



SANDFIRE RESOURCES NL

ABN 55 105 154 185 **ACTIVITY REPORT**

QUARTERLY REPORT FOR THE PERIOD ENDED 31st MARCH 2006

HIGHLIGHTS

- Gold discovery in greenfields exploration project at Doolgunna. Follow up and extension drilling is being expedited.
- Placement of 5,882,250 shares at \$0.30 completed to raise approximately \$1.66 million after costs.
- Exploration ongoing at the Company's other projects.

ASX CODE: SFR
SFRCA

OFFICE AT:
1 VENTNOR AVENUE
WEST PERTH 6005
WESTERN AUSTRALIA

T: +61 8 9226 5833
F: +61 8 9226 5844
E: admin@sandfire.com.au
www.sandfire.com.au

CORRESPONDENCE:
PO BOX 1495
WEST PERTH 6872
WESTERN AUSTRALIA



Doolgunna

(Gold, Copper; Sandfire 100%)

As announced to the ASX on 18th April, the Company has intersected shallow gold mineralisation of potentially economic significance at its 100% owned Doolgunna project, located approximately 150km north of Meekatharra, Western Australia.

The mineralisation has been located at three prospects with a complex structural zone, the Jenkin Fault Zone. The Company has tenure to approximately 40km of this zone all of which is prospective for gold mineralisation (fig. 1).

Five prospects defined by soil geochemical anomalies were targeted for an initial RAB drilling program to investigate the nature of the bedrock and to establish the origins of the anomalies.

The holes were inclined at 60 degrees and mostly drilled to a vertical depth of around 30m. In some case the holes were shorter due to hard ground conditions. Parts of some of the anomalies were drilled with overlapping holes.

A total of 190 holes have been drilled at the five prospects. The total of metres drilled is 6,819m.

These early results over such an extensive area are considered to be very encouraging and provide significant confirmation of the exploration techniques being used.

Follow up RAB and RC drilling is planned for May.

East Shed Well

Shallow gold intersections have been returned from three short drill traverses in the East Shed Well area (fig.2) including:

Hole ID	From/To	Interval	Gold Grade g/t	Comment
DGRB050	16-28m	12m	0.14	Anomalous from 16 to 28m EOH
DGRB051	0-34m Incl 12-22m Incl 14-16m	34m 10m 2m	1.08 2.17 6.46	EOH 34m
DGRB052	16-34m Incl 16-20m Incl 16-18m	18m 4m 2m	1.19 3.00 4.41	Anomalous from 16 to 34m EOH
DGRB094	16-18m 28-46m Incl 28-30m	2m 18m 2m	10.0 0.38 2.00	46m EOH
DGRB096	16-36m Incl 26-28m	20m 2m	0.63 2.57	
DGRB100	10-31m Incl 10-14m	21m 4m	0.80 2.01	

EOH – end of hole



Drilling completed 300 to 500m further east of the above holes also intersected anomalous gold values. However, it is likely that this drilling was located too far north to intersect the same mineralised zone as that intersected by the drilling detailed in the table above.

From the drilling, it became evident that additional soil geochemistry was required. This work is in progress. However, from the samples collected prior to drilling, a result of 1.2ppm gold was returned from a sample 300m south east of the area of anomalous RAB results included in the above table.

The East Shed Well area requires substantial further drill testing to follow up these preliminary but exciting results and to continue testing the soil geochemical targets.

Old Highway

The Old Highway gold anomaly is the most robust series of anomalies located to date at Doolgunna with peak gold values of >100ppb and a surface area extent measuring some 600m x 1200m (fig.3). The most obvious part of the anomaly was drill tested initially with sporadic results. From this initial work it was established that this part of the anomaly is underlain by ferruginous pisolitic regolith and contains gold. However, the gold mineralisation in the bedrock below the pisolite is low grade and the Company concluded not the source of the gold anomaly.

The southern boundary of the anomaly was then targeted based on pathfinder geochemistry and an interpreted geological contact. To date the best bedrock gold intersections have been obtained from this area which is interpreted as a bounding structure.

Drilling results include:

Hole ID	From/To	Interval	Gold Grade g/t	Comments
DGRB158	26-42m	16m Incl 8m	1.5 2.5	
DGRB166	34-42m	8m Incl 4m	1.52 2.48	42m EOH
DGRB167	18-26m	8m Incl 4m	0.67 1.07	
DGRB188	0-14m	14m Incl 4m	0.64 1.14	
DGRB189	22-40m	18m Incl 12m Incl 4m	1.05 1.40 2.58	

Gold mineralization has been intersected over a strike length of 400m. The current interpretation suggests the pattern of the surface geochemistry is a result of the regolith over the gold mineralisation being stripped off and the gold being transported north of the inferred outcrop position. The likely extent of the mineralisation may therefore be poorly



defined by the surface geochemistry in detail and can be used only as a broad indicator in this area.

Further RAB drilling is planned to test the extensions to the inferred mineralised structure. Limited RC drilling is also planned to obtain a deeper intersection below the existing RAB intersections and to test the inferred structure along the northern boundary of the soil anomaly. In addition, further soil geochemistry is planned to extend the coverage of soil geochemistry.

Cow Hole Bore

Four short RAB traverses were drilled across the Cow Hole Bore area (fig.4) over a strike length of 1,300m. These holes tested several low order gold trends. Three of the traverses, covering a strike length of 600m, returned anomalous results with the best from hole DGRB107 which assayed 14m @ 0.75g/t from 28 to 42m, including 2m@1.08g/t.

This result is very significant in terms of the up grading of the soil anomaly by a factor of >100. The anomalies tested are part of a more extensive anomaly which will be tested in future programs.

Red Bore

The drilling results from Red Bore did not return any significant intersections. The bedrock assays were of the same order of magnitude as the soil assays. Further surface geochemistry is planned to continue the assessment of the area.

Watershed

One hole was drilled at Watershed to test a gold intersection reported by CRA Exploration. No significant values were returned.

Other Exploration Projects

Field work on the Company's remaining projects has been delayed due to wet weather in the project areas.

Yannarie

(Lead, Zinc, Copper and Gold; Sandfire 100%)

Field work is planned to assess the 2005 results and to determine what drilling is required. This is planned for May.

Mt Boggola

(Gold, Copper; Sandfire 100%)

The drainage work completed in 2005 was re-assessed leading to the possible conclusion that the gold anomalies being detected are sourced at the Ashburton – Bresnahan Group unconformity. This conclusion needs to be verified to the extent possible in the field. This planned for the June quarter.



Urandy

(Gold, Copper; Sandfire 100%)

Field work is planned for May to finalise the program for 2006.

Borrooloola

(Copper; Sandfire 100%)

Discussions are ongoing with contractors for the follow up IP survey at Gordons.

Sandfire Project

(Lead-Zinc; Sandfire 100%)

As stated in the December quarterly, the drill hole SFMR001 was abandoned at 1181m, just short of the target horizon. No further work has been undertaken.

Greg Steemson
Managing Director
24th April 2006

The information in this report that relates to Exploration Results is based on information compiled by Greg Steemson who is a Fellow of the Australian Institute of Geoscientists. Greg Steemson 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 for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Greg Steemson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Corporate Information

Directors and Executive Management

P S Thomas: *Non-Exec Chairman*
G H Steemson: *Managing Director*
G Hutton: *Executive Director*
M Smartt: *Company Secretary*

Issued Capital

As at the date of this report the issued capital of the company is comprised of:

- 45,097,250 fp shares
- 12,666,728 contributing shares with \$0.15 to pay, no call before 3/3/07
- 3m 31/12/08 \$0.25 opts
- 1m 30/9/08 \$0.20 opts

Substantial Shareholders

Faustus Nominees: 12.56%
Resource Development Company: 7.94%

Shareholder Enquiries

Matters related to shares held, change of address, tax file numbers and the like should be directed to the Company's Registry:
Security Transfer Registrars Pty Ltd
Phone – 08 9315 2333

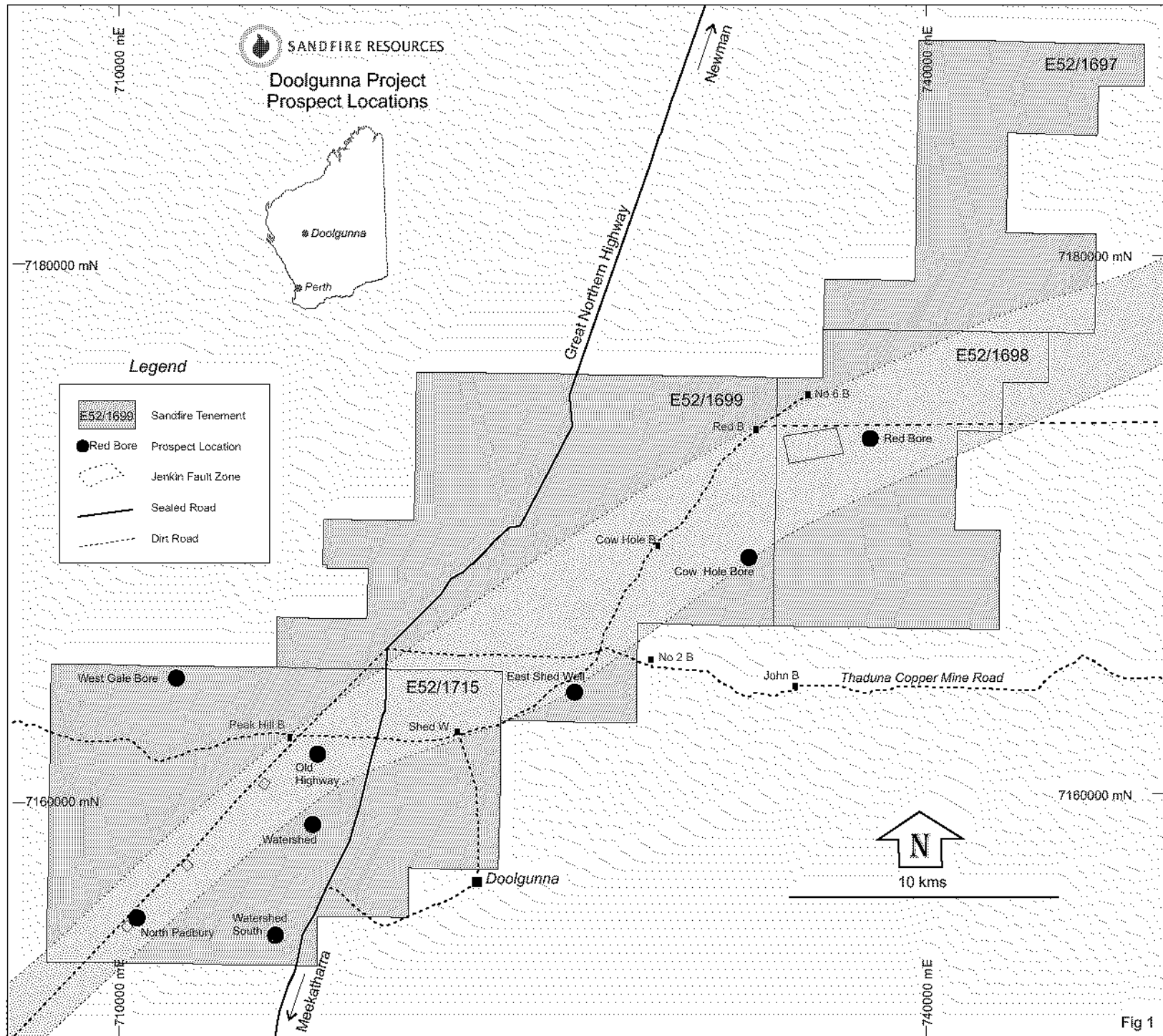


Fig 1

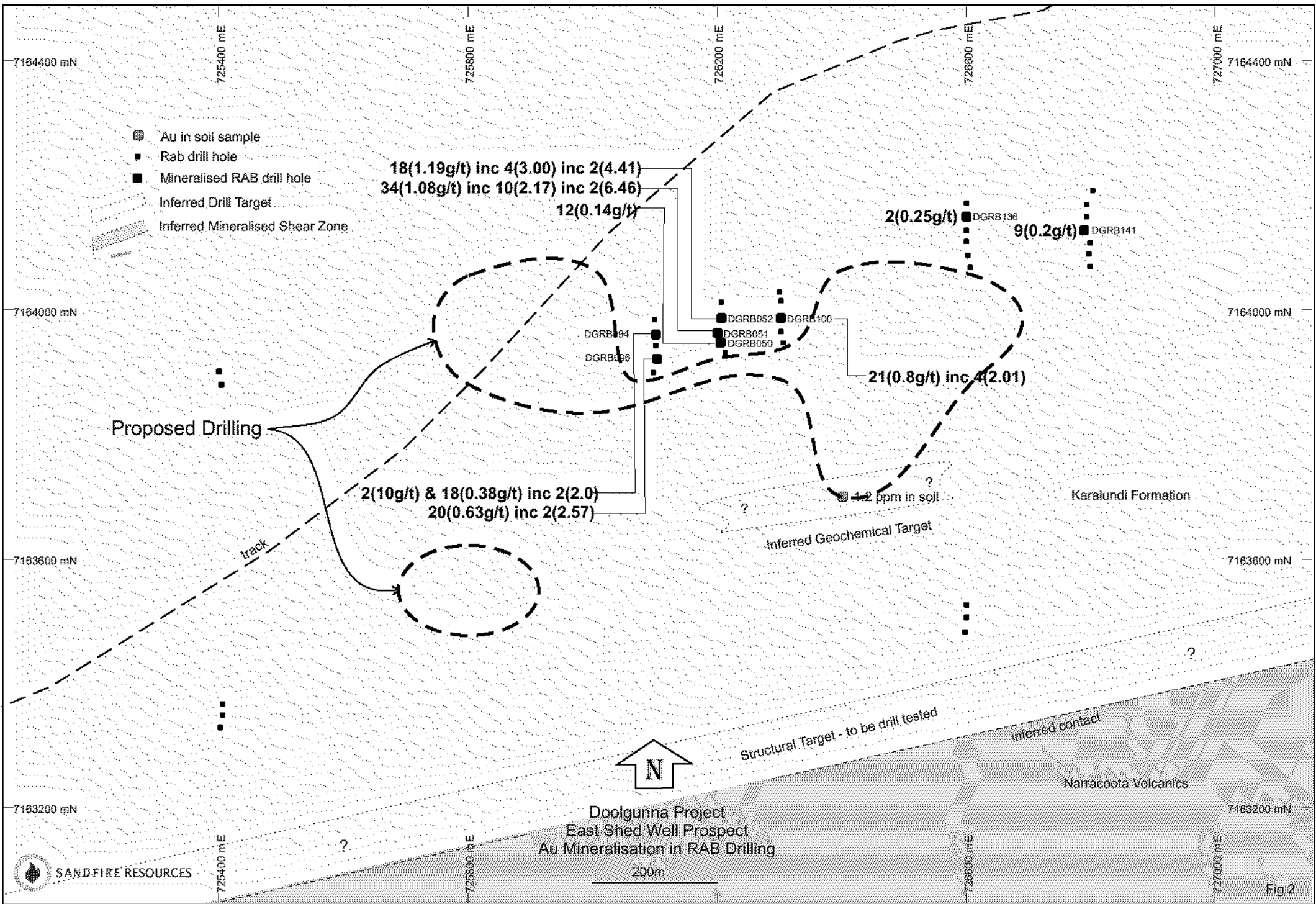


Fig 2

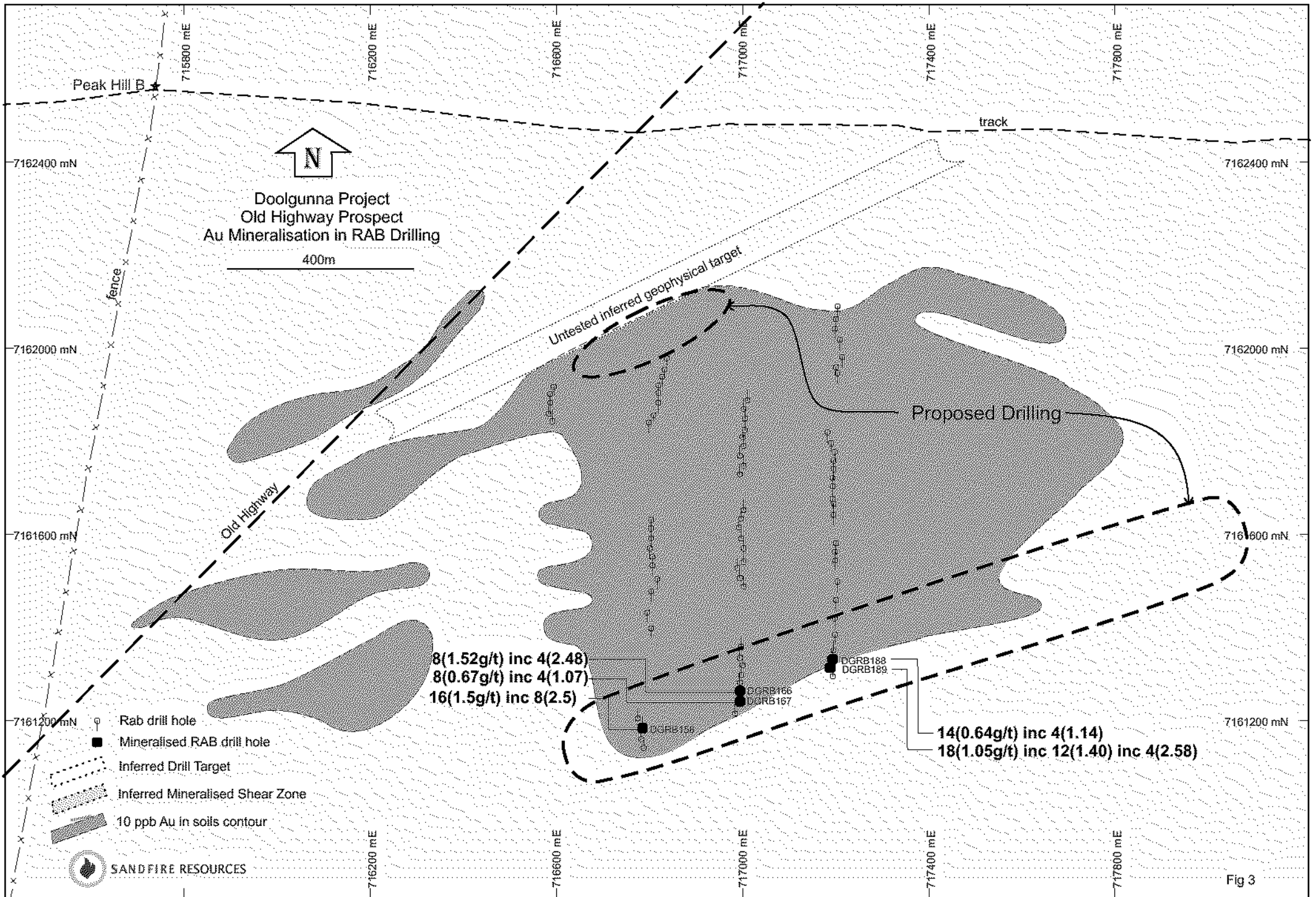


Fig 3

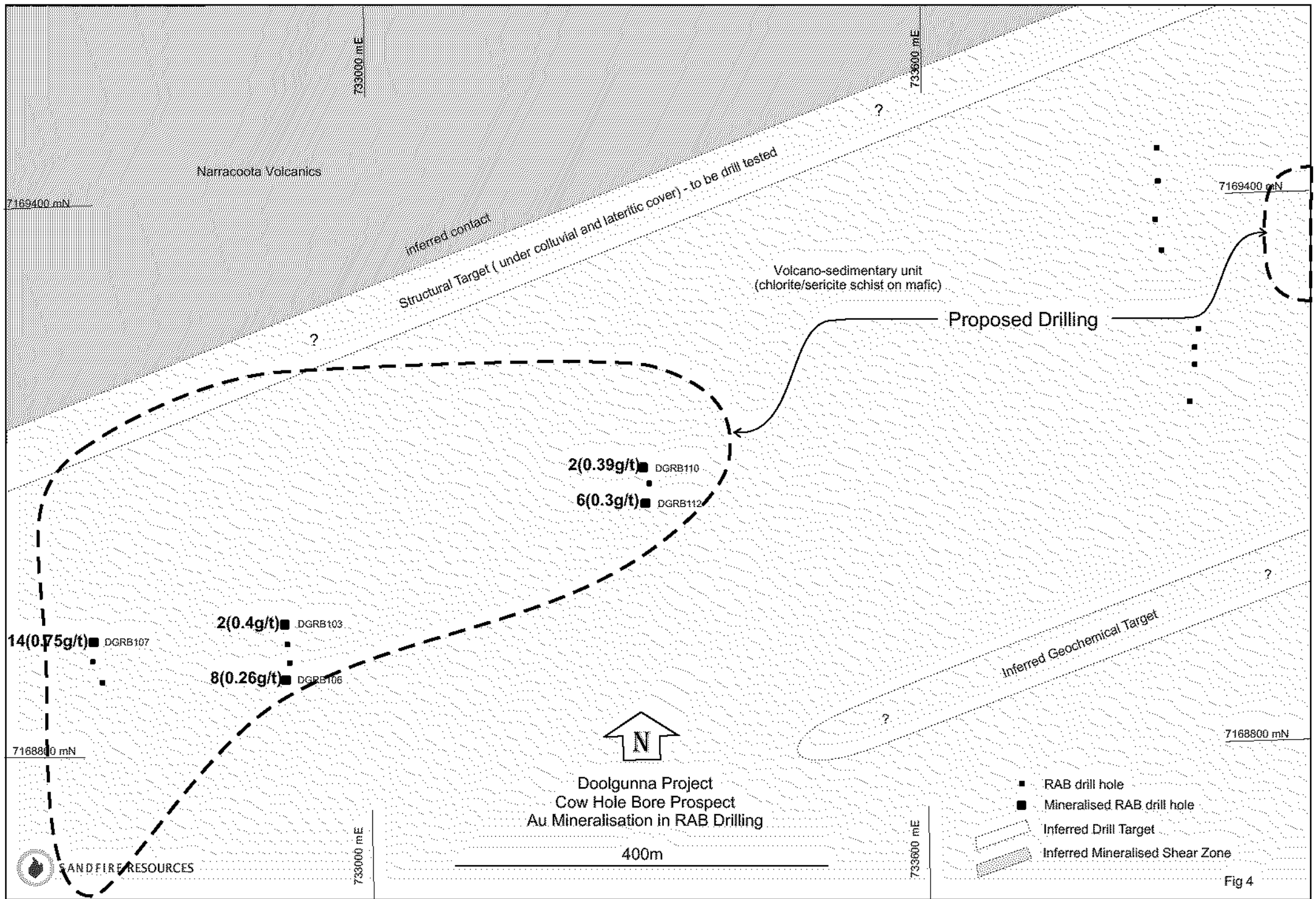


Fig 4