

Venture Minerals Ltd VMS

Company Update

Pre-Feasibility Study confirms project viability and lifts our price target

Investment Perspective: The high tin price has prompted a rush of juniors boasting tin credentials of varying merit, but our analysis has shown that one new company, Venture Minerals, stands head and shoulders above the pack. Its location in one of the the most productive hard rock tin provinces in the world, with good infrastructure and workforce, provides strategic advantages. Multiple targets, leading to multiple orebodies, bode well for a long life operation with a variety of mining and processing options.

Another milestone towards development has been achieved with the positive findings of the pre-feasibility study. Development capex has been estimated at \$162m, and while this equates to a payback period of around four years based on the current mining inventory, we expect infill and exploration drilling to result in upgraded resources and an increased mine life for the BFS.

The outlook for the tin market looks very positive due to a shortage of new mines, and a tight tungsten market dominated by the Chinese should ensure strong cash flows, with prices for refined tungsten in the form of ammonium para-tungstate (APT) now approaching \$400/mtu.

We continue to rate VMS' management team highly, displaying a good blend of enthusiasm, exploration capability and project development experience. All these characteristics will be critical as VMS progresses the Mt Lindsay project toward production. **We continue to rate VMS a BUY, with an increased price target of \$0.80.**

Primary Points

- VMS's recently completed PFS has demonstrated the viability of developing the Mt. Lindsay Project and commencing production during a period of historically high prices for both tin and tungsten.
- The study provided for an initial mine life of eight years based on a mining inventory drawn from resources at the Main and No. 2 skarns only. Infill and exploration drilling is likely to lead to further resource upgrades.
- The project has the potential to generate substantial revenues from multiple metal products such as tin, tungsten, magnetite and copper. At current prices, we estimate average revenues of more than \$190m p.a, and EBITDA of \$84m p.a. at full production.
- The addition of an ammonium leach circuit to the processing plant for a cost of \$20m allows the production of a far more valuable tungsten product. Recent market prices for APT have reached US\$400/mtu.
- A Bankable Feasibility Study at Mt Lindsay has now begun, and subject to a positive report, permitting and financing, the project could be in production in 2013.
- Mt Lindsay has considerable exploration upside which provides the opportunity to extend the current mine life. Exploration drilling continues at a number of targets which offer significant resource potential.

BUY

Price: \$0.46 Target: \$0.80



Source: ASX

Share Price	\$0.46
Valuation	\$0.80 DCF @ 10.3% WACC
12 Month Range	\$0.24 - \$0.66
Market Cap.	\$102m
Issued Shares	220.94 mill. ord.
Unlisted Options	32.11 various ex. price
Cash Balance	\$27m
Debt	Nil
Top Shareholders	Molton Holdings Ltd 9% Management 6%
Directors	Mel Ashton (Non-Exec Chairman) Hamish Halliday (MD) Andrew Radonjic (Technical) Bruce McFadzean (Non-Executive) John Jetter (Non-Executive)

Mt Lindsay - PFS Parameters

Capital expenditure	\$162m
Mining inventory	10 Mt @ 0.3% Sn & 0.2% WO ₃
Initial Mine Life	8 years (Main & No. 2 skarns only)
Mining method	Open Pit & Underground
Strip ratio	8:1
Plant throughput	1.3 Mtpa
Mining costs/tonne	\$29/tonne (OP) \$74/tonne (UG)
Production	Tin concentrate Ammonium para-tungstate (APT) Copper concentrate Magnetite

Source: Company data

Mt Lindsay - Pre-Feasibility Study

Recent completion of PFS confirms Mt Lindsay's viability

VMS announced the results of its pre-feasibility study (PFS) for the Mt Lindsay Project in early March 2011. The study was undertaken using external consultants, and has demonstrated the viability of developing the project and commencing production.

The study focused primarily on open pit mining, drawing from known resources located in the Main and No. 2 Skarns only (see Figure 1). These two deposits host total Indicated and Inferred JORC resources of 43 Mt at 0.2% tin (0.4% tin equivalent cut off).

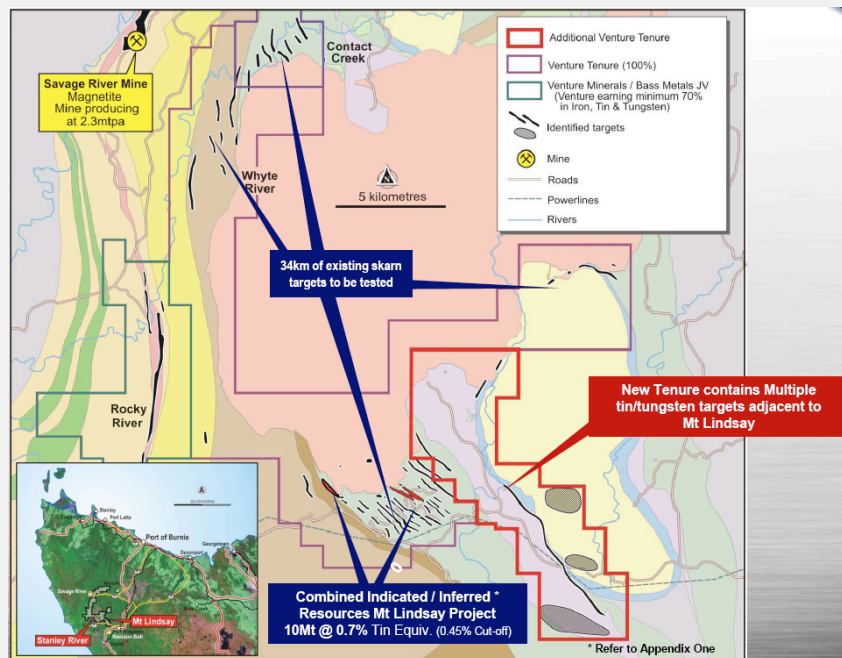


Figure 1: Mt. Lindsay Project plan (Source: VMS)

The PFS assessed commencing mining at Mt Lindsay using the following parameters:

- A mining inventory of 10 Mt drawing from Indicated resources only using a tin equivalent cut off grade of 0.45%. As the study excluded inferred resources, we consider there to be potential to lift the mining inventory as ongoing infill drilling upgrades 4.2 Mt at 0.4% Sn in inferred resources to higher categories of confidence.
- An initial open pit mining operation commencing with the high grade tin and tungsten zones within the Main and No 2 skarns. The pit was designed to a depth of 220m with an average life of mine strip ratio of 8:1.
- It is envisaged that staged underground mining would commence from year four, providing between 300,000 to 400,000 tonnes of ore p.a. to the processing plant. The staged underground development of the Main and No. 2 skarns permits scheduling flexibility and ensures optimal ore volumes to the plant.
- The PFS assessed the economics of a 1.3 Mtpa processing plant, 30% larger than the 1 Mtpa facility outlined in the scoping study. The plant design also included an ammonium-paratungstate (APT) circuit to produce a more marketable tungsten product as opposed to the production of tungsten concentrate as envisaged in the 2010 scoping study. The larger plant permits increased production while there is a material benefit gained from producing a more valuable APT product.
- Metallurgical recoveries for tin were estimated at 71% using a gravity and flotation recovery circuit. Tungsten trioxide recoveries were estimated at 85% using gravity, flotation and an ammonium leach processing route. Magnetite recoveries used in the study were 95%.
- The study also highlighted the benefits from the recovery of a copper concentrate from the Mt Lindsay ore body. It was estimated that production up to 2,400 tonnes of copper concentrate per annum were possible with copper recoveries estimated at 60% from bulk flotation of sulphides.

Mining inventory provides for initial eight year mine life excluding potential upgrades of inferred resources

Proposed plant size lifted to 1.3 Mtpa

Added benefit of copper by-product

Addition of APT circuit produces a more valuable and marketable tungsten product

The capital cost for developing Mt Lindsay was estimated at \$162m, and included a 15% contingency allowance. Of this, \$155m is to be devoted to plant construction, and includes the addition of the APT circuit which was estimated to cost \$20m. Other major capital items included \$7.3m for mine site infrastructure and haul roads.

The ore body at the Main skarn outcrops at surface, allowing what little pre-strip is required to be expensed and incorporated into the estimated operating expenses. While the capex estimate would see a payback period of more than four years at the suggested production rates, we consider this to be offset by the likelihood of further resource discovery and mine life extension beyond the eight years envisaged in the PFS.

Open pit mining costs at Mt Lindsay were estimated at \$28.65/tonne, while underground costs were estimated to be \$74.28/tonne. Processing costs per tonne were approximately \$31.00 and \$35.00 for Main and No. 2 skarn ore feed respectively. At current spot metal prices, revenue per tonne in excess of \$200 would deliver gross operating margins in excess of 65%.

Mt Lindsay Project - Scoping Study Vs PFS		
	Optimised Scoping Study May 2009	Pre-Feasibility Study March 2011
Capital expenditure	\$130m	\$162m
Resources (0.35% Sn Equiv Cut off)	13.0 Mt @ 0.32% Sn (Inf.)	18.0 Mt @ 0.3% Sn (Ind. & Inf.)
Mine life	7 years	8 years
Mining method	Open pit only	Open pit & Underground
Strip ratio	7.7:1	8:1
Plant size	1 Mtpa	1.3 Mtpa
Mining costs/tonne milled	\$47/tonne (OP)	\$29/tonne (OP) \$74/tonne (UG)
Production	Tin conc., tungsten conc., magnetite	Tin conc., APT, copper conc., magnetite

Table 1: Scoping Study vs PFS (Source: Company data)

Mt. Lindsay Project - JORC Resources (Nov 2010)						
Sn Equiv. Cut off Grade	Category	Tonnes	Sn Grade	WO ₃ Grade	Contained Tin (t)	Contained Tin/Tungsten (t)
0.20%	Indicated	23,000,000	0.2%	0.1%	47,000	71,000
	Inferred	20,000,000	0.2%	0.1%	36,000	49,000
	TOTAL	43,000,000	0.2%	0.1%	82,000	120,000
0.35%	Indicated	11,000,000	0.3%	0.2%	31,000	51,000
	Inferred	6,800,000	0.3%	0.1%	22,000	30,000
	TOTAL	18,000,000	0.3%	0.2%	53,000	81,000
0.45%	Indicated	6,200,000	0.4%	0.3%	22,000	37,000
	Inferred	4,200,000	0.4%	0.2%	17,000	23,000
	TOTAL	10,000,000	0.4%	0.2%	38,000	61,000

Table 2: Mt. Lindsay JORC Resources, Nov 2010 (Source: Company data)

While there is spare capacity is available on the nearby rail line, VMS has opted for road haulage of tin, tungsten and magnetite production to the nearby port of Burnie. Transport costs were incorporated into mine operating costs as indicated above.

While the VMS announcement of the PFS results did not detail any forecast production rates, our estimates based on the PFS parameters show that the project is capable of producing up to 3,700 tpa of tin-in-concentrate, 2,180 tpa of tungsten in the form of APT, 230,000 tpa magnetite and minor volumes of marketable copper concentrates.

We estimate that Mt. Lindsay could produce an initial 3,700 tpa of tin and 2,180 tpa tungsten

BFS has commenced and is expected to be completed in 12 months

Bankable Feasibility Study

Following the results of the PFS, VMS have now commenced a bankable feasibility study (BFS) on Mt Lindsay. The study will include further infill drilling to upgrade the existing indicated and inferred resources into higher categories of confidence. Resource drilling will also be undertaken on other nearby skarn targets, with the objective of increasing the project's overall resource base.

Permitting, environmental studies, and detailed geotechnical and process design will also form part of the BFS. The study is expected to take approximately 12 months to complete.

VMS proposed development timeline is detailed below:

Mt Lindsay Project - Development timetable										
	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12	Q3'12	Q4'12	Q1'13	Q2'13	
Exploration drilling	[Active]									
Commencement of BFS	[Active]			[Active]						
BFS Completion	[Active]			[Active]		[Active]				
Financing & Construction	[Active]				[Active]					
Production	[Active]								[Active]	

Table 3: Mt Lindsay development timetable (Source: Company data)

Financing and off-take considerations now being made

Financing & Production Off-take

VMS has commenced assessing financing alternatives with regards to the development of Mt. Lindsay. Options being evaluated include project finance, bond issues, and prepayment arrangements with possible off-take partners. The Company has also engaged experienced metals marketing firm Penfolds, to advise on product marketing and sales.

There is significant exploration potential at Mt Lindsay with a high probability of repeats of the high-grade Main and No. 2 skarns

Mt Lindsay - Exploration

Venture Minerals' PFS has demonstrated that there are sufficient resources to warrant Mt. Lindsay's development, however, there remains substantial exploration upside, and the potential to increase the mine life of Mt. Lindsay beyond the eight years outlined in the PFS.

The Company has six drill rigs on site, concentrating on both infill/resource drilling, as well as exploration drilling. Near term priority exploration targets include (refer to Figure 1):

- The Reward skarn - infill drilling is currently being undertaken at Reward with the objective of defining a maiden resource. There is also potential to extend the strike length to the south with further step out drilling. Resources defined at Reward are expected to be readily incorporated into the mining inventory as part of the BFS.
- Eastern skarns - these targets were acquired following the successful tender for exploration tenure adjacent to VMS' existing exploration licence.
- Contact Creek - Reconnaissance drilling has recently identified wide zones of Mt Lindsay-style skarn mineralisation at Contact Creek. Assays are not yet available from this drilling, but visual inspection of core has identified similar characteristics as the Main and No 2 skarns, including zones of magnetite and visible scheelite (tungsten).

VMS has an exploration budget approaching \$5m for the next 12 months which we consider sufficient to satisfactorily test these additional targets. There are approximately 34 km of additional interpreted skarn targets located within VMS' licences, providing significant exploration upside.

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Valuation Metrics

With the completion of the PFS at Mt Lindsay, we have now been able to apply more accurate capital and operating cost assumptions to our model. The larger plant at 1.3 Mtpa increases our production estimates, and we have also incorporated copper concentrate production into our cash flows.

While the copper concentrate volumes are relatively minor, current high prices for copper means revenue receives a material increase. Revenues are also boosted through the production of a more marketable tungsten product from the addition of an APT circuit to the process design.

Satisfactory metallurgical recoveries can be the biggest difficulty facing new tin operations. Our assumptions are as detailed by the Company but we acknowledge the risk of lower recoveries during commissioning and the ramp up to full production.

APT production will provide a useful boost to revenues

Mt Lindsay Project - BGF Equities Production forecasts									
Year	2013	2014	2015	2016	2017	2018	2019	2020	
Tin Concentrate (t)	4,544	7,384	7,384	7,384	7,384	7,384	7,384	7,384	7,384
Conc. grade (% Sn)	50%	50%	50%	50%	50%	50%	50%	50%	50%
Tungsten (t)	1,344	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184
Magnetite (t)	144,400	234,650	234,650	234,650	234,650	234,650	234,650	234,650	234,650
Copper Conc. (t)	1,536	2,496	2,496	2,496	2,496	2,496	2,496	2,496	2,496
Conc. Grade (% Cu)	25%	25%	25%	25%	25%	25%	25%	25%	25%

Based on our production estimates and the PFS parameters, we have derived a project NPV for Mt. Lindsay of \$145m, a significant premium on our previous indicative project valuation of \$100m. Our revised valuation includes the following assumptions:

- Total capital expenditure of \$165m
- Geared cash flows based on project financing of 60% debt
- Mining costs of \$30/tonne and \$74/tonne for open pit and underground respectively
- Discount rate of 10.3%
- AUD:USD exchange rate of \$1.05

Using commodity price assumptions of US\$32,000/tonne for tin, US\$350/mtu for APT (tungsten), US\$130/tonne for magnetite, and US\$9,500/tonne for copper we estimate average annual revenue of \$180m, delivering an annual EBITDA of \$81m at full production.

Our analysis of Mt Lindsay's sensitivity to commodity prices confirms robust project cash flows.

Sensitivity analysis highlights robust nature of Mt Lindsay

Mt. Lindsay Project NPV - Sensitivity Analysis*							
	-15%	-10%	-5%	0%	+5%	+10%	+20%
Project NPV	\$55.0m	\$85.1m	\$115.2m	\$145.3m	\$175.4m	\$205.5m	\$265.7m
NPV Per share	\$0.25	\$0.39	\$0.52	\$0.66	\$0.79	\$0.93	\$1.20

* - Project NPV based on variance from base case commodity price assumptions

We have upgraded our price target to \$0.80 and continue to rate VMS a BUY.

Our Net Asset Value for VMS allowing for our revised project valuation is \$0.80 per share, a significant increase on our previous valuation, and a significant premium to the current market price of \$0.46. **Accordingly, we have upgraded our price target to \$0.80, and continue to rate VMS a BUY.**

Net Asset Value - Venture Minerals Ltd

	Value	Per Share
Mt. Lindsay NPV _{10%}	\$145m	\$0.66
Resources & Exploration (BGF Estimate)	\$20m	\$0.09
Cash on hand	\$26m	\$0.12
Less: Debt	Nil	Nil
Less: Corporate Costs (NPV _{10%})	-\$15m	-\$0.07
TOTALS	\$177m	\$0.80

Our valuation of Venture Minerals excludes equity dilution for equity capital costs. Our rationale for this is that the likely financing route that VMS adopts is not yet known, and may not include an ordinary project finance facility. As detailed above, alternatives being considered include bond issuance and off-take related prepayment facilities.

Further upside to our valuation is possible through the increase in mine life from additional resource discovery, and further appreciation in tin and tungsten prices as demonstrated by our sensitivity analysis above.

Disclosure The authors of this report do not hold shares in Venture Minerals Limited. BGF Equities has been in receipt of fees for capital raising activities undertaken on behalf of Venture Minerals Limited, and seeks to do business with the companies outlined in this report. BGF Equities has not received fees for the preparation and publication of this research report.

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