysed via fused bead X-Ray Fluorescence (XRF) for a standard suite of elements including: Fe, SiO₂, Al₂O₃, TiO₂, MnO, CaO, P, S, MgO, K₂O, Zn, Pb, Cu, BaO, V₂O₅, Cr, Ni, Co, Na₂O. Multi-point Loss-on-Ignition (LOI) was determined at 425, 650 and 1000°C using thermogravimetric analysis (TGA). Field duplicates were taken at a rate of 4 per 100 samples in the same manner as the original sample, directly from the rig-mounted splitter. Standards were inserted by FMS into the RC sample batches at a nominal rate of 5 per 100 samples. Commercial iron ore pulp standards were sourced from Geostats Pty Ltd (GIOP series standards), with a range of grades from approximately 20% Fe up to 61% Fe. The assay results of the pulp standards show most of results fall within acceptable tolerance limits and no material bias is evident. Field duplicates show a high level of precision has been achieved for the majority of samples, with at least 90% of field duplicates having less than 10% half absolute relative difference (HARD) for the major elements. Approximately 5% of samples have been sent to an umpire laboratory (SGS, Perth) as an independent check. No significant issues were identified with an excellent correlation between laboratories. Metallurgical test work in 2015 and 2017 was conducted at Nagrom laboratory in Kelmscott, WA, to the following quality assurance standards: ISO 9001, XRF Analysis was confirmed with Certified Reference Materials GIOP108 and GIOP75, analytical laboratory was NATA compliant.

Criteria	JORC Code explanation	Commentary
		 Metallurgical test work at Nagrom laboratory followed flowsheets for bench-scale and pilot-scale testing that was specified by FMS metallurgist. At every step in the flowsheet, any issue of methodology was discussed in writing with an FMS metallurgist before proceeding. All internal laboratory processes were documented in flowsheets, procedures and hand-written result sheets which were signed off by laboratory supervisor. Analytical tests such as XRF were controlled by NATA approved laboratory systems, including 1:20 Laboratory Sample Replicates. Assay results were transferred internally between the analytical laboratory to Nagrom metallurgists who then entered the results into MS Excel spreadsheets which were then sent electronically to FMS metallurgists for regular review. Upon review, any anomalous results were repeated to ensure accuracy and representivity. During metallurgical testing, where practicable, all material streams were sampled, sub-sampled, weighed and assayed. Mass balancing was frequently used and anomalies were investigated and repeats were conducted where required by FMS metallurgist. Where available sample mass allowed, reserve samples were securely stored and labelled in case of future test work needs and for repeat tests. Analytical and test equipment were calibrated and test results recorded as per internal laboratory NATA and ISO 9001 standards.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Significant intersections have been verified by FMS geologists. A twin hole (RC vs DD) analysis demonstrated a high degree of compatibility between the two sample types with no evidence of any significant grade bias due to drilling method. Twin RC vs RC holes have shown good correlation between the original and twin hole. During previous drilling campaigns, logging data was collected directly via Ocris logging software with inbuilt validation checks and loaded into a Geobank database. Assay data was loaded directly into the database. A physical check of assays within the database versus hard copies is done at a rate of approximately 5%. No significant errors have been identified. Several unannounced audits of laboratories were conducted while FMS samples were being processed. No issues or concerns were apparent. The CP considers that the verification of sampling and assaying was appropriate for reporting a Mineral Resource.

Criteria	JORC Code explanation	Commentary
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 Drill hole collar locations have been surveyed by FMS using a Differential GPS (DGPS) with an accuracy of less than 5cm for easting, northing and elevation. Collar surveys are validated against planned coordinates and the topographic surface. As the drill holes are relatively short (average depth approximately 50 m) and vertical, no downhole surveying was conducted. Snowden believes that this is reasonable as any deviation will likely be negligible and of no material impact to the resource modelling. The primary grid used is Map Grid Australia 94, Zone 50 (MGA94). Vertical datum is the Australian Height Datum (AHD). Topographic surface uses Lidar 50cm contours acquired by FMS in 2009. The CP considers that the verification of sampling and assaying was appropriate for reporting a Mineral Resource.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 For the majority of deposits, a nominal spacing of approximately 100 m by 125 m is achieved. The Delta deposit is drilled at a spacing of approximately 50 m by 50 m over much of its area while Ajax is approximately 100 m by 500 m. The drilling at Anvil is based on a 400 m section spacing with holes drilled at 200 m intervals on section. This level of drill spacing is sufficient for this style of mineralisation to establish the degree of geological and grade continuity to support Mineral Resource classification. Location and quantity of metallurgical holes were selected to obtain a target of 20 -30 representative samples of each geometallurgical sub-domain in a reasonable proportion for each deposit. In the majority of cases, where possible, metallurgical samples were selected from single diamond or Sonic drill holes to maximize representativity. Where this was not possible compositing of samples was conducted.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 The vast majority of drill holes are vertical and less than 120m deep. Given the drill hole spacing and the predominantly flat lying deposits, any deviation of these vertical holes would have minimal impact on the geological interpretation. No apparent material relationship is present between sampling bias and geological orientation.

Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	 Sample chain of custody is managed by Flinders. Samples in calico bags were packed into polyweave bags and then placed into heavy duty bulka bags for transport to Tom Price. They were then transported via commercial freight directly to the laboratory. Consignment notes for each submission are tracked and monitored. Metallurgical samples have all been securely bagged, weighed, labelled with unique and traceable numbers and stored at Nagrom laboratory in Kelmscott, WA.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 As part of the Mineral Resource estimation, Snowden reviewed the documented practices employed by FMS with respect to the previous RC drilling, sampling, assaying and QAQC, and believes that the processes are appropriate and that the data is of a good quality and suitable for use in Mineral Resource estimation. Metallurgical test work procedures were third-party audited by NeoMet Engineering Pty Ltd in 2015 to ensure robustness and compliance with industry standards.

Table 6 - Sampling Techniques and Data

Section 2 – Reporting of Metallurgical and Exploration Results

Criteria	JORC Code explanation	Comme	entary					
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 		M47/1451-I (E of Tom Price. The tenement a current Native Tenement M47/1451-I E47/1560-I	Blacksmith) and solve Title Agreemed PIOP Project Grant date 26/03/2012 06/09/2007	E47/1560-I (Anv Eastern Guruma ent in place. ct tenement info Expiry date 25/03/2033 05/09/2019	native Title rmation Area (Ha) 11,155	Area (blocks) 14 ration of the mini	Okm NW FMS has
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	• V	ery little previo Iining undertool	us exploration l	ron exploration,	•	other parties. Rol mber of other part	

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	 Local bedrock geology is dominated by the Dales Gorge, Whaleback Shale and Joffre Members of the Brockman Iron Formation. Incised into this bedrock are channel systems which contain buried Detrital Iron Deposits (DID) and Channel Iron Deposits (CID). Some areas of the bedrock are also mineralised forming Bedded Iron Deposits (BID). DID is characterised by hematite rich mineralisation that has been eroded from surrounding banded iron formation. It is mainly composed of detrital material of pisolitic or fragmental types. The DID is sub-divided into four units, DID1 to DID4, based on textural and chemical characteristics. The upper unit, DID1, is the least mature and has the lowest Fe content and highest SiO₂ and Al₂O₃ content of the DIDs. The Fe content increases from DID1 to DID4, with a corresponding decrease in the SiO₂ and Al₂O₃ content, with the DID4 unit being highest in Fe and lowest in SiO₂ and Al₂O₃. Below the DID units lies the BID mineralisation, which is interpreted to be of the Dales Gorge Member of the Brockman Iron Formation. The BID is interpreted to comprise a goethitic, hydrated hard-cap style mineralisation, with remnant bedding and a vuggy texture. CID mineralisation has been identified between the DID and BID mineralisation in some parts of the Delta, Eagle, Champion and Blackjack deposits. The CID is typically a yellow-brown colour due to the goethitic nature of this unit, with fossilised wood observed in many intersections. Internal clay zones of up to a few metres thick, comprising a white clay, have been intersected within the CID. The geological continuity of the internal clay horizons is relatively low and they are interpreted to form lenses or pods.
Drill hole information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: Easting and northing of the drill hole collar Elevation or RL (Reduced Level – Elevation above sea level in metres) of the drill hole collar Dip and azimuth of the hole Downhole length and interception depth Hole length. 	 Due to the advanced nature of the project and the large numbers of drill holes (3,914 drill holes for 189,665m), the total drill hole collar information could not be tabulated. Figure 3 and Figure 4illustrating the location of drill hole collars is included in the accompanying release. Drill hole collars are displayed as Mineral Resource, Metallurgical, Geotechnical and Hydrogeological. A table representing all the metallurgical, geotechnical and hydrological drill holes is included in the body of this release.

Criteria	JORC Code explanation	Commentary
	 If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No Exploration Results are being reported
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. "downhole length, true width not known"). 	No Exploration Results are being reported
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Refer to figures in Table 1 ASX announcement (1 March 2018) All drill hole location plans are included within the body if this ASX release.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	No Exploration Results are being reported

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	 Metallurgical results are considered meaningful or material in making this announcement. These are discussed within the body of this release and further described in Section 3 Criteria 'Metallurgical factors and assumptions. Metallurgical testing at the PIOP has demonstrated that the low-grade detrital hematitic material types, referred to as DID1, DID2 and DID3, can be upgraded by the industry standard methods of crushing, drum scrubbing, dense media separation, wet screening and hydrocycloning. Refer to Section 3 for more detail on the mining grade cut-offs that this metallurgical testing has allowed. Metallurgical testing at the PIOP has demonstrated that the high grade goethitic material types, referred to as DID4, BID and CID, can be upgraded by industry standard methods of crushing, wet screening, drum scrubbing and hydrocyclone desliming. Refer to Section 3 for more detail on the mining grade cut-offs for these ore types. Final product from the PIOP project has been demonstrated as a single blended fines concentrate suitable for downstream sintering market. Snowden Mining Industry Consultants (Snowden), on behalf of FMS, completed a geotechnical assessment leading to the delivery of preliminary batter and inter-ramp slope design recommendations for the PIOP, for mine planning purposes. The field work comprised the drilling of 44 drill holes by a combination of diamond core and sonic methods targeting areas of mineralisation and potential pits other than Delta. Advisian, on behalf of FMS completed 14 hydrological monitoring bores by RC drilling methods (included the re drilling and casing of 9 existing RC exploration drill holes) which were installed with monitoring loggers to assess water levels, level of saturation and seasonal fluctuation. Analysis of results is ongoing. Details of all metallurgical, geotechnical and hydrological drill holes is tabulated within the body of this release.
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Infill drilling across the deposits may be required in future to improve confidence in the Mineral Resource. Additional targets for bedded mineralisation have been identified.

Table 7 - Reporting of Metallurgical and Exploration Results

Section 3 – Estimation and Reporting of Metallurgical Results and Mineral Resources

Criteria	JORC Code explanation	Commentary
Database Integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Logging data for RC drilling was captured using ruggedized laptops using Ocris logging software, which applied validation during data entry/input. The data (including assay data) was subsequently uploaded to a database. In late-2017 and early 2018, FMS engaged RSC Consulting to update and validate the database. All current and historical drilling was imported into Micromine software and reviewed in 3D, to check for spatial errors. Micromine was also used to validate the data for interval errors and missing data. Any errors found were corrected by referring to original field data. A selection of assay results from the database used for estimation were compared to original assay batches received from the laboratory. A comparison was done of drilling data used in previous resource estimation and the database, to check for missing data. No significant errors or issues were found by RSC during these checks. The existing database is currently being migrated from an historic GBIS structure to a modern Geobank one, including all assays being imported from the original assay batches to minimise the chance of errors.
Site Visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 Snowden Principal Consultant, John Graindorge, visited the PIOP on the 23rd and 24th October 2017, observing the outcropping mineralisation and general site layout, along with drill core intervals from 2017 sonic drilling and historical diamond core. Flinders Principal Metallurgist, James McFarlane, visited the PIOP during July 2017 to advise the drilling contractor about relevant geological logging and sample handling requirements, in particular the plastic wrapping and transport arrangements, for metallurgical diamond and Sonic core, as well as bulk samples obtained by excavator. CSA Global Principal Consultant, Mark Pudovskis, has visited PIOP on multiple occasions throughout 2018 and 2019 including a full review of all remaining geotechnical core and field reconnaissance of all deposits.

Criteria	JORC Code explanation	Commentary
Geological Interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 The various units were interpreted as wireframe surfaces, based on the geological logging and geochemical characteristics. For Blacksmith, Snowden reviewed the interpretations used in the 2014 resource models and believes that they are reasonable. As such, the geological interpretation for Blacksmith remains as per the 2014 models. For Anvil, Snowden updated the geological interpretation to use the same geological framework as that used at Blacksmith. Given the geological similarity between the iron mineralisation at Anvil and Blacksmith, Snowden believes that this is reasonable. Alternative interpretations are unlikely to have a material impact on the global resource volumes.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	 The deposits vary in size and are controlled by the geomorphology of the channels. Strike lengths of the channels ranges from approximately 1 km at Badger and Paragon, to approximately 6.5 km at Eagle. The width of the channels ranges from a few hundred metres within individual tributaries, up to 2 km wide within the central portion of the channels (e.g. Champion and Delta). The channels are up to approximately 65 m deep, with 5-20 m of recent cover overlying the DID. The top of the DID through to the base of CID ranges from 10 m to 60 m thick, thickening towards the middle of the channel and narrowing along the flanks.
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of byproducts. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). 	 Block model constructed using a parent block size of 100 mE by 100 mN by 6 mRL for all Blacksmith deposits except Delta which used a 50 mE by 50 mN by 6 mRL parent block size. A parent block size of either 100 mE by 200 mN by 6 mRL or 200 mE by 100 mN by 6 mRL was used for the Anvil deposits depending on the orientation of the channel and drilling grid. The block size is based on half the nominal drill hole spacing along with an assessment of the grade continuity. Snowden validated and accepted the 2014 block grade estimates by Optiro for Fe, SiO₂, Al₂O₃, P, S, LOI and TiO₂, which were estimated using ordinary kriging (parent cell estimates) using hard domain boundaries. Snowden additionally estimated CaO, K₂O, MgO, MnO and Na₂O grades using ordinary block kriging, using the same approach adopted by Optiro. Grade estimation was completed using Datamine Studio 3 (Datamine) software. Due to the variable orientation of the channels, orientation sub-domains were used within each estimation domain, with the search ellipse oriented appropriately for each sub-domain. Search ellipse ranges were based on the results of the variography along with consideration of the drill hole spacing, with the same search neighbourhood

Criteria	JORC Code explanation	Commentary
	 In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	parameters used for all elements to maintain the metal balance and correlations between elements. A three-pass search strategy was used (i.e. if initial search criteria are not met, an expanded search ellipse is used). A minimum of four and maximum of 32 composites was used for the initial search pass, with no more than four composites per drill hole. • Grade estimates were validated against the input drill hole composites (globally and using grade trend plots) and show a good comparison. • There is no operating mine and no production data is currently available.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	 The Mineral Resource for the PIOP has been reported above cut-off grades as follows: DID1, DID2, DID3 (OPF2): Fe>40% and Al₂O₃<8% DID4, CID, BID (OPF1): Fe>50% and Al₂O₃<6% The cut-off grades are based on product optimisation carried out by Snowden based on metallurgical regressions provided by FMS for the OPF1 and OPF2 processing routes. Refer to the section below on "metallurgical factors or assumptions" for more detail about the metallurgical regressions.
Mining factors of assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this	Mining of the deposit is assumed to use conventional drill and blast open cut mining methods, with on-site processing to produce a fines product.

Criteria	JORC Code explanation	Commentary
	should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 FMS propose to upgrade lower grade DID1, DID2 and DID3 mineralisation using a processing route known as OPF2, which includes dense media separation (DMS) and hydrocyclone desliming. Metallurgical testwork conducted by FMS, based largely on sonic drilling samples from 2017, shows this to be a viable processing flow sheet and produces a saleable product. The OPF1 processing route, which is proposed for DID4, CID and BID mineralisation is similar to OPF2, but without the DMS, and also shows a saleable product can be produced from PIOP mineralisation. Metallurgical regressions have been developed to describe the relationship between in-situ Head Assays and Product Assays following the processing of the material types DID1, DID2 and DID3 through the process route referred to as OPF2, and the material types DID4, BID and CID through the process route referred to as OPF1. A target of 20 -30 representative samples were tested for each of the 6 material types. Metallurgical regressions were developed for each of the chemical elements: Fe, SiO₂, Al₂O₃, P, TiO₂, MgO, LOI1000 and Mass Recovery for each of the material types DID1, DID2, DID3, DID4, BID and CID. Samples selected from diamond and Sonic drilling for the metallurgical regressions were subjected to bench-scale testing comprising batch scrubbing (ISO tumble drum), dense media separation (Mosely DMS100 hydrocylcone), crushing and wet screening and hydrocyclone desliming. Samples selected from bulk sampling by excavator were subjected to pilot-scale testing as a calibration check of the scale-up efficiency of the above-mentioned bench-scale testing. Reasonable agreement between the results from the pilot-scale and bench-scale testing were observed indicating robustness of the metallurgical regressions derived from bench-scale testing results. Software for the preparation of metallurgical regressions was MS Excel and all mass-balancing and analytical methods were developed in-house by Flinders

Criteria	JORC Code explanation	Commentary
		Representative samples of tailings were prepared from pilot-scale testing for engineering tests associated with tailings dam design, thickening and filtration.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	The Blacksmith deposit occurs on a granted Mining Lease (M47/1451) and it is assumed that no environmental factors have been identified that may impede development at the PIOP.

Bulk density

- Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.
- The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.
- Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.

- Bulk density measurements at PIOP have been taken using a variety of techniques, namely:
 - Hydrostatic (i.e. Archimedes' Principle) measurements of 15 cm pieces of diamond drill core (whole core). Measurements were done on uncoated, plastic wrapped and wax-coated samples.
 - o Caliper measurements of 15 cm pieces of diamond drill core (whole core).
 - Downhole gamma gamma geophysical logging of drill holes.
 - Caliper measurements of core from sonic drilling.
- The bulk density assigned to the model blocks is based on measurements of diamond drill core. Measurements from downhole geophysics and the sonic core, was not used for the following reasons:
 - Downhole geophysical measurements were not processed or calibrated during the original surveying between 2008 and 2014, and as such the gamma gamma density measurements are unusable. FMS attempted to process this data using independent geophysical contractors, but was not successful.
 - Bulk density data collected from core produced by the 2017 sonic drilling was assessed, however, Snowden believes that the sonic data overestimates the bulk density due to incorrect diameter assumptions, issues with compression of the sample (due to the vibrations induced by the drilling method), along with potential extraction errors during drilling of unconsolidated or semi-consolidated material. As such, Snowden believes that the sonic core density measurements are compromised and hence have been excluded from the bulk density analysis (although the trends in the sonic data have been used to validate some assumptions, such as correlations with grade).
- Snowden assessed bulk density measurements from each deposit but found that there are no obvious differences between deposits and as such the deposits were combined for the bulk density analysis. Given the nature of the detrital mineralisation, which increases in Fe grade from DID1 through to DID4, Snowden assessed for any correlation between assay grade and bulk density within the combined DID data. Whilst there is only minimal data available, a strong correlation was found between bulk density and Fe, SiO₂, Al₂O₃ and P, which was validated by similar (albeit not as strong) trends in the sonic data. As such a multiple linear regression was used to

Criteria	JORC Code explanation	Commentary				
		domains an aver • Bulk density valu	 estimate the bulk density of the DID based on these assay grades. For most othe domains an average bulk density value was used. Bulk density values were assigned to the model blocks based on the geological domain as per the table below: 			
		Uni	t Assigned bulk density (t/m³)	Comment		
		RC	2.40	Average value		
		DID	1 2.62 (weighted avg.)	Multiple linear regression		
		DID	2 2.93 (weighted avg.)	Multiple linear regression		
		DID	3 3.04 (weighted avg.)	Multiple linear regression		
		DID	4 3.28 (weighted avg.)	Multiple linear regression		
		CID	2.64	Average value		
		CL	2.20	No samples, assumed		
		BID	2.59	Average value		
		BM	3.15	Average value		

Criteria	JORC Code explanation	Commentary
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	The Mineral Resource has been classified as a combination of Measured, Indicated and Inferred Resources using the following criteria: Measure Resource – DID3 or DID4 with good geological continuity and defined by drilling on a 50 mE by 50 mN grid or better. The Measured Resource is limited to the Delta deposit. Indicated Resource – mineralisation with reasonable geological continuity and defined by drilling on a 100 mE by 100 mN grid or better. Inferred Resource – mineralisation with poor geological continuity or which is defined by drilling on a grid greater than 100 mE by 100 mN, along with extrapolation beyond the drilling. All Anvil deposits are classified as Inferred in its entirety. The confidence in the DID1 and DID2 is considered to be lower due to uncertainty associated with the sample recovery within the largely unconsolidated DID1 and DID2 intervals, along with fewer bulk density measurements, resulting in these units being classified as Indicated Resources even at a 50 mE by 50 mN drill spacing. The geological confidence in the CID and BID is considered to be lower due to poorer geological continuity, resulting in these units being classified as Indicated Resources even at a 50 mE by 50 mN drill spacing. All blocks within the RC, CL and BM units remain unclassified and do not form part of the Mineral Resource. Extrapolation beyond the drilling is limited to approximately one drill section in most cases. The resources have been classified based on the continuity of both the geology and the grades, along with the drill hole spacing and data quality. The Mineral Resource classification appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	 The Mineral Resource estimate has been peer reviewed as part of Snowden's standard internal peer review process. Snowden is not aware of any external reviews of the PIOP Mineral Resource estimate.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	 Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 The Mineral Resource has been validated both globally and locally against the input composite data. The Measured and Indicated portions of the Mineral Resource estimate are considered to be locally accurate at the scale of the parent block size. Close spaced drilling during grade control is required to assess the confidence of the short-range grade continuity. No production data is available for comparison with the Mineral Resource estimate at this stage.

Table 8 - Section 3 – Estimation and Reporting of Metallurgical Results and Mineral Resources

Appendix D: Production Target Modifying Factor Table

Note: the assumptions employed in this Scoping Study are based on work completed by Flinders. Flinders cautions that these studies are still at an early stage, and the Scoping Study referred to in this report is based on differing levels of technical and economic assessments, and is currently insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised. The categories in this table have been adapted from the JORC Code Table 1 Section 4 for clarity of discussion and to support the basis of the Production Target, but the Company makes clear that no Ore Reserves have been declared

Item	Comment
Mineral Resource	Snowden prepared the PIOP Mineral Resource estimate in February 2018. The total PIOP Mineral Resource, including Blacksmith and Anvil, is estimated to be 1,484 Mt at 52.2% Fe, 14.8% SiO ₂ and 4.96% Al ₂ O ₃ , reported using the following cut-offs: DID1, DID2, DID3 (OPF2): Fe \geq 40% and Al ₂ O ₃ \leq 8% DID4, CID, BID (OPF1): Fe \geq 50% and Al ₂ O ₃ \leq 6%. The block model used for mine planning was bs_mod1802.dm.
Site visits	A site visit was undertaken by Snowden consultants, Mr John Graindorge (October 2017) and Mr Frank Blanchfield (July 2015). FMS Principal Metallurgist, James McFarlane, visited the PIOP (July 2017) during the on-ground Metallurgical sampling phase of the Maturation Programme.
Study status	Various Scoping, PFS and FS studies were completed by FMS on 5-15Mtpa mining scenarios before 2015. These studies were based on conceptual and unsubstantiated infrastructure solutions. During 2017 FMS conducted a Strategic Review which identified rail infrastructure as critical and an annual productions rate of ~45 Mtpa(dry) would be optimal target for development scenario. FMS between 2017 to 2018 produced the following sub-studies at the following maturation level: • Mine Planning Study (Snowden) – Concept Study Level • Geotechnical Study (Snowden) – Feasibility Study Level • Metallurgical Study (FMS Internal) – Feasibility Study Level • Hydrogeological Study (Advisian) – Pre-Feasibility Study Level • Tailings Storage Facility (Advisian) – Concept Study Level • Process Plant Study (FMS Internal) – Concept Study Level In 2019 PWC conducted an Independent Experts Report which identified BBI Group's Proposed Rail and Port Solution as the primary and most likely export path and subsequently FMS has entered into detailed Transaction Documents with BBIG, still subject to shareholder vote at an EGM in 2020. A detailed due diligence process was conducted by FMS on the BBIG Infrastructure Solution and this work found the proposed project was suited to the PIOP requirements. The certainty of suitability and implementation probability of this infrastructure solution has been assessed by the FMS team as high in terms of a basis for a Scoping Study. The BBIG Infrastructure has been assessed by FMS as being approximately an AACE Class-3 to Class-4 level of Project Definition.

	Snowden applied a linear programming method to generate cut-off grades producing an optimal blended product from the material types to maximise product tonnes at target specifications (60% Fe). The cut-off grade equations are expressed as follows:							
	Plant	Rock typ	e	Cut-off grade				
		DID1		Fe (%) >= 36.57				
Cut-off	OPF2	DID2		Fe (%) >= $0.002 \times SiO_2$ (%) $-0.029 \times Al_2O_3$ (%) + 36.71				
parameters		DID3		Fe (%) >= $0.119 \times SiO_2$ (%) + $0.169 \times Al_2O_3$ (%) +31.34				
		DID4		Fe (%) \geq 0.001 x SiO ₂ (%) + 0.002	x Al ₂ O ₃ (%) +57.40			
	OPF1	CID		Fe (%) \geq 0.001 x Al ₂ O ₃ (%) + 57.4	6			
		BID		Fe (%) \geq 0.001 x SiO ₂ (%) + 0.001	x Al ₂ O ₃ (%) +57.69			
Mining factors and assumptions	To identify the Production Target, a process of Whittle pit optimisation and annual production scheduling based on pit shells was undertaken by Snowden. No pit design or detailed waste planning was completed. The proposed mining method is conventional open pit drill and blast, load and haul on a 6, 9 or 12 m high blasting bench reflective the semi-selective consideration. An excavator bucket of 13 m³ matched the selectivity. Ore will be mined to ROMs that are close to the pit and will then be rehandled by FEL loaders to feed the semi-mobile sizers prior transport to the ore processing facilities by conveyors. The ore will be mined in two batched OPF2 Feed (DID1, DID2, DID3) and OPF1 Feed (DID4, CID, BID). The ROM waste and coarse rejects will be mined to external waste dumps or dumped in-pit. The fines rejects will be transported back to in-pit tailings cells – which will be created from mined voids. A re-blocking approach was used to account for dilution and recovery. A selective mining unit (SMU) of 12.5 mE x 12.5 mN x 3 mRL was selected. Overall wall angles of 31.0° (RC, DID1/2), 41.6° (DID3), 46.0° (DID4/CID), 39.4° (BID/Basement) were applied for optimisation. This represents the inter-ramp angle minus 5°. These angles are supported by a geotechnical drill programme, and study completed by Snowden in 2018. The following LoM average processing upgrade factors (head assay to product assay) are summary outputs of the regression curves that were used in the							
	study. The spe	ecific regression		e been used in this study but have l	peen withheld in this table due to bein	ng commercial in confidence.		
Metallurgical	Ore ty	ype	Mass yield (%)	Fe product grade factor	SiO₂ product grade factor	Al ₂ O ₃ product grade factor		
factors and	DID4		96.3	1.01	0.93	0.94		
assumptions	DID3		63.0	1.08	0.50	0.79		
	DID2		52.7	1.16	0.42	0.71		
	1					1		

	CID	90.1	1.00	0.91	0.86		
	BID	95.8	1.00	0.97	0.99		
	Metallurgical regressions were developed to describe the relationship between in-situ Head Assays and Product Assays following the processing of the material types DID1, DID2 and DID3 through OPF2, and the material types DID4, BID and CID through OPF1. A target of 20 - 30 representative samples were tested for each of the 6 material types. Metallurgical regressions were developed for each of the chemical elements: Fe, SiO ₂ , Al ₂ O ₃ , P, TiO ₂ , MgO, LOI1000 and Mass Recovery for each of the material types DID1, DID2, DID3, DID4, BID and CID.						
Environmental	Implementation Plan" that v All of the currently identified are defined as heritage site construction or operational	vas prepared by d Mineral Resou es that have be activities. A Sect	Preston Environmental in 13/08/20 rce areas and likely Infrastructure len identified during the initial cletion 18 process needs to be undertated.	ocations have been heritage surveyed arance surveys and at this stage ca aken for these to be removed, destroy	document "Approvals Status Report and d. Exclusion and non-disturbance zones nnot be disturbed during exploration, yed or avoided. ess is expected to be completed during		
	Flora and Vegetation Survey was completed by conducted in mid-2017 by Phoenix Environmental Sciences. Follow-up Significant Flora and Fauna surveys have not yet been conducted due to the location of pits and infrastructure yet to be finalised.						
The mine site infrastructure has been located at likely locations and costed in the capital cost estimate; however, the local Processing Infrastructure has been identified as requiring further detailed development during future studies:					r, the location of Processing and Non-		
	 Mine-site Buildings (offices, workshops, laboratories, oil/fuel/lube/explosives storage) 						
	Contract Mining Facilities						
	Accommodation Villages (Construction and Operations)						
	• Aerodrome						
	Power Transmission and Distribution (Generation currently planned at railhead stockyard)						
Infrastructure	 Water to be sourced from dewatering bores and dedicated bore fields on PIOP tenements. PIOP has a provisional 13Glpa water allocation from DWER – subject to final Hydrogeological studies. 						
	Pit to Plant Conveyors						
	In-Pit Tailings Facilities						
	Ore Processing Facilities 1 and 2 (OPF1, OPF2)						
	ROM Pads and crusher locations						
	Coarse Ore Stockpiles (CoS)						

The proposed mining cycle is conventional drill, blast, load and haul. The haul is proposed to be to side-of-pit rom pads and crushing stations. The ROM ore will be blended (combination of direct dumping and front-end loader) to ensure distribution of material types to meet process feed specifications. The pit-plant overland conveyors will then transport the blended ROM ore to two separate Coarse Ore Stockpiles (one for OPF1 and the other for OPF2) which then feed the select OPF.

After a process of dry and wet beneficiation through the associated plants (OPF1 and OPF2), the product will be rough blended from conical product stockpiles, via underground reclaim tunnels before being conveyed approximately 29 km to a full linear blending stockyard and then railed 160 km to the Balla Balla port.

The plant produces three tailings streams: coarse, sands and slimes. Both coarse and sands can be co-disposed with general mine waste. However, slimes require a specific storage area. At this stage these rejects will be stored in previously mined pit voids. Initial mining would commence ahead of processing to create an initial area for storage at Paragon South Pit. Detailed rejects management (including mine waste) has not been completed as part of this Scoping Study but is conceptually possible after reviewing all available data.

FMS has signed an Infrastructure Haulage Agreement with BBIG (which is subject to a positive vote by FMS Shareholders at an Extraordinary General Meeting in 2020), The nature of this agreement is that PIOP material will be hauled by BBIG infrastructure to Ocean Going Vessels. The PIOP project will pay a fee for service and will retain ownership of the material until it is sold to customers.

Operating Cost

All operating costs were supplied by FMS and are based in AUD.

Mining costs are based on contractor pricing conducted during 2015, during the Alliance Agreement period between FMS and Rutila Resources (which later become BBIG), and are comprised of:

Waste cost of \$3.23/t mined

Ore cost \$3.90/t mined

Additional ore haulage costs (for overland conveyor) of \$0.2/wt ore for Delta/Champion, \$0.40/wt ore for Eagle/Blackjack, \$0.60/wt ore for Ajax, and \$1.00/wmt ore for Anvil.

Cost factors

Processing cost comprised (supplied by BBIG during 2019 due diligence which are from a suitably qualified EPC process plant contractor) of:

Plant variable opex of \$1.01/wmt ore for OPF1 and \$1.58/wmt ore for OPF2

Rejects management cost of \$3.50/wmt reject

Fixed cost of \$1.88/wmt product for OPF1 and \$2.99/wmt for OPF2

The administration cost comprised of:

G and A cost of \$0.56/wmt ore

Product costs for product transportation included:

Shipping cost of US\$6.77/wmt product

Rail and port cost of \$7.62/wmt product

Infrastructure access tariff of \$16.95/wmt product (base cost of \$14.75 adjusted by \$2.20 commodity charge based on A\$/dmt for CFR Received Price)

Capital Costs

The BBIG cost estimates for both the PIOP mine have been utilised in this Scoping Study as their studies and estimates have been studied and deemed to have the appropriate level of confidence for this level of assessment. These cost estimates, developed by BBIG with the support of respected industry consultants and experienced contractors, have been reviewed by FMS (and its qualified consultants) during the Due Diligence Period and deemed appropriate for use in this Study.

Total estimated mine development capital costs of \$3,648 M comprised of:

Pre-production capital costs, process plants (OPF1 and OPF2), pit to plant conveyors, tailings infrastructure, other non-process Infrastructure costs (TSF, Roads, Power, Camp) of \$3,090 M

Sustaining costs \$558 M

Closure costs were not estimated in this Scoping Study. It should be noted however that progressive rehabilitation to the pit voids is conducted via backfilling of waste streams during the mine life – therefore materially reducing any costs at the end of the mine life.

Assumptions are provided below.

Revenue
factors

Item	Unit	Supplied By	Value
Iron ore price (62% index)	US\$/tonne	FMS	70
Impurity Discount	% (after Fe% adjustment)	FMS	15.6%
US: AUS exchange rate	AUD/USD	FMS	0.70
State royalty - Selling cost	% price of Fe FOB OGV	WA Gov.	7.5
native title royalty on product	% price of Fe FOB OGV	FMS	0.45-0.75
Discount rate (weighted average cost of capital)	%	FMS	10

- Iron Ore used a 62% Fe reference point and penalties were applied for grade deviations from the marketing specification.
- Marketing specifications provided by BBIG have been reasonably adjusted from 13.6% to 15.6% to account for higher levels of Al₂O₃ and SiO₂ in this Production Target.
- Iron Ore Reference Price was based on Bloomberg Broker Consensus in Q4-2019

	Iron Ore prices were applied as real and flat forward in the financial model.
	Foreign Exchange Reference Price were based on Bloomberg Broker Consensus in Q4-2019
Market assessment	FMS has entered into detailed Transaction Documents with BBIG, still subject to subject to shareholder vote at an EGM in 2020. Part of this transaction is the PIOP entering into a marketing agreement with a subsidiary of BBIG will be appointed as marketing agent and will put in place off-take agreements with end customers for PIOP product. During the Due Diligence period FMS sighted confidential initial (subject to further finalisation) offtake agreements between BBIG and 3 rd parties with material presence in the market for material similar to what has been presented in the Production Target. The combined annual tonnage of these initial agreements is 43Mtpa(dry) – which is ~96% of the required annual off-take which gives FMS the required confidence to rely on this information.
Finance	FMS has entered into detailed Transaction Documents with BBIG, still subject to subject to shareholder vote at an EGM in 2020. This deal presents a clear and structured pathway to finance, and whilst not yet finalized has more substance than is typical for a project at a Scoping Study level. The maturation of the finance is at a much more advanced level due to BBIG developing strong partnerships to fund their infrastructure over a number of years. It is envisaged that the same equity and debt consortium that will fund the BBIG Infrastructure will also fund the PIOP mine. The Current consortium involves China sourced finance, including:
	 Head Contractor: China State Construction Engineering Corporation (CSCEC) Equity Consortium: China Australia Development Investment (CADI - China Zhong Chong Group Co Ltd and others) Debt Consortium: Chinese State Policy banks
	FMS signed a Native Title Agreement with the Wintawari Guruma Aboriginal Corporation RNTBC (WGAC) over the Blacksmith Mining Lease (M47/1451) on 13 th March 2012 – this is still in effect.
Social	FMS recently signed a Native Title Agreement with the Wintawari Guruma Aboriginal Corporation (WGAC) over the Anvil Mining Lease (E47/1560) on 11 th November 2019 – this is still in effect.
	No notable issues currently with community groups or local stakeholders. As the project furthers its development the interactions with these parties will increase which may uncover additional issues or requirements.
	An Ore Reserve estimate using the guidelines of the JORC Code 2012 was not estimated.
Classification	Inferred Resources have been included in the Production Target (20.2% by feed or 16.9% by product). The remainder is Measured Resources (4.5% by feed or 6.9% by product) and Indicated Resources (75.4% by feed or 76.2% by product). The noted Inferred Resources have also been scheduled toward the backend of the mine plan to ensure their contribution to value is minimised.

Audits or reviews	No external review of the study has been completed.
Relative accuracy / confidence	The Production Target is supported by a scoping-level study with an accuracy of +/- 30%.

Table 9 – Production Target Modification Factors

Appendix E: Transaction Document Summary

Farm-in Agreement

Under the Farm-in Agreement, Flinders will form an incorporated joint venture entity, PIOP Mine Co, which will hold all the critical assets relating to the PIOP.

Flinders will initially retain control of PIOP Mine Co with a 100% economic interest and 90% voting interest. BBIG will initially be issued a 10% voting interest (and no economic interest) in exchange for:

- funding and preparing the Feasibility Studies, including a minimum spend commitment of \$15 million per annum (which must be paid to Flinders if not met in a particular year); and
- performing other obligations under the Farm-in Agreement.

BBIG can deliver a proposal to bring the final investment decision (FID) for the PIOP. BBIG has discretion as to whether it will bring a FID, but it can only do so within 4 years (subject to a 1 year extension in certain circumstances) after the satisfaction of conditions precedent to the Farm-in Agreement. The conditions precedent have a 9 month sunset date form the date of the Farm-in Agreement (i.e. they must be satisfied or waived within this time) unless Flinders and BBIG agree to extend the sunset date.

Flinders will retain control of PIOP Mine Co until the FID, and, if the FID does not occur in the agreed timeframe or BBIG withdraws during the pre-FID period, the arrangements will be unwound with Flinders acquiring (for nominal consideration) 100% of PIOP Mine Co and access to the associated work for the PIOP, as well as having a right of first offer to acquire the BBIG Project should BBIG seek to dispose of its interest in the BBIG Project. BBIG will also be required to pay an early withdrawal fee (the greater of \$3 million and the shortfall to the \$15 million minimum spend for the year of withdrawal). Flinders has also agreed various customary exclusivity provisions with BBIG.

If a successful FID occurs, Flinders will be obliged to support the FID but must select to either:

- continue as part of the joint venture, in which case Flinders' voting and economic interest in PIOP Mine
 Co will reduce to 40% and it will be 'free carried' through development and commencement of
 operations of the Integrated Project (subject to pro rata responsibility for capital cost overruns above,
 in some circumstances, an appropriate contingency during construction and costs associated with
 provision of any required completion security) (Mining Option); or
- 2. (subject to Flinders Shareholder approval at that time, with TIO excluded from voting in favour of the resolution) convert its entire interest (voting and economic) in PIOP Mine Co into a 2.5% gross revenue (FOB) royalty, described in further detail below (Royalty Option).

PIOP Mine Co will be required to grant security over all of the PIOP assets in favour of project financiers for the Integrated Project and it may have to secure the infrastructure debt. However, BBIG is obliged to use its reasonable endeavours to avoid such cross-collateralisation arrangements.

Infrastructure Services Agreement and Infrastructure Payment Deed

A subsidiary of BBIG (BBIH) will concurrently develop the BBIG Project and PIOP Mine Co will be its foundation customer. The Infrastructure Services Agreement outlines the terms under which BBIH will provide infrastructure services to PIOP Mine Co under a take or pay arrangement. Under the agreement, PIOP Mine Co will pay BBIH a tariff for the services provided, which will consist of the actual ongoing operating costs of providing the services plus a capacity charge (escalated at CPI, capped at 3% per annum) and a commodity charge, which has been indicatively set to result in a tariff between A\$10.25 - 19.25 / wmt (Tariff). The capacity charge component of the Tariff is subject to a rebate of up to A\$2.50/wmt (not subject to escalation) of product railed on and loaded using the infrastructure for third party customers of BBIH.

Assuming Flinders selects the Mining Option, Flinders will be entitled to a post-PIOP mine life fee from BBIG of \$1/wmt of ore transported on the infrastructure, (capped on the total wet tonnes transported from PIOP Mine

Co and at 50 million wet tonnes per year). The terms of this fee will be contained in a separate document in favour of Flinders (the Infrastructure Payment Deed).

Royalty Deed

The mechanics relating to the selection of the Royalty Option are set out in the Farm-in Agreement.

At FID, if the Directors determine that the Royalty Option is preferred relative to the Mining Option, Flinders Shareholders will be given the opportunity to vote to select the Royalty Option or proceed with the Mining Option. If Flinders Shareholders vote to approve selection of the Royalty Option at that time, the rights attaching to the A class shares will be varied so that the Company will have no ongoing economic or voting interest in PIOP Mine Co. Instead the Company will be entitled to an ongoing revenue stream equal to 2.5% of the gross FOB (free on board) sale price for minerals extracted from the PIOP by PIOP Mine Co.

Selection of this option would be subject to a further Flinders Shareholder approval at the relevant time, with an independent expert's report to be provided to Flinders Shareholders and TIO being excluded from voting in favour of the resolution.