

# Sandfire Resources

The Doolgunna  
Copper-Gold Discovery



**SANDFIRE** RESOURCES NL

August 2009  
Resources Rising Stars Investor Series

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The information in this report that relates to Exploration Results is based on information compiled by John Evans who is a Fellow of the Australasian Institute of Mining and Metallurgy. John 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. John Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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## Forward-Looking Statements

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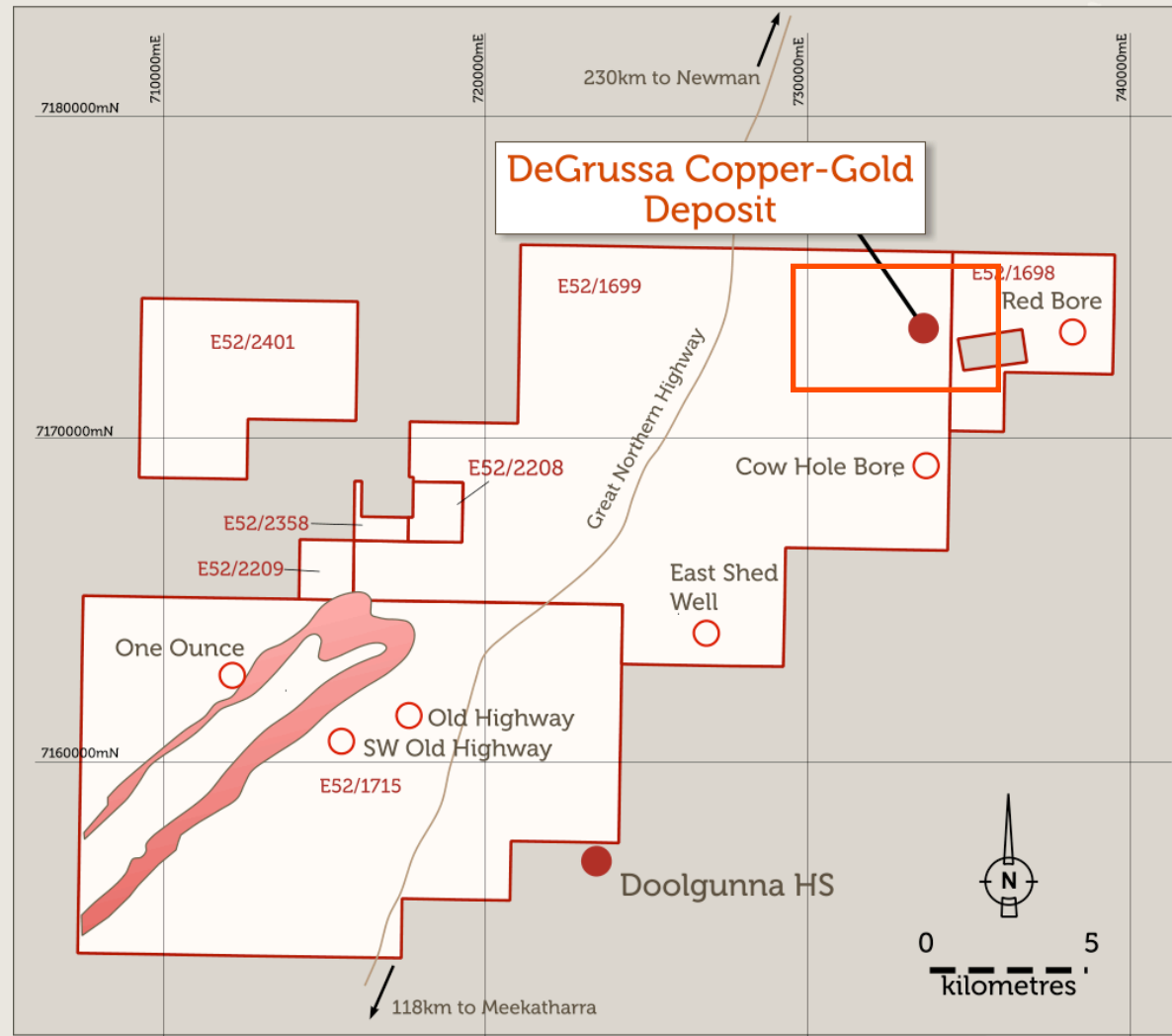
# The Doolgunna Project

- 395.5 sq km tenement package pegged by renowned prospector Graeme Hutton
- Part of his vision to create a greenfields exploration company focused on achieving major new discoveries, not re-working existing deposits
- Located 150km north of Meekatharra in Western Australia
- Great Northern Highway runs through the middle of the tenement package
- Goldfields Gas Transmission Pipeline nearby
- Excellent infrastructure



# The Doolgunna Project

- In April 2009, an inclined and vertical RC drilling program was undertaken targeting extensions to a previously discovered oxide gold zone at DeGrussa



# The DeGrussa Discovery

- This drilling returned substantial gold and copper intersections within the oxide zone
- Five drill holes also intersected massive sulphide mineralisation below the oxide zone with results including:

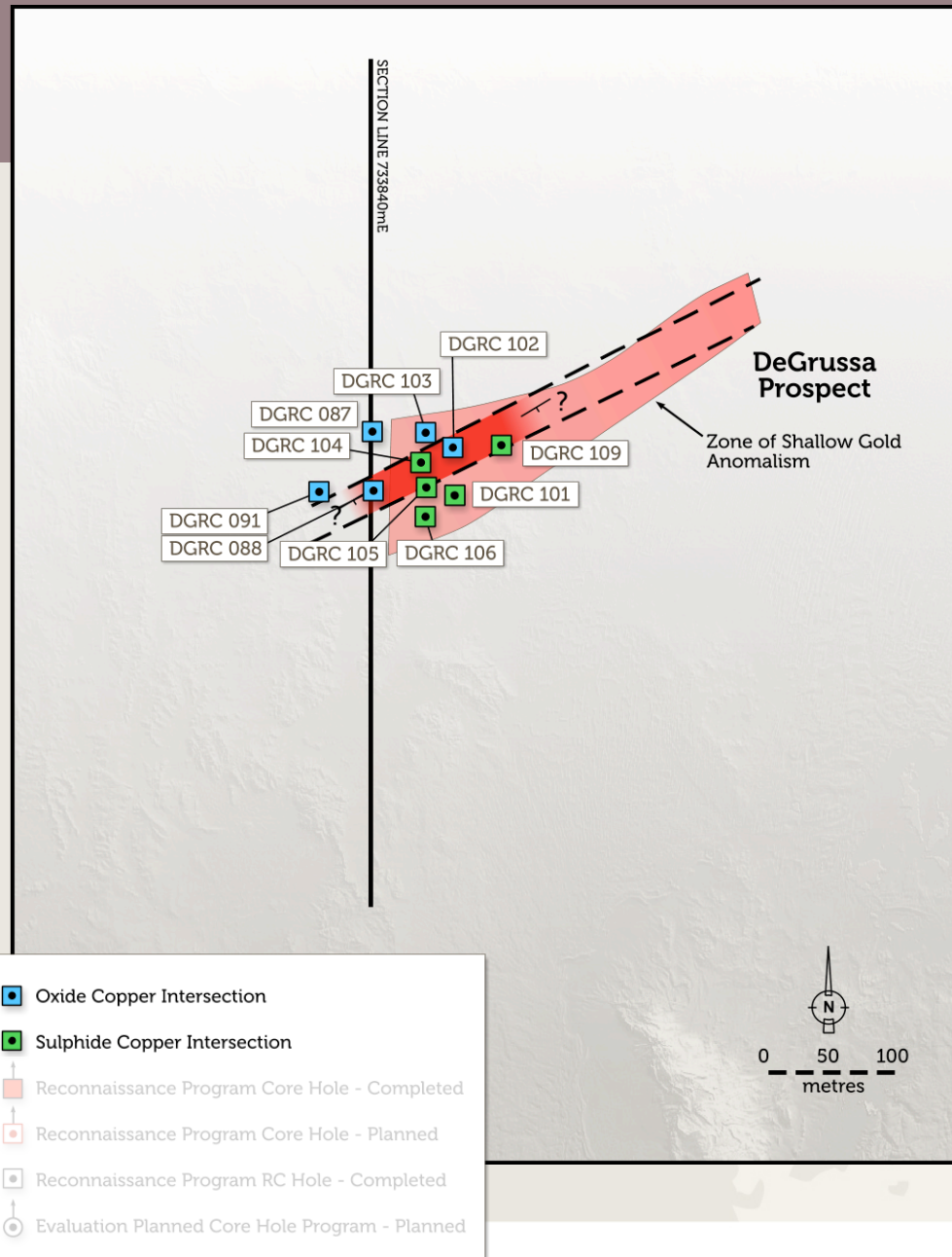
75m @ 2.4% Cu (DGRC104)

22m @ 3.6% Cu, 3.8g/t Au (DGRC101)

47m @ 5.3% Cu, 20g/t Ag (DGRC105)

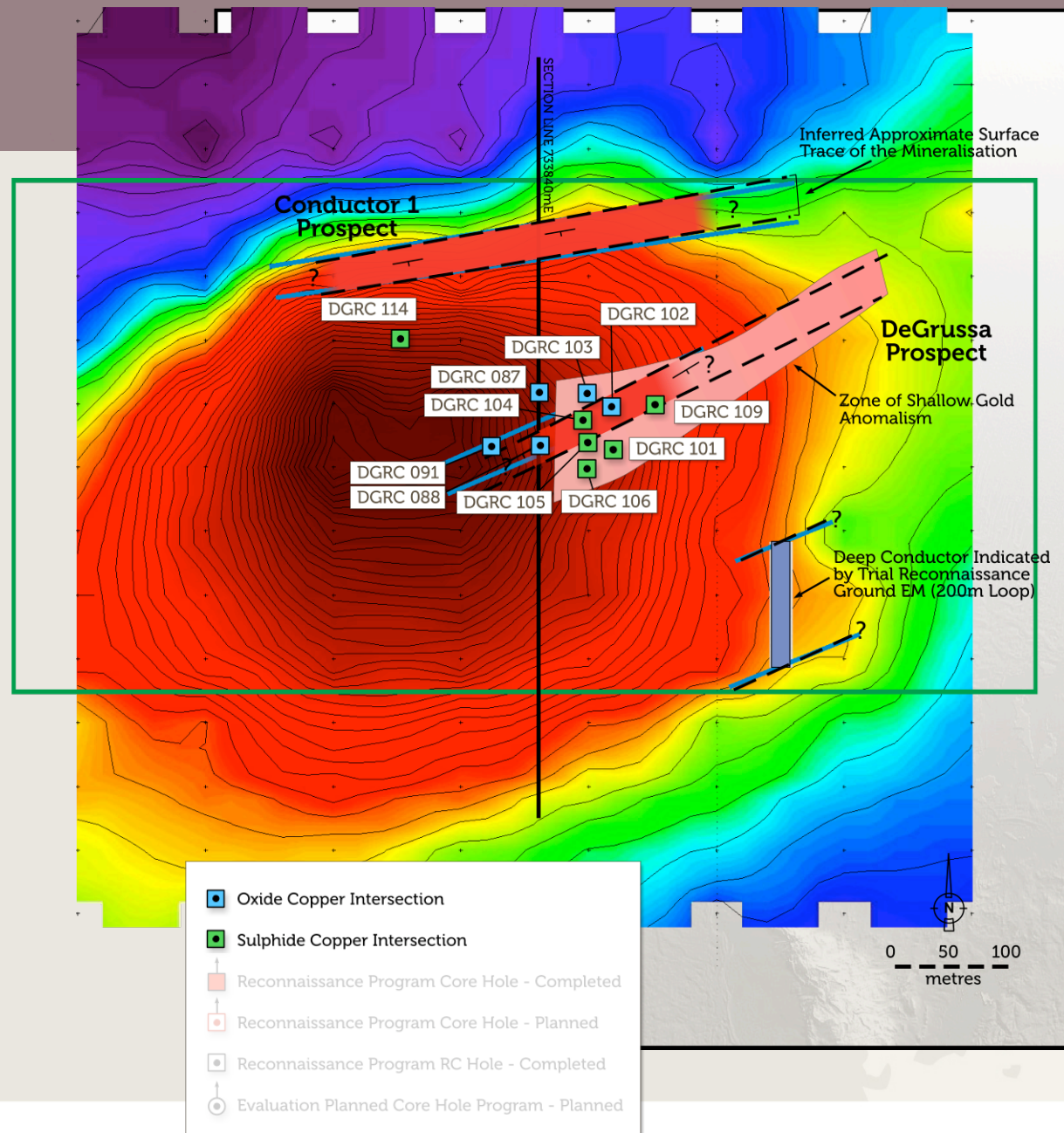
22m @ 4.9% Cu (DGRC106)

35m @ 6.9% Cu, 1.4g/t Au (DGRC109)



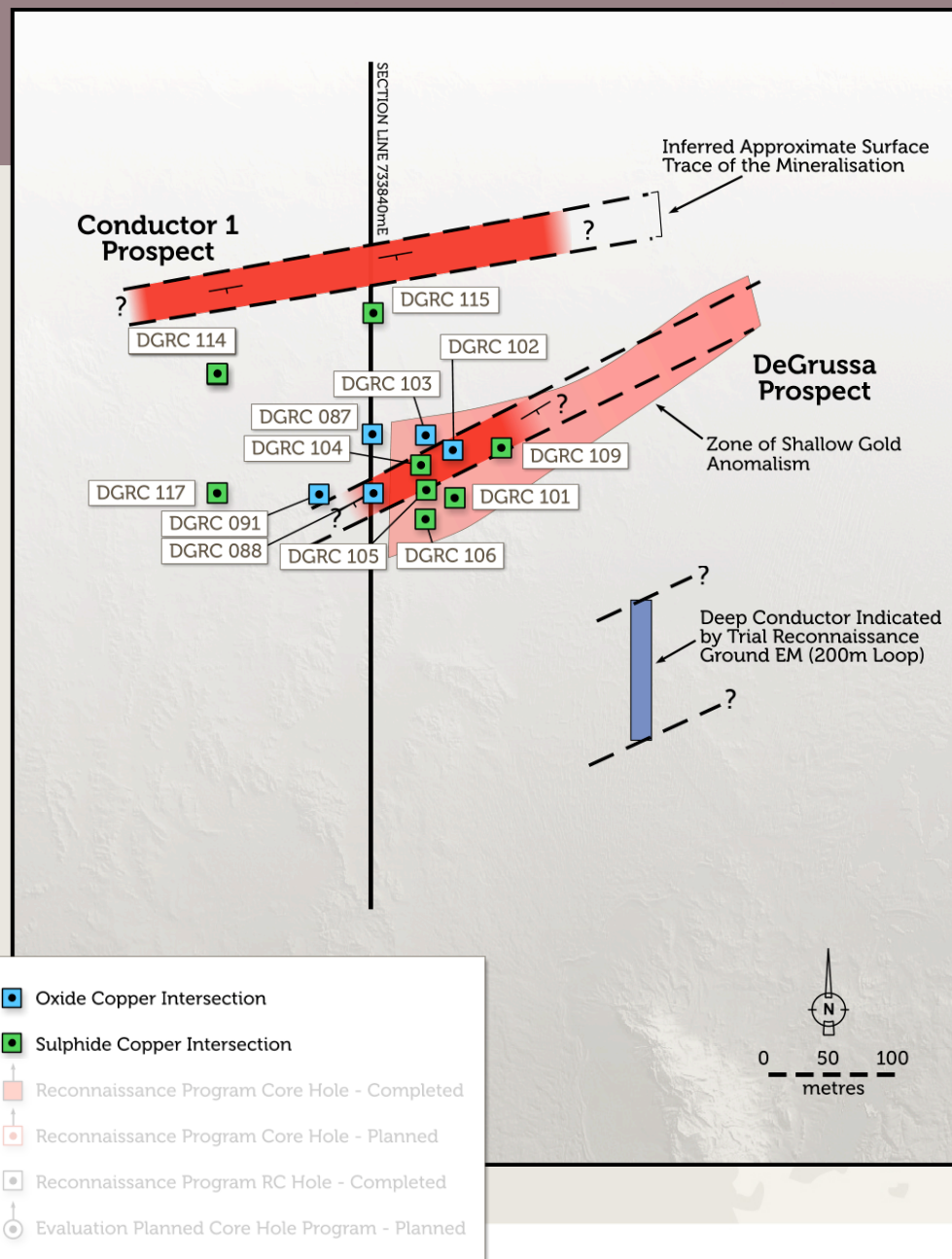
# The Conductor 1 Discovery

- After these excellent results, a ground EM survey was undertaken
- This identified a very large conductive body 160 metres north west of DeGrussa - now referred to as Conductor 1
- This led to a decision to drill four vertical holes, with the initial hole targeting the central part of the conductor
- This hole, DGRC114, intersected 35 metres of massive sulphides with visible chalcopyrite



# The Conductor 1 Discovery

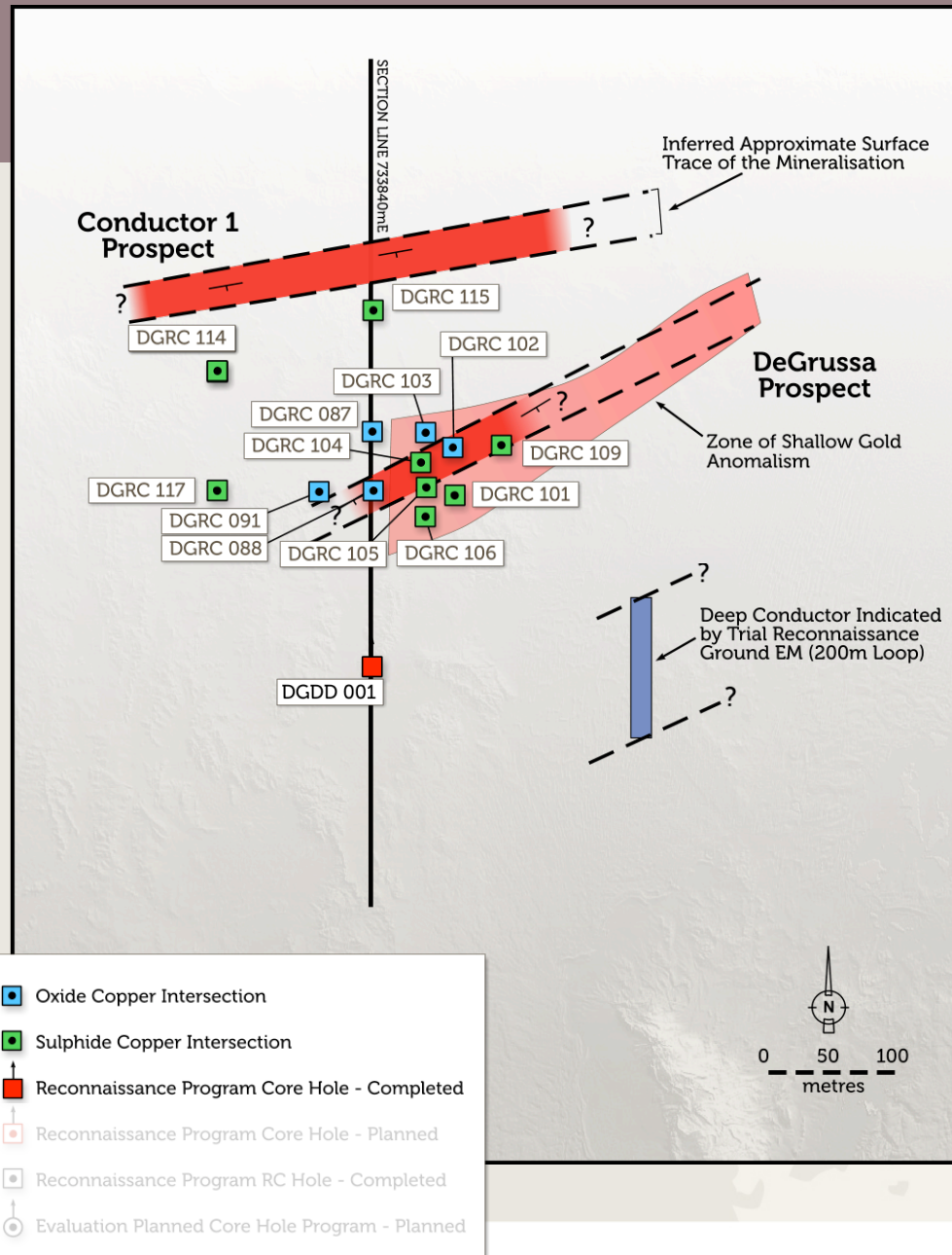
- This phase of vertical RC drilling targeting Conductor 1 returned outstanding results:
  - 39m @ 5.2% Cu, 1.6g/t Au from 135m (DGRC114)
  - 32m @ 4.6% Cu, 1.7g/t Au from 90m (DGRC115)
  - 32m @ 2.9% Cu, 1.3g/t Au from 294m (DGRC117)
- These results indicated that Conductor 1 is a large body of sulphide mineralisation, dipping southerly at ~75 degrees
- The Company immediately committed to a substantial program of diamond drilling to further evaluate these discoveries





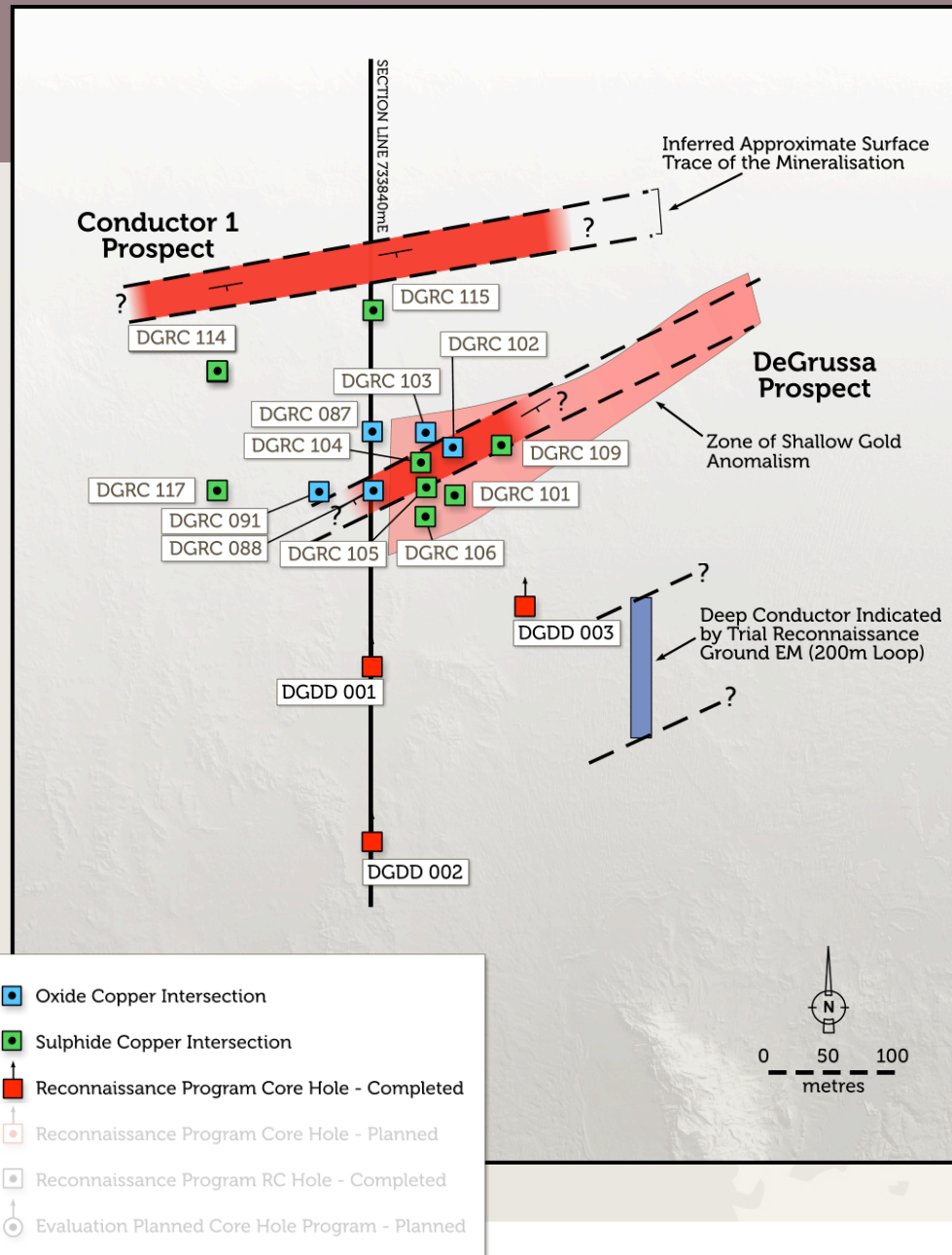
# Diamond Drilling Program

- The first diamond drill hole DGDD001 intersected four mineralised zones
- The two upper zones are interpreted to be extensions of the DeGrussa mineralisation with results for the upper two intersections including:
  - 10.7m @ 26.2% Cu, 1.7g/t Au
  - 31.9m @ 17.9% Cu, 3.5g/t Au
- The next two intersections are interpreted to be part of the underlying Conductor 1 body of mineralisation with intersections including:
  - 5.5m @ 4.2% Cu, 2.2g/t Au
  - 11.3m @ 2.6% Cu, 1.5g/t Au



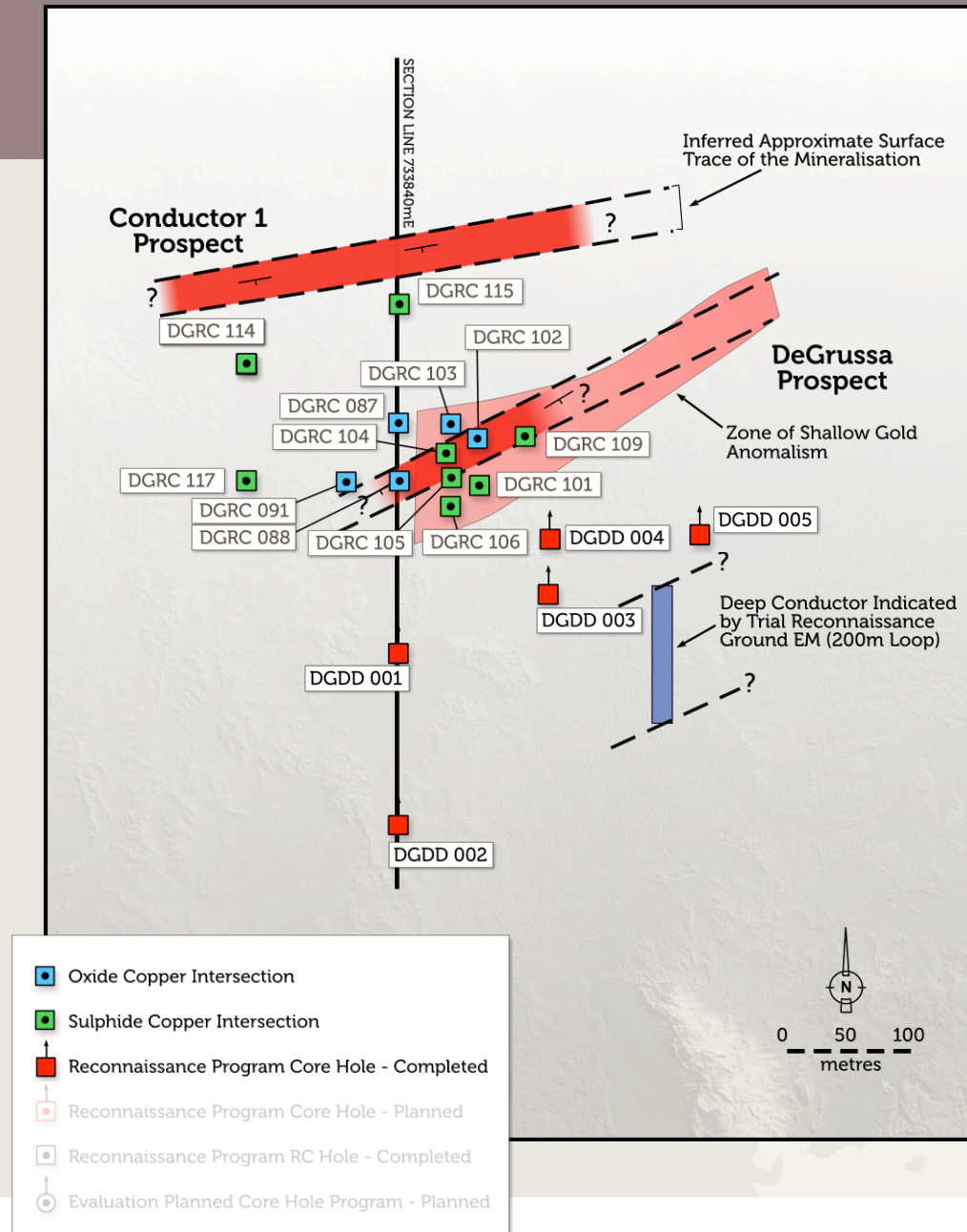
# Diamond Drilling Program

- The second diamond drill hole DGDD002, located 120 metres south of DGDD001, did not intersect any sulphide mineralisation
- The third diamond drill hole, DGDD003, which was 120 metres east and 40 metres north of core hole 1, intersected 21.3 metres of massive sulphides from 322.7m



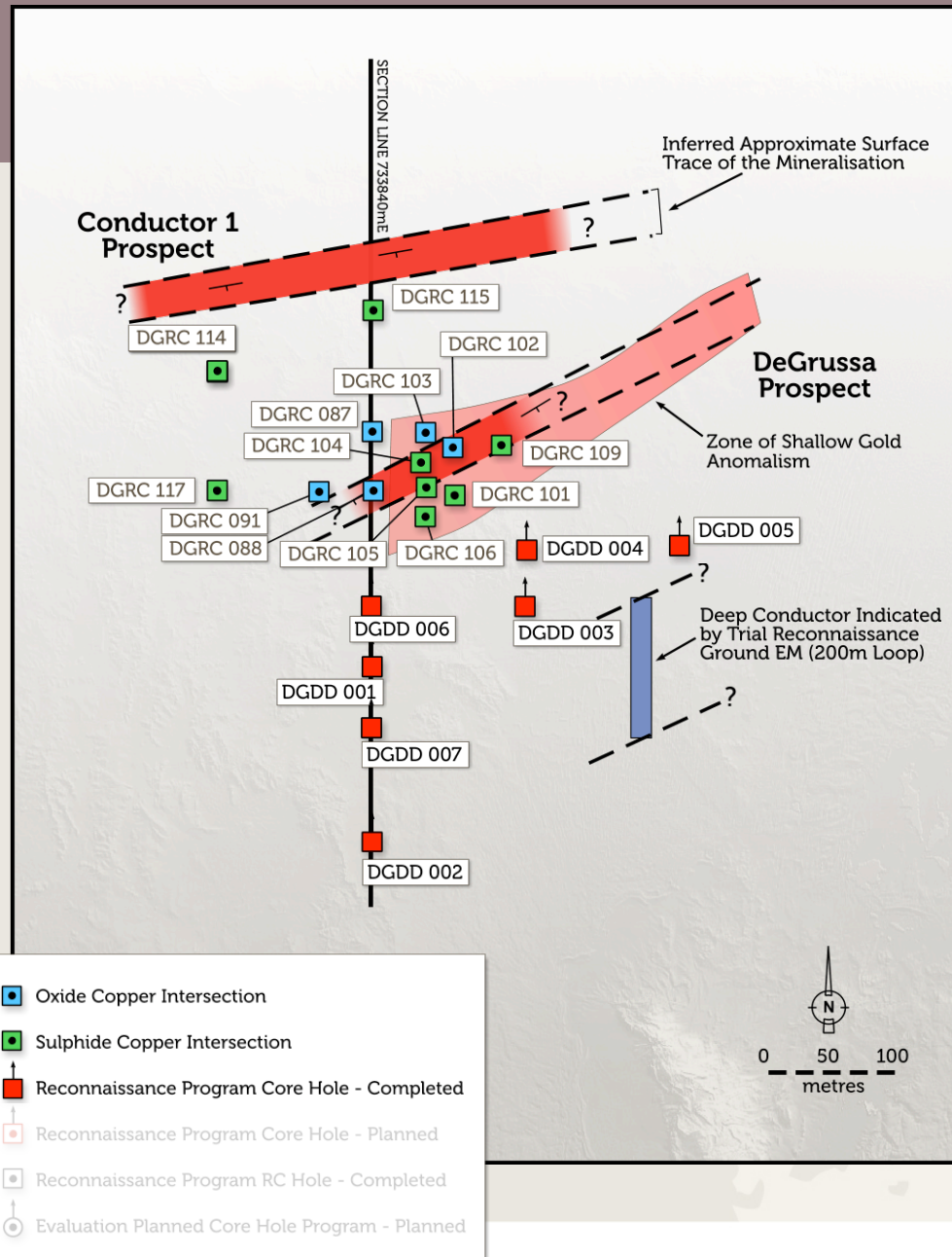
# Diamond Drilling Program

- The fourth diamond drill hole DGDD004, located 40 metres north of DGDD003, intersected 12.7 metres of massive sulphide mineralisation from 267.8m with visible chalcopyrite
- The fifth diamond drill hole, DGDD005, located 120 metres east of DGDD004, intersected 5.3 metres of sulphide mineralisation in total from 481.9m

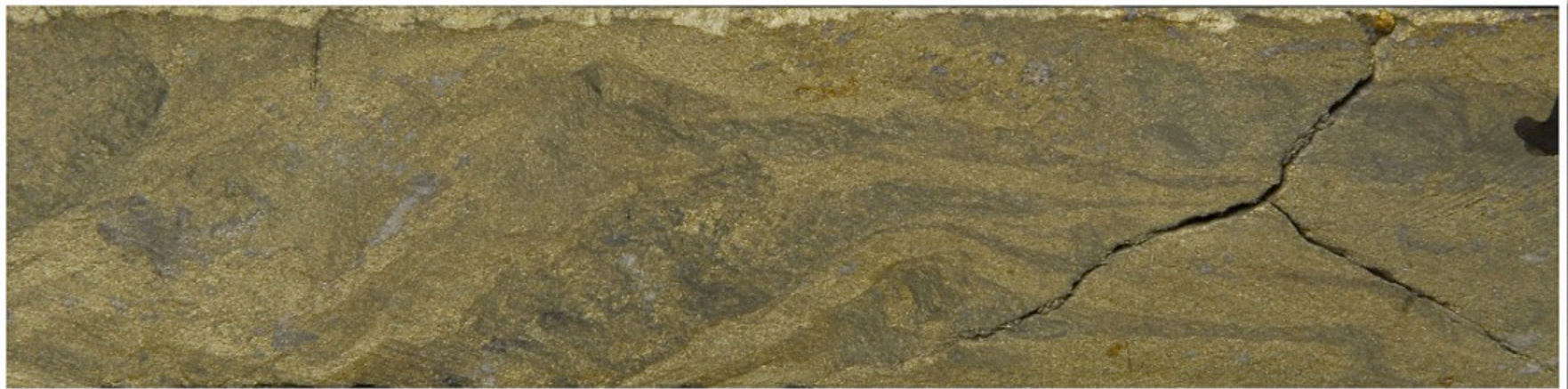


# Diamond Drilling Program

- The sixth diamond drill hole DGDD006, located 40 metres north of DGDD001, intersected 36.7 metres of massive sulphide mineralisation from 287m
- The seventh diamond drill hole DGDD007, located 40 metres south of DGDD001, intersected 50m of massive sulphides from 242.5m (DeGrussa zone) and 4.3m from 363.2m and 8.9m from 378.2m (Conductor 1)



# Doolgunna ... a discovery in the making



153.65 metres

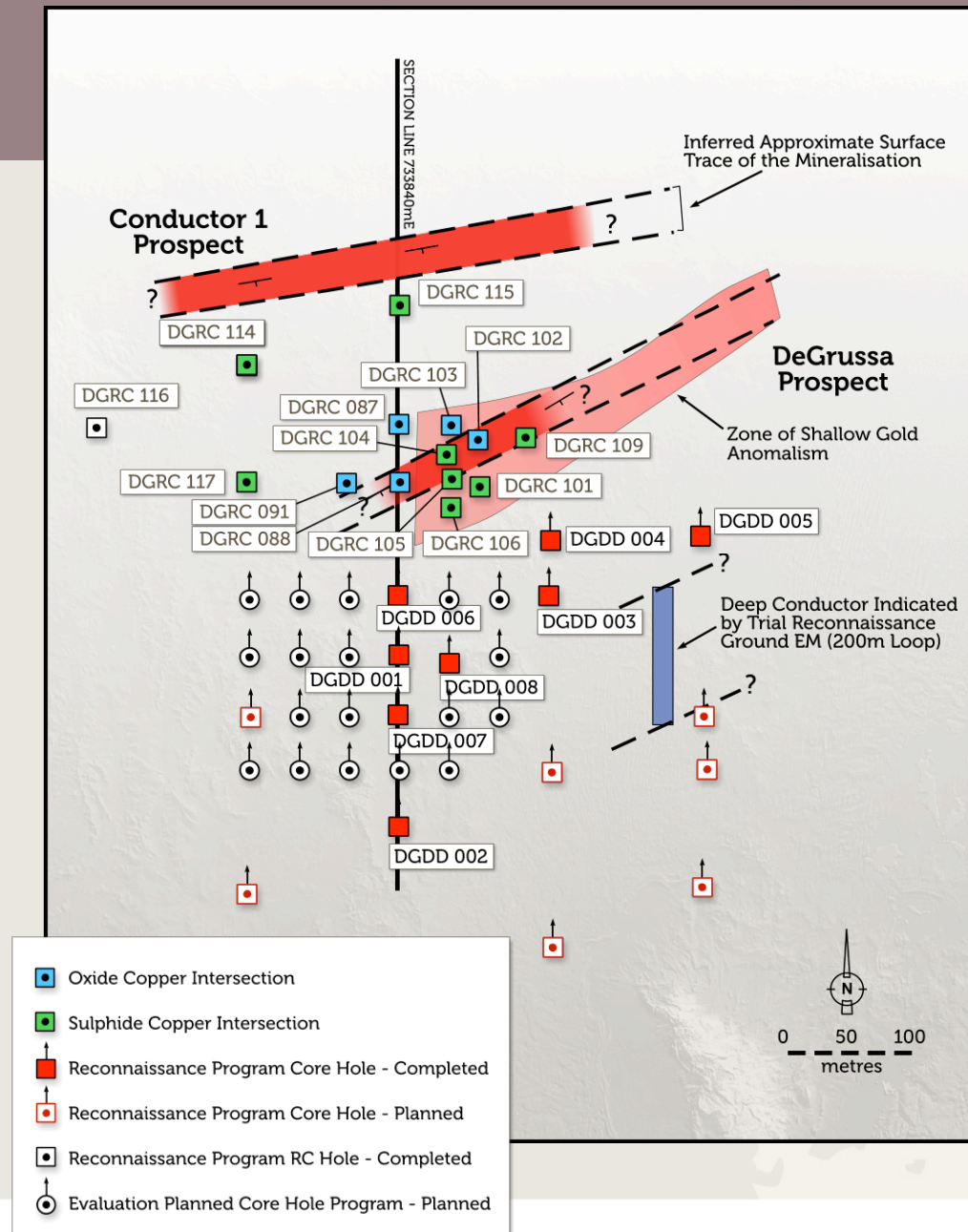
Assay result 153.00 - 154.00 metres - 26.1% Copper

153.75 metres

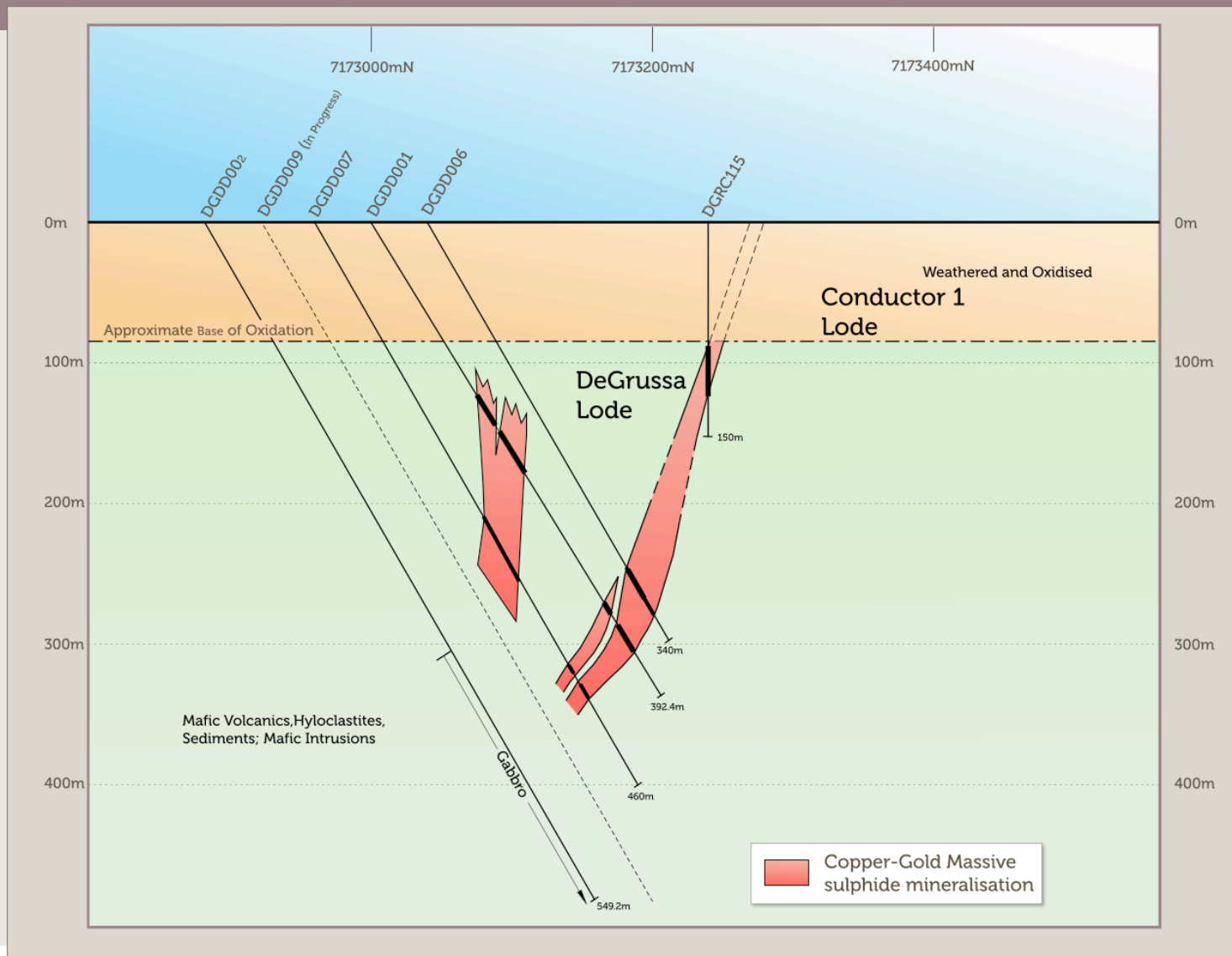
**DGDD001**

# The Big Picture

- Results to date indicate that high-grade copper-gold mineralisation extends for 360 metres along an east-west strike
- They also indicate that DeGrussa and Conductor 1 are two separate zones of mineralisation
- Two diamond drill rigs are continuing a major in-fill and step-out drilling program



# The Big Picture



# The Big Picture

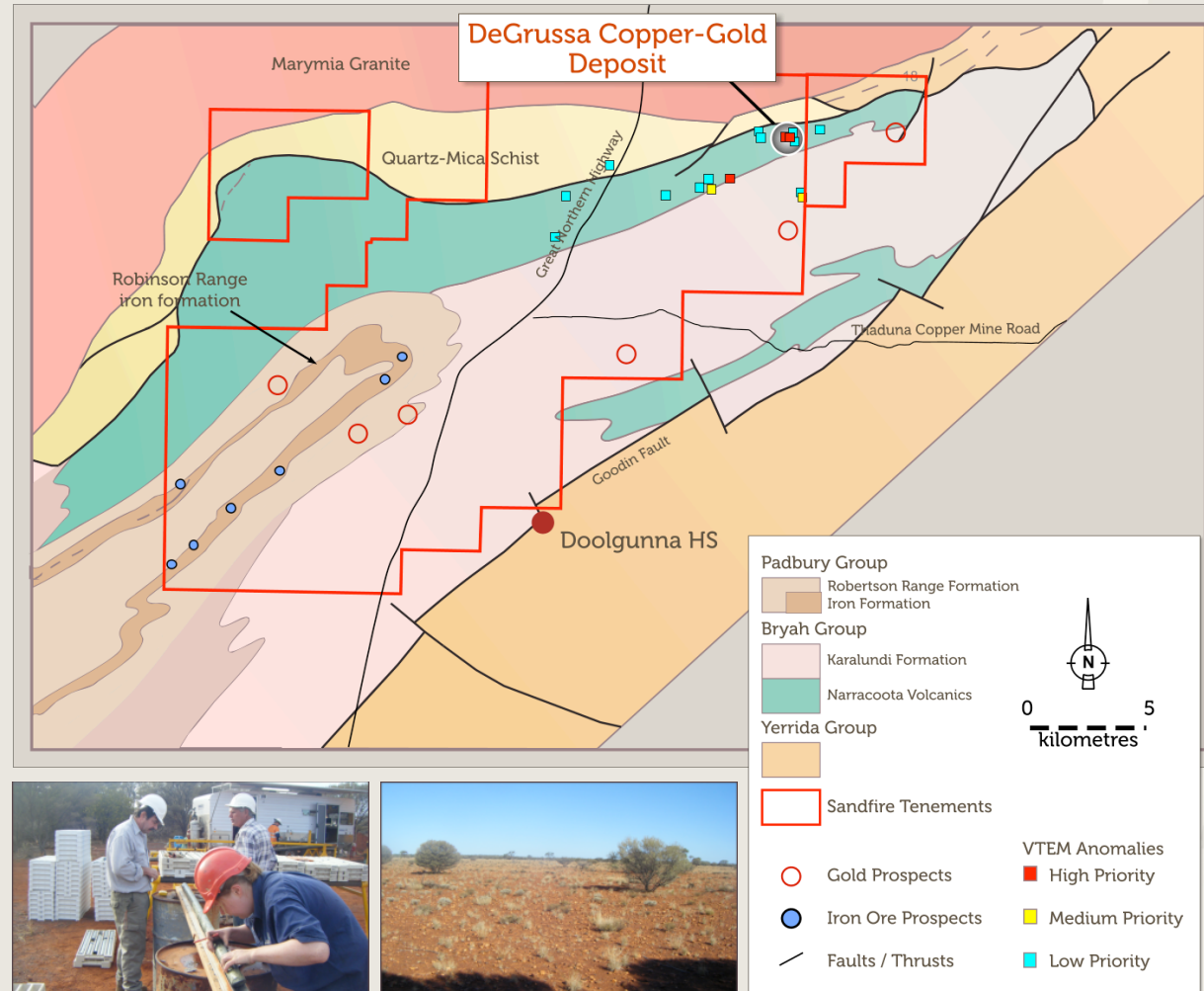
## Summary of drilling for DeGrussa Prospect

Reverse Circulation Drilling (Vertical)								
Hole Number	Lode	From (m)	To (m)	Length (m)	Copper (%)	Gold (g/t)	Intersection	Comments
DGRC109	DeGrussa	115.0	150.0	35.0	7.0	1.4		sulphides
DGRC114	Conductor 1	135.0	174.0	39.0	5.2	1.6		massive sulphides
DGRC115	Conductor 1	90.0	122.0	32.0	4.6	7.9		massive sulphides
DGRC117	Conductor 1	294.0	326.0	32.0	2.9	1.3		massive sulphides
Diamond Drilling (Inclined)								
Hole Number	Lode	From (m)	To (m)	Length (m)	Copper (%)	Gold (g/t)	Intersection	Comments
DGDD001	DeGrussa	146.1	167.4	21.3	16.3	1.3	Intersection 1	massive sulphides
	DeGrussa	175.9	207.8	31.9	17.9	3.5	Intersection 2	massive sulphides
	Conductor 1	319.0	324.5	5.5	4.2	2.2	Intersection 3	massive sulphides
	Conductor 1	336.7	348.0	11.3	2.6	1.5	Intersection 4	massive sulphides
DGDD003	Conductor 1	322.7	344.1	21.4	Results	Awaited		massive sulphides
DGDD004	Conductor 1	267.8	280.5	12.7	Results	Awaited		massive sulphides
DGDD005	Conductor 1	481.9	483.9	2.0	Results	Awaited	Intersection 1	sulphides
	Conductor 1	502.3	505.6	3.3	Results	Awaited	Intersection 2	sulphides
DGDD006	Conductor 1	287.0	323.7	36.7	Results	Awaited		massive sulphides
DGDD007	DeGrussa	242.5	292.5	50.0	Results	Awaited	Intersection1+2	massive sulphides
		363.2	367.5	4.3			Intersection 3	sulphides
		378.2	387.1	8.9			Intersection 4	massive sulphides



# The Bigger Picture

- DeGrussa/Conductor 1 cover just a tiny portion of the Doolgunna tenements which extend for 395.5 sq km
- The tenements cover a 20km strike length of the prospective Narracoota Volcanics
- A major airborne EM survey has been conducted
- Numerous conductive features have been revealed, providing targets for future exploration



# Corporate Information

**Issued Share Capital** 84.7 million Ordinary fully paid shares  
12.0 million Contributing shares (A\$0.15 to pay)

**Cash (June 2009)** A\$2.6 million\*

**Major Shareholders** %

POSCO 19.5

Founders/Board 15.6

High Net Worth 15.0

**Last major funding** \$0.40

**Current Price** \$2.00

\* Note: Rights Issue to raise up to A\$11.6 million currently being completed

# People

## **MILES KENNEDY, Non-executive Chairman (lawyer)**

- developed largest gold producer in New Zealand;
- developed +\$A300 million diamond producer in Western Australia;
- +25 years in resource sector.

## **KARL SIMICH, Managing Director (chartered accountant)**

- developed largest gold producer in New Zealand;
- developed +\$A300 million diamond producer in Western Australia;
- +20 years in resource sector.

## **W. JOHN EVANS, Executive Technical Director (geologist)**

- 17 years with CRA and 12 years as managing director of Marymia Exploration;
- specialist in base metals, iron ore and gold;
- +35 years in resource sector.

## **JONGHUN JONG, Non-executive Director**

- Mr. Jong holds a Bachelor of Business Administration;
- has been with POSCO for 19 years focusing on purchase of raw materials;
- present role with POSCO is focused on new business opportunities.

## **JOHN HUTTON, Non-executive Director**

- background in accounting and finance;
- experience in merchant banking, accounting, financial planning and tax related matters;
- member of the Australian Institute of Company Directors.

# Other Projects

