

MEDCALF PROJECT

PRE-FEASIBILITY STUDY RESULTS

- **PFS supports the potential for a viable titanium-vanadium project, with iron by-products.**
- **PFS identifies opportunities to further reduce operating and capital costs and environmental impact of the Medcalf Project.**
- **Interim metallurgical testwork to be advanced to further optimise and de-risk the Medcalf Project ahead of further development works.**

Audalia Resources Limited (ASX: **ACP**) is pleased to announce completion of the Medcalf Project Pre-Feasibility Study (**PFS**), undertaken by Simulus Pty Ltd (**Simulus**) with input from a group of consulting firms including Cube Consulting (**Cube**), Golder Associates Pty Ltd and Botanica Consulting together with Audalia's technical team.

The PFS includes an economic valuation which supports the potential for a viable multi-product Western Australia-based mining and processing operation. The study has also identified significant potential upside if an offshore processing facility is considered and pursued. The study has been completed to a PFS-level of accuracy and all costings, unless specified otherwise, have been undertaken at an accuracy level of $\pm 25\%$.

Key PFS highlights

- + The Medcalf Project is a multi-product deposit with a long mine life coupled with a low risk and low cost mining operation.
- + The Base Case scenario for the Medcalf Project has a sound pre-tax NPV_{8%} of A\$186m, 13.1% IRR and a 5.4 year payback using conservative key assumptions.
- + The Offshore Base Case scenario, which contemplates locating the hydrometallurgical plant overseas, has an attractive pre-tax NPV_{8%} of A\$843m, 38.1% IRR and a 2.6 year payback (using Base Case inputs and making assumptions for savings in capital and operating costs).
- + The PFS has identified a number of options available to the Company to improve the economic outcomes of the Medcalf Project and reduce the environmental impact of the operations which will be investigated as part of the Definitive Feasibility Study (**DFS**).
- + A number of priority actions have been recommended as a forward work plan including interim metallurgical testwork, environmental approvals and permitting, infill drilling and exploration, which will be pursued leading into the DFS.

Cautionary Statement

The Company advises that the Pre-Feasibility Study referred to in this announcement is based on lower-level technical and preliminary economic assessments, and does not yet support a statement of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the PFS will be realised. There is a low level of geological confidence associated with the Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources. The Company advises the PFS results reflected in this announcement are preliminary in nature as conclusions are partly drawn from Inferred Resources (which comprise approximately 25% of the total Life of Mine pit design inventory). The PFS outputs contained in the report relate to 100% of the mine. The Company has concluded it has a reasonable basis for providing the forward looking statements included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and in particular the appendix headed “Forward Looking and Cautionary Statements”.

PFS results

The PFS results confirm the potential for the Medcalf Project to produce titanium dioxide, vanadium pentoxide products and iron oxide (Fe₂O₃) and copperas (FeSO₄.7H₂O) by-products, over a 12-year life of mine (LoM). The PFS is based on the Mineral Resource Estimate released to ASX on 18 August 2014 (Table 3).

A summary of the economic assessment scenarios is provided in Table 1. Under the Base Case scenario, the Medcalf Project is proposed to consist of a mine, local mine infrastructure, a haul road to transport the ore from the mine to the processing plant and associated infrastructure to be located south of Norseman in Western Australia. The PFS also considered alternate project options to assess against the Base Case, including the alternative of locating the hydrometallurgical plant overseas which is presented as the Offshore Base Case scenario. Note that this scenario was completed as an add-on after completion of the mining engineering work and is subsequently not optimised for this scenario. The Offshore Base Case scenario assumes that capital and operating costs from the Base Case scenario can be reduced by 33% and 25%, respectively and makes allowance for costs of shipping concentrate from the beneficiation plant to the main processing plant in Asia.

A summary of the key assumptions for the PFS is provided in Table 2.

Table 1: Summary of economic assessment scenarios

Variable	Base Case	Offshore Base Case
Saleable products	V ₂ O ₅ , TiO ₂ , Fe ₂ O ₃	V ₂ O ₅ , TiO ₂ , Fe ₂ O ₃
Capital cost	A\$780m	A\$499m
Operating cost (/t ore)	A\$190.28/t	A\$158.46/t
Operating costs (LoM)	A\$3,461m	A\$2,884m
Revenue (LoM)	A\$5,379m	A\$5,379m
Cashflow (LoM)	A\$671m	\$A1,553m
IRR	13.1%	38.1%
NPV (inclusive of royalties, pre-tax)	A\$186m	A\$843m
Simple Payback	5.4 years	2.6 years

Table 2: Key assumptions

Life of Mine (LoM)	12.5 years (ramping down in Year 13)	
Annualised mining production	1.5 Mt/a (beneficiation feed)	
Product grade	V₂O₅ 98.5%	TiO₂ 95.0%
Average feed grade	V₂O₅ 0.56%	TiO₂ 10.2%
Overall recovery	V₂O₅ 70.3%	TiO₂ 62.4%
Product prices	V₂O₅ US\$15,000/t	TiO₂ US\$2,200/t
By-product prices	Fe₂O₃ US\$40/t ¹	FeSO₄.7H₂O US\$40/t ²
Average strip ratio (waste / ore tonne)	0.6	
Product produced (tonnes pa, avg)	V₂O₅ 5,750	TiO₂ Pigment 98,000
Total concentrates produced (LoM)	V₂O₅ 71.9 kt	TiO₂ 1,164 kt
Exchange rate A\$:US\$ (LoM)	0.75	
Discount rate	8%	

Notes:

1. The assumed iron oxide by-product price is aligned with the published 58% iron ore fines at the time of reporting. Actual testwork results to date have achieved up to 42% iron grade in final product.
2. Both Onshore and Offshore Base Cases assume no sales of Fe₂SO₄.7H₂O.

Medcalf Project

The Medcalf Project is a titanium and vanadium deposit located in the Lake Johnston area of Western Australia, approximately 470km east of Perth, and is situated on granted mining lease M63/656 (Figure 1).

The Company holds title to approximately 25km² of ground across the Medcalf Project comprising two exploration licences, three prospecting licences and the recently granted mining lease (Figure 2).

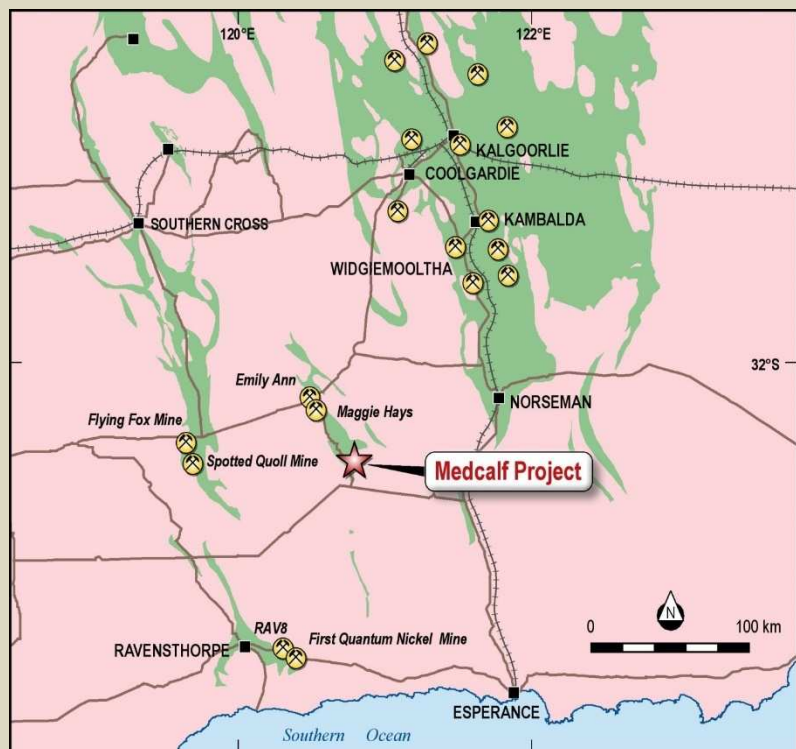


Figure 1: Medcalf Project location map

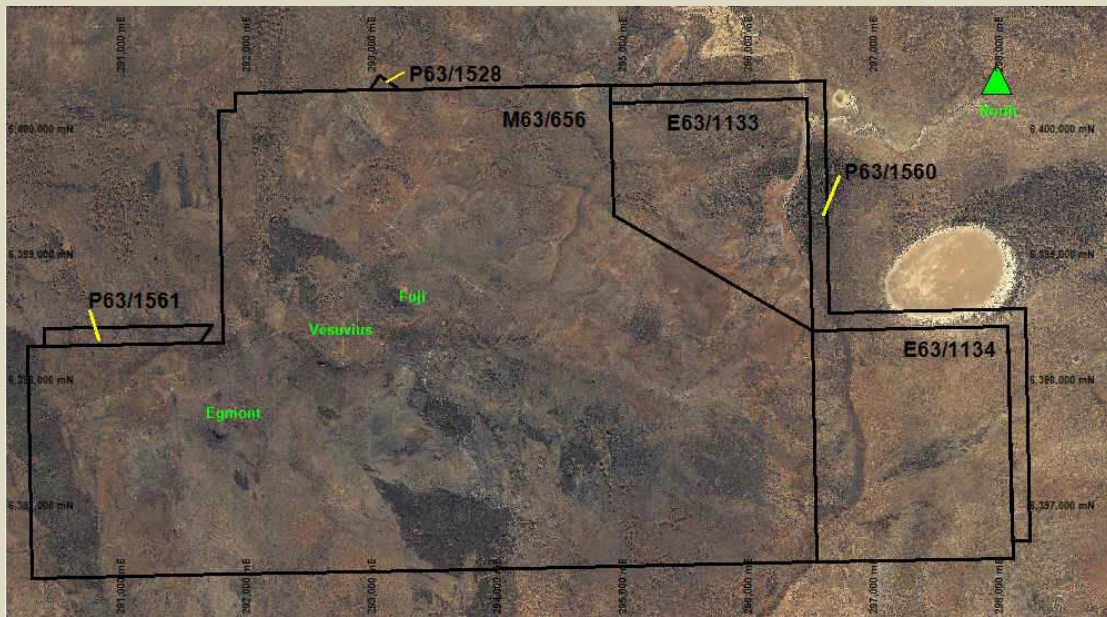


Figure 2: Medcalf Project granted tenements

The Medcalf Project is made up of three separate areas of vanadium and titanium mineralisation known as Vesuvius, Fuji and Egmont prospects which are approximately 2.5 km apart (Figure 3). The Medcalf Project is under explored whereby drill coverage is only 1.2 km² area of its 25 km² tenure. There is scope for both near mine and wider exploration. Audalia plans to continue exploration works at the Medcalf Project in order to discover more vanadium and titanium mineralisation and expand its current Mineral Resource. A number of potential high grade targets have been developed from geological mapping and geological sampling which remain to be tested.



Figure 3: Medcalf Project deposits

Geology

The Medcalf Project lies in the Archaean aged Lake Johnston greenstone belt in the Yilgarn Craton. This belt contains komatiite lava flows, subvolcanic intrusions, mafic volcanic rocks, felsic volcanic rocks, banded iron formation (BIF) and sedimentary rocks. The deposit is hosted by the Medcalf layered sill, which is a flat lying igneous body which has intruded parallel to the enclosing basalts.

A detailed explanation of geology, mineralisation and resource estimation methods at Medcalf Project were provided in the ASX release entitled 'Achieves upgrade to Indicated Resource at Medcalf Project' and dated 18 August 2014.

Mineral Resource Estimate

The Medcalf Project has a Mineral Resource of a total of **31.8 Mt @ 0.45% V₂O₅ and 8.4% TiO₂** which was calculated as shown below in Table 3 below.

Table 3: Medcalf Project Indicated and Inferred JORC (2012) Mineral Resource Estimate

Resource category	Tonnes (Mt)	V ₂ O ₅ (%)	TiO ₂ (%)	Cut-off V ₂ O ₅ (%)
Measured	-	-	-	-
Indicated	23.0	0.47	8.5	0.2
Inferred	8.8	0.40	8.1	0.2
Total	31.8	0.45	8.4	0.2

The information in Table 3 above is extracted from ASX release entitled 'Achieves upgrade to Indicated Resource at Medcalf Project' and dated 18 August 2014 and is available to view on www.asx.com.au, ASX: ACP. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant ASX release continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original ASX release.

Mining Study

The Company appointed Cube Consulting (**Cube**) to undertake the preliminary mining study for the PFS. The current Mineral Resource model and data developed by Ravensgate was used for the basis of the pit optimisations and preliminary pit designs and scheduling. The pit optimisations used all material resource classifications (indicated and inferred).

The pit optimisations were completed using processing costs and metallurgical recoveries as provided in the PFS. A mine schedule was generated from the optimisations with total material movements (ore and waste) and calculated metal grades on a diluted basis.

The mine study was based on parent blocks with dimensions of 20m x 20m x 2m with no sub-ceiling and estimated using ordinary kriging (OK) methodology. The resource block model was converted into a model suitable for use in open pit mine engineering functions such as open pit optimisation, design and production scheduling. Pit designs were then developed and three separate open pits identified. Figures 4 to 7 below show the final pit designs for the Vesuvius (Stage 1), Vesuvius (Stage 2), Fuji and Egmont deposits.

No geotechnical studies were undertaken during the PFS. Due to the shallow nature of the deposit as well as the ore body geometry (which results in very flat walls over the majority of the pit limits), Cube is of the opinion that details of the wall design are of minor consequence and that finalisation of the wall design can be deferred to the DFS without compromising the integrity of the PFS.

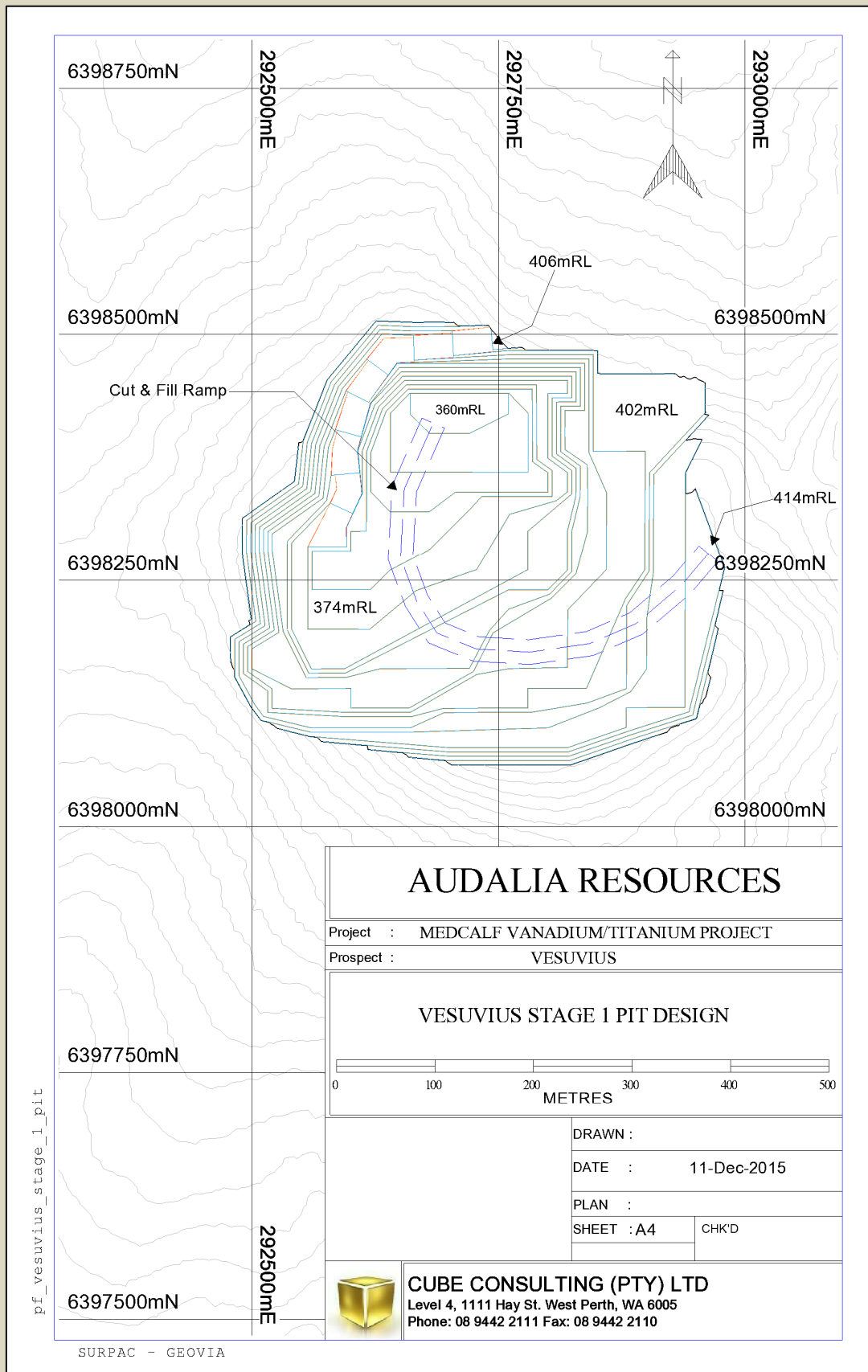


Figure 4: Vesuvius Stage 1 pit design

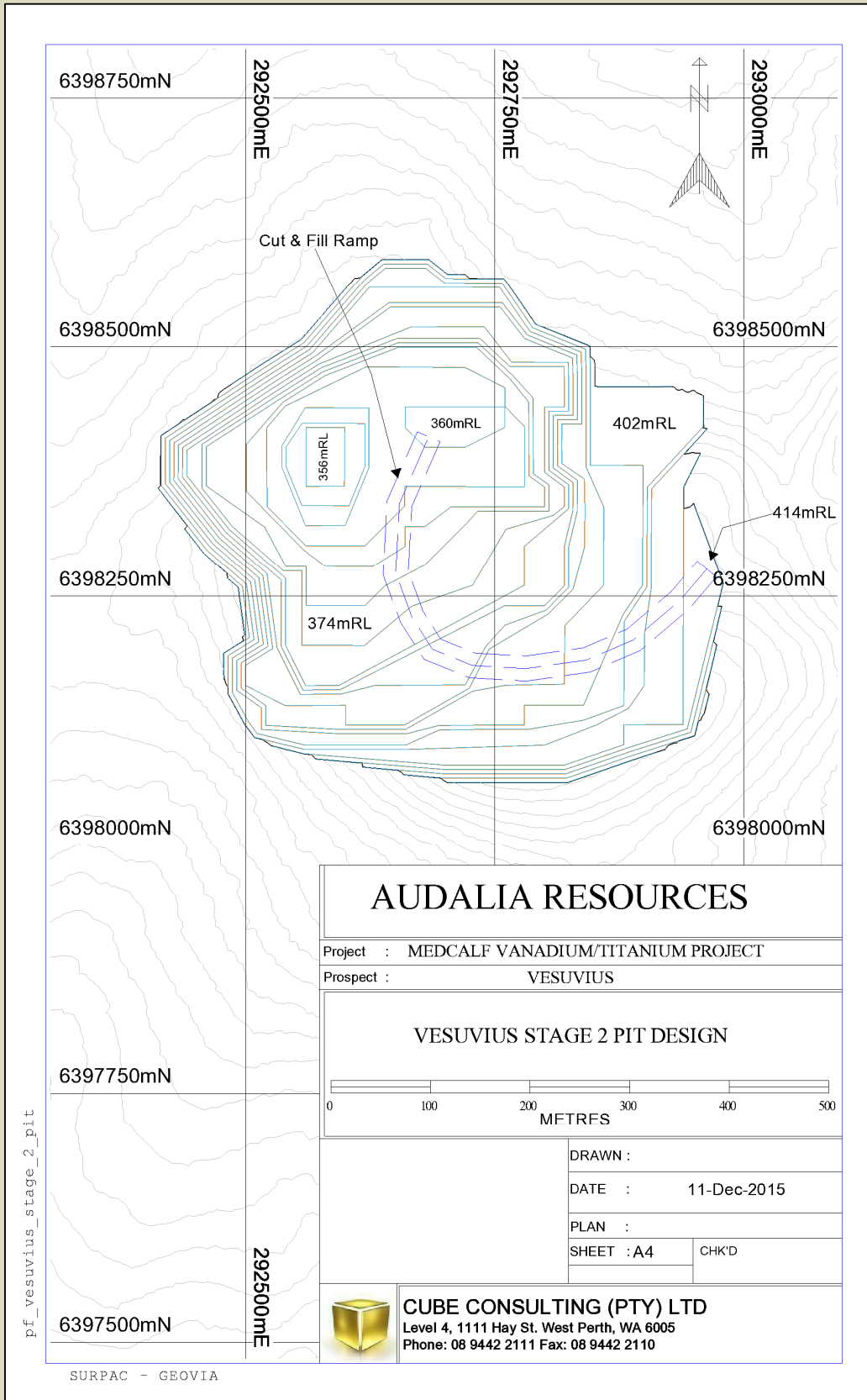


Figure 5: Vesuvius Stage 2 pit design

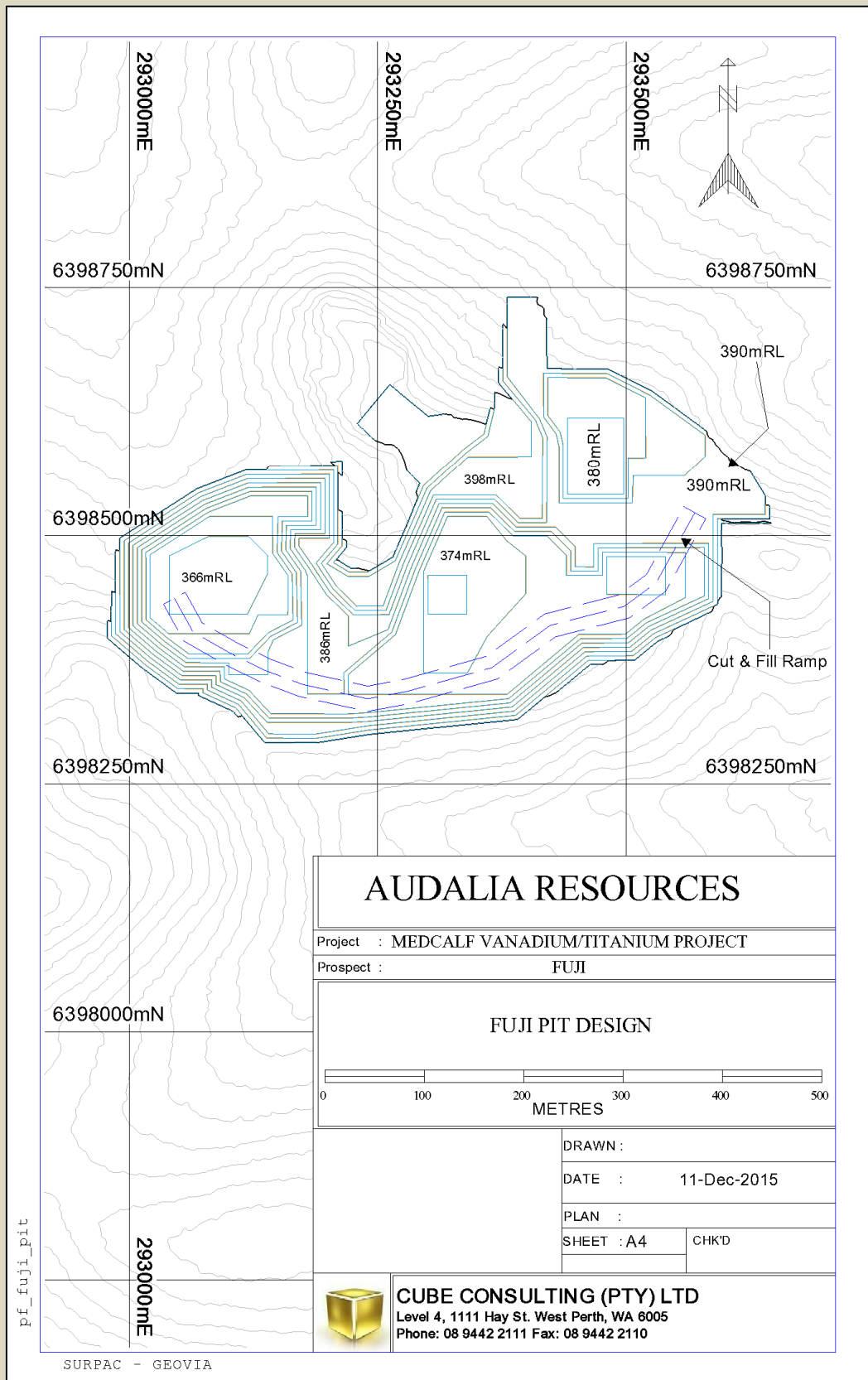


Figure 6: Fuji pit design

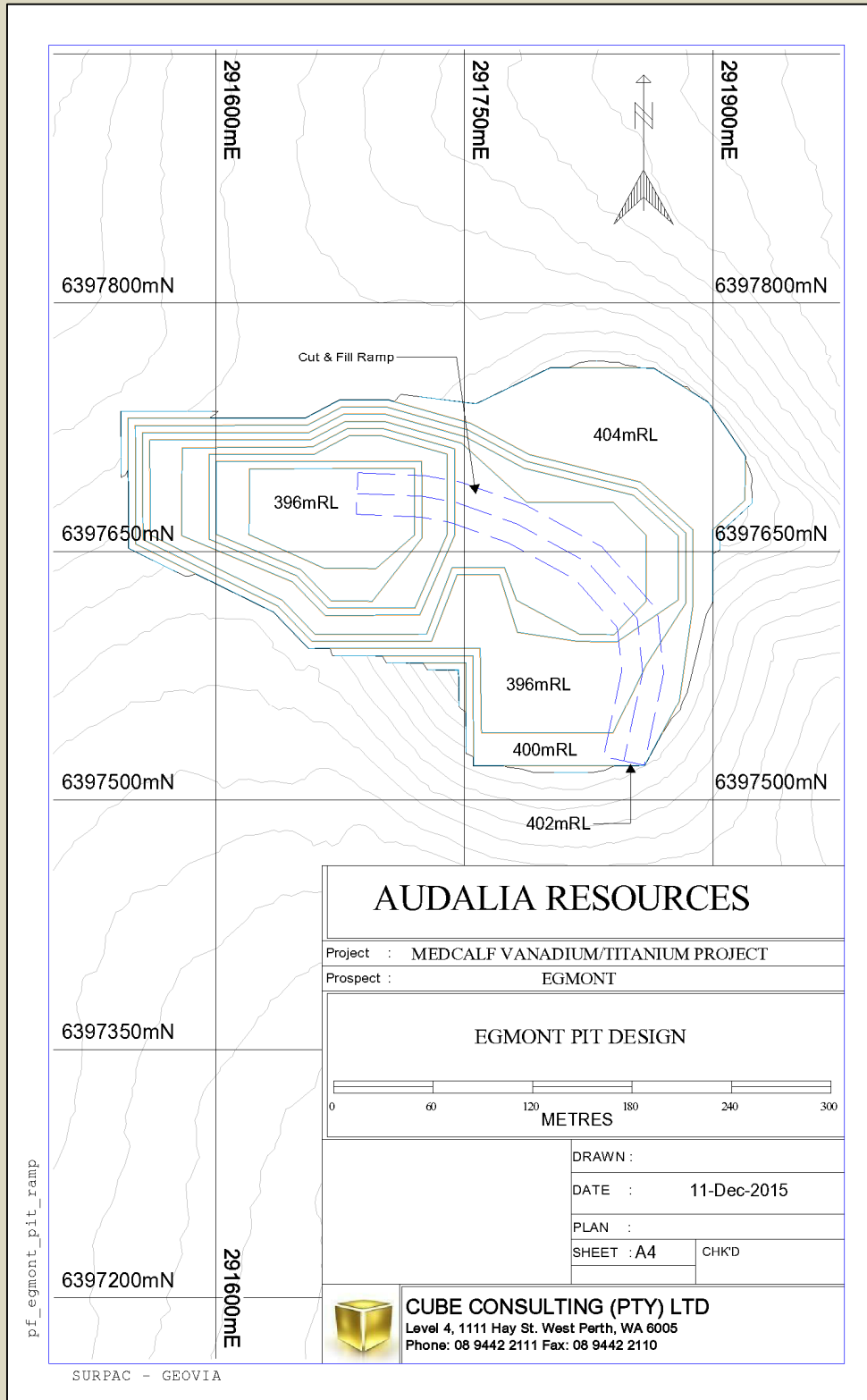


Figure 7: Egmont pit design

Following the completion of the pit designs, material inventory was reported for use in the production schedule using revised mining recovery parameters to determine cut-off grades. A summary of the pit design inventory is shown in Table 4 with Table 5 showing the pit inventory by resource classification.

Table 4: Pit design inventory

Pit	Feed Tonnes (t)	TiO ₂ Grade %	V ₂ O ₅ Grade %	Contained TiO ₂ (t)	Contained V ₂ O ₅ (t)	Waste Tonnes (t)	Total Tonnes (t)	Strip Ratio
Vesuvius	12,695,736	10.67	0.61	1,354,368	77,504	4,617,718	17,313,454	0.4
Fuji	3,854,218	8.30	0.41	319,789	15,767	723,186	4,577,404	0.2
Egmont	1,751,852	10.52	0.53	184,364	9,331	5,010,217	6,762,069	2.9
Total	18,301,806	10.15	0.56	1,858,521	102,602	10,351,121	28,652,927	0.6

Table 5: Pit Inventory by Resource Classification

	Feed Tonnes (t)	TiO ₂ Grade %	V ₂ O ₅ Grade %	Contained TiO ₂ Metal (t)	Contained V ₂ O ₅ Metal (t)
Indicated	13,778,960	10.26	0.58	1,413,757	79,983
Inferred	4,522,846	9.83	0.50	444,764	22,619
Total	18,301,806	10.15	0.56	1,858,521	102,602
<i>Inferred % of Total</i>	<i>25%</i>	<i>24%</i>	<i>22%</i>	<i>24%</i>	<i>22%</i>

A mining production schedule was completed using the optimisation pit shells and resultant pit designs. The mine schedule proposes that Vesuvius Stage 1 is mined first for approximately 8 years. Mining commences at Vesuvius Stage 2 in Year 7 and continues through to Year 13. The Egmont and Fuji deposits then supplement the later part of Vesuvius Stage 1 and continue through to Year 12.

This was purposefully done to defer waste stripping as long as practicable and in doing so, maximise project value. The Medcalf Project has a very low mine total strip ratio of 0.6 (waste: ore tonnes) and a strip ratio of 0.2 during the mining of Vesuvius Stage 1. Vesuvius is higher grade than the other deposits, containing 76% of the overall vanadium metal and 73% of the overall titanium metal in the Mineral Inventory.

An average of 1.85 Mt of material is mined in the first 7 years of operation, with a ramp up from Year 8 for an average of 3.6 Mt over the ensuing 3-year period. This mining schedule is shown in Figure 8 with the planned metal recovered shown in Figure 9.

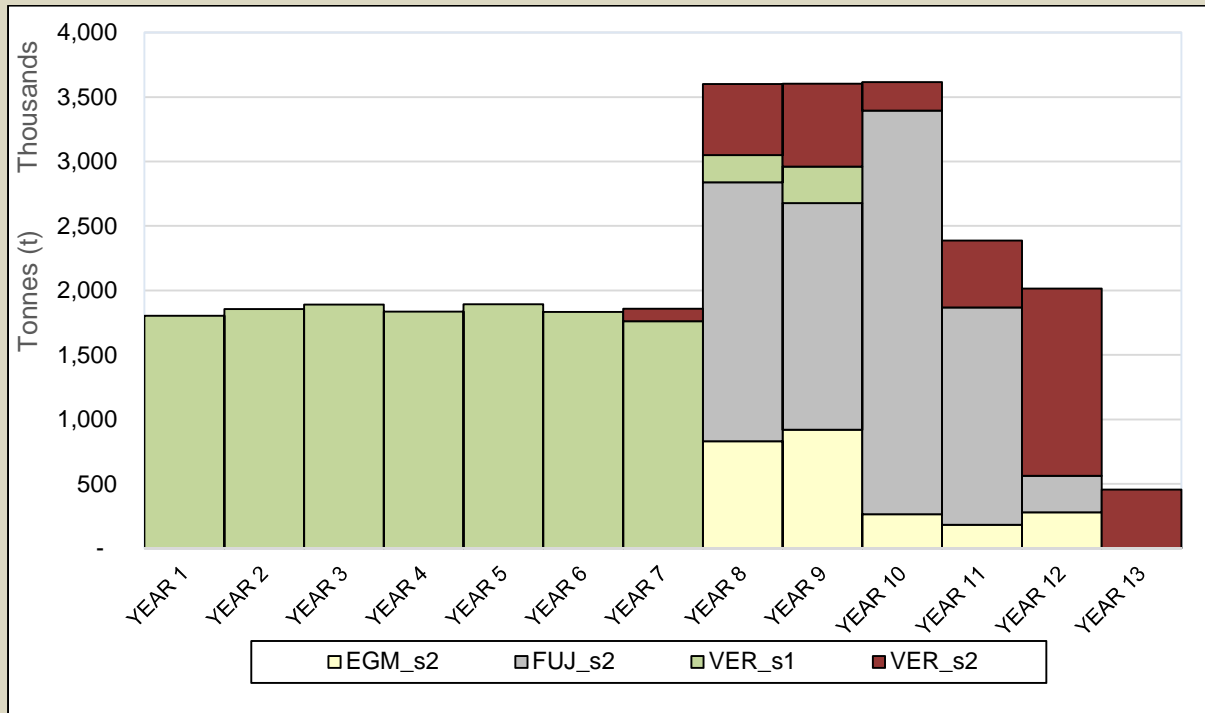


Figure 8: Total material movement by pit stage

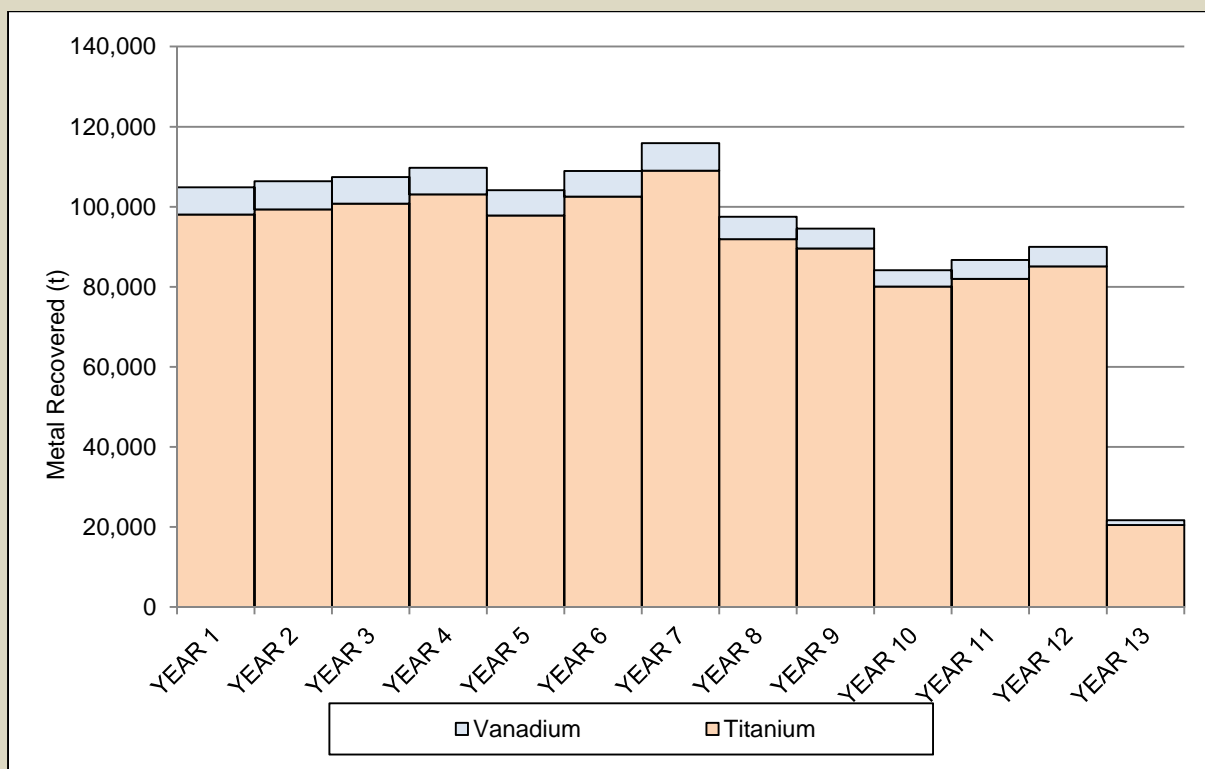


Figure 9: Metal recovered

All mineralisation at the Medcalf Project has been considered during the PFS. While Inferred Mineral Resource components are of insufficient confidence for application of technical and economic parameters to be used for detailed planning in a PFS, it should be noted that the study has identified a relatively long life of mine. The Company has completed design work on a drill programme to upgrade the existing Mineral Resource as part of the work identified towards the reporting of an Ore Reserve estimate in respect of the Medcalf Project and Audalia will be seeking approvals to conduct infill drilling to increase the confidence of the existing Mineral Resource Estimates.

Metallurgical Testwork

A number of historical metallurgical testwork programs have been undertaken for the Medcalf Project. Testing has been undertaken by a number of reputable and suitably experienced metallurgical testwork facilities including Bureau Veritas in Perth, Mintek laboratories in South Africa and ALS Ammtec, AML and Simulus Laboratories in Perth. This work has been under the supervision of a number of consultants.

The earlier testing showed that the main mineralogy of the oxidised Medcalf ore is dominated by hematite, goethite and kaolinite with ilmenite, and minor diasporite, gibbsite, anatase, rutile, magnetite, quartz and mica. Both the vanadium and the titanium are finely disseminated. The vanadium is present as microscopic and submicroscopic constituents of hematite and goethite, primarily absorbed into haematite lattice. Titanium is present primarily within the mineral ilmenite and to a lesser extent rutile. They cannot be completely separated from gangue minerals but the most recent results have demonstrated that gravity testing can be used to upgrade the valuable minerals and reject gangue materials. This work also showed the ore to be soft and of low abrasivity in terms of crushing and grinding behaviour. Historically, poor vanadium extraction performance resulted from conventional roast leach process testing. Sulphuric acid leaching showed promising vanadium extraction results and drove the decision to progress the flowsheet development down this path.

Simulus designed a PFS metallurgical testwork programme following on from this previous work with increased emphasis on the recovery of V_2O_5 and TiO_2 as separate products. The PFS programme included comminution and gravity testwork for the beneficiation circuit and an extensive hydrometallurgical testwork programme on the gravity testwork products. Simulus conducted the hydrometallurgical testwork in parallel with the PFS. The testwork results were comparable to or reflective of the PFS assumptions for the following process steps:

- + Gravity beneficiation;
- + Vanadium leach;
- + Partial neutralisation;
- + Titanium bake-leach;
- + Titanium hydrolysis and calcination; and
- + Copperas production.

Interim testwork programmes have been designed to further optimise the flowsheet and de-risk the Medcalf Project prior to commencing the DFS. Variability testing will be conducted once the flowsheet has been finalised and prior to advancing to pilot testing of the final flowsheet during the DFS.

Metallurgical Processing

The proposed Medcalf Project processing plant comprises a beneficiation plant and the main process plant. Under the Base Case scenario, it is proposed to transport the run of mine (**ROM**) ore from the mine along a haul road to the processing plant and associated infrastructure to be located south of Norseman in Western Australia. The Offshore Base Case scenario assumes that the main processing plant would be located overseas. The concentrate would then be transported from the beneficiation plant to the main processing plant offshore.

The following process method was adopted for the Medcalf Project. The ROM ore will be upgraded to a concentrate by crushing, grinding and gravity recovery before undergoing vanadium leaching, solvent extraction, precipitation and calcination to produce a final vanadium pentoxide product (V_2O_5). The vanadium leach residue will undergo an acid bake and water leach to extract titanium which can then be precipitated and calcined before undergoing pigmentation to produce a final titanium dioxide pigment product (TiO_2). The ferrous sulphate heptahydrate (copperas) by-product ($FeSO_4 \cdot 7H_2O$) is produced between the titanium leach and titanium hydrolysis step by evaporation and centrifuging. The iron residue (iron oxide) by-product (Fe_2O_3) is generated during iron hydrolysis of the vanadium solvent extraction raffinate.

An isometric view of the proposed processing facility is shown below in Figure 10.

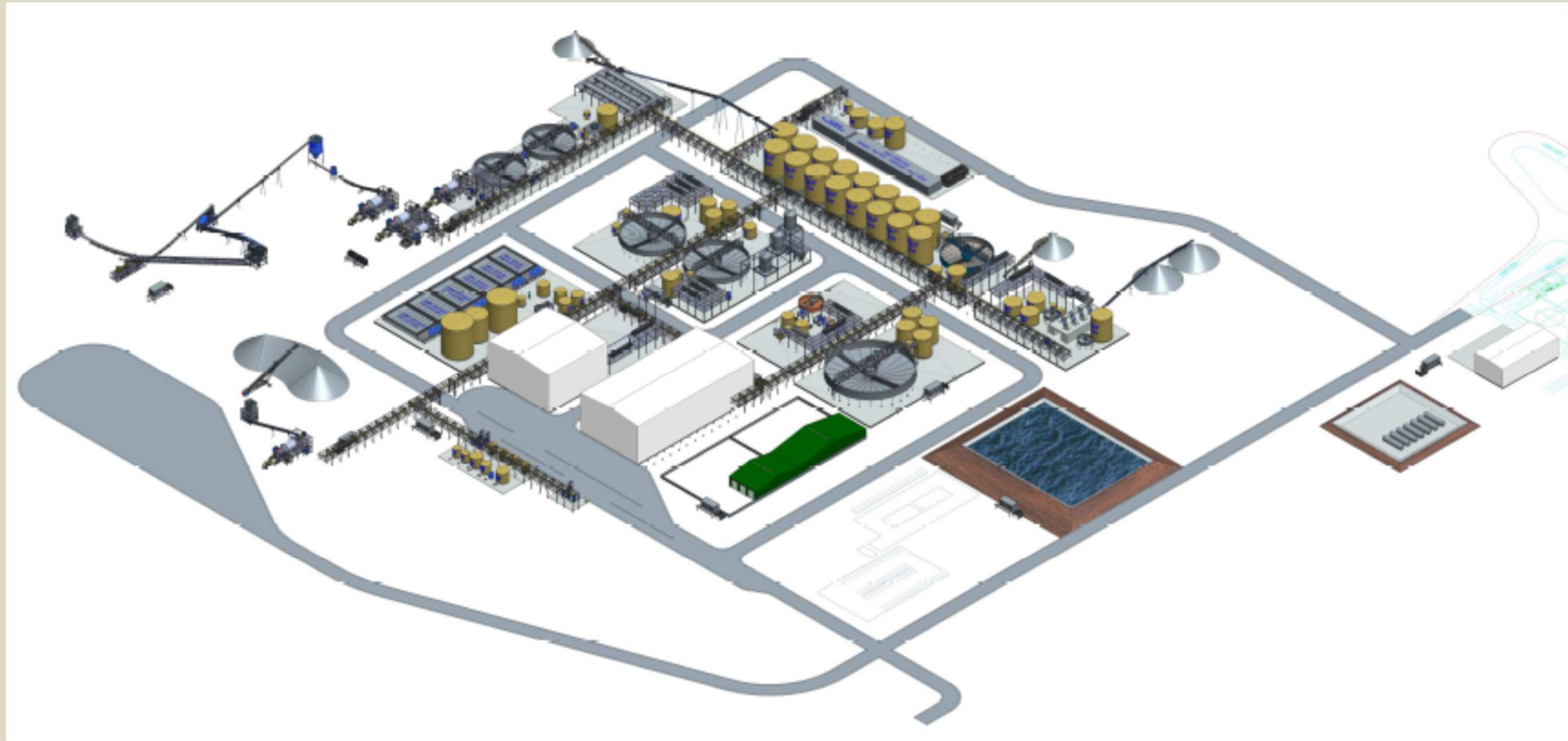


Figure 10: Isometric view of process plant

The key process design criteria used for the Medcalf Project is provided below in Table 6. The process design criteria are based on metallurgical test work completed, equivalent testwork in similar ores, industry norms, solubility modelling, process simulation and assumptions where necessary.

Table 6: Key process design criteria

Parameter	Unit	Value	Source
Project name	-	Medcalf Project	Audalia
Project location	-	Norseman WA	Audalia
Location conditions	-	Semi-arid	Botanica/ Ravensgate
Ore type	-	Pyroxenitic vanadium-titanium ore	Ravensgate
Throughput (total)	Mt/a	1.5	Cube mine plan
Throughput (hydrometallurgical plant)	Mt/a	0.83	Simulus process simulation
Feed grade, oxide equivalent	%	10.2% TiO ₂ , 0.56% V ₂ O ₅	Cube mine plan
Vanadium product grade (as V ₂ O ₅)	%	98.5	Assumed/ industry norm
Vanadium production (as V ₂ O ₅)	t/a	5,750	Simulus process simulation
Pigment grade (as TiO ₂)	%	95.0	Assumed/ industry norm
Pigment production (at 95% TiO ₂)	t/a	98,000	Simulus process simulation
Iron oxide (at 58% Fe)	t/a	381,000	Simulus process simulation

Further testwork is planned to implement improved operating strategies and achieve target product grades prior to commencement of the DFS.

Capital and Operating Costs Estimate

Capital Cost Estimate

Simulus and associated Audalia consultants developed a capital cost estimate to provide substantiated costs for the mine, process plant and infrastructure for the proposed project. Capital allowances have been made for mining infrastructure, tailings storage facility, evaporation pond, haul road, airport, administration and accommodation facilities, IT and communications, waste water treatment and borefield.

The estimated capital cost to building the processing plant and infrastructure is A\$780 million. Capital breakdown by plant and area is presented below.

Table 7: Medcalf Project capital cost summary

Description	Capital cost (A\$m)
Mining infrastructure	4
Beneficiation and processing plant	655
Processing plant infrastructure	71
Project infrastructure	50
Total	780

This capital cost estimate accuracy is at $\pm 25\%$, as per the Association of Cost Engineers UK Class III estimate. The capital cost estimate excludes any contingency.

Simulus has also made allowance in the financial model for sustaining capital costs to support the mine schedule and replace equipment as it reaches maximum service life. For the purposes of the PFS, Simulus has based the cost as a factor of the installed mechanical equipment cost over the design life of the process plant. The same proportion of the overall capital cost in both the Base Case and Offshore Base Case has been used to estimate the sustaining capital cost of the project. For the Base Case, this amount is A\$6.5m per annum.

Operating Costs

Simulus and associated Audalia consultants have developed the operating costs for the Medcalf Project for each key area: geology, mining, processing, general and administrative, ore haulage and product logistics (transport and shipping). The Medcalf Project total operating cost is A\$190.28/t of feed ore. The breakdown into key areas is provided below in Table 8. All costs are reported in terms of ROM ore tonnes. It does not include a contingency.

Table 8: Medcalf Project operating costs summary

Operating cost description	Cost (A\$/t)
Mining & Geology	7.13
Ore haulage and haul road maintenance	8.99
Processing & Maintenance	156.01
General & Administrative	4.22
Borefield cost	0.69
Products Transport, Port & Shipping	13.24
Total	190.28

Project Financial Analysis

Exchange Rate

Audalia has used the A\$/US\$ exchange rate on a flat LoM basis. The spot rate A\$1.00: US\$0.75 was used for the purposes of the PFS.

It is noted that any further softening of the Australian Dollar will improve the Medcalf Project economics. During the DFS a formal currency forecast will be obtained for the LoM to improve confidence in economic modelling.

Metal Prices

Audalia has used metal prices for each of the products and by-products as set out in Table 9 below.

Table 9: Metal prices

Product price	V₂O₅ US\$15,000/t	TiO₂ Pigment US\$2,200/t
By-product price	Fe₂O₃ US\$40/t	FeSO₄.7H₂O US\$40/t

A flat pricing profile has been adopted for the LoM at typical current pricing. This is considered to be a conservative assumption as the long term outlook is expected to increase. The ongoing volatility of the resource market and Chinese economy decreases the confidence in long-range forecasts in product pricing. It is therefore not considered appropriate to engage specialist analysts at this stage.

Further market analysis is required to confirm the most viable market for the iron products. A conservative price has been assumed for the PFS.

Project Economic Analysis

Simulus performed an economic and financial review of the Medcalf Project using a range of exchange rates and metal price scenarios and developed a discounted cash flow model.

Financial analysis of the Medcalf Project is based on a “100% equity” basis and the cost of capital is ignored. All results are inclusive of royalties payable in respect of mining at the Medcalf Project. Results are on a pre-tax basis in A\$. Financial modelling is inclusive of all capital items including mining infrastructure, processing plant, project infrastructure and LoM sustaining capital.

Table 10 shows the variance in IRR, NPV and project payback period for the Base Case and Offshore Base Case scenarios.

Table 10: Financial return of PFS scenarios

	Base Case	Offshore Base Case
IRR	13.1	38.1
NPV (inclusive of royalties, pre-tax)	A\$186m	A\$843m
Simple Payback	5.4 years	2.6 years

The Offshore Base Case analysis is a basic analysis of the benefits of offshore processing (not using the ±25% methodology) and is open to change when the costs and benefits are more thoroughly qualified. The positive results suggest strongly that a more thorough assessment of the Offshore Base Case during the DFS is well justified.

Market Analysis

Titanium oxide pigment (TiO₂)

It is anticipated that the Medcalf Project will make a range of approximately six TiO₂ pigment products initially targeting the dominant uses of paints (60% of global TiO₂ pigment consumption), plastics (~25%) and possibly paper (~8%). The final product mix will be market dependent and adjusted closer to final implementation of the Medcalf Project.

Total Project output of ~98,000 tpa of pigment (93,100 tpa contained TiO₂) will comprise about 1.6% of the current global market - approximately 6 Mt/a – which has a 35-year compound annual growth rate (CAGR) of 3.2% (Figure 11).

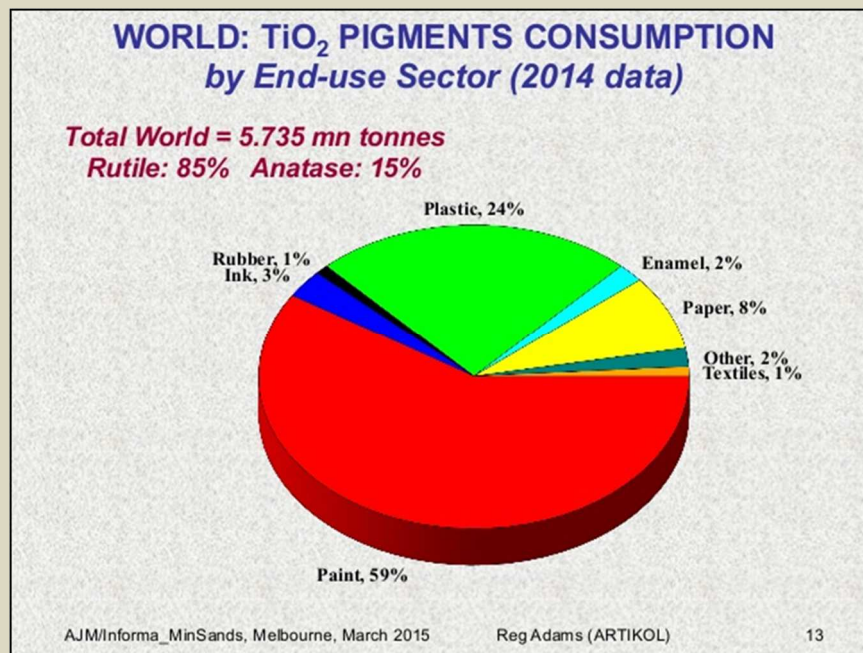


Figure 11: Global TiO₂ pigment market classification by end use

The assumed average sale price for pigment products is US\$2,200/t over the LoM. This is a conservative value in the light of publicly available historical and forecast price data which includes a number of published prices from private pigment market consultants, pricing provided by specialist TiO₂ pigment analysts and benchmarking against recently published assumptions from other similar TiO₂ pigment projects.

Historical trends show price rises in spite of the fact that there has been a long term excess of capacity over demand. This, and similar evidence of a disconnect between price and supply-demand balance, is evidence that TiO₂ is not a uniform commodity, but strongly influenced by other factors such as imbalances in sub-markets, product quality, and supplier customer relationships including the quality of customer service (Figure 12).

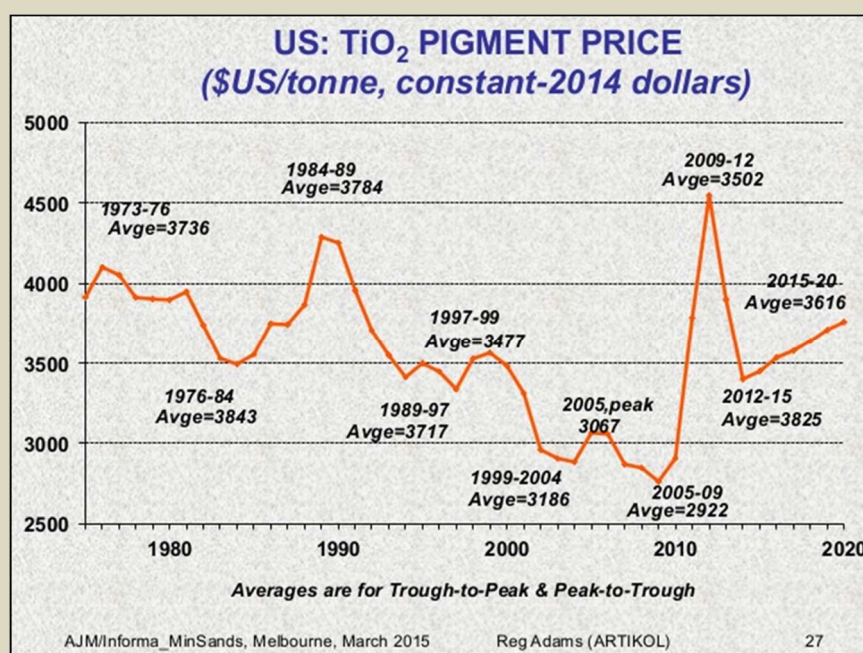


Figure 12: US TiO₂ pigment price history and projection in 2014 dollars

Vanadium (V₂O₅)

The target output for the Medcalf Project is ~5,750 t/a of 98.5% vanadium pentoxide (V₂O₅), the equivalent of 3,258 tpa of contained vanadium. This is approximately 3.4% of the ~95,000 t/a (contained vanadium) global market, and slightly more than the historical long term CAGR of 3.5%. Vanadium pentoxide is suitable for supply to the steel alloy production market which makes up 91% of total global vanadium demand.

Higher purity V₂O₅ products required for some specialty applications in the remaining 9% of global demand attract premium prices which are two to five times the base-grade price. These markets may provide profitable opportunities for a portion of Medcalf production in the medium to long term, but these applications are low volume so Medcalf production initially targets the steel alloys markets (Figure 13).

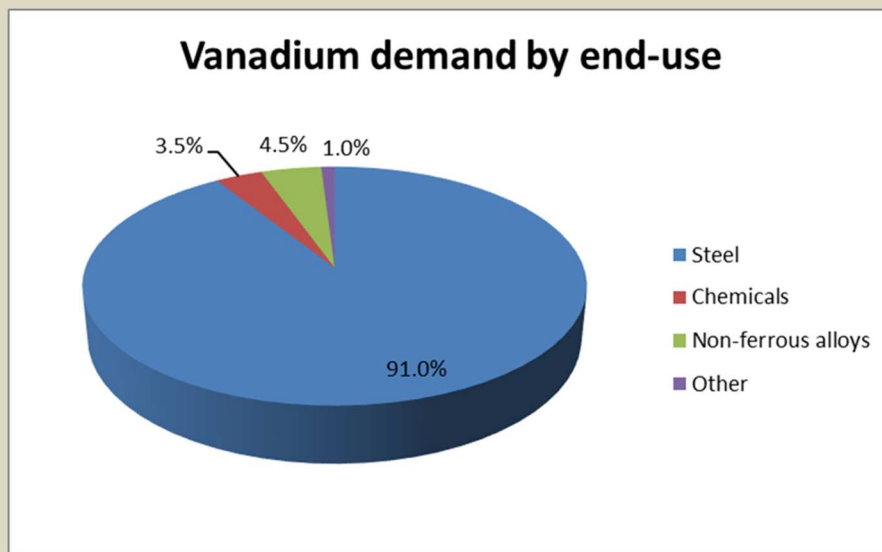


Figure 13: Vanadium demand by end-use (2014)

Market forecasts reflect a favourable outlook for V₂O₅ demand. From 2006 to 2014 demand increased by a CAGR of 8.0%, relative to 3.6% CAGR in crude steel production over the same period. This is explained by increasing demand for higher grade steel, notably in China.

There is also a prospect of a ramp-up in demand for vanadium redox batteries which were reported to be responsible for 1% of demand in one 2012 source. It is anticipated that vanadium demand for Redox batteries will increase as technical improvements and commercialisation of the batteries improves. Vanadium Redox Batteries (VRBs) have several advantages over other rechargeable battery systems including: suitability for grid power systems, scalability, 100% dischargeable, superior charge retention, circa 20-year lifespan, suited to variable supply power sources (e.g. solar and wind). The technology is still considered to be in development however a number of large scale commercialisation projects have recently been completed or are under construction.

Historical price, consensus forecasts and benchmarking against other projects has been used to develop a V₂O₅ price for pit optimisation and Project economic modelling. The assumed price for V₂O₅ used in the PFS revenue estimates is USD 15,000/t for the LoM.

Vanadium prices have been following a slight downward trend since 2010 due to a combination of oversupply and low demand, particularly in China. This was further impacted by a material fall in 2015 in the thin vanadium spot price, which is key in determining contract pricing.

International metals consultancy TTP Squared, Inc. forecasts steel-specific vanadium consumption will grow at a CAGR of 4.8% over the period 2010 to 2025, with over 80% of growth occurring in Brazil, Russia, India and China.

Market research companies suggest that a recovery in prices is likely to occur in the near future from the current low to upward of US\$15,000/t to where prices were in 2004 to 2009.

Iron co-products

The potential to produce a marketable iron oxide (Fe_2O_3) product from the hydrolysis solids stream was also considered in the PFS. The Medcalf Project will produce ~533,000t/a of iron rich residue containing the equivalent of ~381,000t/a Fe_2O_3 at 58% Fe. For the PFS, a price of US\$40/t has been assumed for economic modelling in the PFS.

The Medcalf Project will also produce ~920,000t/a of ferrous iron sulphate (copperas) ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$) from the spent acid. This potential product stream may be sold as a comparatively low value co-product but its sale will offset a portion of the operating costs. Audalia has taken a conservative position to the sale assumption of the copperas product and has not included its sale in the PFS.

Copperas has a variety of applications including water treatment, animal feed, fertiliser supplements, cement additive, for cyanide destruction and as a dye. Audalia's preliminary market research suggests that the copperas can be sold into the market at ~US\$40/t.

Audalia plans to further explore the quality of the iron products available from the process flowsheet, the iron market and pricing during the DFS to confirm saleability and pricing assumptions.

Legal, Tenure and Approvals

A review of governmental department and other key stakeholders, secondary approval requirements and other compliance requirements was completed and considered at a PFS level of study. The Project is currently compliant with environmental, legal and permitting requirements.

The Company will require additional tenure for the development of the Medcalf Project for the processing plant, haul road and other infrastructure required for the operations. The PFS has identified the regulatory approvals and permits required for the ongoing development of the Medcalf Project.

Heritage and Native Title

The Medcalf Project is situated on land that is subject to a determination of native title in favour of the Ngadju People (*Graham on behalf of the Ngadju People v State of Western Australia* [2014] FCA 1247). Archaeological and ethnographic heritage surveys conducted in September 2015 cleared the Medcalf Project mining lease for development.

In November 2015, the Audalia signed an agreement with the Ngadju People, the sole native title holders in the area encompassing the Medcalf Project, in relation to heritage, the grant of project tenure, development of the Medcalf Project and conduct of the operations. The terms of the agreement ensure that the Ngadju People will share in the benefits of the project via a suite of economic, educational, vocational, recreational, environmental and cultural initiatives.

Audalia is committed to consulting with the Ngadju People about the development of the Medcalf Project and conduct of the operations. Aboriginal heritage surveys will need to be conducted over the haul road, processing plant and any other future tenure located within the determination area of the Ngadju People in accordance with the agreement.

Environmental

Botanica Consulting has completed a Level 2 flora and vegetation survey and targeted flora searches over the Medcalf Project area during the period from June 2013 to October 2015. A multi-season Level 2 fauna survey was completed over the Medcalf Project area in spring 2013 and autumn 2014.

Botanica Consulting has assisted the Company with developing, maintaining and administering Audalia's Conservation Management Plan. The Company is committed to consulting with the Department of Parks and Wildlife to ensure the document complies with departmental standards.

Flora and fauna surveys will need to be conducted over the haul road, processing plant and any other future tenure required for the development of the Medcalf Project. The Company will commence seeking environmental approvals and permits in the lead up to the DFS.

Project Development Schedule

The PFS supports the potential for a viable titanium-vanadium project with iron by-products using conservative key assumptions. The PFS also considered a number of alternate project options and identified a significant improvement in project economics in the Offshore Base Case scenario. However, the Offshore Base Case scenario used preliminary cost estimates and additional work is required during the DFS to increase the level of confidence.

In addition, the PFS identified that a number of other options are available to the Company to improve the economic outcomes of the Medcalf Project and reduce the environmental impact of the operations. Interim metallurgical testwork will be advanced to further optimise and de-risk the Medcalf Project ahead of the DFS. The investigation of other alternatives will form part of the DFS.

The Company has designed a suitable drilling programme to upgrade the existing Mineral Resource as part of the work identified towards the reporting of an Ore Reserve estimate and will be seeking approvals to conduct infill drilling to increase the confidence of the existing Mineral Resource Estimates. Audalia will also design further exploration work to explore for more vanadium and titanium mineralisation from the potential high grade targets which have been identified.

The Company anticipates commencing the DFS in the second half of 2016. In the interim, Audalia will commence seeking regulatory approvals and permits and additional tenure required for the development of the Medcalf Project.

The Company is also pleased to announce that it has received an Australian Government R&D tax rebate of approximately \$600,000 for the year ended 30 June 2015. The funds from the R&D tax rebate will supplement the Company's existing cash reserves and be used to advance the interim work.

Authorised by:

Brent Butler
CEO and Executive Director

Cautionary Statement

The PFS referred to in the report is based on low level technical and economic assessments, and is 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 PFS will be realised. There is a low level of geological confidence associated with the Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources. The Company advises the PFS results reflected in this announcement are preliminary in nature as conclusions are partly drawn from Inferred Resources (which comprise approximately 25% of the total Life of Mine pit design inventory). The PFS outputs contained in the report relate to 100% of the mine. The Company has concluded it has a reasonable basis for providing the forward looking statements included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and in particular the appendix headed "Forward Looking and Cautionary Statements".

Competent Persons' Statements

The information in this announcement relates to the Exploration Results for the Medcalf Project Resource Estimate, Resource Database, Geology and Bulk densities are based on information compiled by Mr Brent Butler, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Butler has 32 years' experience as a geologist and is CEO and Executive Director of Audalia. Mr Butler has sufficient experience which is 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 Reporting of Exploration results, Mineral Resources and Ore Reserves' (JORC Code). Mr Butler consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in the PFS report that relates to the Medcalf pit optimisation, pit design and production scheduling is based on, and fairly represents, information compiled by Mr Quinton de Klerk, who is an employee of Cube Consulting. Mr de Klerk is a Fellow of The Australasian Institute of Mining and Metallurgy and has over 20 years' experience as a mining engineer. Mr de Klerk has sufficient experience relevant to the 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 Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr de Klerk 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 relates to Process Design Criteria and associated mass balance is based on information compiled by Mr Simon Walsh who is an employee of Simulus Pty Ltd. Mr Walsh is a Member of the Australian Institute of Mining and Metallurgy and has over 20 years' experience as a metallurgist. The Process Design Criteria were derived from an evaluation of the Medcalf Project metallurgical testwork completed by Allied Mineral Laboratories, KeyPointE and Simulus between 2015 and 2016. Mr Walsh was a consultant to Audalia during the PFS. Mr Walsh has sufficient experience, which is 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 JORC Code. Mr Walsh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements and Cautionary Statements

Some statements in this summary regarding estimates or future events are forward-looking statements. They include indications of and guidance on, future earnings, cash flow, costs and financial performance. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such

forward-looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain mine licences, permits and other regulatory approvals required in connection with mining and processing operations, competition for among other things, capital, acquisitions of reserves, undeveloped lands and skilled personnel; incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rates; currency and interest rate fluctuations; various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions; the demand for and availability of transportation services; the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward-looking statements will prove to be correct.

Statements regarding plans with respect to the Company's mineral properties may contain forward-looking statements. Statements in relation to future matters can only be made where the Company has a reasonable basis for making those statements.