

Tivani Project – Investor Presentation



May 2024

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This presentation uses the terms "Measured", "Indicated" and "Inferred" Resources as defined in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects. United States readers are advised that while such terms are recognized and required by Canadian securities laws, the United States Securities and Exchange Commission does not recognize them. Under United States standards, mineralization may not be classified as a "Reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve calculation is made. United States readers are cautioned not to assume that all or any part of the mineral deposits in these categories will ever be converted into reserves. In addition, "Inferred Resources" have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an Inferred Resource will ever be upgraded to a higher category. United States readers are also cautioned not to assume that all or any part of an Inferred Resource will ever be upgraded to a higher category. United States readers are also cautioned not to assume that all or any part of an Inferred Resource will ever be upgraded to a higher category. United States readers are also cautioned not to assume that all or any part of an Inferred Resource exists, or is economically or legally mineable.



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Opportunity Overview

Transaction Summary

Offering	• US\$12.0M convertible debt and/or equity, and/or otherwise a mutually agreed financial structure
Pre-Money Price per Share	• US\$0.1200
In-Case of Equity Financing	In exchange for US\$12M, 10% Equity of Ferrox Holdings Ltd. shares
Shares I/O	 950,000,000 Fully Diluted 1,200,000,000 shares (Pre-financing of US \$12.0M)
Project After-Tax Free Cash Flows	 In excess of US\$75M per year from Projects 1A¹,1B, 2, 3 and 4 within 2-3 years IRR: 233.1%%. NPV: US \$367.3 Million (@ 10% discount rate)
Outstanding Debt & Accounts Payable	US\$ 9.59 million (Post-conversion of existing convertible debt into equity)
Current Market Capitalization	• US \$114,000,000
Public Listing	• Expected to be listed on a major exchange (TSX, LSE, Nasdaq, or ASX) within 12-24 months, post financing
Maximum Dilution	• 15-25%



Key Highlights (I/III)



Corporate Structure

- British Virgin Islands (BVI) holding company
- South African subsidiary holds 64% of the project
- Black economic empowerment: 26% +10%



Team

- Offshore owners' team
- Experienced project team based in South Africa that includes geologist, mining engineers, process engineers, legal and business administration



Host Country & Location

South Africa



Mining

- Open pit mining
- Project 1B: RoM up-to 360,000 tpa.
- · Life of mine: Minimum 20 years with expansive growth to 70 years





Key Highlights (II/III)



Processing

- Ore Processing includes concentration via crush, wet ball milling, density mass separation, magnetic separation
- Thermite smelting of Ilmenite to produce Ferro-Titanium 70%
- Direct Reduction Injection Kiln converts Magnetite Concentrate to 95% Pig Iron and 85% Titanium Slag



Infrastructure

- Electricity 3 MW capacity Private Power Systems (Co-Generation Diesel)
- Truck transportation initially later supplemented with railway siding to be completed just 16 Km from Tivani Site



Licenses Secured

- Mining Right received (Dec 2013)
- Water Licence (IWULA) received (Mar 2016)
- EIA Complete
- Social & Labour Plan Complete
- Land Lease in place
- Environmental Permitting in place of Nkowankowa factory
- Rehabilitation Bond in place







Wetscrubber Stack moved into new position

FERROX

Key Highlights (III/III)

Ö	Offtake Commitments with Blue Chip Corporates	 Valinger Holdings Pte Limited - 120,000 Mt of Ilmenite concentrate per annum for 5 years Thyssenkrupp AG of Germany - Fero Titanium - 70% 300 Mt per annum for 2 years Sinosteel Conglomerate of China - 240,000 Mt up to 700,000 of Magnetite concentrate per annum for 5 years Ongoing dialogue with additional off-takers cover 100% of remaining output capacity at sites 1A & 1B
A)	ESG Leadership	 Non-toxic emissions and no carbon based fuel used smelting V2O5 credits, opportunity for Vanadium Redox Flow batteries M11 & M12: High Grade P2O5 Seams for fertilizer Social & skills development program under the SLP Clean water drinking supply for the local community Opportunity for local employment and technical skills development
	Exploration	 5 exploration campaigns since 1991 30 km drilling data, seismic surveys, 12 trenches, bulk sample Competent Person Report in place: NI 43 – 101 420 drill holes with over 31,523 meters of stored core Up-to US\$70 million spent over a period of 20+ years
	Logistics	 Transport of RoM and Ilmenite and Magnetite mineral concentrate to facilities(s) in Harties and Nkowankowa and Port at Maputo Negotiations ongoing for rail with Transnet Rail
	Available Documentation	 Competent Person Report NI 43-101 Concept Study Studies and test-work conducted on mining, mineral processing, mine infrastructure, smelting Business case Financial Model & financial statements Tivani Rooiwater Project Technical & Legal Due Diligence reports
	Long-Term Upside	 Project 2: Doubling production by adding an additional concentrator Project 3: Phosphates Project to produce mono and/or di-ammonium fertilizer leveraging stock-piles of Seams M11 &12 from Project 1B wasterock Project 4: Adding smelting magnetite to produce Vanadium Pentoxide & Ferro-vanadium Project 5: Adding a hydro-metallurgical plant to produce pure 99% Titanium dioxide pigment

Corporate Structure

Authorized Shares: Unlimited Issued & Outstanding: 950,000,000 Fully Diluted: 1,200,000,000 Auditors: PJP & Associates

About Tivani

Project Overview

- World class titanium project with large iron, vanadium and phosphate opportunities in Limpopo, South Africa
- Mining Right received from the Department of Mineral Resources of South Africa on December 11, 2013
- Large existing mineral ore body with NI 43-101 compliant resource of 471 million tonnes of titaniferous magnetite over the Tivani Project (13 square km)
- Drilled 420 holes totaling 31,523 meters of stored core
- Existing road, rail and port infrastructure, water resources, and available power grid to support near term and long term mine plans. Power will be supported by backup generators
- Up-to US\$70 million spent to-date and recognized on the balance sheet as "exploration expenditure" under non-current assets

Location

Tivani Project

- Incorporated in 2006, Ferrox Holdings Ltd. ("Ferrox") is a British Virgin Island ("BVI") company currently developing the mining and production of titanium, iron and vanadium products, through its world-class titanium ilmenite ore mining deposits in South Africa
- Ferrox owns the Tivani Mining Deposit ("Tivani Deposit" or the "Deposit", "Tivani Project"), its flagship asset with significant existing work and development done to-date, located in the mining-friendly Limpopo Province of South Africa
- The Tivani Project is favourably located in an area well known for its mining and smelting operations, and is 450 km from Johannesburg, 420 km from the nearest deep-water port, which is in Maputo (Mozambique)
- Extensive preparation work and studies have been done by the Ferrox team, with over USD 65 million of already invested in the development work of the asset, including on the geology, mine planning, mineral processing alternatives, potential product sales, corporate social responsibility with the local communities and the legal licensing aspects in a South Africa context

Diversified product stream

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	Ilmenite Concentrate (>48% TiO2/50% Fe)	 Used as a TiO2 feedstock and ultimately the downstream pigment sector Preferred lower quality feed for pigment producers, stable demand outlook
	Iron ore concentrate (60% Fe/12% TiO2)	 Used as a feedstock for BOF and EAF in the production of steel through pig iron. It is therefore linked to the iron ore price
	Pig iron	Primarily used as a leading input in the steel-making process by way of BOFs or EAFs
3	Titanium slag	 Titanium slag is primarily used to produce TiO2 pigment, which is utilized in the manufacturing of paints, plastics, paper and for other applications Titanium slag is also used to produce titanium metal Prices of titanium have increased consistently and are expected to double by the end of 2015
S.S	Vanadium slag	 Variety of applications: Used for strengthening steel and is a component of rechargeable batteries China is mandating higher quality standards for steel and with environmental sensitivities increasing, demand for vanadium is expected to increase by 26% within two years
	Possible phosphate by- product	 P2O5 is primarily used as a desiccant or dehydrating agent P2O5 may also be used to manufacture commercial plant fertilizer Used in lithium iron phosphate batteries
	Ferro Titanium	Used in the aerospace, defense, medical and steel industries

Production Assumptions

Phase 1A:

 Small Smelt Program (Hartbeespoorte & Foskor) (Capex: \$1.5 mill)

Phase 1B:

30,000 Mt Ore Processor Concentrator (Capex \$4.5 Mill)

Phase 2:

Double Production of Project 1B (Capex \$2.5 Mill)

Phase 3:

 Phosphate/Fertilizer Processor and Concentration Production (Capex \$13 Mill)

Phase 4:

 Vanadium Pentoxide Leaching "Add-on" module Production (Capex \$15 Mill)

Tivani and TSS Project Areas

Distances to Maputo Port & Harties via Road and Rail

Tivani Project NI 43-101 Resource Statement

Resource Classification	Tonnage (Mt)	Titanium Dioxide (% TiO ₂)	lron (% Fe)	Iron Oxide (% Fe ₂ O ₃)	Vanadium Pentoxide (% V ₂ O ₅)	Phosphate (% P ₂ O ₅)	Silicon Dioxide (% SiO ₂)
Measured – Eastern Zone	56.1	9.5%	23.5%	33.6%	0.2%	1.1%	29.9%
Measured – Central Zone	64.6	10.8%	25.2%	36.1%	0.3%	1.2%	28.1%
Indicated – Eastern Zone	60.2	9.3%	23.4%	33.5%	0.2%	1.1%	29.9%
Indicated – Central Zone	59.1	11.0%	25.5%	36.4%	0.3%	1.3%	27.4%
Total Measured & Indicated	240.0	10.2%	24.4%	34.9%	0.3%	1.2%	28.8%
Inferred – Eastern Zone	31.9	9.4%	23.9%	34.1%	0.3%	0.9%	29.7%
Inferred – Central Zone	92.5	6.8%	20.1%	28.8%	0.3%	0.6%	34.7%
Inferred – Western Zone	106.4	11.2%	25.4%	36.3%	0.3%	1.5%	26.6%
Total Inferred	230.8	9.2%	23.1%	33.0%	0.3%	1.1%	30.3%

Seams M9 & M10 have higher Fe & TiO2 content

Long term mine plan layout

Supporting Infrastructure and Logistics

Rail

Existing railway line 16km from site. Trains operated by Transnet Freight Rail.

Deep Water Port

Existing rail link between Palaborwa and the ports of Maputo in Mozambique (420km) and Richards Bay in South Africa (728km)

- 1. **Maputo:** Supermax (<60kt), and more recently allowing Cape (<150kt categories)
- 2. Richards Bay: Cape (<150kt) category

Power

Diesel Generator sufficient with advancement to Hydrogen Power via Phosphate/Fertilizer production. "Self-Generation" of up to 2 Megawatts power

Process Flow Diagram Project 1B – Tivani

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Financial Summary

Use of Proceeds

Item	Amount (US\$)	Amount (ZAR)
Project 1A Harties		
Concentrating Plant	\$63,158	ZAR 1,010,520
DRI ¹ Furnace and Plant	\$40,136	ZAR 642,180
FeTi Thermite Plant	\$63,739	ZAR 1,019,180
Peripheral Equipment	\$48,449	ZAR 775,180
Civil Works	\$90,628	ZAR 1,450,050
Materials Handling	\$67,813	ZAR 1,085,000
Electrical Installations	\$72,654	ZAR 362,460
Installation and Commissioning	\$75,535	ZAR 1,208,560
Sub-total : Project 1A CAPEX (Harties)	\$472,111	ZAR 7,553,780

Project 1B Tivani		
Prepayment & Rehabilitation	\$910,000	ZAR 14,560,000
Plant – EPCM	\$2,093,750	ZAR 33,500,000
Plant – Civils	\$184,375	ZAR 2,950,000
Plant – Site Services	\$200,000	ZAR 3,200,000
Other Expenses	\$234,375	ZAR 3,750,000
Mine Development ²	\$512,500	ZAR 8,200,000
Contingencies	\$620,250	ZAR 9,924,000
Sub-total: Project 1B	\$4,755,250	ZAR 76,084,000

Item	Amount (US\$)	Amount (ZAR)
Project 1A Nkowankowa		
Refurbishment & Repairs	\$598,368	ZAR 9,573,880
DRI ¹ Furnace & Plant	\$354,988	ZAR 5,679,800
FeTi Thermite Plant	\$270,088	ZAR 4,321,400
Peripheral Equipment	\$250,050	ZAR 4,000,800
Civil Works	\$258,938	ZAR 4,134,000
Materials Handling	\$193,750	ZAR 3,100,000
Electrical Equipment	\$64,725	ZAR 1,035,600
Installation & Commissioning	\$339,908	ZAR 5,438,520
Sub-total: Project 1A CAPEX (Nkowankowa)	\$2,330,813	ZAR 37,293,000

Working Capital		
Project 1A (Harties)	\$750,000	ZAR 12,000,000
Project 1A (Nkowankowa)	\$1,441,826	ZAR 23,069,216
Project 1B	\$2,250,000	ZAR 36,000,000
Sub-total: Working Capital	\$4,441,826	ZAR 71,069,216

Total (Capex)	\$7,558,174	ZAR 120,930,780
Total (Capex + Working Capital)	\$12,000,000	ZAR 191,999,996

Financial Assumptions

Model Assumptions		Capital Structure (US\$)			
General Assumptions		Equity			
Cash Flow Valuation Multiple:	3.0x	Shares Outstanding	950,000,000		
FX Rate (ZAR/USD):	16.0	Latest Share PX Capital Raise	\$0.12		
BEE Share (2024 Onwards)	30.0%	Market Value	\$114,000,000		
Discount Rate	10.0%	Debt			
ZAR / USD	16	Convertible Loans	\$2,100,000		
Sale Price Assumptions		Credit Line	\$1,655,000		
FeTi70 PX	\$6,000 / Mt	Management Liabilities ¹	\$3,700,000		
Magnetite Concentrate	\$100 / Mt	Historical Liabilities in S. Africa ²	\$2,300,000		
Ilmenite Concentrate	\$425 / Mt	Total Debt & Liabilities ²	\$9,755,000		
Pig Iron	\$425 / Mt				
V2O5	\$16,250 / Mt	Capital Raised (US\$)			
Phosphoric Acid (52-54%) - Wet method	\$475 / Mt				
Сарех		Capital Raised	\$12,000,000		
Capex Contingency	10.0%				

1. Taxes/Royalties/Marketing/GNA etc

2. Convertible half at \$0.08/Share

3. Payable out of free cash flow

Consolidated Financials

onsolidated Financials (US\$mm)										
Calendar Year Ended	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29	Dec-30	Dec-31	Dec-32
ROM (ooo's)	0.0 Mt	64.4 Mt	672.0 Mt	1,356.0 Mt	1,488.0 Mt	1,488.0 Mt	1,488.0 Mt	1,488.0 Mt	1,488.0 Mt	1,488.0 Mt
ROM	-	\$0.3	\$0.7	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0
Phosphate	-	-	\$4.1	\$30.8	\$30.8	\$30.8	\$30.8	\$30.8	\$30.8	\$30.8
FeTi70 Revenue	-	\$13.7	\$30.2	\$40.3	\$40.3	\$40.3	\$40.3	\$40.3	\$40.3	\$40.3
Magnetite Revenue	-	\$2.9	\$36.8	\$54.1	\$54.1	\$54.1	\$54.1	\$54.1	\$54.1	\$54.1
Vanadium Pentexide	-	-	-	\$37.1	\$58.6	\$58.6	\$58.6	\$58.6	\$58.6	\$58.6
Pig Iron Revenue	-	\$2.8	\$6.1	\$49.5	\$73.5	\$73.5	\$73.5	\$73.5	\$73.5	\$73.5
Ilmenite Revenue	-	\$4.6	\$58.1	\$85.5	\$85.5	\$85.5	\$85.5	\$85.5	\$85.5	\$85.5
Revenue	-	\$24.3	\$136.1	\$298.3	\$343.7	\$343.7	\$343.7	\$343.7	\$343.7	\$343.7
Mining Costs	-	\$6.4	\$20.4	\$57.1	\$62.5	\$62.5	\$62.5	\$62.5	\$62.5	\$62.5
Concentration Costs	-	\$1.3	\$12.4	\$47.2	\$61.5	\$61.5	\$61.5	\$61.5	\$61.5	\$61.5
Transportation Costs	-	\$3.5	\$33.9	\$49.5	\$49.5	\$49.5	\$49.5	\$49.5	\$49.5	\$49.5
Royalty & JV TSS Costs	-	\$3.1	\$14.4	\$23.6	\$24.9	\$24.9	\$24.9	\$25.1	\$24.9	\$25.1
Other Costs ¹	-	\$0.8	\$4.9	\$10.4	\$11.8	\$11.8	\$11.8	\$11.8	\$11.8	\$11.8
EBITDA	-	\$9.2	\$50.3	\$110.4	\$133.5	\$133.5	\$133.5	\$133.3	\$133.5	\$133.3
Тах	_	\$1.1	\$3.4	\$23.3	\$37.4	\$37.4	\$37.4	\$37.3	\$37.4	\$37.3
NOPAT	-	\$8.0	\$46.9	\$87.2	\$96.1	\$96.1	\$96.1	\$96.0	\$96.1	\$96.0
Growth Capex	-	(\$6.8)	(\$29.7)	(\$15.0)	-	-	-	-	-	-
Sustaining Capex	-	(\$0.1)	(\$0.8)	(\$3.8)	(\$4.9)	(\$4.9)	(\$4.9)	(\$4.9)	(\$4.9)	(\$4.9)
Change in WC	-	(\$7.7)	(\$9.3)	(\$16.2)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0
Refinancing of Existing Debt	-	(\$3.8)	-	-	-	-	-	_	-	
Consolidated Free Cash										
Flow	-	(\$10.4)	\$7.1	\$52.1	\$91.2	\$91.2	\$91.2	\$91.1	\$91.2	\$91.1
Capital Raised	\$12.0	-	_	_	_	_	_	_	_	
Cash in Hand - EOP	\$12.0	\$1.6	\$8.8	\$60.9	\$152.1	\$243.3	\$334.5	\$425.6	\$516.9	\$608.0
Implied Valuation	3.0x		\$150.9	\$331.3	\$400.4	\$400.4	\$400.4	\$400.0	\$400.4	\$400.0
Implied Price per Share			\$0.16	\$0.35	\$0.42	\$0.42	\$0.42	\$0.42	\$0.42	\$0.42
			1							
NPV (10% D.R.)	10.0%	\$367.3								
IRR		233.1%								

Sensitivity Analysis

Ferro	Ferrox NPV at 10% Equity Share (Projects 1A - 4): Cost v. Price Sensitivities ¹										
		Price Sensitivities (All Prices)									
	48	5.0%	-	(5.0%)	(10.0%)	(15.0%)	(20.0%)				
	(10.0%)	\$58	\$54	\$49	\$45	\$40	\$36				
ies	(5.0%)	\$55	\$51	\$46	\$42	\$37	\$33				
ivit ts)	-	\$52	\$48	\$44	\$39	\$35	\$31				
isit osi	5.0%	\$50	\$45	\$41	\$37	\$33	\$28				
Ser II C	10.0%	\$47	\$43	\$39	\$34	\$30	\$26				
st: (A	15.0%	\$45	\$40	\$36	\$32	\$28	\$24				
ပိ	20.0%	\$42	\$38	\$34	\$30	\$26	\$22				
	25.0%	\$40	\$36	\$32	\$28	\$24	\$20				

Ferrox IRR at 10% Equity Share (Projects 1A - 4): Cost v. Price Sensitivities							
		Price Sensitivities (All Prices)					
		5.0%	-	(5.0%)	(10.0%)	(15.0%)	(20.0%)
Sensitivities Il Costs)	(10.0%)	181%	171%	160%	148%	137%	124%
	(5.0%)	174%	164%	153%	141%	129%	117%
	-	167%	157%	146%	134%	122%	110%
	5.0%	160%	150%	139%	127%	115%	103%
	10.0%	153%	143%	132%	120%	108%	96%
St: A	15.0%	147%	136%	125%	113%	101%	88%
Co	20.0%	140%	129%	118%	106%	94%	81%
	25.0%	133%	122%	111%	99%	87%	74%

Directors & Senior Management

Terrence P. Duffy Chairman & Director

Terrence Duffy serves as the Chief Investment Officer of Lionhart Group, a hedge fund and a private equity fund. Mr. Duffy has many years of experience in the development of mining operations in South Africa, including Eastern Platinum Ltd. (ELR:TSX) and Petra Diamonds Limited (PDL:LON).

For the past 30 years David Sims has provided offshore financial services to companies in USA, Canada, UK, Switzerland, Brazil, Hong Kong, Japan and South Africa and is currently director of several international Hedge Funds.

Allen Palmiere has a long career in the mining industry. Mr. Palmiere has previously held Chief Executive Officer positions at Barplats Investments Limited, Hudbay Minerals Inc. (HUD:TSX) and Adriana Resources (ADI:TSXV).

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Appendix

Exhaust is 99% Free from Toxic Emissions

Proposed Crushing Plant at Project 1B - Tivani

Proposed Concentration Plant at Project 1B - Tivani

Proposed Plant Flow Diagram at Project 1B - Tivani

