

Strictly private and confidential

tharisa

Analyst visit

18 June 2014



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Sustainability

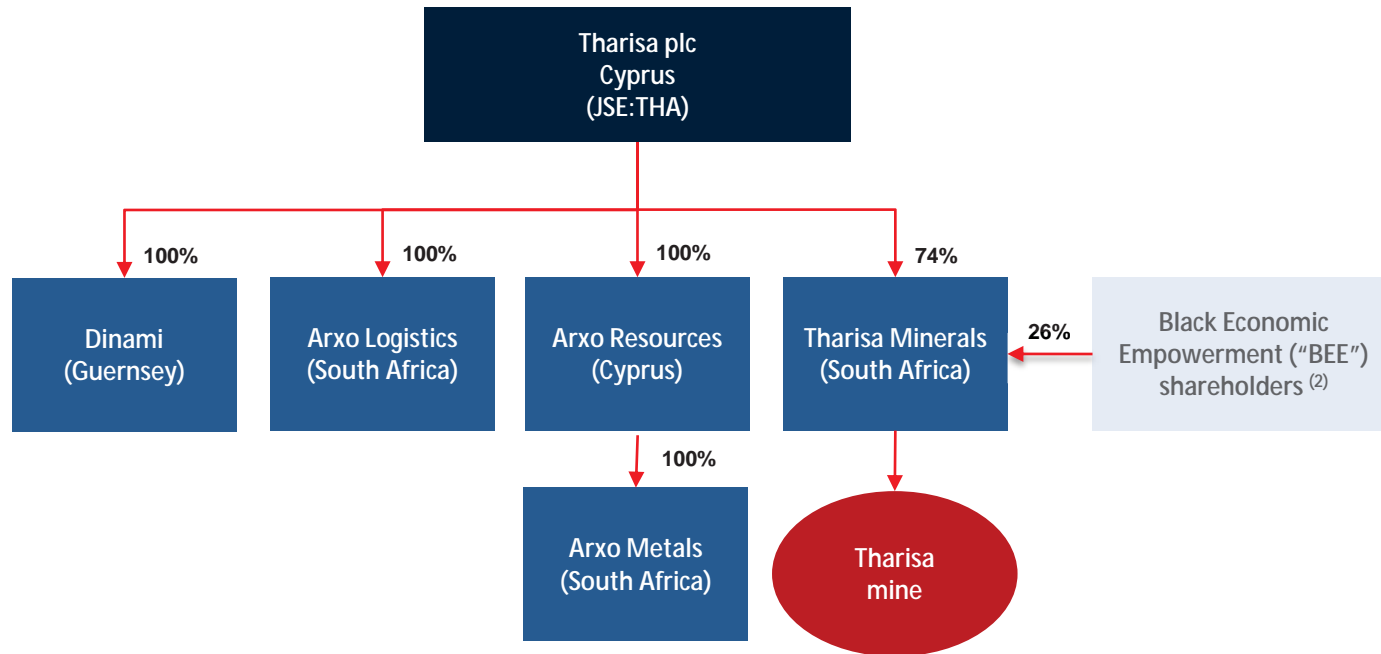
Corporate strategy and outlook

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Company overview



Corporate structure (1)



Notes:

1. Only major subsidiaries have been included.
2. Tharisa Minerals BEE partners are a broad-based Community Trust which holds an unencumbered 6% interest and a women's investment group Thari Resources, which holds a 20% interest

From mine to customer



Source: Tharisa information, CPR, Core Consultants

Management team

Experienced and entrepreneurial management team

Executive management



Loucas Pouroulis

Executive Chairman

- Over 50 years of experience in mining company exploration, project management, financing and production (including PGM and gold mines)
- Established a number of mining companies including TransAfrika Resources, Keaton Energy, Kameni and Eland Platinum



Phoevos Pouroulis

CEO

- Over 15 years of experience in project management in the mining industry, including PGM and chrome
- Held directorships in several mining companies
- Extensive trading experience within the Tharisa group, Keaton Energy and Chromex Mining



Michael Jones

CFO

- Over 18 years of investment banking experience in corporate finance
- Extensive equity and debt capital raising experience with a focus in the latter years in the resources industry
- 5 years of financial management experience with PGM and chrome mining operations

Group management



Michelle Taylor

Executive:
Corporate Affairs

- Responsible for the oversight and day-to-day operations of the Tharisa group
- Responsible for Shareholder and Investor Relations
- Involved in the Mining Industry for over 8 years



Leon Richardson

CEO: Tharisa
Minerals

- Responsible for the mining and processing operations of the Tharisa mine
- Over 32 years experience in the mining industry
- Held various positions in the technical field focusing on PGM production, smelting and conversion
- Held various positions within the Xstrata group, which included ferrochrome production, logistical chain management and operational management



Elize Groesbeek

Managing Director:
Arxo Logistics

- Responsible for the overall management of the logistics and transport services provided by Arxo Logistics to the Tharisa group's operations
- Over 30 years experience in logistics
- Managing Director of Arxo Logistics since 2009



Willem de
Villiers

Managing Director:
Arxo Metals

- Responsible for the overall management of beneficiation and value addition projects within the group
- Over 14 years experience in the chrome and manganese industries
- Held positions in operations at BHP Billiton, Samancor Chrome and Xstrata Alloys
- Previous Chief Operating Officer of Tata Steel KZN before joining Tharisa



Greg Taurog

Executive: Sales
and Marketing

- Responsible for all marketing activities of the Tharisa group
- Over 20 years experience in international trade, cross-border relations and South African sales
- Held various managerial positions and directorships with prominent companies in the mining industry since 1994

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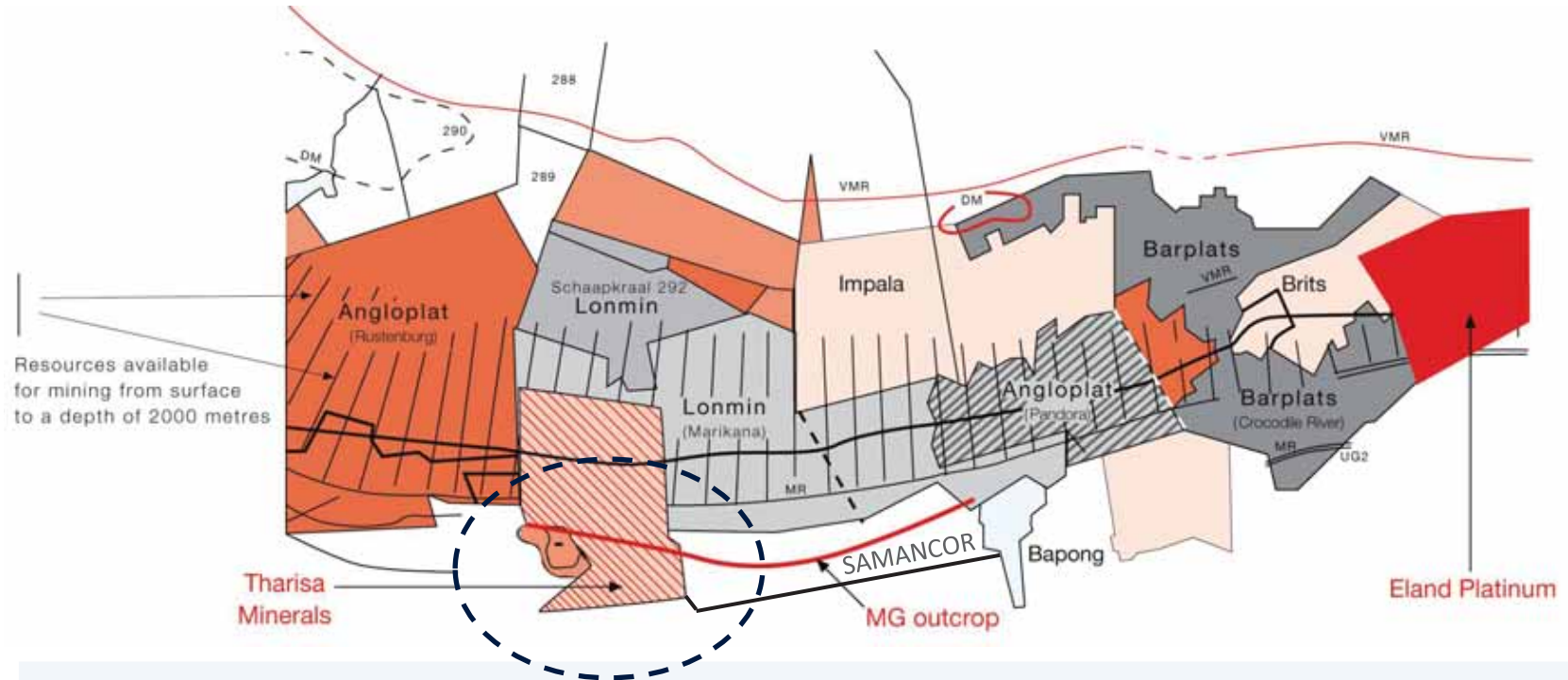
Tharisa mine

Salient features of the Tharisa mine

- One of the world's largest chromite resources
- Over 23 years open pit life of mine with additional 36 years underground
- 144koz PGM and 1.85Mtpa chrome concentrates annual production (steady state FY2016)
- Producing PGM concentrate and metallurgical, chemical and foundry grade chrome concentrates
- Mineral resource of 835Mt grading:
 - 1.56g/t (5PGE+Au)
 - 20.38% Cr₂O₃
- Open pit mineral reserves of 107Mt grading:
 - 1.51g/t (5PGE+Au)
 - 19.29% Cr₂O₃
- Owner operator of two independent processing plants:
 - Voyager plant capacity 300ktpm
 - Genesis plant capacity 100ktpm

Location of Tharisa mine

Located in South Africa's main PGM and Chrome producing area

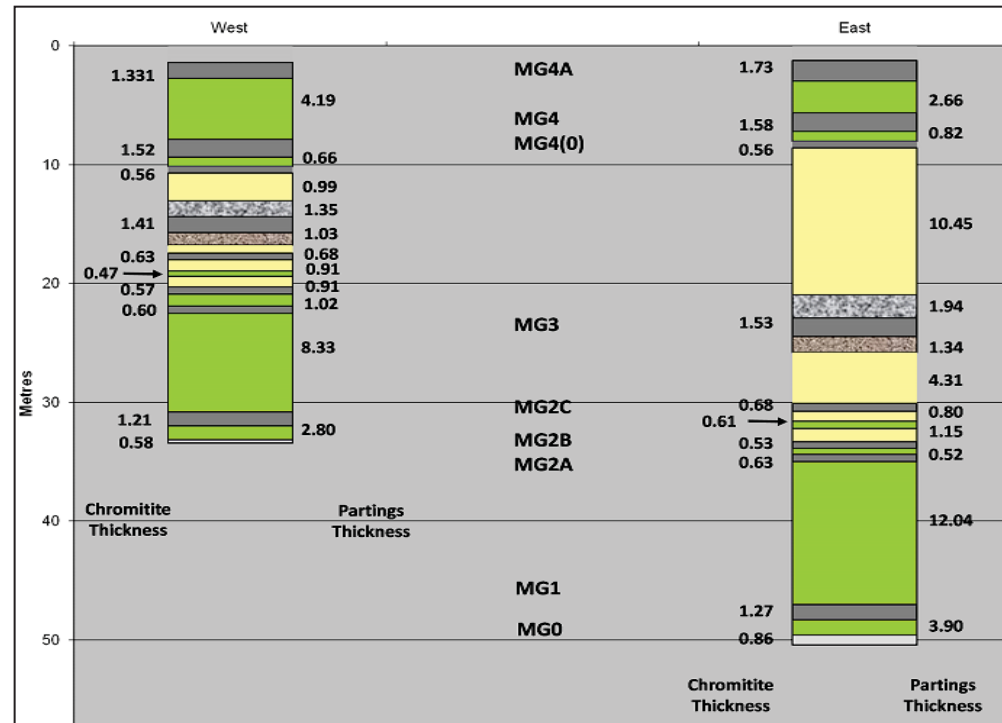
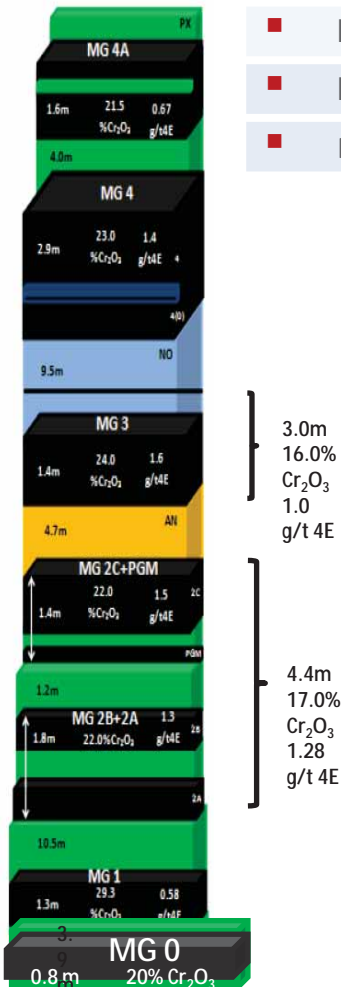


- Mining rights over 5 590ha
- Neighbouring mining companies include Angloplat, Lonmin, Impala Platinum, Aquarius, Samancor
- Situated in close proximity to national freeway and railway siding
- Neighboring towns are Brits 45km, Rustenburg 30km, Mooi-nooi 10km, Marikana 5km

MG reef stratigraphy across the Tharisa mine

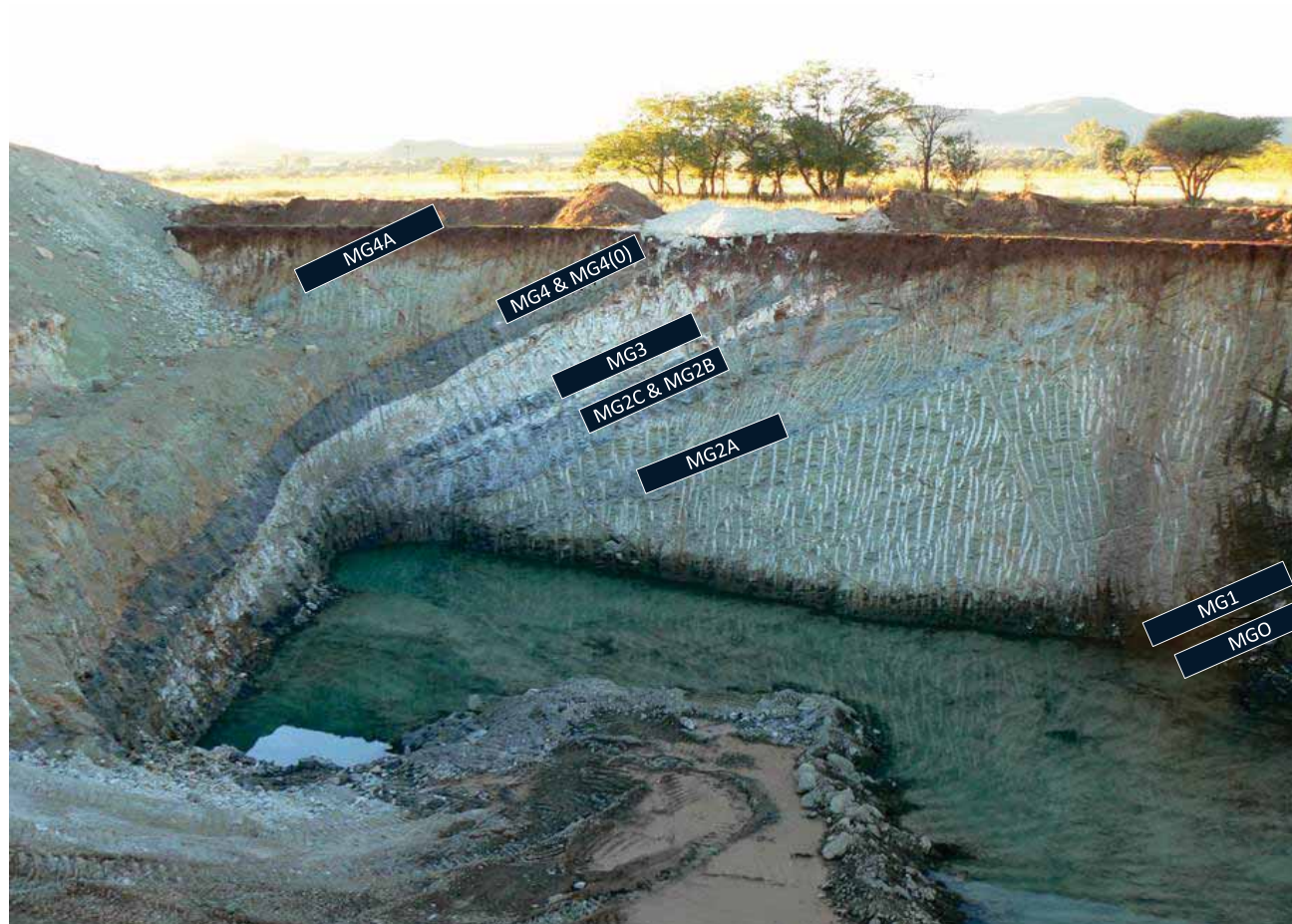
Thick distinctive layers

- The MG reef package is classified into six chromite layers (MG0, MG1, MG2, MG3, MG4, MG4A)
- Partings are generally anorthosite, pyroxenite or norite
- Reef package varies from 50m in the west to 74m in the east (inc partings)
- PGM's are concentrated in MG2, MG3 and MG4 reefs



The MG chromitite reef package in situ

View from pit sidewall

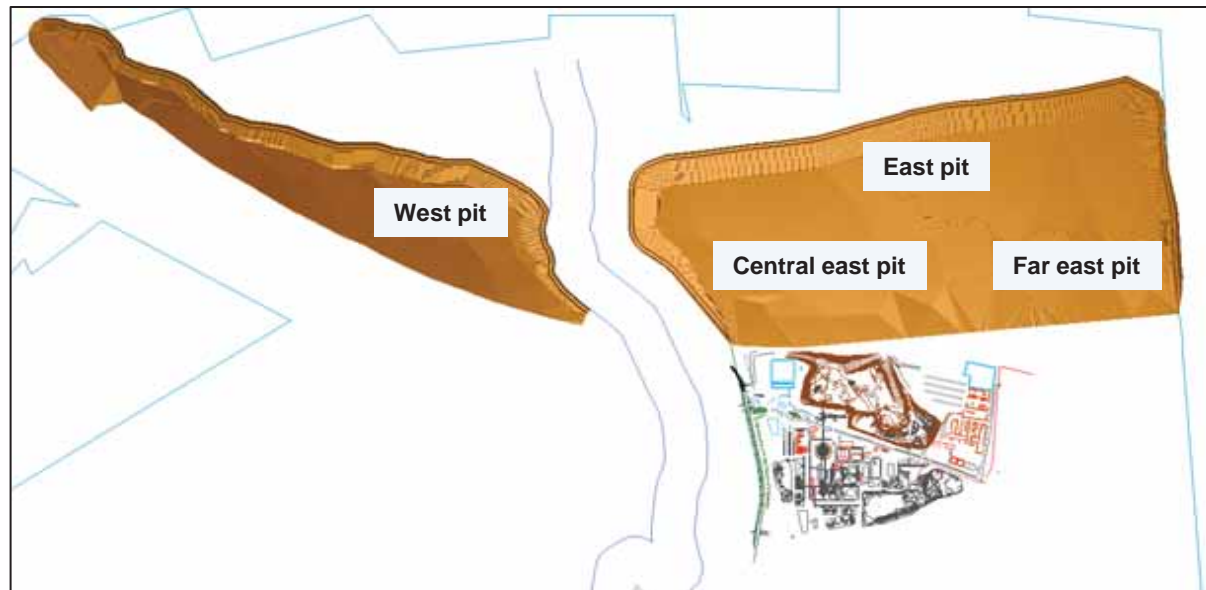
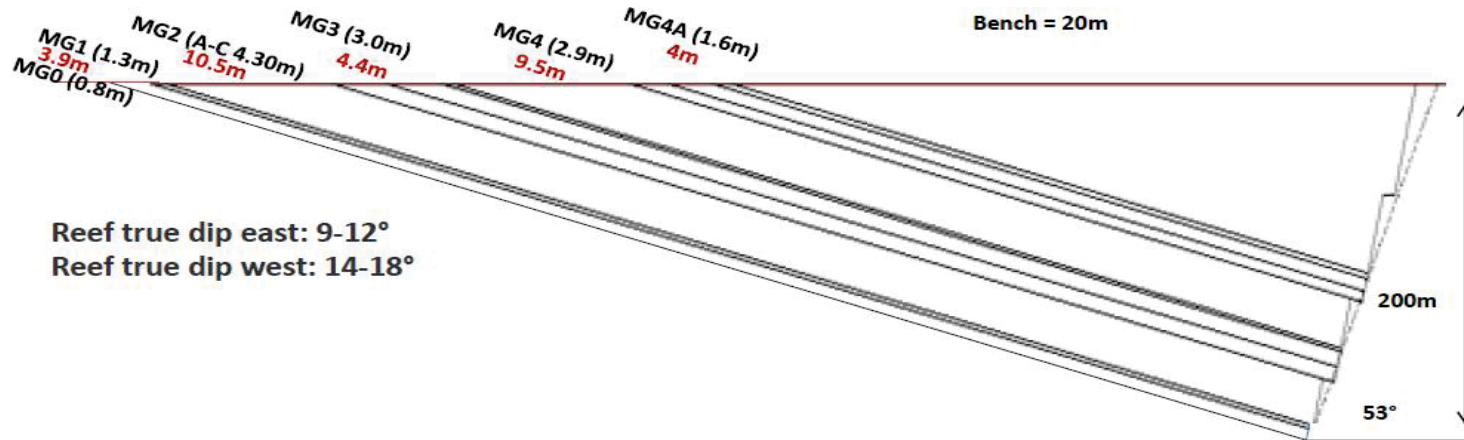


Mining sequence and process route

| Tharisa mine operating procedure | | |
|----------------------------------|---|---|
| | Unit | Process |
| | MG4A Chromitite layer | Sent to Genesis Plant |
| | Parting | Discarded |
| | MG4 and MG4(0) Chromitite layers with mineralized parting | Sent to Voyager plant |
| | Norite or anorthosite | Selectively mined and discarded |
| | MG3 package comprising massive and disseminated Chromitite | Mined as a package Relatively high PGM Sent to Voyager plant |
| | Anorthosite or norite | Selectively mined and discarded |
| | MG2 Chromitite layers with disseminated mineralisation parting | Mined as package High PGM Sent to Voyager plant |
| | Pyroxenite with disseminated mineralisation | Selectively mined and discarded High PGM may occur in Chromitite stringers close to MG reefs and are mined with MG reefs |
| | MG1 Chromitite layer Mineralised parting MG0 Chromitite stringers | Mined as package MG1 has a high Chromitite content and low PGM content Sent to Genesis plant |

Mine layout

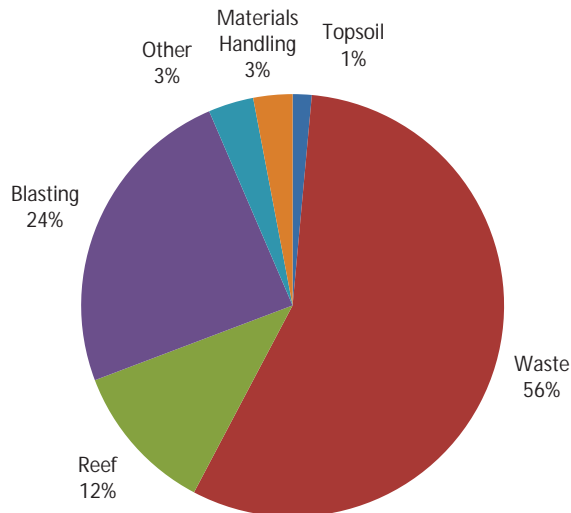
Current mine plan to depth of 200 metres



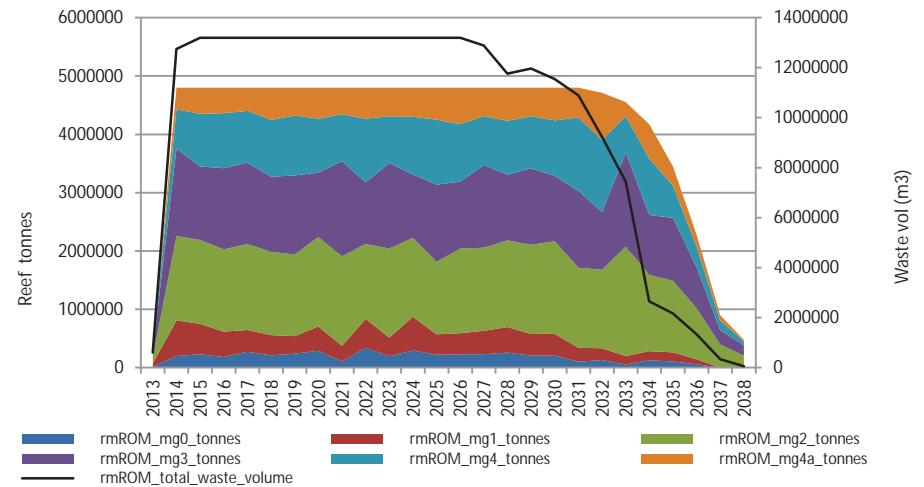
Mining operation – key facts

- Open cast mining to 2031 then phase in of underground mining
- Open cast mining ends 2038
- Mining contractor MCC
- MCC employs approximately 1,100 people directly and indirectly
- Joint mine planning by joint Tharisa management and MCC team
- Grade control by Tharisa geology team

Mine operation cost split (H1 FY 2014)



Open cast mine production plan



Key operating assumptions

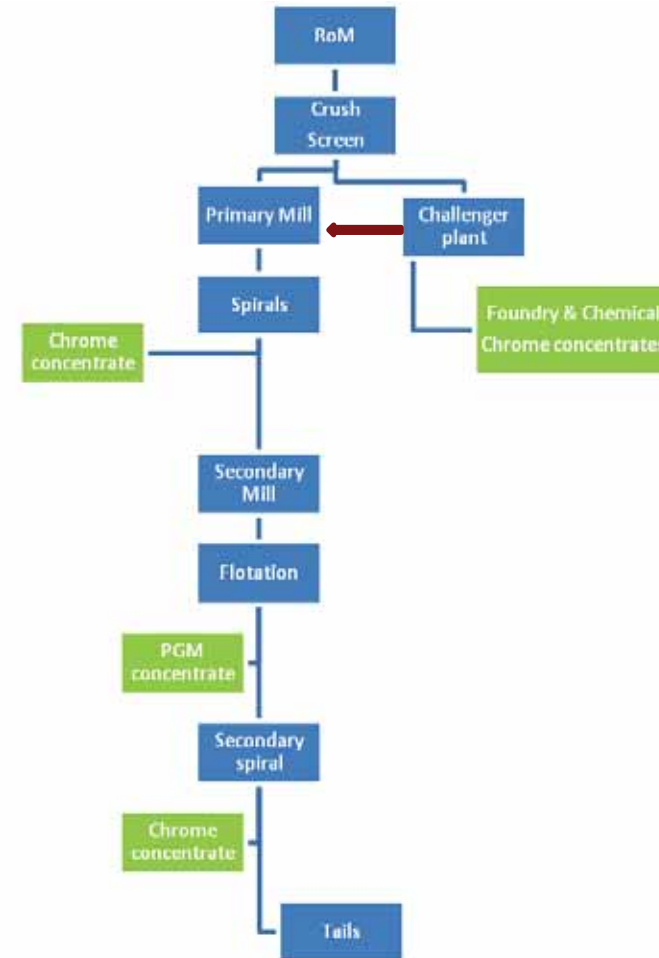
| | | 2014 | 2015 | 2016 | 2017 – 2030 (ave) |
|--------------------------------|-------------|------|------|------|-------------------|
| RoM | Mt | 4.56 | 4.8 | 4.8 | 4.8 |
| Strip ratio | bcm: bcm | 12.2 | 9.9 | 9.9 | 9.6 |
| Cr ₂ O ₃ | % | 19.5 | 19.8 | 19.3 | 19.3 |
| PGM (6E) | g/t | 1.72 | 1.78 | 1.97 | 1.97 |
| Chrome yield* | % | 34.4 | 36.6 | 38.7 | 38.7 |
| PGM recovery | % | 61 | 66 | 72 | 72 |

* Yield is measured as chrome concentrate produced as a % of RoM processed

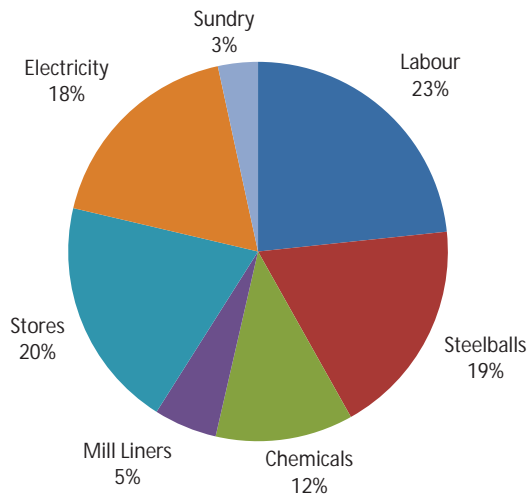
Process operations – key facts

- Process plants owned and operated by Tharisa
- 471 employees and 1,435 contractors
- RoM is crushed and screened
- RoM from selected reefs sent to Challenger plant to recover coarser Foundry and Chemical grade chrome concentrates
- Coarse grind to liberate chromite crystals
- Primary spirals to recover coarse chromite
- Secondary milling to liberate PGM particles
- PGM flotation circuits – rougher and cleaner
- Secondary spiral circuit to recover additional chromite

Simplified flow sheet



Process operation cost split (H1 FY 2014)



Dual plants provide flexibility and optimise recoveries

Genesis plant

- Capacity 100,000tpm RoM
- Processes reefs with lower PGM and higher chromite grades
- Challenger plant recovers high value Foundry grade and Chemical grade chrome concentrates

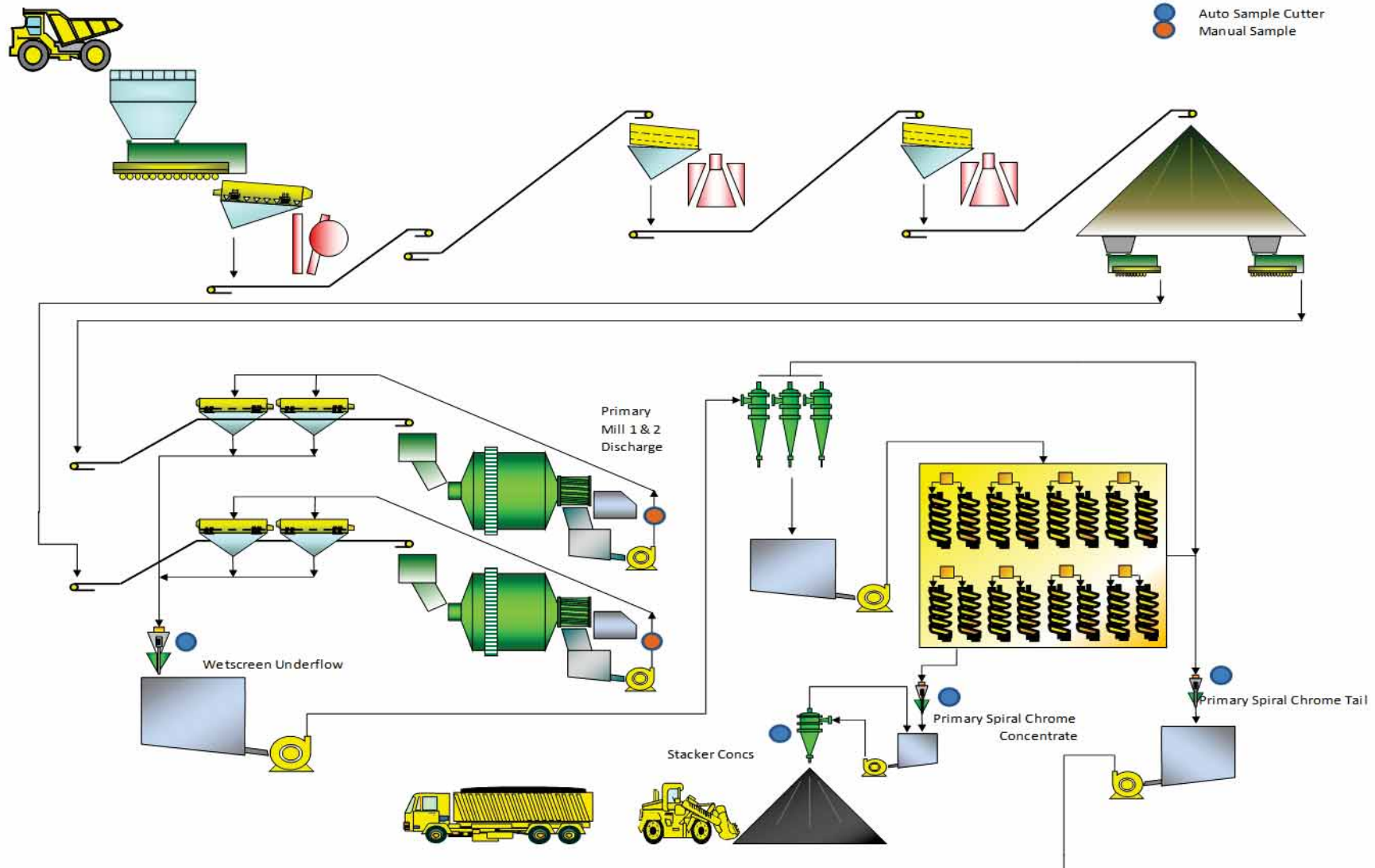


Voyager plant

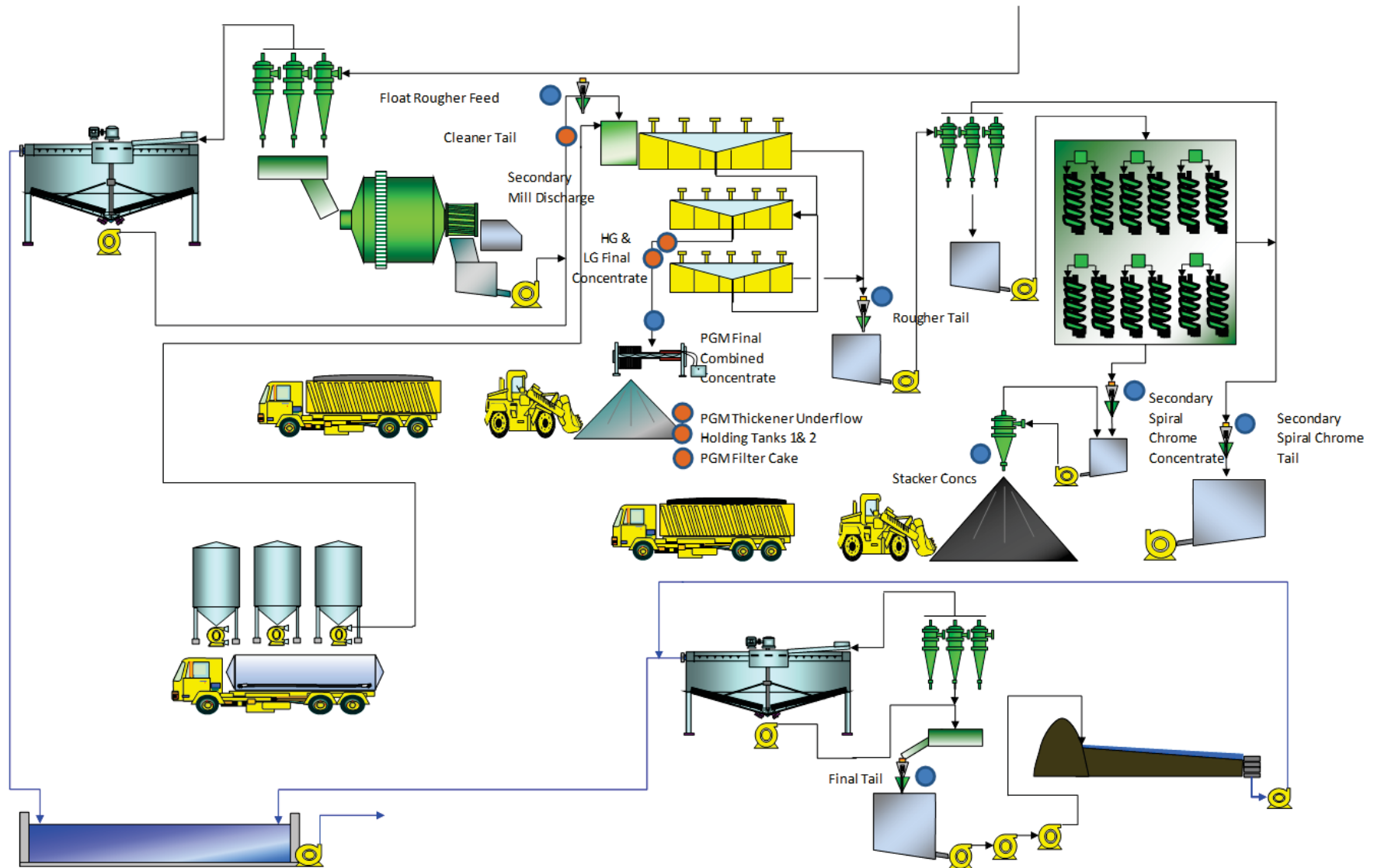
- Capacity 300,000tpm RoM
- Processes reefs with higher PGM and lower chromite grades
- Each plant operates independently, providing flexibility and limiting production disruptions



Detailed process flow sheet



Detailed process flow sheet - continued

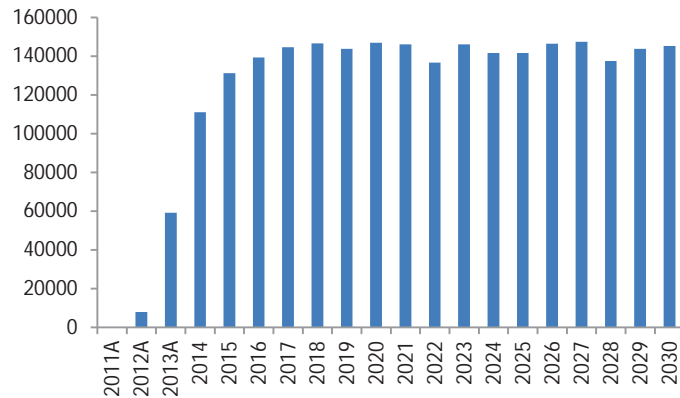


PGM concentrate

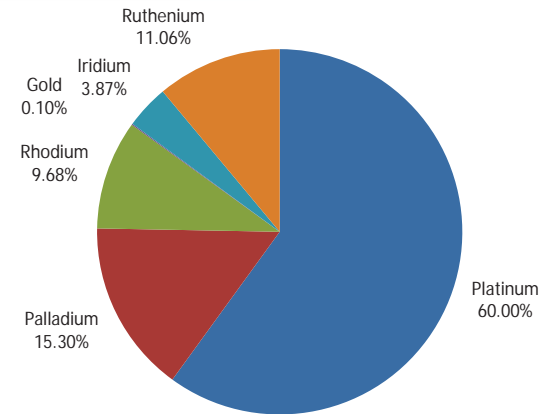
- Concentrate sold to Impala Refining Services
- Payment terms based on market price
- Tharisa concentrate has low chrome content as bulk of chrome removed prior to PGM flotation, negates chrome penalties
- High platinum content and a favourable prill split



Tharisa PGM in concentrate production plan (oz)

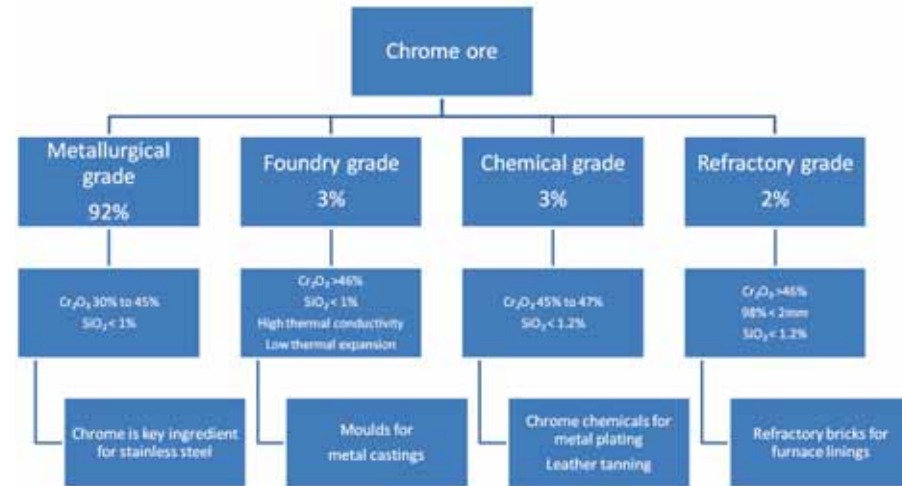


Tharisa PGM concentrate prill split

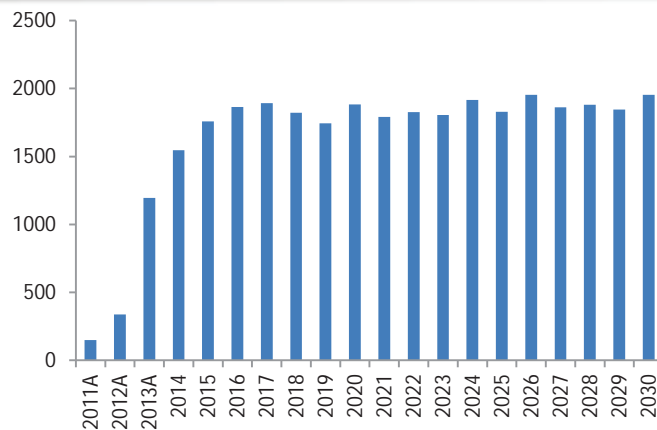


Chrome concentrates

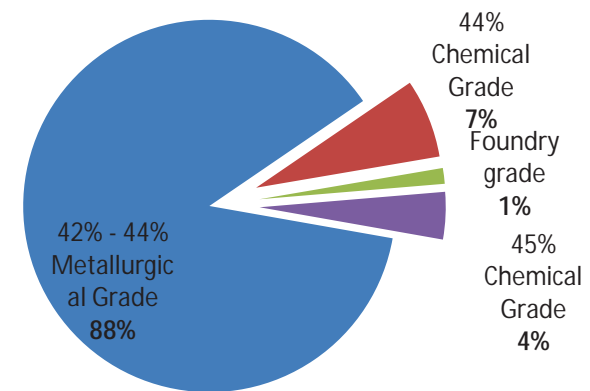
- Chromite is the mineral extracted from the ore
- 92% of global chromite mined is metallurgical grade chrome concentrate which is used in stainless steel production (mostly via ferrochrome)
- 8% of global chromite mined is higher value Chemical, Foundry and Refractory chrome concentrates utilised in specialised products such as furnace linings, metal plating, moulds for metal castings
- 12% of Tharisa's production is higher value chrome concentrates



Tharisa chrome concentrate production plan ('000t)



Tharisa chrome concentrate split



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Mine and plant tour



A large industrial machine, likely a magnetic separation unit, with a green lower section and a yellow upper section featuring a perforated metal grille. The machine is situated in an industrial environment with various pipes and structures visible in the background.

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Research & development,
optimisation and
beneficiation

Arxo Metals

- Owns and operates the Challenger plant
 - Produces high value Chemical and Foundry grade chrome concentrates
- Research and development arm of Tharisa
- Current projects include;
 - Reflux classifier for fine chrome recovery
 - Gravity concentrator for fine chrome recovery
 - Magnetic separation for additional chromite recovery
 - Ultra fine grind and high energy flotation for additional PGM recovery
 - Flash flotation
 - Recovery of chrome from third party tailings
 - DC smelting of PGM and chrome concentrates
 - Hydrometallurgical processing of PGM alloys

Challenger plant



Magnetic separation

Significant increase in chrome concentrate yield

- Fine chromite particles not recovered by spirals
- Chromite is weakly magnetic (para-magnetic)
- Can use high intensity magnetic field to separate chromite from other material
- In line revolving drum magnets
- Pilot work boosted chromite yield from 34% to 39%*
- Optimal design is magnetic separation with spiral circuit
- Two production scale units installed and being commissioned

Magnetic separation unit



* Yield is measured as chrome concentrate produced as a % of RoM processed

Ultra fine grind and high energy flotation

Liberation and recovery of fine PGM particles

- High energy flotation
 - Install in rougher and cleaner circuits
 - Recovers finer particles and particles with low sulphide association
 - Target slow floating fraction
 - Four units commissioned
 - Planned final three units to be installed by June 2014
- Ultra fine grind – FY 2016
 - Located parallel to the secondary mill
 - Processes the coarse silicates to liberate PGM's locked in a silica matrix
- Known technologies
 - Tested and installed on UG2 plants and tailings treatment plants
 - Comprehensively tested and optimised for MG reefs by Tharisa technical team

Flotation cell





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Marketing and logistics

Arxo Logistics

- Integrated logistics platform
- Road transport of PGM concentrate to IRS
- Road and rail transport of metallurgical grade chrome concentrates to Richards Bay and Durban
 - Scale facilitates negotiation of favourable road haulage rates
 - Rail allocation from Transnet
 - Use of rail siding at Marikana
 - Port allocation of 155,000tpm
 - Bulk transport by rail to Richards Bay
 - Road transport to Jhb then packed in containers and railed or road hauled to Durban
 - FY2014 allocation of 1.86Mt through Richards Bay
 - In FY2013 Arxo logistics shipped 545,000t through Richards Bay and 488,000t through Durban
- Arxo Logistics charges a 5% fee on transport costs

Arxo Resources

- Sales and marketing arm of Tharisa
- Markets metallurgical chrome concentrates
- Offices in Beijing and Cyprus
- Large customer base for metallurgical chrome concentrates, bulk selling to;
 - Major stainless steel producers
 - Local and international ferrochrome producers
 - Global commodity traders
- Allows direct access to markets
- Provides price discovery
- Provides platform for future growth and expansion of Tharisa into other steel related commodities
- Agency agreement with Noble Group for 50,000tpm of metallurgical chrome concentrate (one third of steady state production)

Dinami

- Provides marketing, sales and agency services
 - Chemical grade chrome concentrates
 - Foundry grade chrome concentrates
 - Third party products
- Markets in Europe, America's, Australia and Russia
- Highly specialised market
- Large customer base, mainly small individual orders

The background of the slide is a photograph of a large industrial mill plant. The structure is composed of a complex network of green steel beams and supports. Large, red, circular grinding wheels are visible, partially obscured by the green framework. The ground is a light-colored concrete walkway with yellow safety railings. The scene is brightly lit, with long shadows cast across the floor.

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Financial overview

Financial highlights

- H1 FY 2014
 - Revenue increased by 22.6% to US\$126.1 million
 - Operating profit increased by 19.2% to US\$7.4 million
 - Net cash generated from operations of US\$28.8 million
 - Basic and diluted loss of US\$3.71 per share
 - Pro forma earnings of US\$0.04 cents per share
- JSE listing and capital raise
 - Listing of 254.8 million shares on the JSE on 10 April 2014
 - Conversion of preference shares to ordinary shares
 - Capital raised of US\$47.9 million (ZAR500 million)
 - Pro forma cash on hand of US\$50.7 million
 - Pro forma net debt to equity ratio of 24%

Key indicators

- H1 FY 2014
 - Average PGM basket price of US\$1,079 per ounce
 - Average CIF chrome concentrate contract price for 42% metallurgical grade chrome concentrate US\$152 per tonne
 - Average ZAR:US\$ exchange rate 10.50
 - PGM revenue US\$35.8 million
 - Chrome concentrate revenue US\$90.3 million
 - Gross profit ratio 16%
 - PGM gross profit ratio 31%
 - Chrome concentrate gross profit ratio 10%

Income statement (extract)

Results for financial year end September 2013 and interim FY2014

| US\$m | 2013 (pro forma) | H1 2014 (pro forma) | H1 2014 (actual) |
|--|---------------------|------------------------|---------------------|
| Revenue | 215.46 | 126.14 | 126.14 |
| Cost of sales | (189.57) | (105.91) | (105.91) |
| Gross Profit | 25.89 | 20.23 | 20.23 |
| | | | |
| Other income | 0.05 | 0.03 | 0.03 |
| Admin | (26.60) | (14.38) | (12.82) |
| Operating profit (loss) | (0.66) | 5.88 | 7.44 |
| | | | |
| Finance income | 0.86 | 0.33 | 0.33 |
| Finance costs | (13.17) | (7.90) | (8.28) |
| Changes in fair value of financial liabilities at fair value through P & L | | | (30.64) |
| Profit (loss) before tax | (12.97) | (1.69) | (31.15) |
| Tax | 15.53 | 2.91 | 2.91 |
| Profit (loss) after tax | 2.55 | 1.22 | (28.24) |

Capital raise – use of proceeds

| Expenditure | Pre-listing statement | Revised schedule | Comments |
|---------------------------------|-----------------------|------------------|---|
| | ZAR million | ZAR million | |
| Optimisation initiatives | | | |
| Magnetic separation | 200 | 60 | Discussions have commenced with an export credit agency for a portion of the funding |
| Ultra fine grind | 100 | 100 | |
| High energy flotation | 12 | 12 | |
| Rail siding on mine | 100 | - | The project is currently before Transnet capital allocation committee and funding options will be evaluated once the quantum is known |
| Silo's/feed arrangement | 30 | - | |
| Genesis RoM feed arrangement | 10 | 10 | |
| Working capital | | | |
| RoM stockpile | 80 | - | To be funded through operational cash flow |
| Strategic spares | 43 | 40 | |
| General purpose | 120 | 90 | |

Capital raise – use of proceeds (cont)

| Expenditure | Pre-listing statement | Revised schedule | Comments |
|---|-----------------------|------------------|--|
| | ZAR million | ZAR million | |
| Capital projects | | | |
| Second tailings facility | 38 | 30 | |
| Infrastructure projects | 32 | 30 | |
| Land purchases | 30 | 20 | |
| Capital structure | | | |
| Redemption of B class preference shares and repayment of Langa Trust loan | 165 | 72 | Return of capital to B class preference shareholders and partial repayment of Langa Trust Loan. Balance of repayment deferred. |
| Listing and private placement fees and costs | 40 | 36 | |

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Sustainability



[Tharisa mine – Rocasize workers]

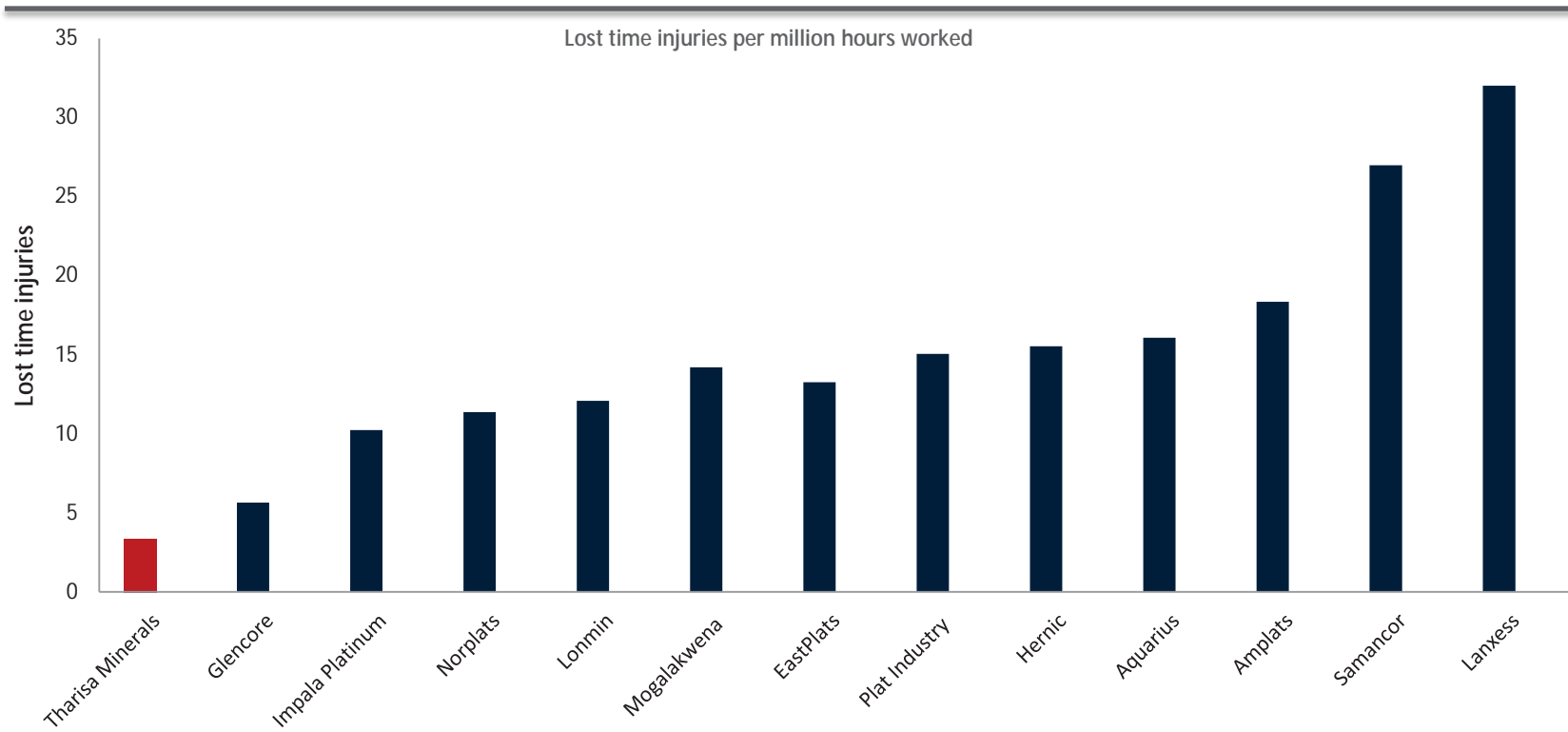
Safety, social and labour milestones

Tharisa places a high priority on employee and community initiatives and relationships

| | |
|--|---|
| Commitment to excellence in health and safety | <ul style="list-style-type: none"> ■ Group safety management system implemented under guidance of a safety expert with over 35 years experience ■ Zero tolerance policy on unsafe conditions ■ Tharisa Minerals has amongst the lowest lost time injury frequency rate at 0.15 (per 200,000 man hours worked) in the South African mining industry |
| Strict environmental management | <ul style="list-style-type: none"> ■ Permits and licences granted and valid, including a water use license ■ Insurance policy for rehabilitation of Tharisa mine in place |
| BEE ownership compliance | <ul style="list-style-type: none"> ■ The Tharisa Community Trust, a BEE trust holds a 6% equity interest in Tharisa Minerals for the benefit of the local community ■ Thari Resources, a BEE owned company, holds a 20% equity interest in Tharisa Minerals |
| Union representation | <ul style="list-style-type: none"> ■ Tharisa recognises the rights of employees to be represented by the union of their choice ■ The majority of the workforce is represented by the National Union of Mineworkers |
| Stakeholder relationships | <ul style="list-style-type: none"> ■ Engagement with regional and local government ■ Relations and ongoing engagement with local community representatives |
| Relocation and housing initiatives | <ul style="list-style-type: none"> ■ Relocation of over 850 families from informal settlement ■ Permanent housing with legal tenure ■ Further upgrading of housing planned |
| Community ownership programme | <ul style="list-style-type: none"> ■ The Tharisa Community Trust will invest future dividends from its stake in Tharisa Minerals on community projects including: <ul style="list-style-type: none"> — Schools, roads, community facilities and infrastructure — Development of small and medium scale enterprises |
| Social upliftment programme | <ul style="list-style-type: none"> ■ Brick making and home building enterprises, initially supplying Tharisa housing initiatives ■ Development of small scale businesses, including a sewing enterprise, cleaning and gardening services |

Safety

Comparative rate per million hours worked as at 31 December 2013



Source: Tharisa information, peer company information as at 31 December 2013

Community upliftment

Identified and procured land outside of the mining footprint...

...appointed a town planner to ensure suitable design...

...developed new township in line with RDP standards...

...development included housing, roads, drainage, ablutions, potable water, refuse removal and recreation facilities

Relocation of 850 families from an informal settlement within the mining footprint

Before



After



Creating sustainable jobs

Set up local
brick and
paving
manufacturer
...

...which
provides
materials for
new township
and local
market...

...sewing
business starts
off supplying
Tharisa with
safety wear



Supporting local entrepreneurs and buying local



The logo for Tharisa, featuring the word "tharisa" in a white, lowercase, sans-serif font. The letter "i" is red, while the other letters are white. The logo is set against a black rectangular background.

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Corporate strategy and outlook

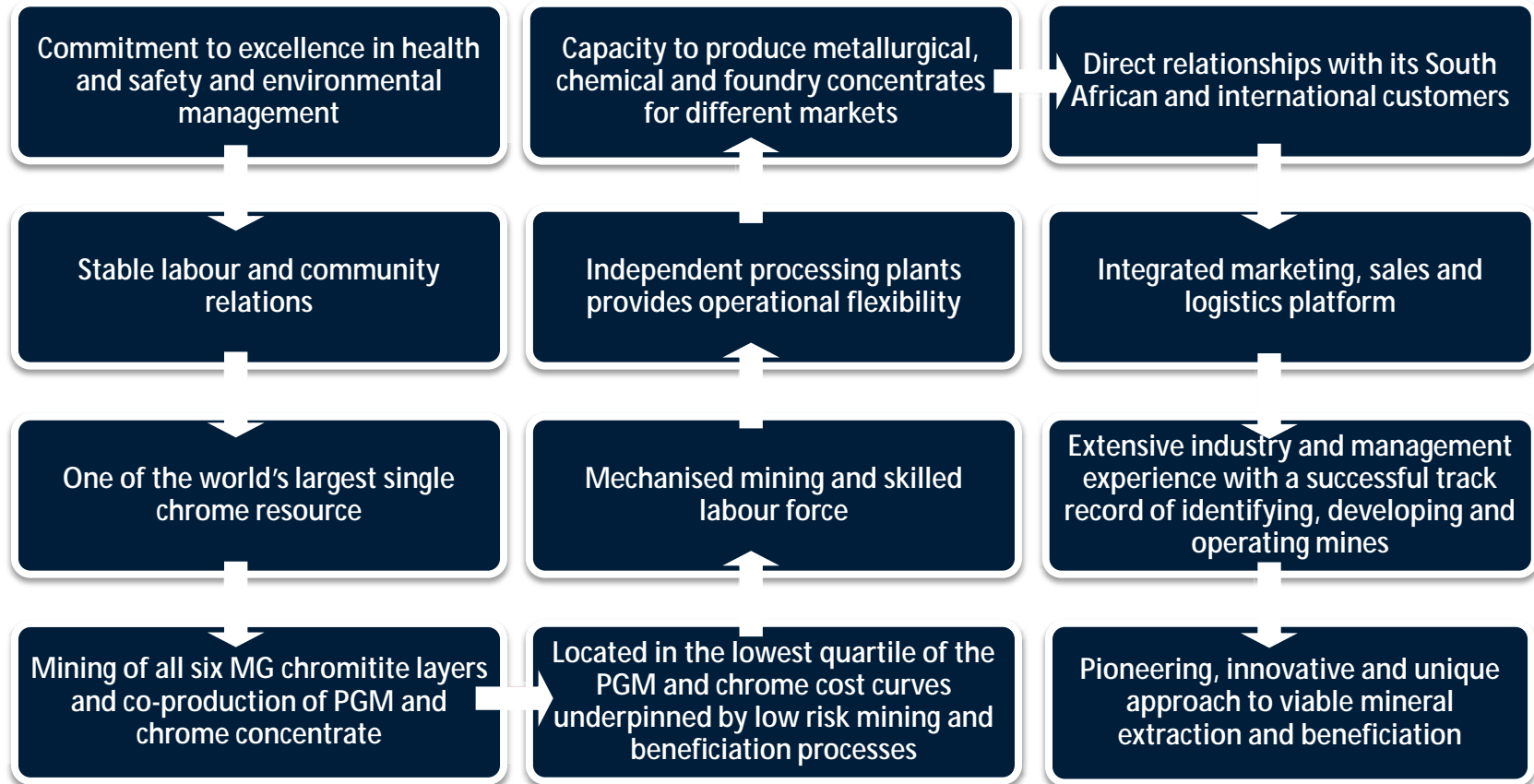
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[Tharisa mine – Flotation plant]

Strategy



Competitive strengths



Outlook

Steady state ramp up on track, well positioned to benefit from strengthening PGM and chrome prices

| | |
|---------------------------|---|
| Production | <ul style="list-style-type: none">■ Ramp up to steady state production by FY 2016 continues as planned■ Expect production of between 80koz to 90koz PGM in concentrate in FY2014■ Expect production of between 1.15Mt and 1.3Mt chrome concentrates in FY2014 |
| PGM market | <ul style="list-style-type: none">■ PGM basket has remained stable and the continued deficits within the platinum and palladium markets should further support appreciation of the PGM basket price |
| Chrome concentrate market | <ul style="list-style-type: none">■ South African metallurgical chrome concentrate prices have increased by more than 15% since 31 March 2014, with continued signs of strengthening mainly due to supply constraints |

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Annexure 1 – Mineral reserves and resources



Tharisa mine resources (SAMREC Code)

| Tharisa mine - Mineral resource statement (31 December 2013) | | | | | | | | | | | | | | | | | | |
|--|--------------|----------------|----------------------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|---------------|-------------------|---------------|-------------------|-------|---------------|----------|
| MG4A chromitite layer | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | 6.709 | 1.43 | 3.69 | 24.89 | 0.40 | 0.15 | 0.12 | 0.00 | 0.25 | 0.04 | 0.05 | 0.67 | 59:22:18:0 | 1.01 | 39:15:12:0:25:4:5 | 1.12 | 219 | 761 |
| Indicated | 15.927 | 1.59 | 3.70 | 24.29 | 0.40 | 0.15 | 0.13 | 0.00 | 0.25 | 0.04 | 0.05 | 0.68 | 59:23:18:1 | 1.03 | 39:15:12:0:25:4:5 | 1.10 | 526 | 762 |
| Inferred | 68.516 | 1.44 | 3.70 | 25.18 | 0.39 | 0.14 | 0.13 | 0.00 | 0.26 | 0.05 | 0.05 | 0.67 | 59:21:19:1 | 1.03 | 38:14:12:0:26:4:5 | 1.11 | 2,265 | 763 |
| MG4 and MG4(0) chromitite layer package | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | 19.645 | 4.14 | 3.75 | 26.52 | 0.70 | 0.19 | 0.17 | 0.003 | 0.33 | 0.06 | 0.08 | 1.07 | 66:18:16:0 | 1.53 | 46:13:11:0:21:4:5 | 1.18 | 966 | 784 |
| Indicated | 29.785 | 3.00 | 3.65 | 24.76 | 1.08 | 0.22 | 0.21 | 0.003 | 0.36 | 0.08 | 0.11 | 1.51 | 71:15:14:0 | 2.06 | 52:11:10:0:18:4:6 | 1.20 | 1,972 | 730 |
| Inferred | 170.733 | 3.72 | 3.62 | 22.60 | 0.99 | 0.19 | 0.19 | 0.003 | 0.34 | 0.07 | 0.10 | 1.36 | 72:14:14:0 | 1.88 | 53:10:10:0:18:4:6 | 1.15 | 10,319 | 697 |
| MG3 chromitite layer | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | 12.369 | 3.74 | 3.25 | 13.07 | 0.60 | 0.35 | 0.15 | 0.006 | 0.22 | 0.04 | 0.06 | 1.10 | 54:32:14:1 | 1.42 | 42:25:11:0:15:3:4 | 0.99 | 563 | 486 |
| Indicated | 23.451 | 4.13 | 3.22 | 18.01 | 0.75 | 0.44 | 0.19 | 0.005 | 0.27 | 0.05 | 0.08 | 1.39 | 54:32:14:0 | 1.80 | 42:25:11:0:15:3:4 | 1.08 | 1,354 | 603 |
| Inferred | 67.376 | 3.10 | 3.20 | 25.65 | 1.01 | 0.58 | 0.26 | 0.005 | 0.38 | 0.08 | 0.10 | 1.86 | 54:31:14:0 | 2.42 | 42:24:11:0:16:3:4 | 1.13 | 5,247 | 784 |
| MG2 chromitite layer | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | 14.555 | 3.30 | 3.62 | 19.33 | 1.07 | 0.28 | 0.15 | 0.004 | 0.27 | 0.05 | 0.08 | 1.51 | 71:18:10:0 | 1.90 | 56:15:8:0:14:3:4 | 0.98 | 891 | 732 |
| Indicated | 41.692 | 3.59 | 3.67 | 17.79 | 0.98 | 0.28 | 0.15 | 0.004 | 0.24 | 0.05 | 0.07 | 1.42 | 69:20:10:0 | 1.78 | 55:16:8:0:14:3:4 | 0.92 | 2,386 | 733 |
| Inferred | 286.164 | 5.72 | 3.62 | 13.26 | 0.70 | 0.21 | 0.11 | 0.004 | 0.19 | 0.04 | 0.05 | 1.02 | 69:20:11:0 | 1.30 | 54:16:8:0:15:3:4 | 0.75 | 11,975 | 674 |

Source: CPR

P 46 | Strictly private and confidential

tharisa

Tharisa mine resources (SAMREC Code) (cont.)

| Tharisa mine - Mineral resource statement (31 December 2013) | | | | | | | | | | | | | | | | | | |
|---|----------------|----------------|----------------------------------|------------------------------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|---------------|-------------------|---------------|--------------------------|-------------|---------------|------------|
| MG1 chromitite layer | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | | | | | | | | | | | | 0.00 | | 0.00 | | | - | |
| Indicated | 14.322 | 1.23 | 3.89 | 33.38 | 0.34 | 0.22 | 0.11 | 0.004 | 0.48 | 0.08 | 0.08 | 0.67 | 50:32:17:1 | 1.30 | 26:17:9:0:37:6:6 | 1.34 | 599 | 810 |
| Inferred | 57.245 | 1.23 | 3.89 | 32.26 | 0.33 | 0.20 | 0.11 | 0.003 | 0.45 | 0.08 | 0.07 | 0.64 | 51:31:17:1 | 1.24 | 26:16:9:0:36:6:6 | 1.29 | 2,277 | 803 |
| MG0 chromitite layer | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | 1.801 | 0.50 | 3.74 | 26.07 | 0.57 | 0.18 | 0.16 | 0.004 | 0.30 | 0.05 | 0.07 | 0.92 | 62:19:18:0 | 1.33 | 43:13:12:0:22:4:5 | 1.09 | 77 | 747 |
| Indicated | 3.188 | 0.72 | 3.75 | 27.08 | 0.61 | 0.19 | 0.17 | 0.004 | 0.32 | 0.06 | 0.07 | 0.98 | 62:20:17:0 | 1.44 | 43:14:12:0:22:4:5 | 1.10 | 147 | 752 |
| Inferred | 0.011 | 0.17 | 3.73 | 23.76 | 0.45 | 0.17 | 0.15 | 0.006 | 0.24 | 0.04 | 0.05 | 0.77 | 58:22:19:1 | 1.11 | 41:15:13:1:22:4:5 | 1.00 | 0.40 | 711 |
| UG1 chromitite layer | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | | | | | | | | | | | | | | | | | | |
| Indicated | 1,500 | 2.17 | 3.75 | 23.68 | 0.36 | 0.28 | 0.14 | 0.030 | 0.21 | | | 0.82 | 44:35:17:4 | | | 1.12 | 39 | |
| Inferred | | | | | | | | | | | | | | | | | | |
| Total mineral resource | | | | | | | | | | | | | | | | | | |
| | Tonnage (Mt) | True Thick (m) | Bulk Density (t/m ³) | Cr ₂ O ₃ (%) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Ru (g/t) | Os (g/t) | Ir (g/t) | 3PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | 6PGE+Au (g/t) | Pt:Pd:Rh:Ru:Os:Ir | Cr:Fe | 6PGE+Au (koz) | Ni (ppm) |
| Measured | 55.079 | 2.68 | 3.71 | 21.39 | 0.73 | 0.24 | 0.16 | 0.004 | 0.28 | 0.05 | 0.07 | 1.14 | 64:21:14:0 | 1.53 | 48:16:10:0:18:3:5 | 1.07 | 2,717 | 699 |
| Indicated | 129.864 | 2.45 | 3.73 | 22.24 | 0.80 | 0.27 | 0.16 | 0.004 | 0.31 | 0.06 | 0.08 | 1.24 | 65:22:13:0 | 1.68 | 48:16:10:0:18:3:5 | 1.09 | 7,034 | 713 |
| Inferred | 650.045 | 3.11 | 3.73 | 19.93 | 0.74 | 0.23 | 0.15 | 0.004 | 0.28 | 0.05 | 0.07 | 1.13 | 66:21:13:0 | 1.54 | 49:15:10:0:18:4:5 | 0.98 | 32,083 | 712 |
| Total | 834.989 | 2.95 | 3.73 | 20.38 | 0.75 | 0.24 | 0.15 | 0.004 | 0.28 | 0.05 | 0.07 | 1.15 | 66:21:13:0 | 1.56 | 48:15:10:0:18:4:5 | 1.00 | 41,834 | 712 |
| <ul style="list-style-type: none"> The mineral reserve is declared to a depth of 750 metres below surface. The consideration of realistic eventual extraction necessitates that the mineral reserve considers the MG chromitite layer to be a geological unit and that all platinumiferous and chromiumiferous horizons will be mined and all PGM, Cu, Ni and Cr₂O₃ recovered. The UG1 chromitite layer is declared for the part that falls within the current proposed open pit. The mineral reserve is reported inclusive of the mineral reserve. | | | | | | | | | | | | | | | | | | |

Source: CPR

P 47 | Strictly private and confidential

tharisa

Open pit reserves (SAMREC Code)

Tharisa mine – Open pit mineral reserve statement (December 2013)

| Proved mineral reserve | | | | | | | | | | | | | |
|--------------------------|----------------|-------------|-------------|-------------|--------------|---------------|-------------|-------------|---------------|------------------------------------|--------------|--------------|--------------|
| Chromitite layer | Tonnes ('000) | Pt (g/t) | Pd(g/t) | Rh(g/t) | Au (g/t) | 3PGE+Au (g/t) | Ru(g/t) | Ir(g/t) | 5PGE+Au (g/t) | Cr ₂ O ₃ (%) | Cu (%) | Ni (%) | Cr (%) |
| MG0 | | | | | | | | | | | | | |
| MG1 | | | | | | | | | | | | | |
| MG2 | 11,817 | 1.03 | 0.26 | 0.15 | 0.004 | 1.45 | 0.25 | 0.07 | 1.77 | 18.31 | 0.002 | 0.070 | 12.53 |
| MG3 | 10,412 | 0.56 | 0.32 | 0.14 | 0.005 | 1.03 | 0.20 | 0.06 | 1.29 | 12.23 | 0.003 | 0.046 | 8.37 |
| MG4 | 11,010 | 1.06 | 0.22 | 0.21 | 0.003 | 1.49 | 0.35 | 0.11 | 1.95 | 25.72 | 0.003 | 0.075 | 17.60 |
| MG4A | 5,234 | 0.34 | 0.13 | 0.11 | 0.003 | 0.58 | 0.22 | 0.04 | 0.85 | 21.44 | 0.002 | 0.066 | 14.67 |
| Total | 38,474 | 0.79 | 0.25 | 0.15 | 0.004 | 1.19 | 0.27 | 0.08 | 1.53 | 19.21 | 0.002 | 0.064 | 13.14 |
| Probable mineral reserve | | | | | | | | | | | | | |
| Chromitite layer | Tonnes ('000) | Pt(g/t) | Pd(g/t) | Rh(g/t) | Au (g/t) | 3PGE+Au (g/t) | Ru(g/t) | Ir(g/t) | 5PGE+Au (g/t) | Cr ₂ O ₃ (%) | Cu (%) | Ni (%) | Cr (%) |
| MG0 | 4,473 | 0.40 | 0.13 | 0.12 | 0.003 | 0.665 | 0.23 | 0.05 | 0.93 | 19.16 | 0.002 | 0.060 | 13.11 |
| MG1 | 8,005 | 0.29 | 0.18 | 0.10 | 0.003 | 0.57 | 0.41 | 0.07 | 1.05 | 28.89 | 0.003 | 0.069 | 19.77 |
| MG2 | 21,454 | 1.02 | 0.28 | 0.15 | 0.004 | 1.45 | 0.25 | 0.07 | 1.77 | 18.11 | 0.002 | 0.070 | 12.39 |
| MG3 | 18,825 | 0.59 | 0.34 | 0.15 | 0.005 | 1.06 | 0.21 | 0.06 | 1.33 | 12.81 | 0.001 | 0.047 | 8.76 |
| MG4 | 9,960 | 1.08 | 0.24 | 0.21 | 0.003 | 1.52 | 0.36 | 0.11 | 1.99 | 25.30 | 0.003 | 0.073 | 17.31 |
| MG4A | 6,043 | 0.35 | 0.14 | 0.11 | 0.004 | 0.59 | 0.22 | 0.04 | 0.85 | 20.83 | 0.002 | 0.066 | 14.25 |
| Total | 68,761 | 0.74 | 0.26 | 0.15 | 0.004 | 1.15 | 0.27 | 0.07 | 1.49 | 19.26 | 0.002 | 0.064 | 13.18 |
| Total mineral reserve | | | | | | | | | | | | | |
| Chromitite layer | Tonnes ('000) | Pt(g/t) | Pd(g/t) | Rh(g/t) | Au (g/t) | 3PGE+Au (g/t) | Ru(g/t) | Ir(g/t) | 5PGE+Au (g/t) | Cr ₂ O ₃ (%) | Cu (%) | Ni (%) | Cr (%) |
| MG0 | 4,473 | 0.40 | 0.13 | 0.12 | 0.003 | 0.66 | 0.23 | 0.05 | 0.93 | 19.16 | 0.002 | 0.060 | 13.11 |
| MG1 | 8,005 | 0.29 | 0.18 | 0.10 | 0.003 | 0.57 | 0.41 | 0.07 | 1.05 | 28.89 | 0.003 | 0.069 | 19.77 |
| MG2 | 33,272 | 1.03 | 0.27 | 0.15 | 0.004 | 1.45 | 0.25 | 0.07 | 1.77 | 18.18 | 0.002 | 0.070 | 12.44 |
| MG3 | 29,237 | 0.58 | 0.34 | 0.15 | 0.005 | 1.06 | 0.21 | 0.06 | 1.33 | 12.78 | 0.001 | 0.048 | 13.68 |
| MG4 | 20,970 | 1.07 | 0.23 | 0.21 | 0.003 | 1.50 | 0.36 | 0.11 | 1.97 | 25.52 | 0.003 | 0.074 | 17.46 |
| MG4A | 11,277 | 0.34 | 0.13 | 0.11 | 0.003 | 0.59 | 0.22 | 0.04 | 0.85 | 21.11 | 0.002 | 0.066 | 14.44 |
| Total | 107,235 | 0.76 | 0.25 | 0.15 | 0.004 | 1.17 | 0.27 | 0.07 | 1.51 | 19.29 | 0.002 | 0.064 | 13.20 |

Source: CPR

P 48 | Strictly private and confidential

tharisa

Underground reserves (SAMREC Code)

Tharisa mine – Underground mine mineral reserve statement (December 2013)

| Proved mineral reserve | | | | | | | | | | | | | |
|--------------------------|---------------|-------------|-------------|-------------|--------------|---------------|-------------|-------------|---------------|------------------------------------|--------------|--------------|--------------|
| Chromitite layer | Tonnes ('000) | Pt (g/t) | Pd(g/t) | Rh(g/t) | Au (g/t) | 3PGE+Au (g/t) | Ru(g/t) | Ir(g/t) | 5PGE+Au (g/t) | Cr ₂ O ₃ (%) | Ni (%) | Cu (%) | Cr (%) |
| MG2AB | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MG4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Probable mineral reserve | | | | | | | | | | | | | |
| Chromitite layer | Tonnes ('000) | Pt(g/t) | Pd(g/t) | Rh(g/t) | Au (g/t) | 3PGE+Au (g/t) | Ru(g/t) | Ir(g/t) | 5PGE+Au (g/t) | Cr ₂ O ₃ (%) | Ni (%) | Cu (%) | Cr (%) |
| MG2AB | 6,646 | 0.70 | 0.21 | 0.10 | 0.002 | 1.02 | 0.20 | 0.05 | 1.27 | 17.37 | 0.060 | 0.002 | 11.88 |
| MG4 | 12,002 | 0.89 | 0.18 | 0.17 | 0.002 | 1.25 | 0.31 | 0.10 | 1.66 | 20.39 | 0.061 | 0.002 | 14.10 |
| Total | 18,649 | 0.82 | 0.19 | 0.15 | 0.002 | 1.17 | 0.27 | 0.08 | 1.52 | 19.31 | 0.060 | 0.002 | 13.31 |
| Total mineral reserve | | | | | | | | | | | | | |
| Chromitite layer | Tonnes ('000) | Pt(g/t) | Pd(g/t) | Rh(g/t) | Au (g/t) | 3PGE+Au (g/t) | Ru(g/t) | Ir(g/t) | 5PGE+Au (g/t) | Cr ₂ O ₃ (%) | Ni (%) | Cu (%) | Cr (%) |
| MG2AB | 6,646 | 0.70 | 0.21 | 0.10 | 0.002 | 1.02 | 0.20 | 0.05 | 1.27 | 17.37 | 0.060 | 0.002 | 11.88 |
| MG4 | 12,002 | 0.89 | 0.18 | 0.17 | 0.002 | 1.25 | 0.31 | 0.10 | 1.66 | 20.39 | 0.061 | 0.002 | 14.10 |
| Total | 18,649 | 0.82 | 0.19 | 0.15 | 0.002 | 1.17 | 0.27 | 0.08 | 1.52 | 19.31 | 0.060 | 0.002 | 13.31 |

Source: CPR