

**ASX Release**  
29 April 2011

**ABN 51 105 991 740**

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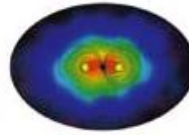
**Issued Capital:**  
Shares: 1,486,756,465  
Unlisted Opts: 6,000,000  
Deferred Shares: 262,255,799

**ASX Symbol:**  
JMS

**Currently Developing:**

- Iron Ore
- Manganese

## Jupiter Mines Limited March 2011 Quarterly Report



### Corporate

- \$150m raised to advance the Company's Steel Feed Corporation Strategy
- Tshipi Borwa Manganese Project development go ahead given by Tshipi Board
- Cash position of \$100.285m
- Tranche 2 funds of \$51.5m deposited subsequent to quarter end
- Value of marketable securities \$8.86m

### Tshipi Kalahari Manganese Project

- Jupiter (49.9%) and the other Tshipi Borwa shareholders agreed to proceed with the mine development, capital of US \$200m
- Jupiter set to evolve from an exploration company to a mine development and production company
- Mine development underway with major contracts being evaluated and placed
- Tshipi Borwa right formally transferred from Ntsimbintle to Tshipi.

### Central Yilgarn Iron Project

- Mt Ida Magnetite Project delivers a robust Scoping Study
- Scoping Study based on a 20 year mine life, mining 25 mtpa to produce 10 mtpa of Magnetite concentrate
- Base Case capital cost is \$1.583m, and operating costs \$62.78 per tonne of concentrate FOB
- Project NPV is \$1.685m at an 8% pa discount rate and the IRR is 19.8% pa (based on a number of early-stage assumptions)
- Scoping Study on Mt Mason DSO Hematite Project in progress
- Board approval given to proceed with Feasibility Studies on both the Mt Ida and Mt Mason Projects
- Construction of 40 man exploration camp completed
- Contracts issued for drilling and catering contracts



## Oakover Manganese Project

- Positive metallurgical test results received from RC chips at C11 and C12
- Encouraging anomalies interpreted from the VTEM conducted on E45/2639
- Detailed mapping continuing on priority manganese out-crops on E45/2639
- Heritage maps submitted to YMAC for planned heritage surveys

## OVERVIEW

During the March 2011 Quarter (ASX:JMS) completed a Scoping Study on its Mt Ida Magnetite Project. The study was completed by ProMet Engineers Pty Ltd and indicates a financially robust magnetite operation. The study was based on the Mt Ida maiden inferred mineral resource of 530 m tonnes grading 31.94% Fe.

Jupiter also during the quarter commissioned ProMet to complete a Scoping Study on the Mt Mason DSO Hematite Project which is estimated to be completed by the end of April.

The Jupiter Board approved to proceed with Feasibility Studies on both Mt Ida and Mt Mason Projects, planning was well advanced with construction of a 40 man exploration camp "Camp Cassini" at CYIP commencing in late March. Issuing of tenders for drilling and catering contracts were also completed with contracts awarded in late April. Drilling is set to commence in early May.

On the Tshipi Borwa Manganese Project, the Tshipi Board gave the go ahead to develop the mine with a capacity of 2.4 mtpa of direct shippable manganese ore. The capital cost to develop this project is approximately US \$200m, of which Jupiter committed US \$100m to fund its 49.9% share of this project.

On the Oakover Manganese Project some preliminary metallurgical testwork was completed on RC drill chips. Results were encouraging average +35% Mn, < 10% SiO<sub>2</sub>, and 18% Fe with a yield of 38%.

On the corporate front Jupiter raised \$150m to advance its Steel Feed Corporation Strategy by issuing new ordinary shares at 70 cents per share to raise \$98.5m, primarily from Institutional shareholders, and \$51.5m from the Pallinghurst Co-Investors.

The \$51.5m placed to the Pallinghurst Co-Investors were approved by shareholders at an Extra Ordinary General Meeting held on 6<sup>th</sup> April, as such at Quarter end is not included in the cash balance.

At the end of the Quarter the Company had a cash balance of \$100.285m and \$8.861m in marketable securities.



## **Central Yilgarn Iron Project (CYIP)**

During the March 2011 Quarter the Scoping Study on the Mt Ida Magnetite Project was completed.

The Scoping Study, carried out by ProMet Engineers Pty Ltd, indicates a financially robust magnetite operation.

The Scoping Study was based on the Mt Ida maiden inferred mineral resource of 530 m tonnes grading 31.9% Fe at the Central Area (which represents only 30% of the magnetite mineralisation strike length). An open pit contract mining operation will extract 25mtpa ROM ore to produce 10mtpa of high grade magnetite concentrate, with an iron grade in excess of 68% Fe, a silica content of 4.5%, and very low levels of impurities (sulphur, phosphorous and alumina). An average 43.4% weight recovery was assumed based on test work already completed. Given the exceptional grade and quality of the concentrate Jupiter anticipates a premium to benchmark iron ore prices.

The process flowsheet utilises two stage HPGR technology (high pressure grinding rolls), whereafter the rock is progressively ground to 80% passing 25micron using ball mills and energy efficient tower mills. The magnetite is recovered using magnetic separation. A final grade concentrate is then produced after a single stage of reverse flotation to reduce the silica levels to specification. The process flowsheet has been developed to be scaleable in 5 mtpa concentrate production increments. (See Attachment 1 – Process Flow Diagram)

The Base Case assumes the pumping of magnetite concentrate from Mt Ida to a rail load out site south of Menzies where the concentrate is dewatered, filtered and loaded onto trains for transportation to the Port of Esperance. The Base Case also assumes the establishment of a 120 MW gas fired power station at Menzies owned and operated by a third party with power reticulated to site. The power station will source gas from the existing Goldfields Gas Transmission Pipeline.

The total Capital Cost of the project is estimated to be \$1,583m (see Table 1) with an Operating Cost of \$62.78 per tonne of magnetite concentrate produced, FOB Esperance (see Table 2). Using 100% equity financing, ignoring taxation, and assuming a concentrate value of \$110 per tonne and a 5% concentrate royalty, the Project generates an NPV of \$1,685m @ an 8 % pa discount rate, and an IRR of 19.8% pa.

The Base Case study assumes a concentrator at Mt Ida, third party power and concentrate pumped to the rail head at Menzies for dewatering, filtering and train-loading.

**Table 1: Base Case Capital Cost**

	\$million	
Prestrip	50.0	Estimate
Mining Establishment	30.0	Estimate
Concentrator, filters and bins	897.0	Including 20% contingency
Tailings Disposal	47.2	Paste thickener and coffer dam
Construction Camp	97.5	1500 people at \$65,000/man
Concentrate and return water pipeline	214.5	
Bore Field, power and water line	38.8	80kms
Power Line, Menzies to Mt Ida	111.6	
Unit Trains	96.0	5 unit trains
	<b>1 582.6</b>	

**Table 2: Base Case Operating Cost**

Area		Annual Cost \$M	Unit cost	\$/T conc	Cum \$/T conc
Administration	\$/t Conc	9.1	0.90	0.90	0.90
Mining/Crushing	\$/t Ore	167.4	6.53	16.73	17.64
Concentrator	\$/t Conc	230.1	23.00	23.00	40.64
Filter Plant	\$/t Conc	14.5	1.44	1.44	42.09
Pipeline	\$/t Conc	10.4	1.03	1.03	43.12
Transport	\$/t Conc	147.2	14.71	14.71	57.83
Port	\$/t Conc	45.8	4.57	4.57	62.40
Admin-HQ	\$/t Conc	3.8	0.38	0.38	62.78
<b>Overall</b>	<b>\$/t Conc</b>	<b>627.8</b>		<b>62.78</b>	

Alternative infrastructure options have also been considered (see Table 3), including a Jupiter-owned power station (at Menzies and at site) and using rail transportation for concentrate from Mt Ida to Menzies (instead of a pipeline).

- Installing Jupiter's own power station in Menzies but still using a concentrate pipeline to Menzies increases the capital by \$168.8m but reduces the operating cost by \$5.84/t, to give a project IRR of 20.6% pa.
- Switching to all rail transport and moving the power station to site increases capital costs by \$178m with an operating saving of \$3.88/t, representing a potential 4 year payback on the extra capital and an IRR of 19.7% pa.
- Switching to all rail transport but keeping the power station in Menzies will cost an extra \$235m and save only \$3.88/t which lowers the IRR to 19.1% pa.

**Table 3: Alternative Infrastructure Development Options**

	<b>Infrastructure Location</b>	<b>Capital Cost \$ Million</b>	<b>Operating Cost \$/tonne of Concentrate</b>	<b>IRR % pa</b>
<b>Base Case</b>	Concentrate pipeline, power line, Third Party Power at Menzies	1,582.6	62.78	19.8
<b>Option 1</b>	Concentrate Pipeline, power line, Owner Power, Menzies	1,751.4	56.94	20.6
<b>Option 2</b>	Rail to Menzies, Owner power at Mt Ida	1,760.1	58.90	19.7
<b>Option 3</b>	Rail to Menzies, Owner power at Menzies, power line	1,818.0	58.90	19.1

*Notes:*

- Based on a 20 year mine life at 25 mtpa producing 10 mtpa of Magnetite Concentrate
- Based on a waste to ore strip ratio of 1.5 to 1
- Inclusive of a royalty of 5%, assuming full equity financing and ignoring taxation
- Concentrate price of \$110 per tonne
- All \$ are Australian

Based on these attractive Scoping Study results, a full Feasibility Study will now be launched for completion at the end of 2012, so to identify the best strategic option to develop the Project.

Jupiter also has a Scoping Study underway on the Mt Mason DSO Hematite Project, due for completion in late April. Mt Mason has an inferred resource of 5.75 m tonnes at 59.9% Fe and offers an opportunity to generate early cash flows from a 1.5 mtpa DSO operation commencing in early 2013. Jupiter plans to undertake a Feasibility Study on Mt Mason concurrently with that for Mt Ida.



The March Quarter has been very active for Jupiter planning for delivering the Feasibility Studies. A 40 man exploration camp “Camp Cassini” was installed and commissioned in April this will establish Jupiter at site to effectively supervise and manage the drill program and site based components of the Feasibility Studies.



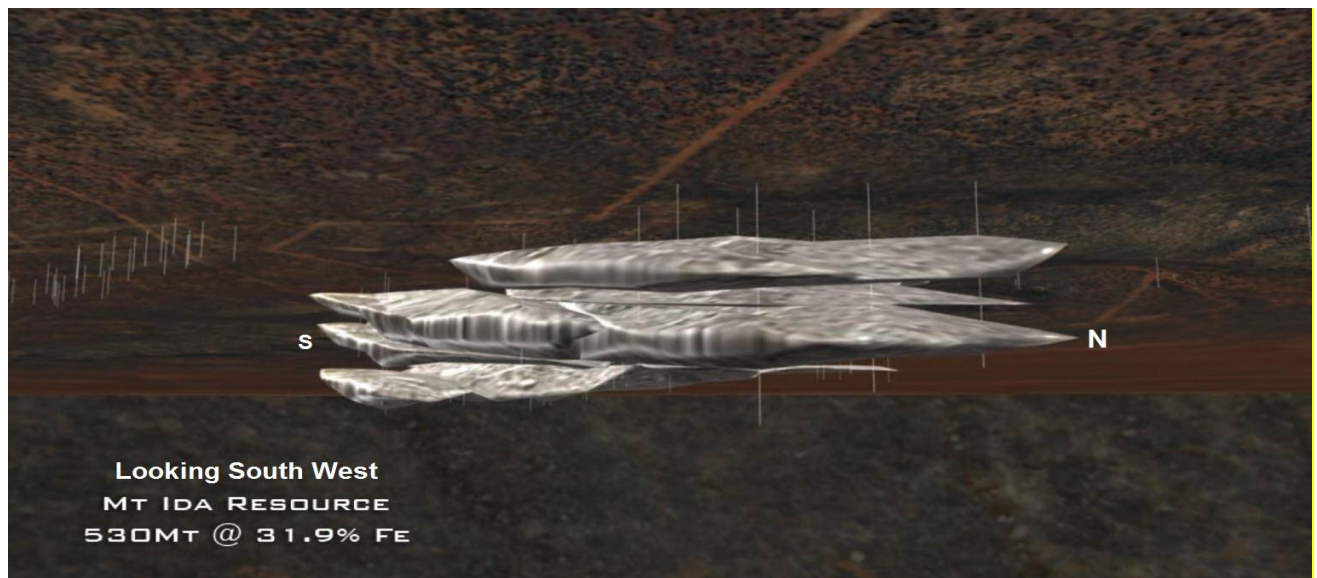
**Figure 1: Photograph of camp kitchen deck**



**Figure 2: Photograph of camp site looking west**

Drilling contracts for both RC and Diamond totalling approximately 90 000 metres were tendered with contracts awarded in late April. Drilling contractors are mobilizing to site in the first week of May along with an increased level of Jupiter geological and field staff.

The initial focus of the drill programs will be to bring the current inferred resources at both Mt Ida and Mt Mason into measured and indicated status, followed by drilling for geotechnical requirements and metallurgical testwork.



**Figure 3 Mt Ida Inferred Mineral Resource**

*While the Company is optimistic that it will report additional resources in the future, any discussion in relation to Exploration Target over and above the stated Inferred Resources is only conceptual in nature. There has been insufficient exploration to define a Mineral Resource over and above the Inferred Resource and it is uncertain if further exploration will result in determination of a Mineral Resource.*

Further exploration drilling will then be undertaken testing the northern and southern extents of the Mt Ida Banded Iron Formation (BIF) system with the objective of substantially increasing the Mt Ida magnetite inferred resource base.

Jupiter is well funded to deliver the Feasibility Studies on both Mt Ida and Mt Mason, these projects broaden the foundation for Jupiter's strategy to provide raw material feedstock for the production of steel.

### **Tshipi Kalahari Manganese Project**

Tshipi reached a milestone in its development with the decision on 4th February 2011 by the directors to commence with the construction of the Tshipi Borwa project.

Activities during this quarter by Tshipi were dominated by the gearing-up for the commencement of construction of the Borwa mine. Developments included progressing towards the finalisation of the design of the mine, and associated surface infrastructure including the crushing and screening plant, the load out station and the rail siding. Final contracts with major suppliers such as those for the rail siding construction, rapid load out, mining contractors, plant developers and major machinery such as the crushers all were initiated and neared completion towards the end of the quarter. Firm contracts for the commencement of these essential supplies, if not already entered into, will be awarded in early second quarter 2011.



Tshipi is also exploring the use of Durban Port as an additional port to Port Elizabeth through which to ship manganese ore. The facility at Durban allows for deliveries by both road and rail transportation methods and the bulk export facility at the Durban port is undergoing expansions with the addition of a rotary tippler. Furthermore, Transnet, the state owned rail network operator, is improving their service delivery to Durban by addressing key aspects of the logistic chain. Tshipi remains confident that Durban will become a vital port for South African manganese exports. Tshipi has also qualified to participate in Transnet's Long Term allocation process which sets to allocate all entrants with rail and port capacity to Port Elizabeth.

On the Tshipi Bokone Project the initial exploration programme has been completed and is awaiting assay results where after the resource base will be delineated.

At this early stage the entire project is progressing well.

## OAKOVER MANGANESE PROJECT

Jupiter received encouraging metallurgical results at its 100% owned Oakover Manganese Project, located in the East Pilbara region of Western Australia (Attachment 2). The test work, from recent drilling on the C11 and C12 prospects, confirms that the Oakover manganese mineralisation is beneficiable using dense media separation (DMS) for the coarser fraction and a Wilfley Table for the finer fraction. The average results are very encouraging with +35% Mn, <10% Si, 18% Fe and a yield of 38% reported. This is comparable to OM Holdings Ltd operation at the Bootu Creek Mine (Table 4).

**Table 4 – Comparison with mineralisation from Bootu Creek**

Project	Lump (Mn %) -75+10mm	Fines (Mn %) -10+1mm	SPP Fines (Mn %) -1mm	~Yield (%)
Bootu Creek	35.92	38.26	36.31	34.00
Oakover	-	36.13	35.15	38.33

Source: December 2010 Quarterly OM Holdings Ltd Market Update (p3).

Note: No Lump component was available for testing as Oakover has only experienced RC Drilling

Recently received interpretation of the VTEM over E45/2639 indicates that there are a number of promising anomalies on the tenement. The VTEM highs under chert and ferruginous chert that are adjacent to large NW trending faults and contiguous to scree slopes may represent good drill targets, as do anomalies below or adjacent to manganese shows (Attachment 3). Field work and mapping was hampered by rains and river crossings.

Further exploration work planned will include heritage surveys on E45/2640 and E46/2641 to open up more prospective targets for reconnaissance drilling, and geological assessment of the tenements south of Woodie Woodie (E46/864 and E46/888), which preliminary research indicates contain rocks prospective to manganese including the Pinjian Chert and Balfour Shale under Tertiary laterite cover.



## **CORPORATE**

### **Capital Raising**

During the Quarter Jupiter raised \$150m by placing 142.9 m New Ordinary Shares (Tranche1) at 70 cents per share to raise approximately \$100 m which includes an investment of \$1.5m by Priyank Thapliyal, a Director of Jupiter. A further 71,428,571 New Ordinary Shares (Tranche 2) at 70 cents per share were placed to raise approximately \$51.5m. Tranche 2 and Mr Priyank Thapliyal's investments were approved by shareholders at an Extraordinary General Meeting held on 6<sup>th</sup> April 2011.

The new funds will be used to develop Jupiter's 49.9% owned Tshipi Borwa ("Tshipi") project which is located in the Kalahari Manganese Field in South Africa, and to fast-track both the 100% owned Mt. Ida Magnetite Project ("Mt. Ida") and Mt Mason DSO Iron Project ("Mt Mason") located in the Central Yilgarn region of Western Australia. The capital raised also provides some \$10 mfor working capital purposes.

Jupiter's portion of the capital required to construct the mine, plant and infrastructure at Tshipi is expected to be \$US100m, out of the \$US200m total needed to enable a production of up to 2.4 m tonnes of manganese lump and fines.

Jupiter will allocate approximately \$40 m to convert the maiden Inferred Resource at Mt Ida into Measured and Indicated categories, and to increase the Inferred Resource base by drilling both the northern and southern extensions, which remain untested. At Mt Mason further drilling will be undertaken to convert the current Inferred resources into Measured and Indicated categories. To fast track the development of Projects, Feasibility Studies and project permitting will commence in conjunction with the drilling, with completion planned by the end of 2012.

### **Cash Position**

At the end of the Quarter the Company had a cash balance of \$100.285m and held marketable securities to the value of \$8.861m.

The Tranche 2 funds of \$51.5m were deposited into the Company's account after the EGM held on 6<sup>th</sup> April 2011 and is not included in quarter end cash balance.

Yours Faithfully  
**Jupiter Mines Limited**



Greg Durack  
**Chief Executive Officer**



## **Competent Persons Statement**

*The information in this release that relates to Exploration Results is based on information compiled by Mr Charles Guy, a Member of the Australian Institute of Geoscientists, and Mr Michael O'Mara a Member of the Australian Institute of Geoscientists.*

### **Exploration Manager: Charles William Guy Competent Person**

*The information in this announcement that relates to Exploration Results is based on information compiled by Mr Charles William Guy who is a Member of the Australian Institute of Geoscientists and a full-time employee of Jupiter Mines Limited. Charles William Guy has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Charles William Guy consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears Charles William Guy holds the position of exploration Manager with Jupiter Mines Limited*

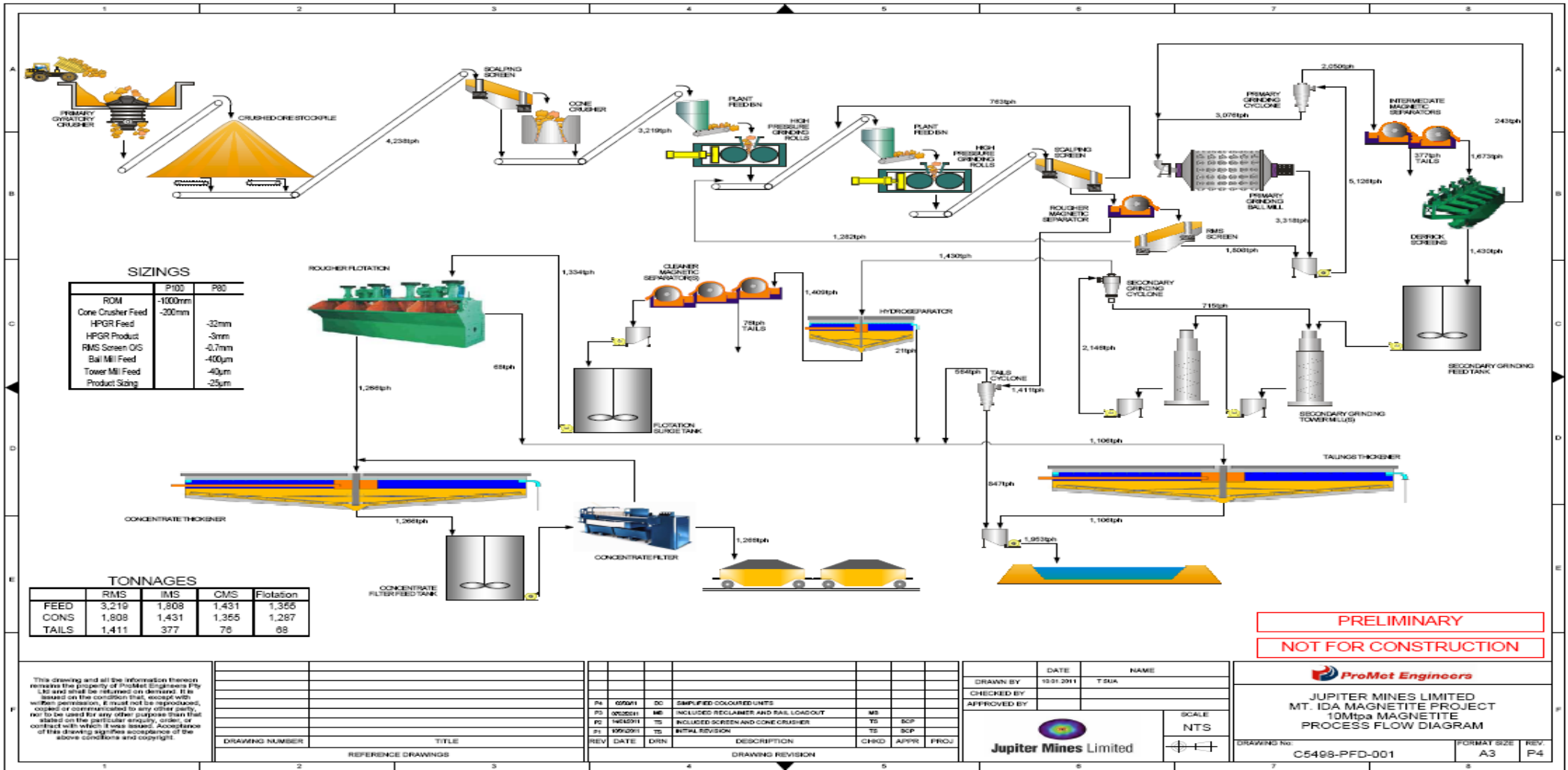
### **Senior Exploration Geologist: Michael O'Mara Competent Person Inferred Resource Statement Mt Ida**

*The information in this announcement that relates to Exploration Results, Mineral Resources or Ore reserves is based on information compiled by Mr Michael O'Mara who is a Member of the Australian Institute of Geoscientists and a full-time employee of Jupiter Mines Limited. Mr Michael O'Mara has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Michael O'Mara consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears Michael O'Mara holds the position of Senior Exploration Geologist with Jupiter Mines Limited.*

### **Consultant David Milton: Competent Person Inferred Resource Statement- Mt Mason**

*The information in this report that relates to Mineral Resources at Mt Mason is based on information compiled by Mr David Milton, who is a Member of the Australian Institute of Mining and Metallurgy and a full-time consultant. Mr David Milton has sufficient experience in the type of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the December 2004 Edition of the Australian Code for reporting Exploration Results, Mineral Resources and Ore Reserves and consents to the inclusion in the report of the matters based on his information in the form and the context in which it appear."*

# Attachment 1 – Mt Ida Magnetite Project - Process Flowsheet



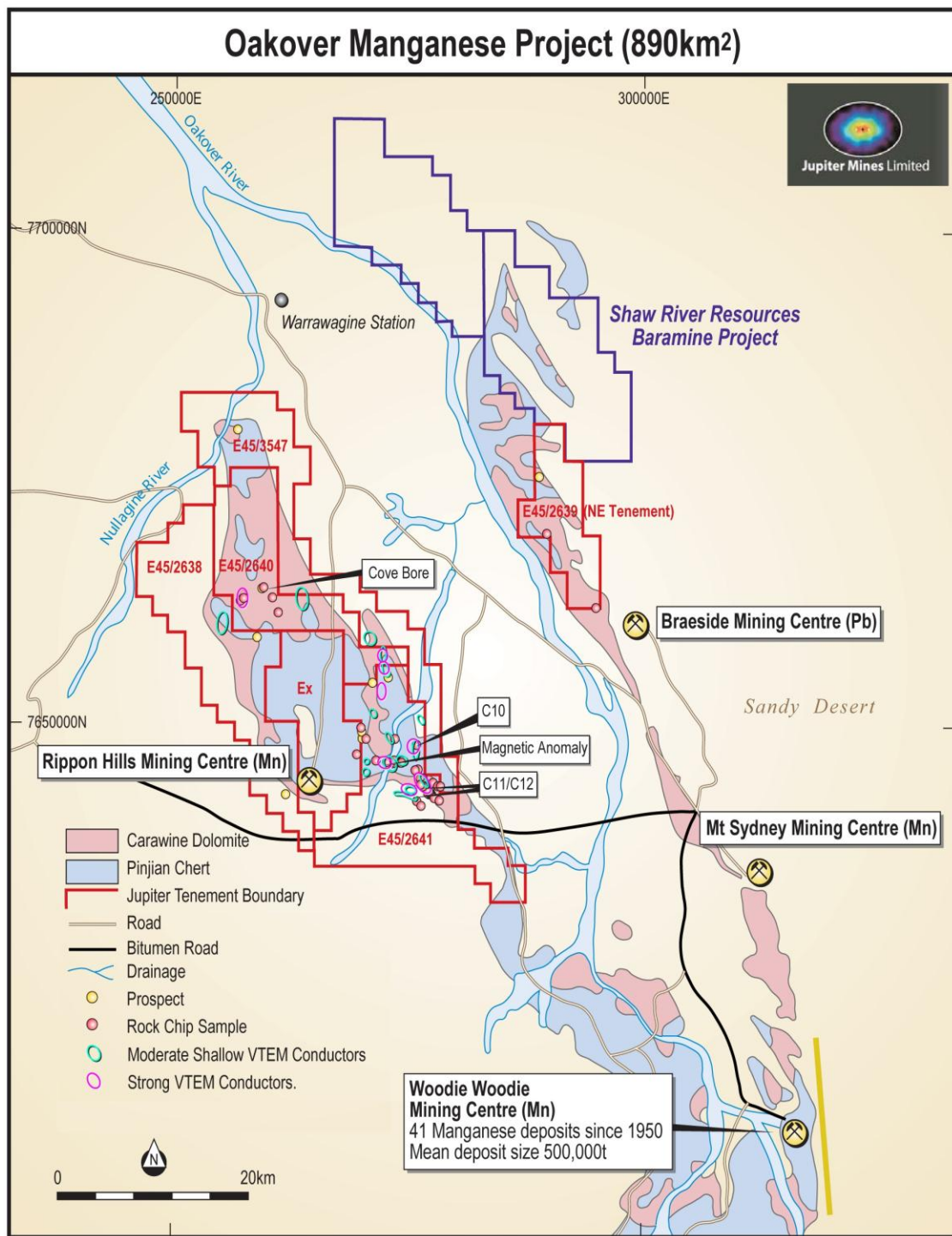
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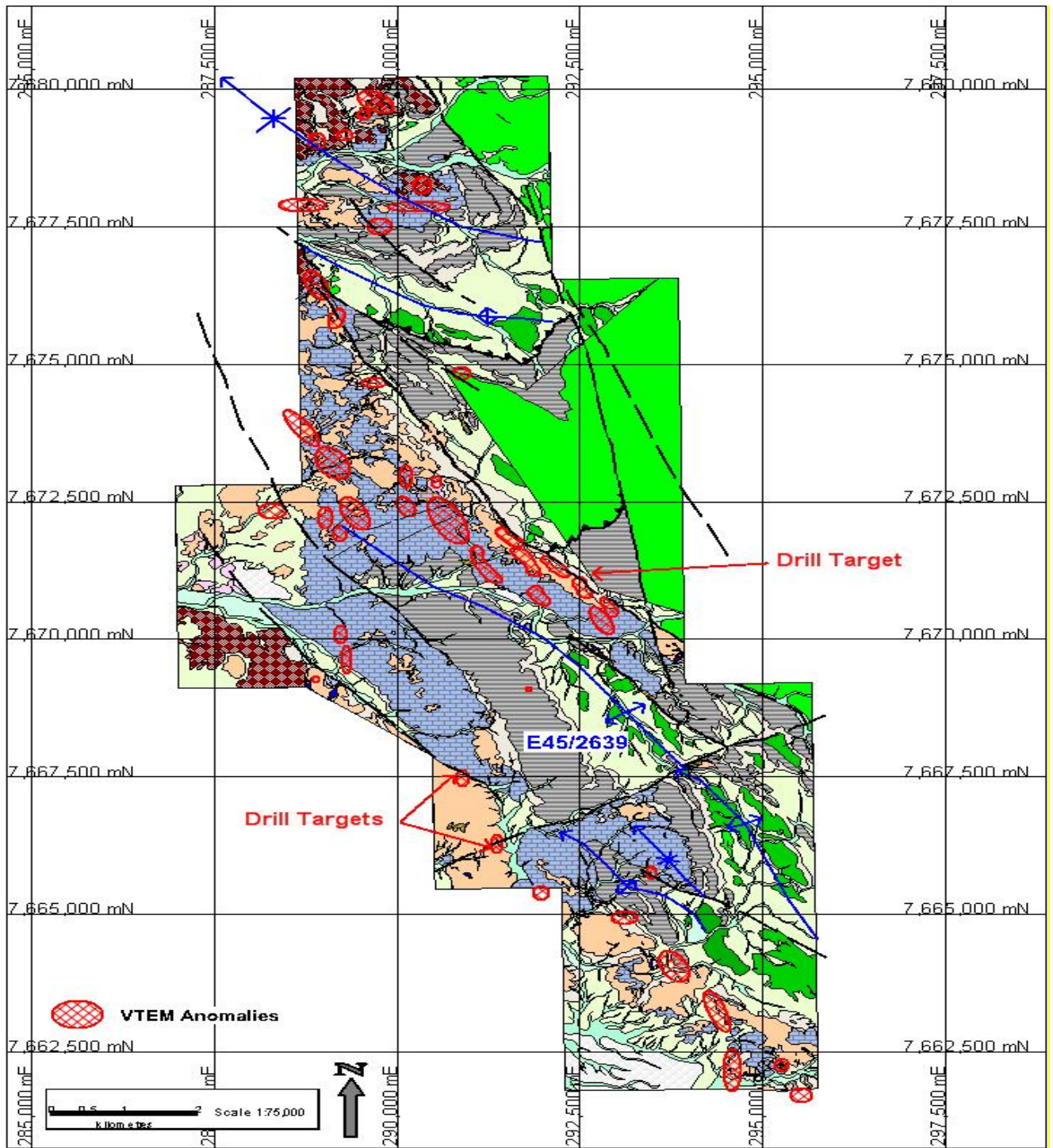
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<b>JUPITER MINES LIMITED</b> <b>MT. IDA MAGNETITE PROJECT</b> <b>10Mtpa MAGNETITE</b> <b>PROCESS FLOW DIAGRAM</b>		
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**Attachment 2: Oakover Manganese Project Location**



Attachment 3: VTEM anomalies over local geology at E45/2639