



SANDFIRE RESOURCES NL

ASX Code: SFR



March 2013 Quarterly Report

Webcast – Karl Simich, Managing Director and CEO

17 April 2013

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- The information in this public presentation that relates to Exploration Results and Mineral Resources is based on information compiled by Mr John Evans who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Evans is a permanent employee and Director of Sandfire Resources NL. Mr Evans 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 2004 Edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Agenda

March 2013 Quarterly Report

- Highlights
- Safety
- Mining
- Processing
- Production & Sales
- Exploration
- Summary



March 2013 Quarterly Highlights

Ramp-up of Concentrator and Underground Mine on target

Production and Operations

- Continued improved safety performance
- Open pit completed in April 2013, transitioning to wholly underground operations
- Ramp-up of underground mine on schedule
- Plant ramp-up and optimisation continuing
- On track for nameplate production rates from mid-CY 2013

Contained metal production	Sep 2012 Qtr	Dec 2012 Qtr	Mar 2013 Qtr	Year to Date
COPPER				
Concentrator	-	7,962	11,632	19,594
DSO	20,175	8,430	2,051	30,656
Total Copper (tonnes)	20,175	16,392	13,683	50,250
GOLD				
Concentrator	-	3,938	6,287	10,225
DSO	6,161	6,241	3,167	15,569
Oxide gold	1,174	4,516	2,609	8,299
Total Gold (ounces)	7,335	14,695	12,063	34,093



March 2013 Quarterly Highlights

Ramp-up of Concentrator and Underground Mine on target

Exploration

- In-mine mapping has revealed numerous insights into structural controls, extending exploration opportunities near-mine, including the DeGrussa offset target
- Progressing Ore Reserve and Mineral Resource upgrade including extensions to Conductor 4 and Conductor 5 from drilling including:
 - Conductor 4 – 10.6m @ 4.46% Cu testing the interpreted eastern extension
 - Conductor 5 – 26.1m @ 7.2% Cu and 3.1g/t Au (existing model estimated 11m), 28.3m @ 5.3% Cu and 2.7g/t Au (existing model estimated 8m), 15.2m @ 8.6% Cu and 2.3g/t Au (existing model estimated 7m)
- Exciting new near-mine exploration results and regional targets

Financial and Corporate

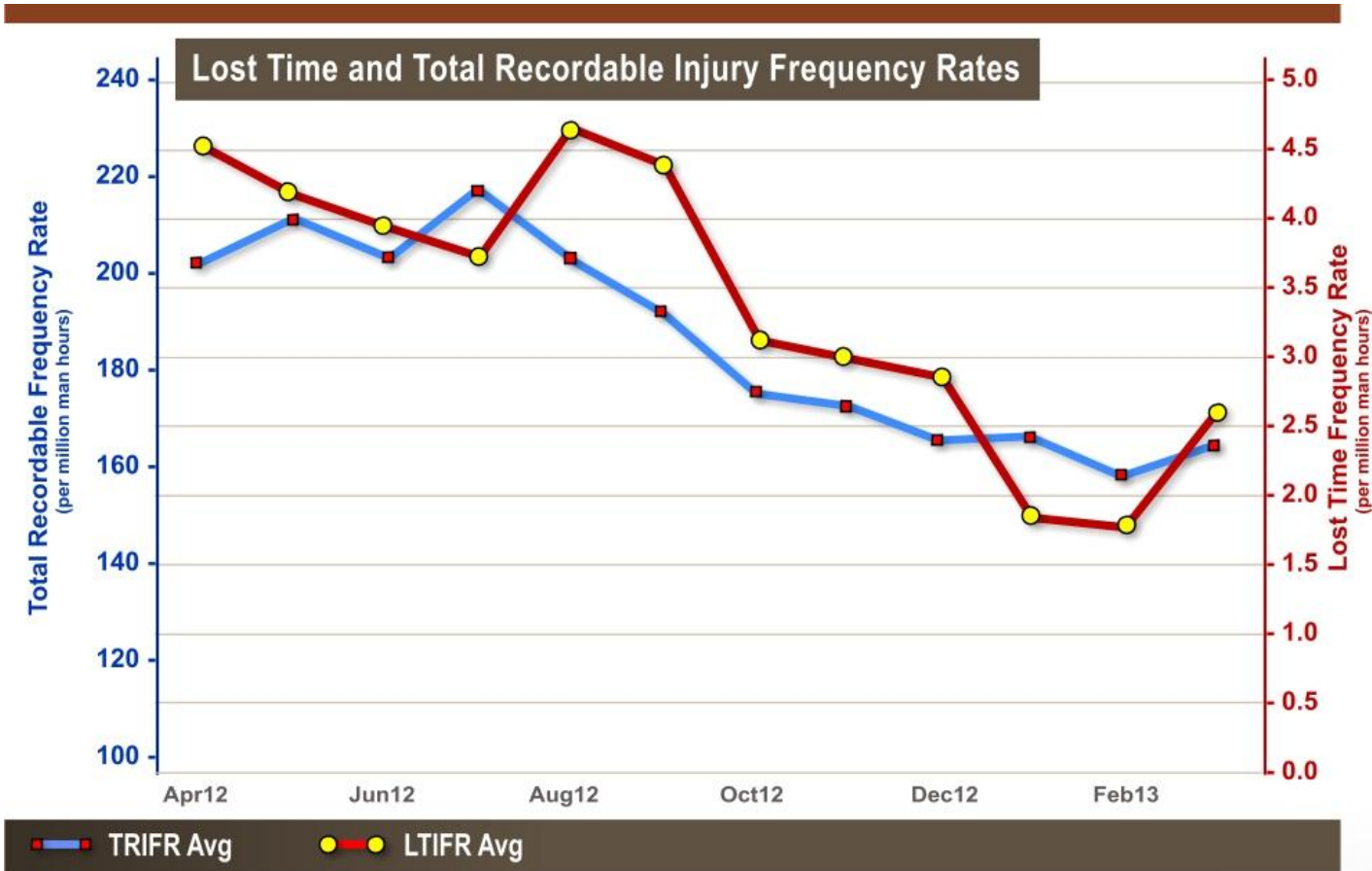
- First \$50M debt repayment completed to reduce debt to \$330M, with further funds deposited for the next scheduled payment of \$45M in June 2013



Safety

Further improvements in safety performance achieved

- LTIFR of **2.6** at March Quarter-end, reduced from December Quarter-end
- 1 lost time injury sustained for the Quarter
- Safety performance in line with targets established in Safety Management Action Plan



Mining Overview

Transition to wholly underground operations

OPEN PIT

- **Stage 1 open pit** completed December 2012 – **7.7Mbcm** mined
- **Stage 2 open pit** completed mid-April 2013 – **5.4Mbcm** mined, extracting remaining sulphide and copper and gold oxide material

UNDERGROUND

- **Three stopes** developed and in production – **487,718 tonnes** of sulphide ore mined to date
- Current underground mining rate of **1.2Mtpa** – on target to achieve 1.5Mtpa steady-state from mid-CY2013
- **Paste plant commissioning** underway – first stope paste poured in early April 2013
- Evans Decline now **+2km from the portal**, 340m below surface
- Total underground development progressed to **12.8km**



Processing

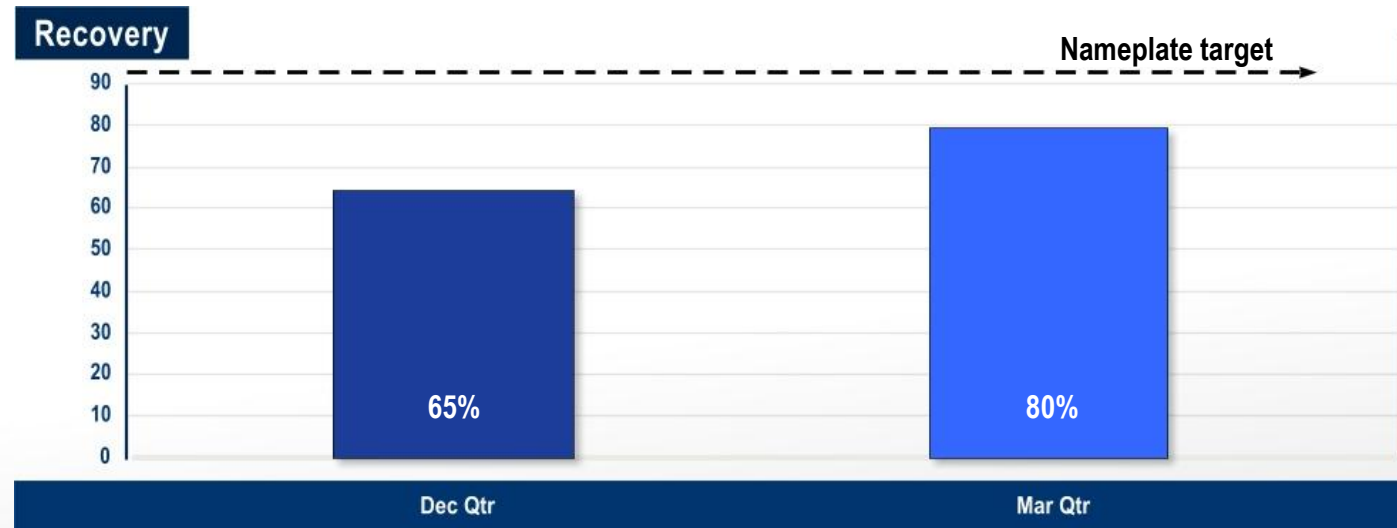
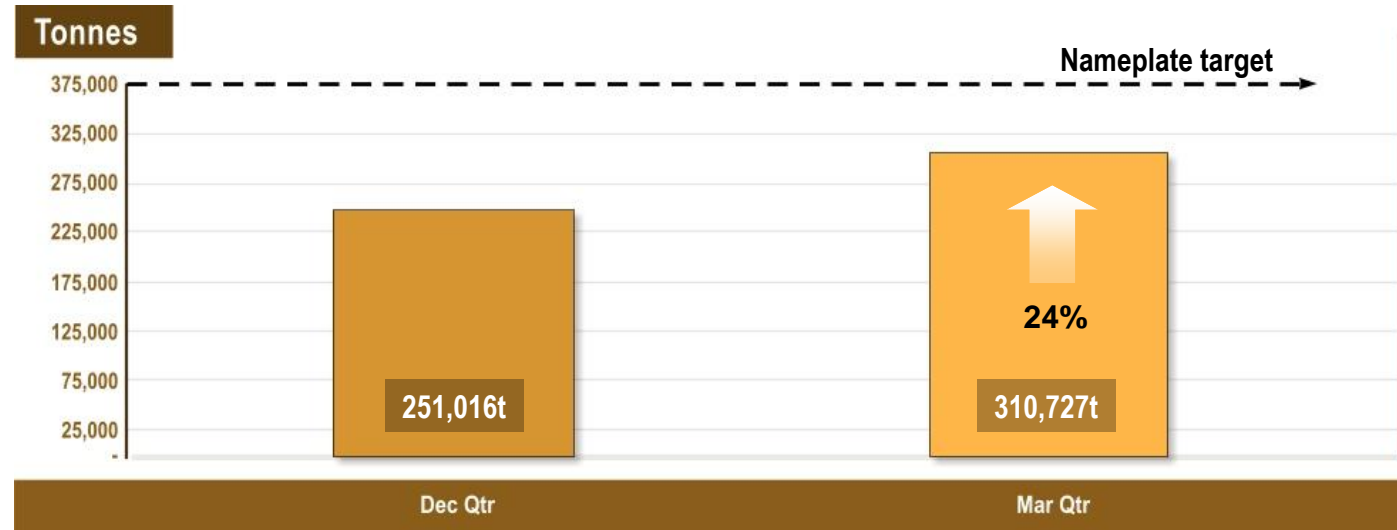
Ramp-up on track to achieve targeted production from mid-CY2013

MILL THROUGHPUT

- **310,727 tonnes** milled – **24% increase** vs. December Quarter
- Steady increase in tonnes processed: on track to achieve nameplate target of **375,000t per quarter** from mid-CY 2013

RECOVERY

- Achieved recoveries of **85-90%** for primary underground ore when processed through the Concentrator – **targeting nameplate +90%**
- Recovery increased from **65%** (Dec Quarter) to **80%** (March Quarter)



Processing

Ramp-up on track to achieve targeted production from mid-CY2013

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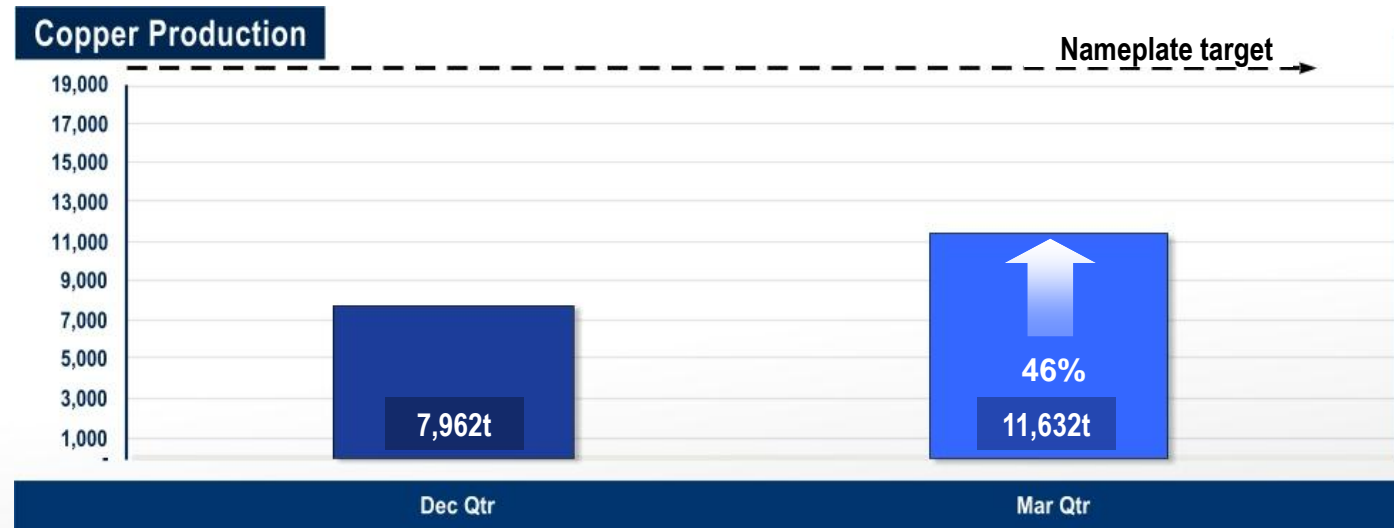
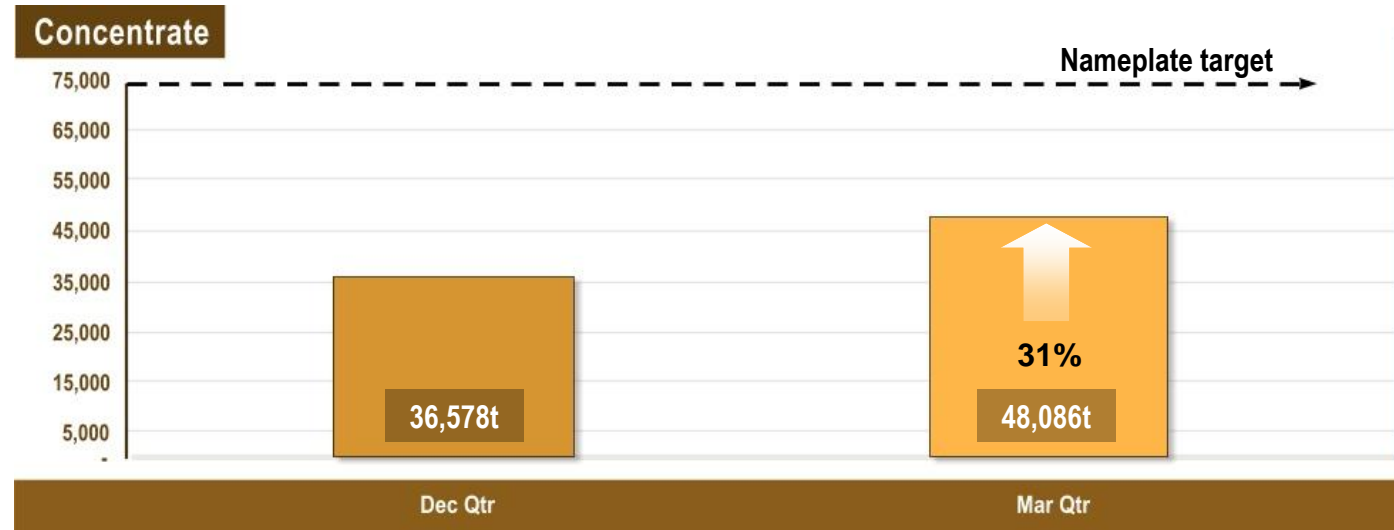
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CONCENTRATE & METAL PRODUCTION

- **48,085 tonnes** of concentrate produced – **31% increase** vs. December Quarter (target: **75,000 tonnes** mid-CY 2013)
- **11,632 tonnes** of contained copper produced – **46% increase** vs. December Quarter (target: **19,200 tonnes** from mid CY-2013)



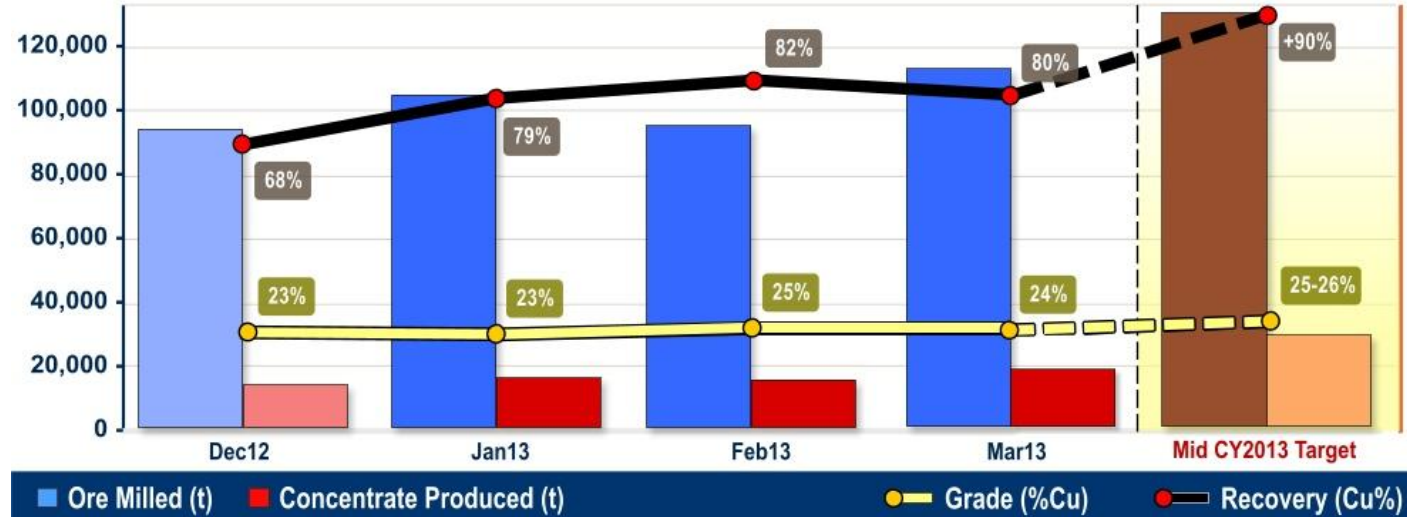
Processing

Ramp-up on track to achieve targeted production from mid-CY2013

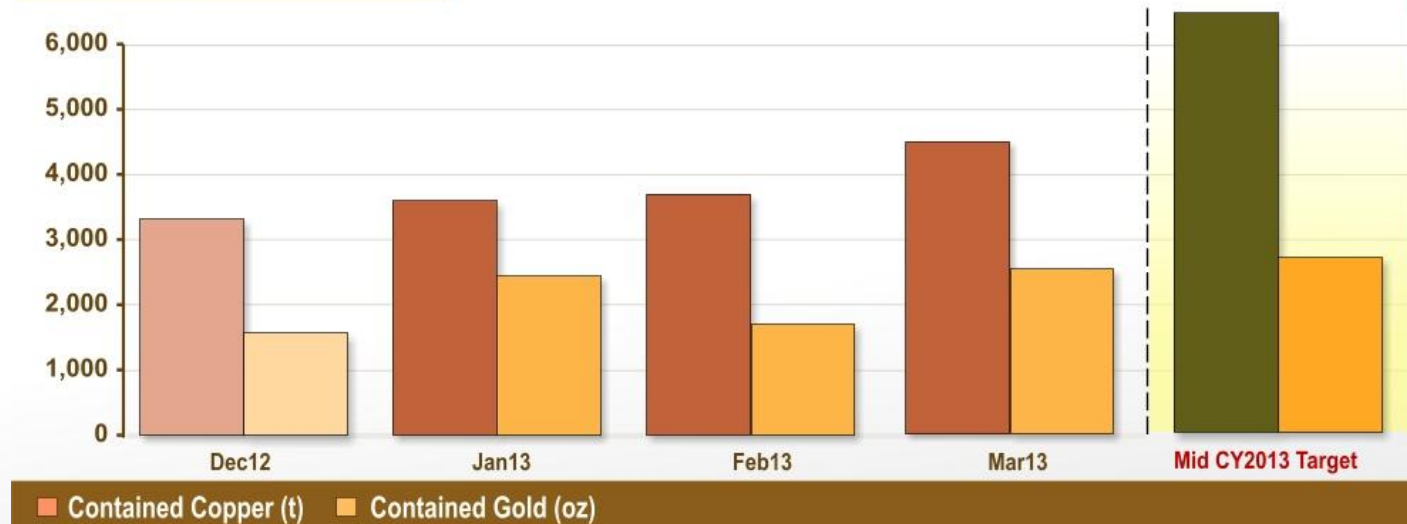


- Increasing monthly recoveries, targeting +90% by mid-CY 2013 – constrained to mid-CY2013 by:
 - Lower recoveries (+60%) for transitional open pit sulphide material, as previously announced
 - Head grade from initial stopes in Conductor 1 of ~4% Cu: progressing into higher grade DeGrussa stopes (first 15 days of April 2013: ~3,000t Cu production at 5.6% Cu feed grade; +85% recovery)
- Achieved concentrate specification
- Successful 2-day plant shut-down completed late February 2013:
 - Tailings thickener capacity increased stability
 - SAG mill grate modifications to improve ore retention
 - Cleaner circuit hopper mods to improve plant stability
 - Shut-down and shorter month constrained copper production
 - Optimisation continuing over the June Quarter in line with ramp-up schedule

Concentrator Ramp Up



Contained Metal Production



Processing

Ramp-up on track to achieve targeted production from mid-CY2013

- Variation in head feed grade between stopes (generally 4-6% Cu)
- Targeted recovery range (88-93%) varies with feed grade due to fixed tail grade
- Results in effective monthly production targets ranging from 4,500-7,000 tonnes per month
- As underground development and stoping progresses further, blending for plant feed will minimise variation – underpinning the target quarterly copper production of 19,250t Cu (6,400t Cu per month)

Plant Production vs head grade

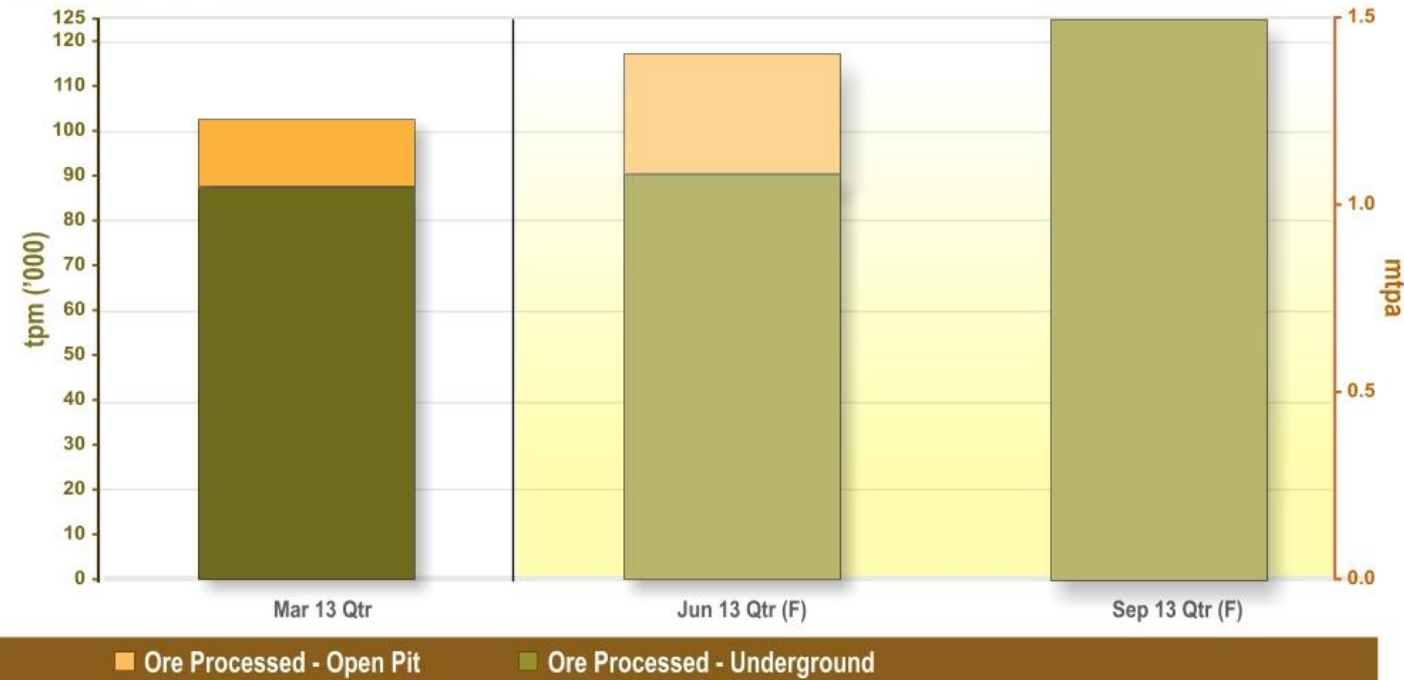


Operational and Production Overview

Transition to long-term Concentrator production fed from underground continuing

- Concentrator production has steadily ramped up following the start of commissioning in October 2012
- During the ramp-up of underground mine production, transitional open pit sulphide material is being processed along with underground ore
- This will continue during the June Quarter, with production forecast to be sourced wholly from underground from the September 2013 Quarter onwards

Plant Ramp Up Schedule

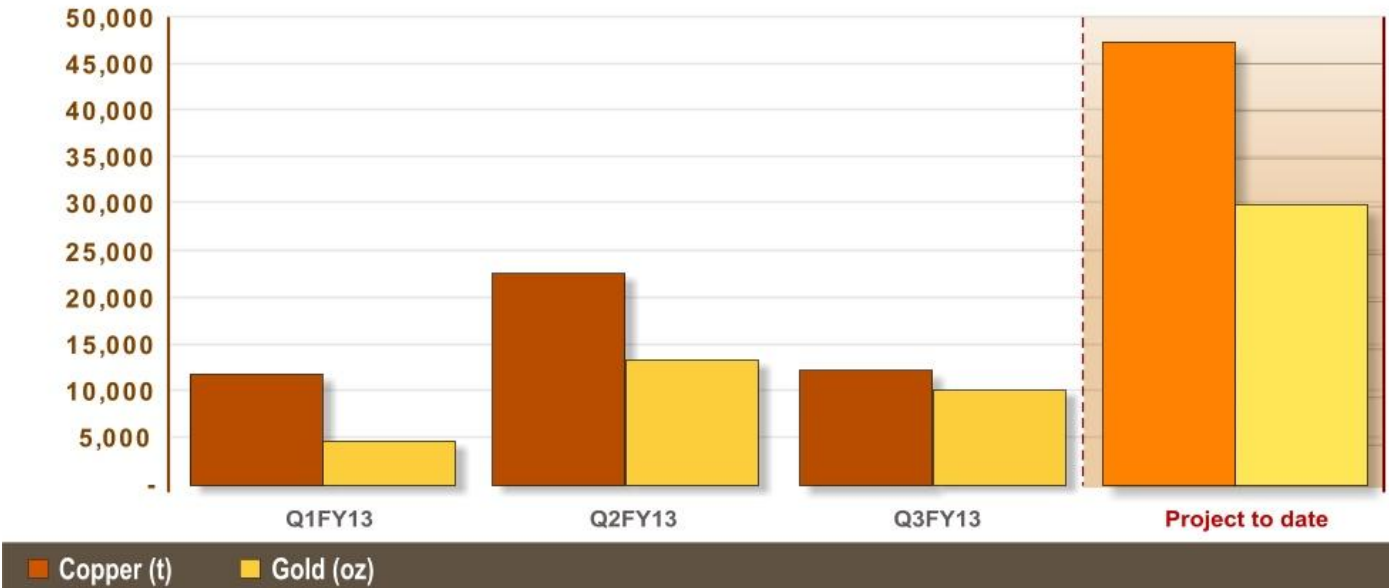


Sales

Copper and gold sales

- Increased Quarterly copper sales of 12,297t Cu and 10,155oz Au
- Last high-grade DSO shipment completed in early January 2013
- Low grade ~30,000t at +10% Cu to complete the DSO sales program
- Concentrate shipments progressing as scheduled

Metal Sales



Production Guidance

Guidance for metal production – copper and gold

Metal production	Q1-Q3FY13 – Actual		Q4FY13 – Guidance		To June 2013 – Guidance	
	Cu(kt)	Au(koz)	Cu(kt)	Au(koz)	Cu(kt)	Au(koz)
Concentrator	20	10	15	7	35	17
DSO	30	16	-	-	30	16
Oxide gold	-	8	-	3	-	11
Total – 2012/2013	50	34	15	10	65	44
DSO	4	2			4	2
Oxide gold	-	1			-	1
Total – 2011/2012	4	3			4	3
Total – Project to date	54	37	15	10	69	47

- Full year concentrator production guidance maintained at 35kt Cu and 17koz Au
- Final sales results for prior quarter DSO sales has marginally reduced total DSO production year to date (DSO production completed during the March Quarter)

DeGrussa – “Corridor of Riches”

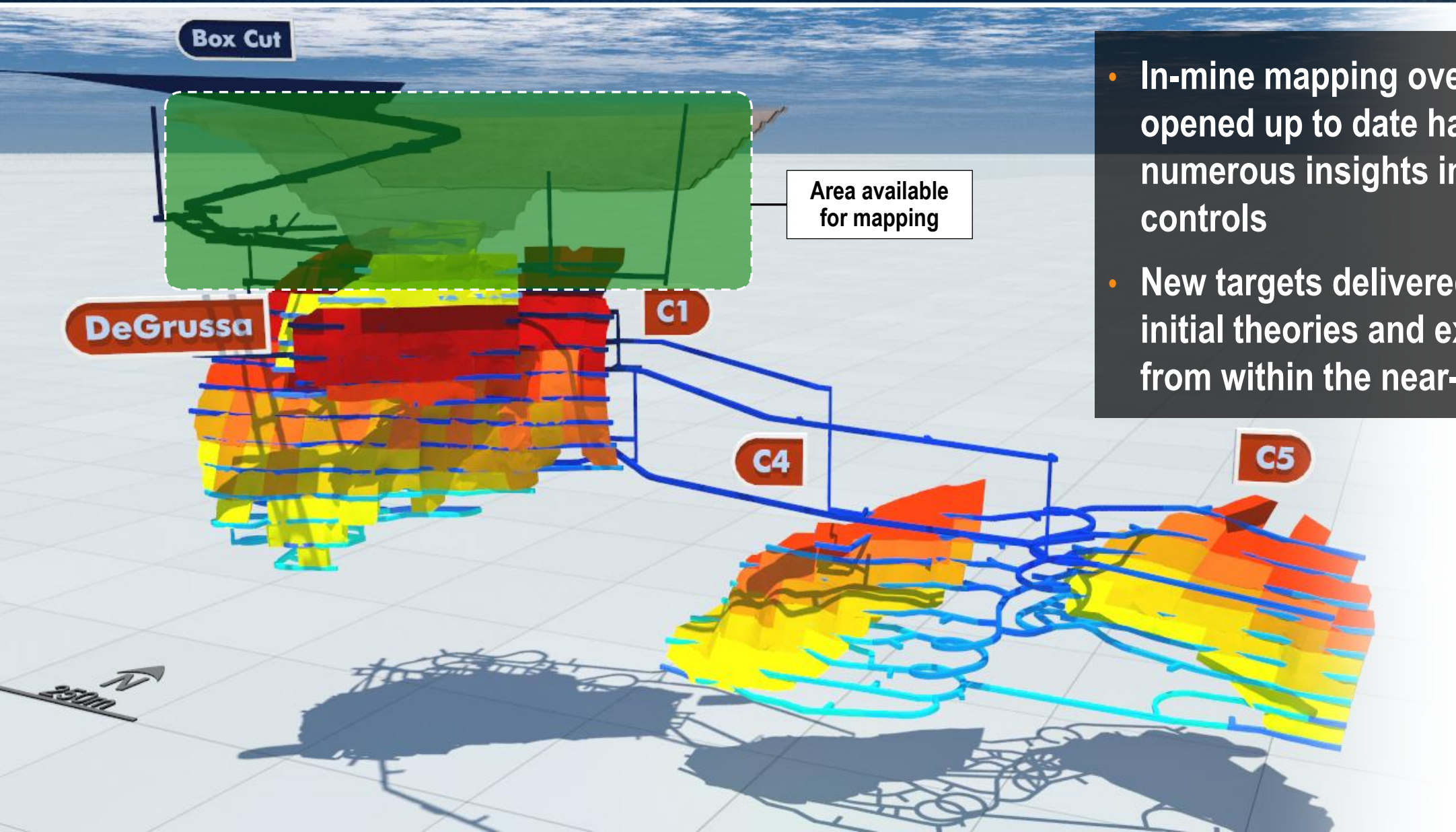
Minimal exploration conducted along +30km prospective corridor



- VMS mineralising environment confirmed over +30km long, 2km wide corridor
- Minimal exploration below 100m: host sequence at depth still to be explored
- DeGrussa deposit extents have a strike length of just 1.2km: small footprint, high value

Near-Mine Exploration Success

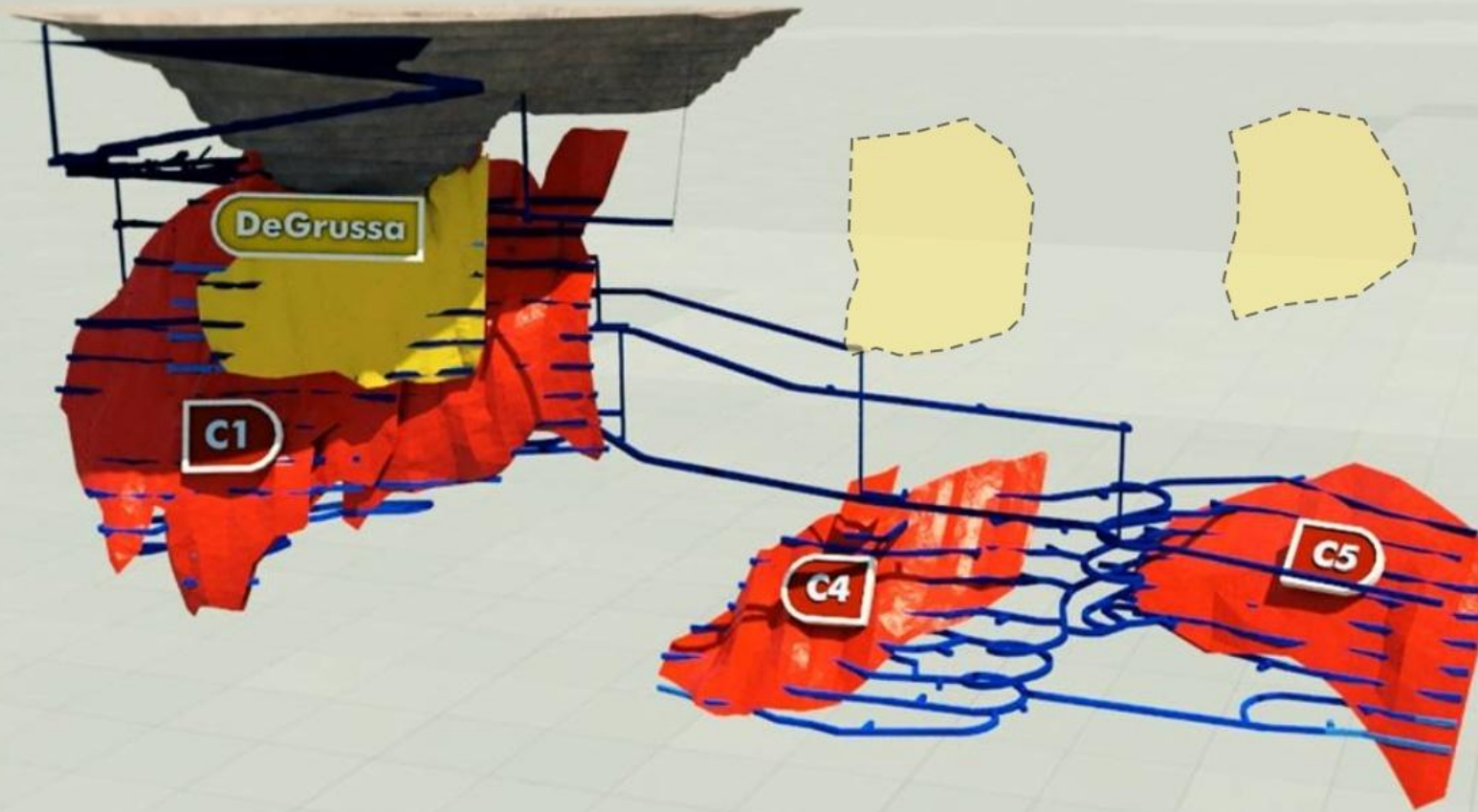
"DeGrussa Offset" conceptual target position



- In-mine mapping over small area opened up to date has revealed numerous insights into structural controls
- New targets delivered from these initial theories and extrapolation from within the near-mine area

Near-Mine Exploration Success

“DeGrussa Offset” conceptual target position



- Multiple target zones identified
- Extending exploration opportunity near-mine
- Structural geology delivering robust targets

Mineralisation



DeGrussa Target

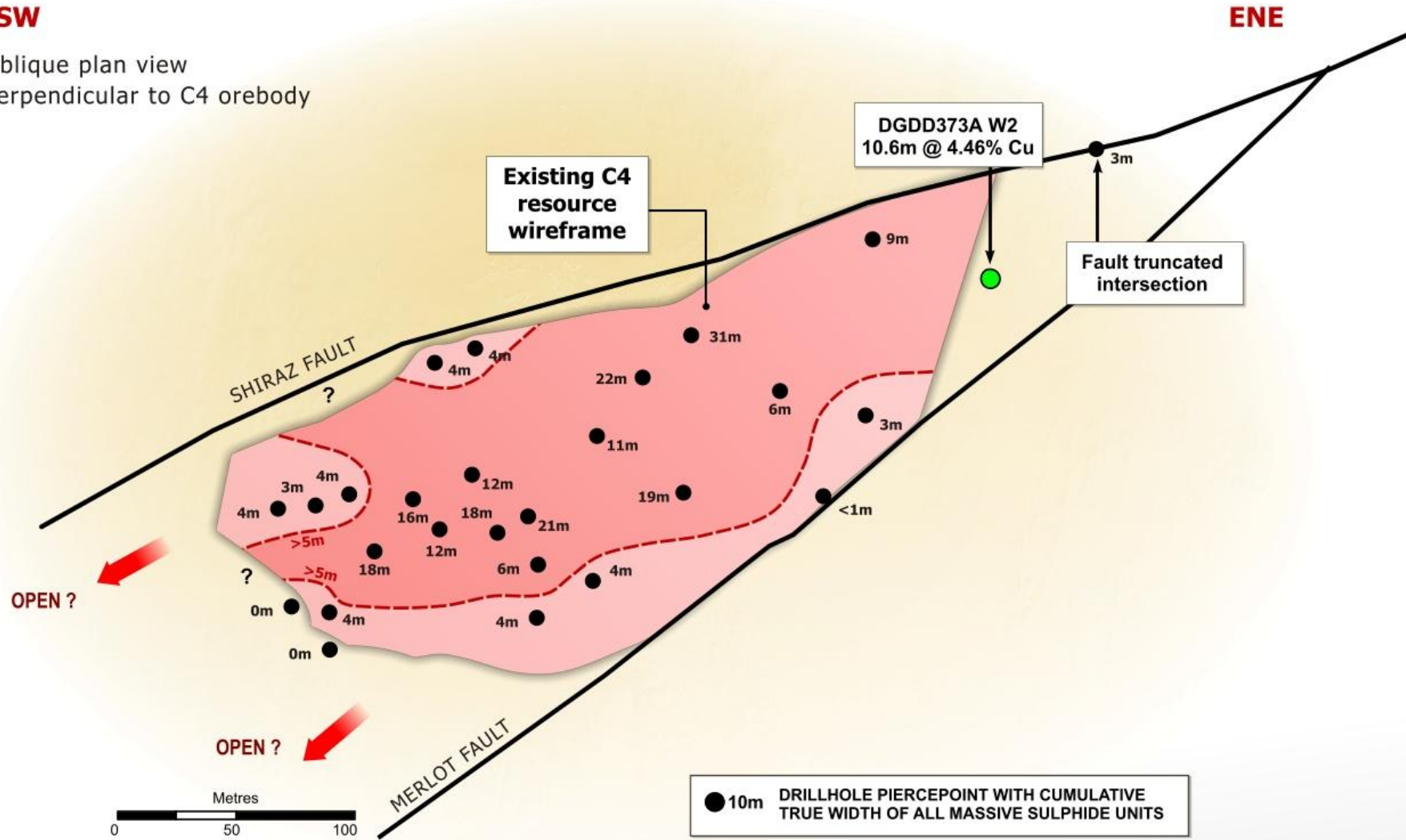


Near-Mine Exploration Success – Conductor 4

Significant extension identified to Conductor 4 VMS lens

WSW

Oblique plan view
perpendicular to C4 orebody

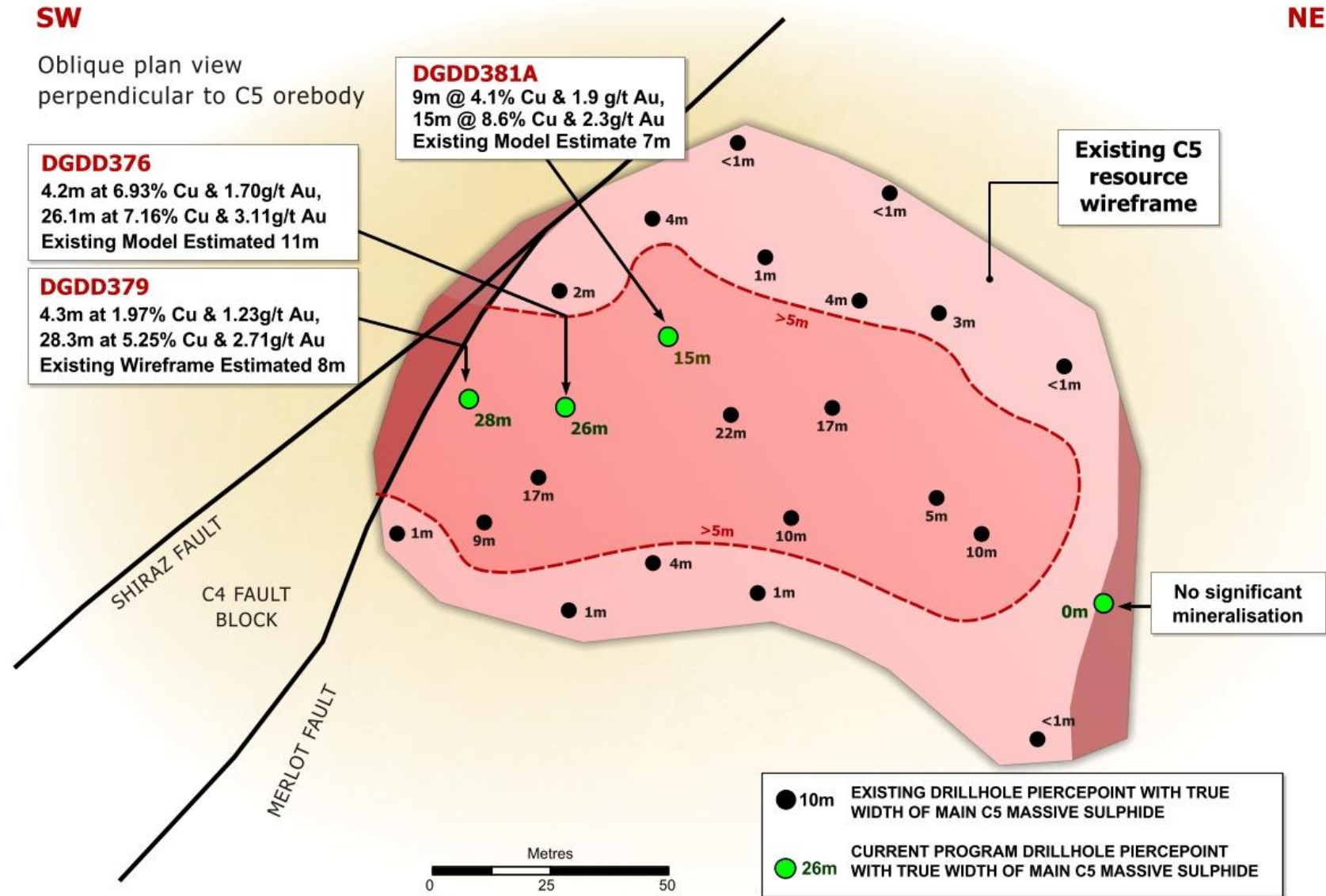


ENE

- One drillhole completed to test the interpreted eastern extension of the C4 orebody – intersected 10.6m @ 4.46% Cu.
- Resources will be updated for C4 to reflect this intersection and the increased knowledge of bounding structures and orebody morphology

Near-Mine Exploration Success – Conductor 5

Recent drilling shows Conductor 5 is significantly thicker than current resource



- Thickest intersection of C5 massive sulphide drilled to date
- Potential for resource increase (Main and Upper Zones) towards Merlot Fault
- 1 conventional and 3 directional drillholes completed during Q1 2013
- C5 resource being re-modelled to reflect thicker central zone

Summary

DeGrussa Copper-Gold Mine ramping up to full production; exploration delivering results

- Concentrator commissioning and underground mine ramp-up continuing as planned
- Optimisation of grade, recoveries and throughput advancing
- On track for nameplate production rates from mid-CY2013
- Successful transition from open pit to underground mining operations
- Ore Reserve and Mineral Resource upgrade in progress
- First scheduled \$50M debt repayment completed
- \$45M deposited for the end June 2013 scheduled repayment

Australia's newest copper producer.





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Appendix: DeGrussa – Mining & Production Summary

Strong production and sales performance



March 2013 Quarter		Tonnes	Grade (% Cu)	Grade (g/t Au)	Contained Copper (t)	Contained Gold (oz)
DSO	Mined	-	-	-	-	-
	Crushed	19,925	10.3	4.9	2,051	3,167
	DSO sales	17,649	16.9	3.7	2,989	2,072
Concentrator	Mined	447,425	5.2	1.6	23,442	23,488
	Milled	310,727	4.7	1.7	14,540	17,442
	Concentrate produced	48,085	24.2	4.1	11,632	6,287
	Concentrate sold	38,418	24.2	4.4	9,308	5,434
Oxide gold	Mined	-	-	-	-	-
	Milled (toll treatment)	25,251	-	3.5	-	2,882
	Gold production	-	-	-	-	2,609
	Gold sales	-	-	-	-	2,609
Total	Mined	447,425	5.2	1.6	23,442	23,488
	Crushed/Milled	355,903	4.7	2.1	16,591	23,491
	Copper production	68,010	20.1	4.3	13,683	9,454
	Gold production	-	-	-	-	2,609
	Contained metal	-	-	-	13,683	12,063
	Copper and gold sales	56,067	21.9	-	12,297	10,115

Appendix: DeGrussa – Mining & Production Summary

Strong production and sales performance



FY2013 Year to Date		Tonnes	Grade (% Cu)	Grade (g/t Au)	Contained Copper (t)	Contained Gold (oz)
DSO	Mined	138,216	21.9	3.5	30,333	15,392
	Crushed	139,355	22.0	3.5	30,656	15,569
	DSO sales	118,245	25.2	3.2	29,764	12,140
Concentrator	Mined	794,760	5.1	1.7	40,779	43,320
	Milled	561,743	4.8	1.8	26,901	32,513
	Concentrate produced	84,663	23.1	3.8	19,594	10,225
	Concentrate sold	67,390	22.9	3.6	15,434	7,872
Oxide gold	Mined	3,559	-	0.8	-	94
	Milled (toll treatment)	78,571	-	3.7	-	9,270
	Gold production	-	-	-	-	8,299
	Gold sales	-	-	-	-	8,299
Total	Mined	936,535	7.6	2.0	71,112	58,806
	Crushed/Milled	779,669	7.4	2.3	57,557	57,352
	Copper production	224,018	22.4	3.6	50,250	25,794
	Gold production	-	-	-	-	8,299
	Contained metal	-	-	-	50,250	34,093
	Copper and gold sales	185,635	24.3	-	45,198	28,311

Appendix: DeGrussa – Mining & Production Summary

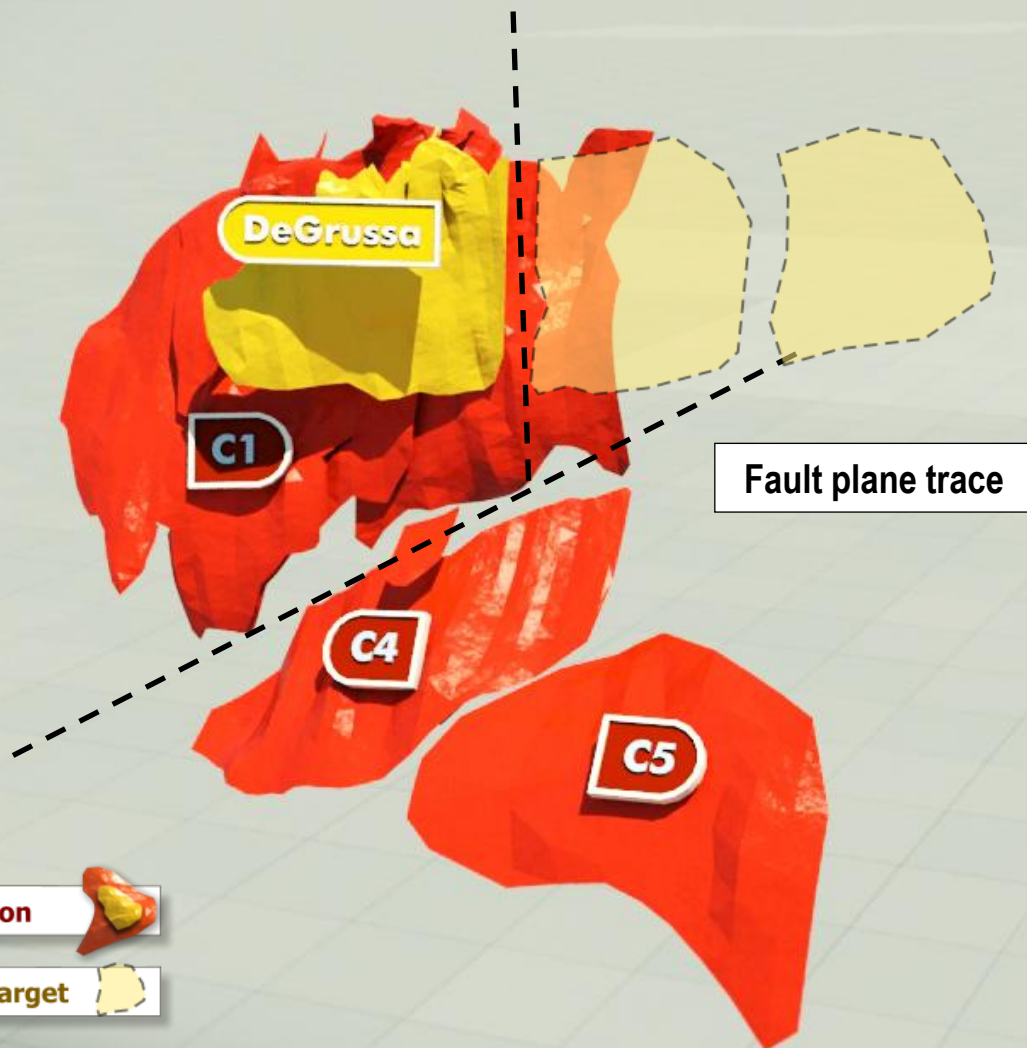
Strong production and sales performance



Project to date		Tonnes	Grade (% Cu)	Grade (g/t Au)	Contained Copper (t)	Contained Gold (oz)
DSO	Mined	155,512	22.6	3.6	35,180	17,907
	Crushed	155,512	22.6	3.6	35,180	17,907
	DSO sales	124,735	25.7	3.2	32,012	13,015
Concentrator	Mined	823,892	5.1	1.7	42,121	44,315
	Milled	561,743	4.8	1.8	26,901	32,513
	Concentrate produced	84,663	23.1	3.8	19,594	10,225
	Concentrate sold	67,390	22.9	3.6	15,434	7,872
Oxide gold	Mined	278,603	0.2	1.8	463	16,446
	Milled (toll treatment)	87,121	-	3.7	-	10,255
	Gold production	-	-	-	-	9,264
	Gold sales	-	-	-	-	9,264
Total	Mined	1,258,007	6.2	1.9	77,764	78,668
	Crushed/Milled	804,376	7.7	2.3	62,081	60,675
	Copper production	240,175	22.8	3.6	54,774	28,132
	Gold production	-	-	-	-	9,264
	Contained metal	-	-	-	54,774	37,396
	Copper and gold sales	192,125	24.7	-	47,446	30,151

Near-Mine Exploration Success

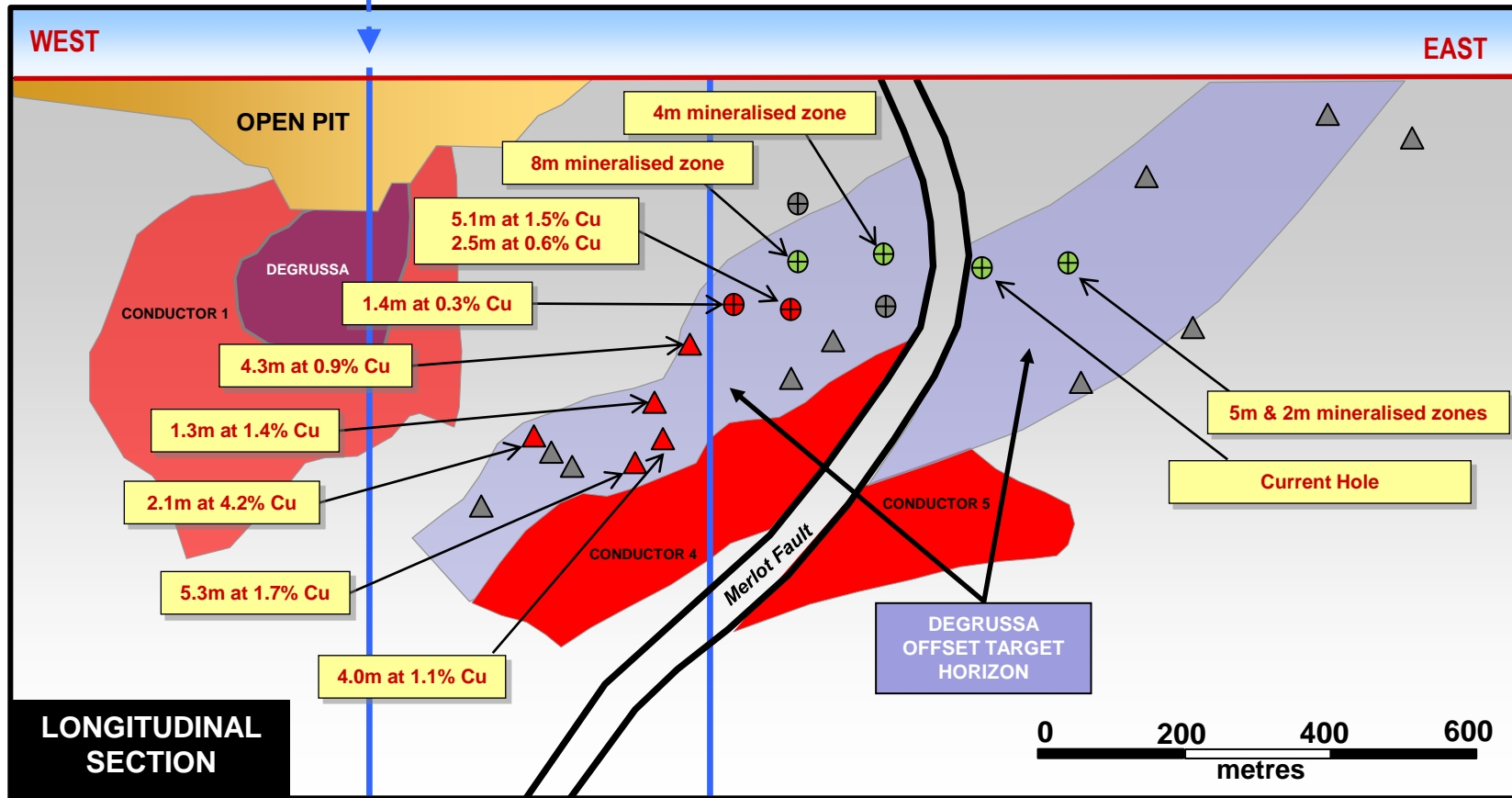
“DeGrussa Offset” conceptual target position



- C4 interpreted to be the faulted offset of C1
- On this basis, DeGrussa (which is also truncated by the Shiraz Fault) should also have an offset equivalent
- This exploration premise has opened up the area on the southern side of the Shiraz Fault – the “DeGrussa Offset Target”

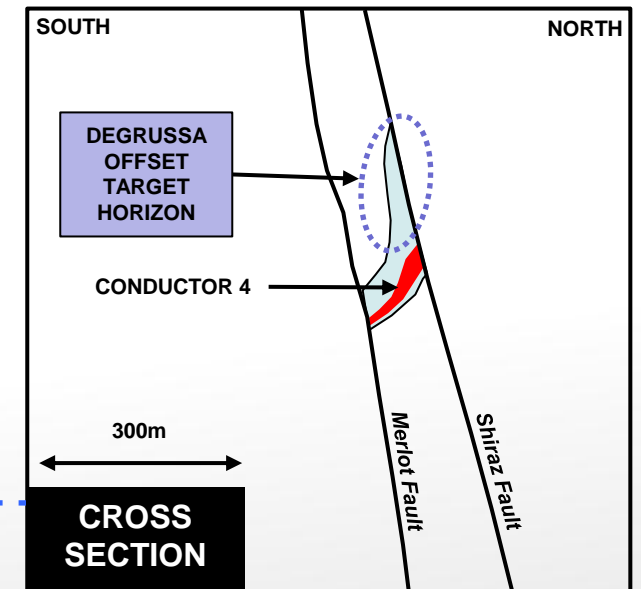
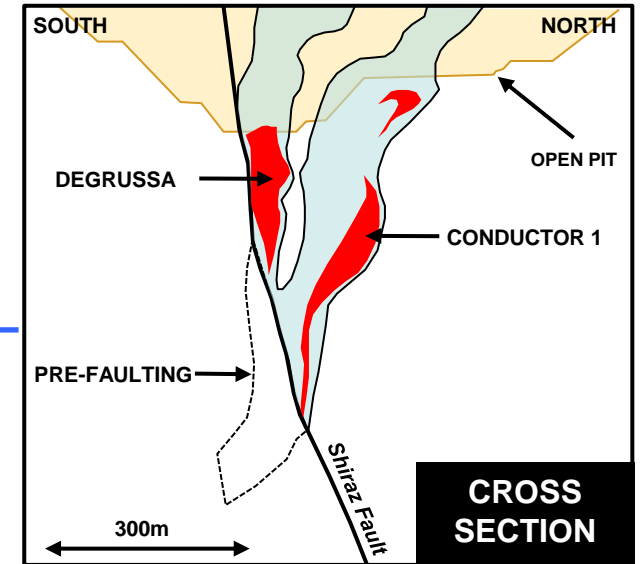
Near-Mine Exploration Success

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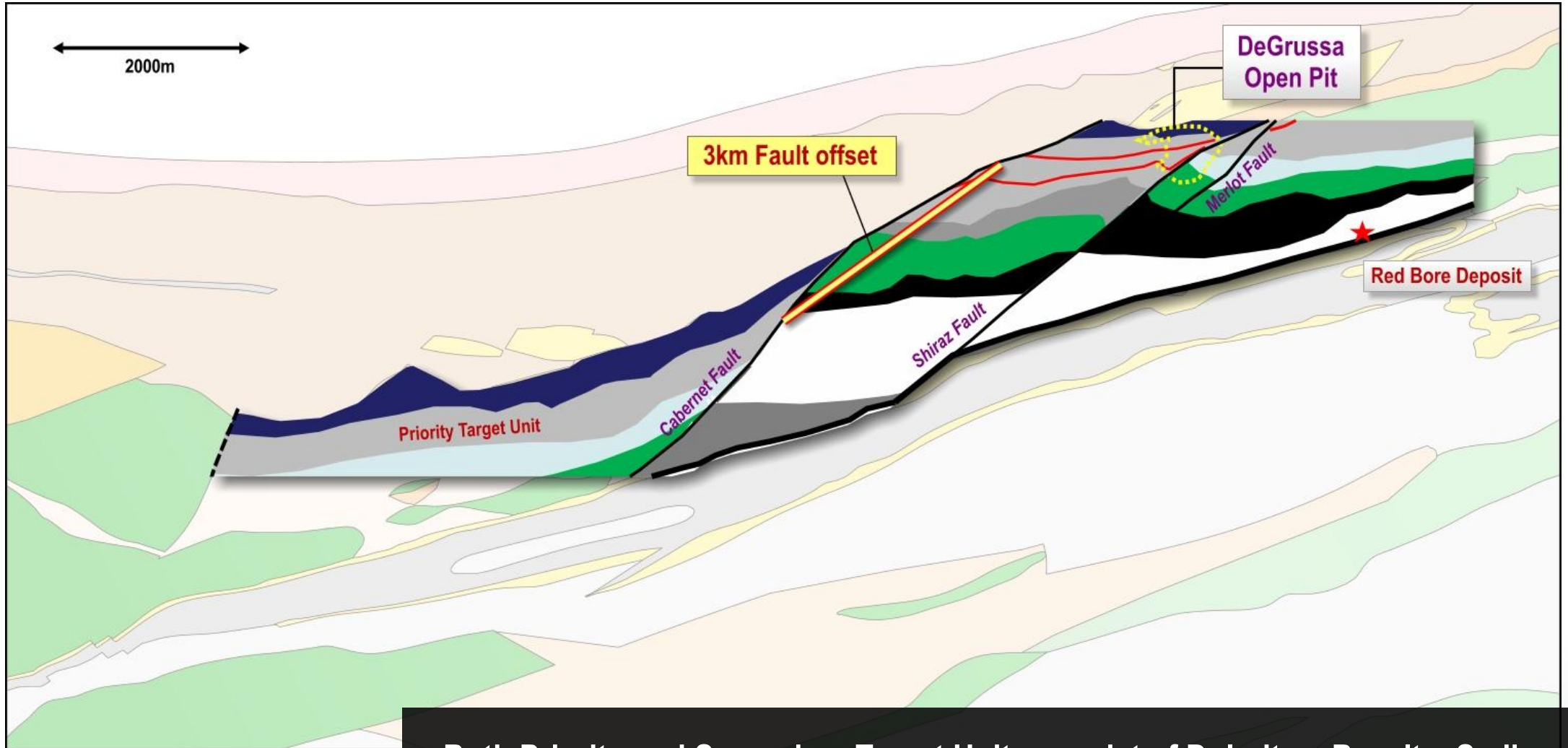
- ▲ Previous Drill Program Intersection: Non-mineralised
- ▲ Previous Drill Program Intersection: Mineralised
- ⊕ Current Drill Program Intersection: Non-mineralised
- ⊕ Current Drill Program Intersection: Mineralised
- ⊕ Current Drill Program Intersection: Assays pending

All widths are downhole
True widths range from 30 – 60% of DH width



DeGrussa Regional Geology

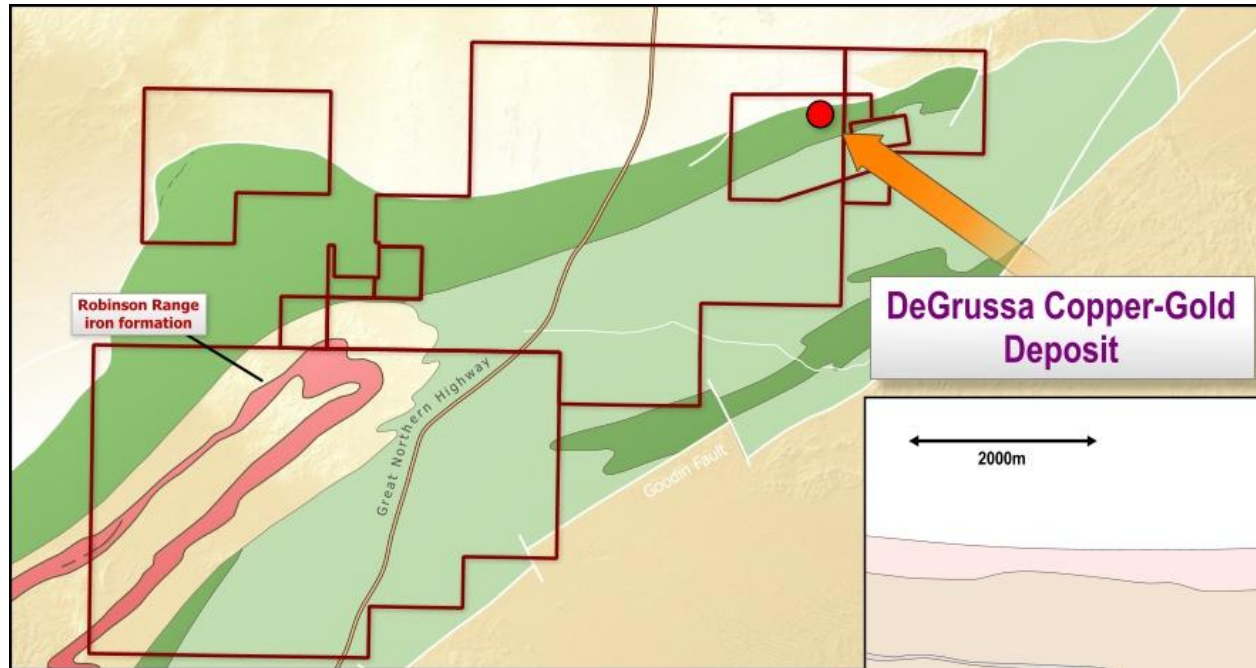
Enhanced understanding from mine-scale mapping



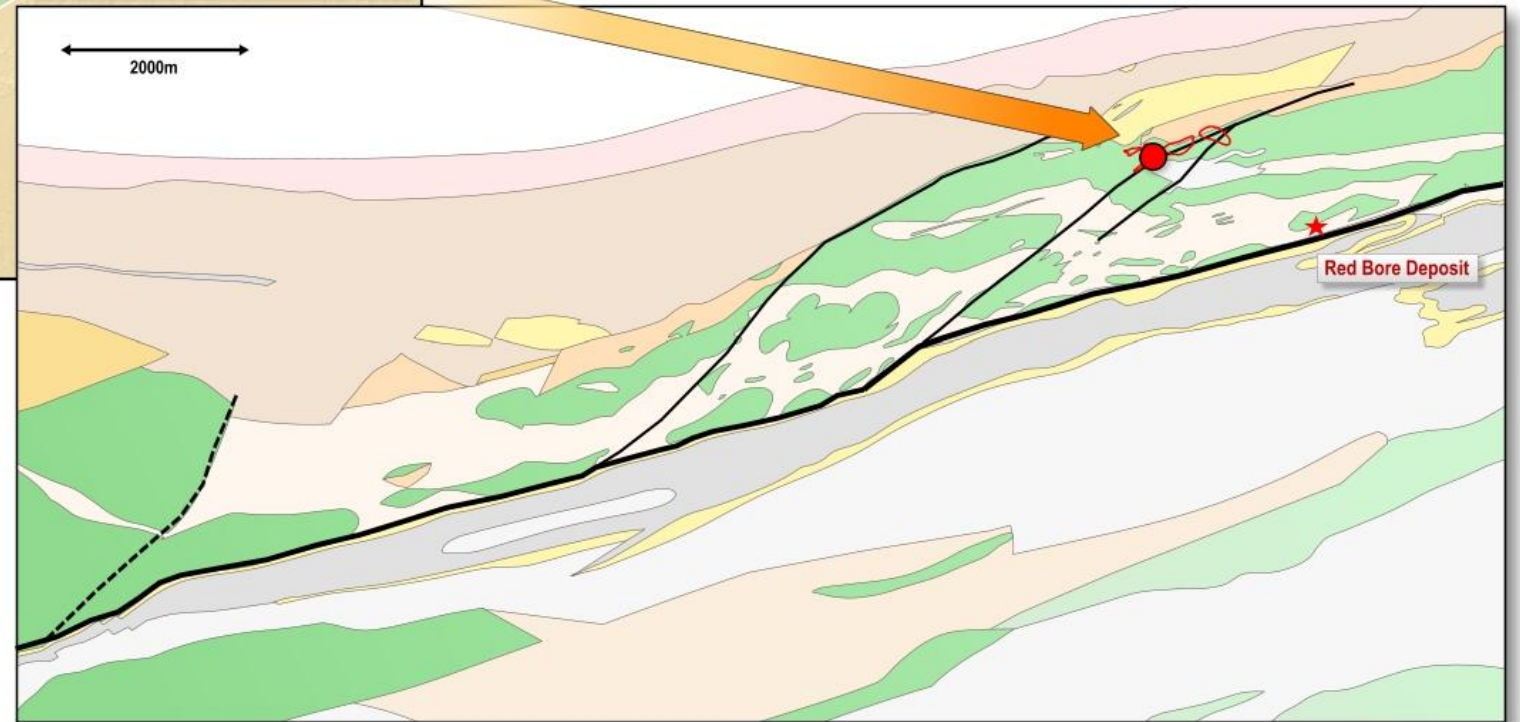
- Both Priority and Secondary Target Units consist of Dolerite + Basalt + Sediments
- Footwall Unit consists of Conglomerate, Siltstone and Hematite Shales

Regional Geology

Opportunity in complexity

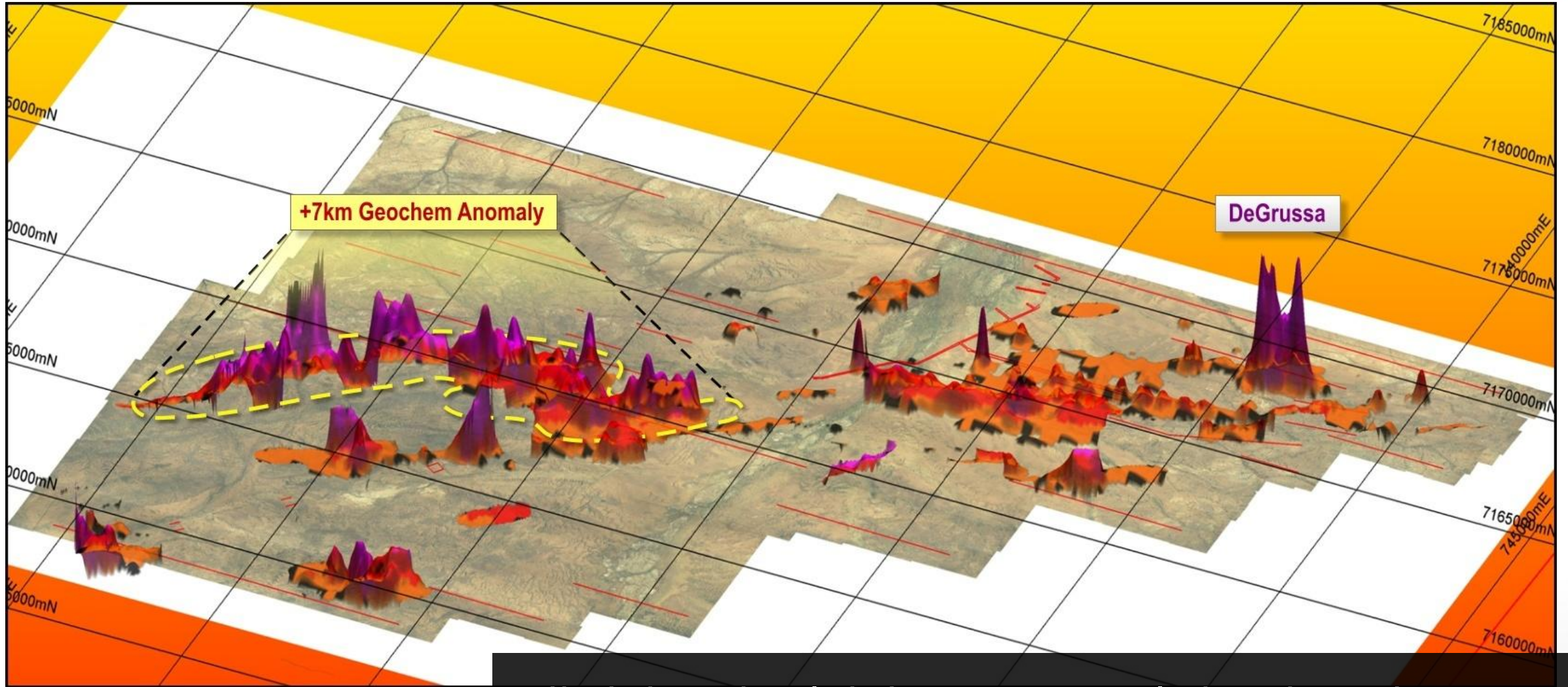


- Leverage off local knowledge
- Understand broad basinal context
- Target into coinciding 'hot spots'



North Robinson Range – +7km Geochem Anomaly

Extensive multi-element Aircore anomaly requiring follow-up



- Needs thorough analysis due to current anomaly size and strength
- Current drilling still very wide spaced >400m x 100m