

ASX Announcement

11 February 2020

UPDATED INVESTOR PRESENTATION

"Hemi Discovery, Mallina Gold Province"

We are pleased to release an updated presentation titled "Hemi Discovery, Mallina Gold Province" with respect to our Mallina Gold Project.

Mr. Andy Beckwith will be presenting at today's "Resources Roadhouse Broker's Luncheon", in Perth, Western Australia.

This ASX Announcement was approved and authorised by the board of Directors.

Simon Lill (Executive Chairman) or

Andy Beckwith (Technical Director and Operations Manager)

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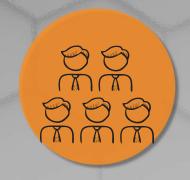


Our vision - to grow our gold resources and ultimately transition De Grey into a new Australian Gold Producer.



Corporate Overview





Corporate Structure as at 10 February 2020

1,039M Shares

A\$0.155 Share Price

A\$161M Market Capitalisation

A\$7.9M Cash (Dec 2019)

A\$153M EV

Major Shareholders as at 10 February 2020

DGO Gold Limited1 9.7%

Northwest Nonferrous 5.7%

4.9% Regal Funds Mgmt Pty Ltd

Kirkland Lake Gold Ltd 3.2%

3.3% Directors & management

54.3% Top 20 Holders

1. DGO committed to \$500k placement subject to shareholder approval



Board of Directors





Simon Lill - Executive Chairman (BSc MBA) Mr. Lill over 25 years' experience in stockbroking, capital raising, management, business development and analysis for a range of small and start-up companies, both in the manufacturing and resources industries, and has specialised in company restructuring activities.



Andy Beckwith - Executive Technical Director (BSc Geology, Aus IMM) Mr. Beckwith has successfully worked on projects from grassroots to mine development and has extensive experience working with corporate transactions, project acquisitions, resources development and project generation. He joined De Grey Mining originally as a consultant, before coming on as Technical Director and Operations Manager in November 2017 and has played a significant role in the rebirth and growth of the company.



Eduard Eshuys - Non-executive Director (BSc, FAUSIMM, FAICD)

Mr. Eshuys is a geologist with several decades of gold exploration experience in Australia. Mr Eshuys is a successful explorer leading the teams that discovered the Plutonic, Bronzewing, Jundee gold deposits and was directly involved in the Cawse, Maggie Hays and Mariners nickel discoveries. More recently he was the Managing Director and CEO of St Barbara Limited from July 2004 to March 2009 and oversaw its substantial growth as a gold producer. He is currently a Director of ASX listed companies DGO Gold Limited and NTL Gold Limited.



Bruce Parncutt AO - Non-executive Director (BSc, MBA)

Mr. Parncutt's career spans a +40 years involvement in investment management, investment banking and stock broking, including roles as Managing Director of McIntosh Securities, Senior VP of Merrill Lynch and Director of ASX Ltd. In 2016, he was awarded the Order of Australia for distinguished service to the community as a philanthropist, particularly in the arts and education sectors, as an advocate & supporter of charitable causes, and to business & commerce. He is currently Chairman of investment banking group Lion Capital and a Director of ASX listed DGO Gold Limited.



Peter Hood - Non-executive Director (B.E (Chem), MAusIMM, FIChemE, FAICD Mr. Hood, a Chemical Engineer, has had a distinguished career in the Australian Mining and Chemical Industries. He held the position of Senior Production Engineer at the Kwinana Nickel Refinery from 1971 to 1981, then Mill Superintendent of the WMC Kambalda Nickel and Gold Operations between 1982 to 1985. In 1985, he joined Coogee Chemicals Pty Ltd in the position of General Manager and then as their CEO between 1998 and 2005. He then held the position of CEO of Coogee Resources Ltd.



Establish project scale with resources >3.0Moz to support robust and successful development

HEMI - strong resource potential

Build resources at a discovery cost below industry average of A\$20/oz

HEMI - likely to be low discovery cost

Demonstrate long term upside through increased resources and new discoveries

HEMI, ANTWERP, BUCKLE, SCOOBY, SHAGGY, ELECTRONAES

Transition De Grey into a new Australian Gold Producer



Emerging "Old" Gold Province

Pilbara Craton +8Moz Immature exploration (<20yrs) New shallow discoveries expected

Very mature exploration (>120yrs)

New discoveries expected at depth

De Grey's Mallina +1.7Moz

Warrawoona 1.2Moz

Mosquito Creek 1.5Moz

Pilbara

Yilgarn

Karlawinda 1.5Moz

Mt York 1Moz

Yilgarn Craton +200Moz

Southern Cross 10Moz

Plutonic 8Moz

Port Hedland

Yandal/Wiluna 45Moz

Yamarna 6Moz
Laverton/Leonora 37Moz

Kalgoorlie/Norseman 120Moz

PERTH

Ashburton 1.5Moz

Boddington 28Moz



Same

- Archaean aged
- Granite/greenstone belts
- Mineralisation and alteration styles
 - √ Shear hosted
 - ✓ Intrusion hosted
 - ✓ Sanukitoid intrusions related to GOLD



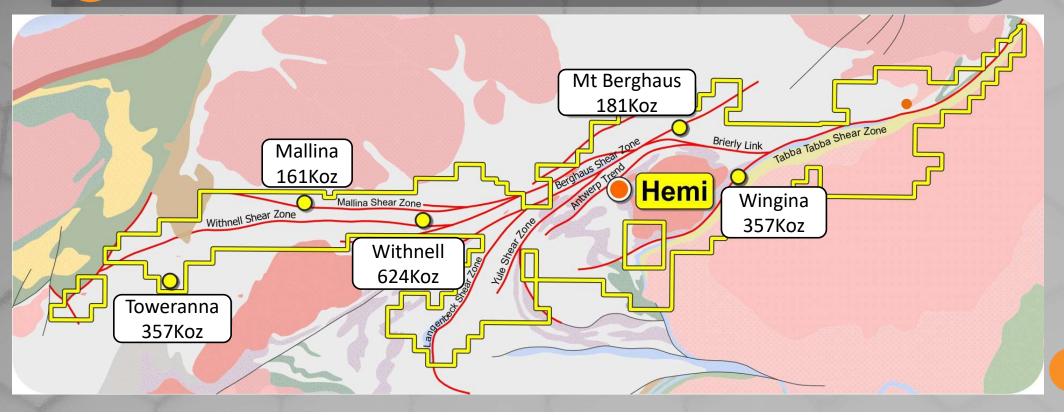
DEGREY Growing Resources to +3Moz



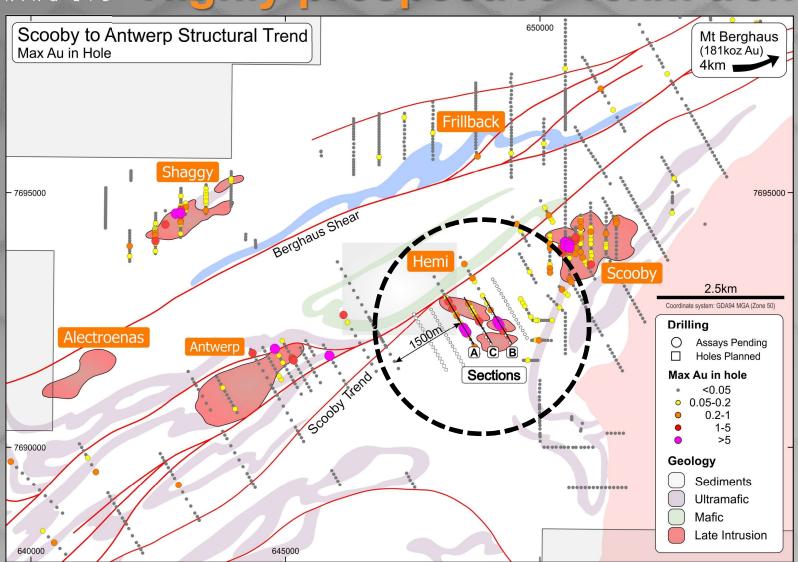
Mallina Gold Project - 1.7Moz @ 1.8g/t (drilling to June 2019)



Resource Update due Q1 2020 (drilling to end of 2019)







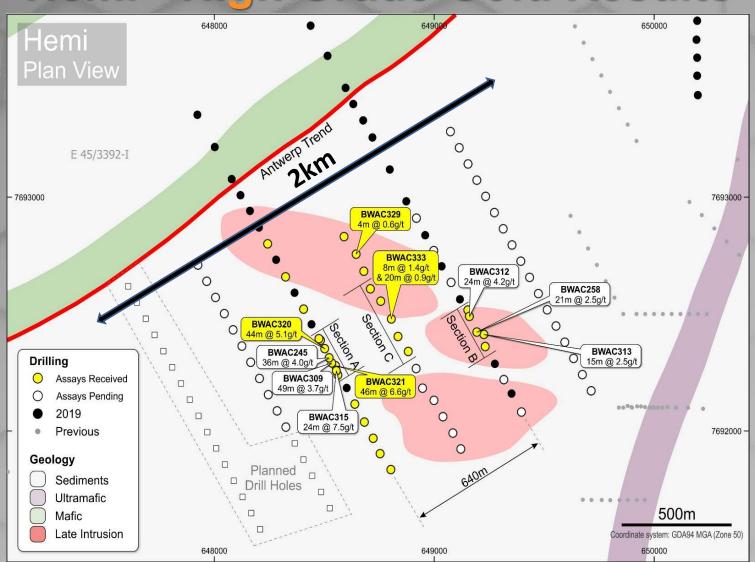


DE GREY Hemi - High Grade Gold Results

Significant gold intersections on widespaced drilling

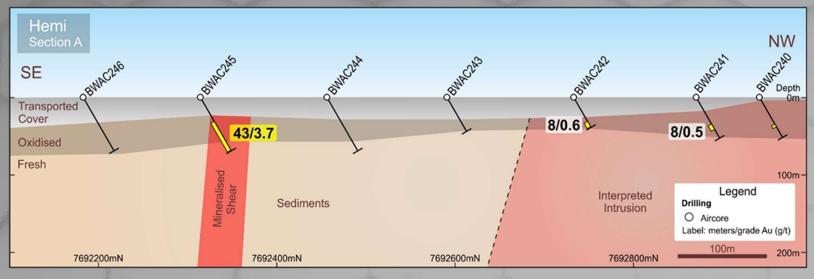
39 aircore holes- assays pending

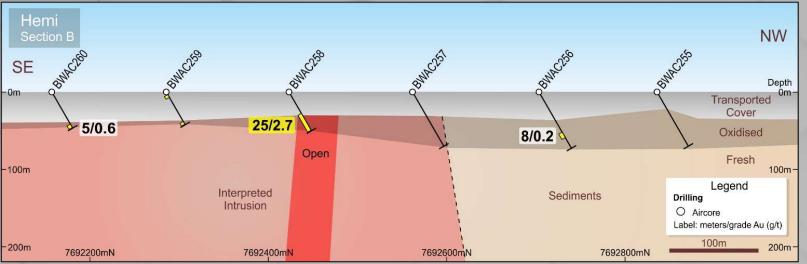
Further aircore, RC and diamond drilling to commencing





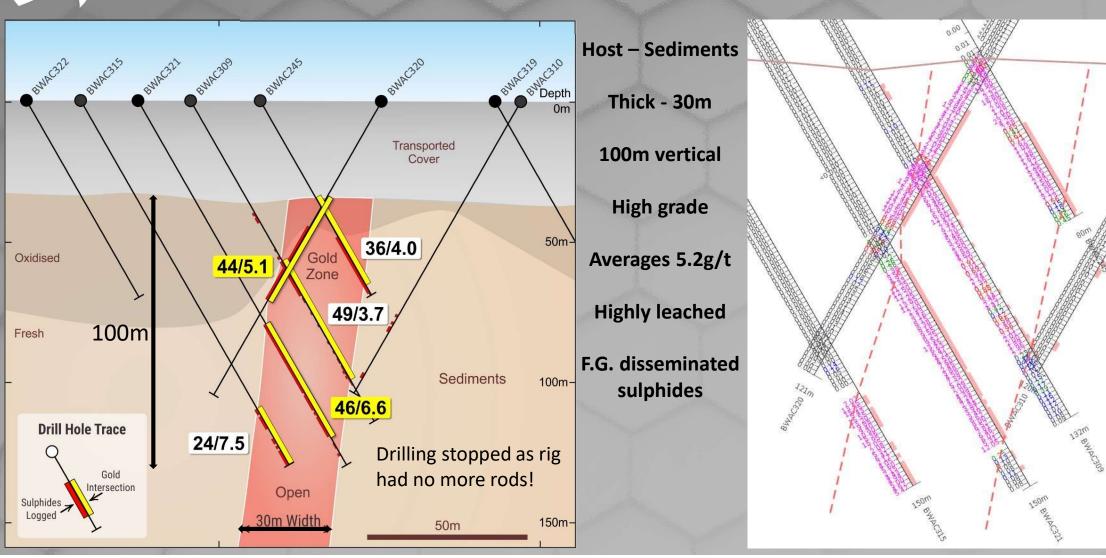
DE GREY Hemi – December 2019 "Discovery Holes"





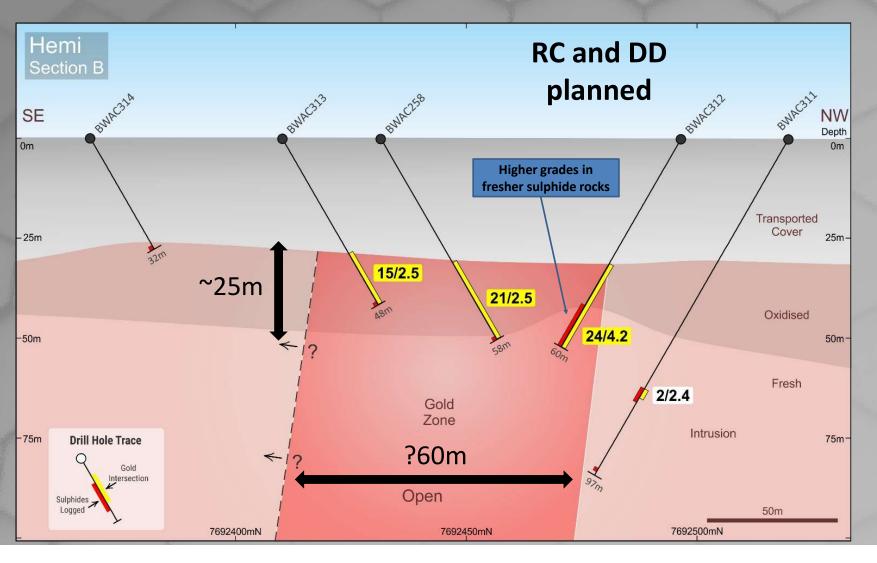


DEGREY Hemi Section A - Aircore Results





DE GREY Hemi Section B - Aircore Results



Host - Intrusion

Thick - ?60m

~25m vertical

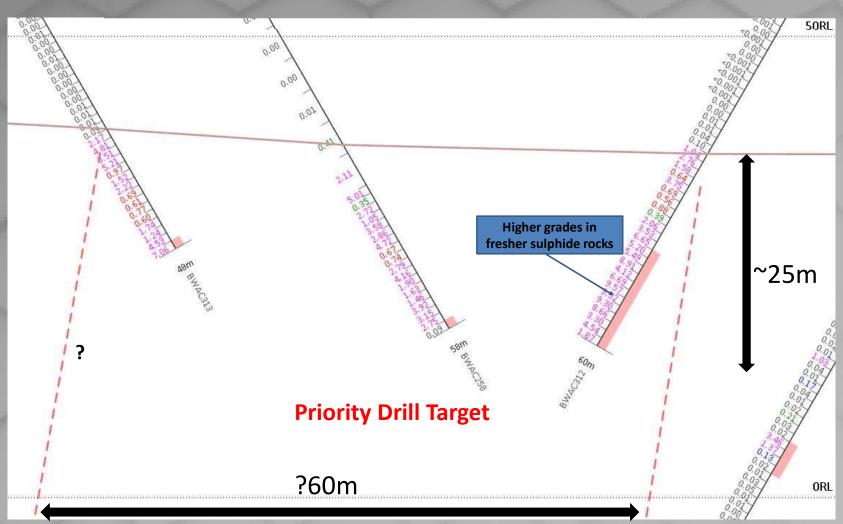
Grade increasing in fresher material

F.G. disseminated sulphides

Drilling stops as fresh rock too hard for small aircore rig



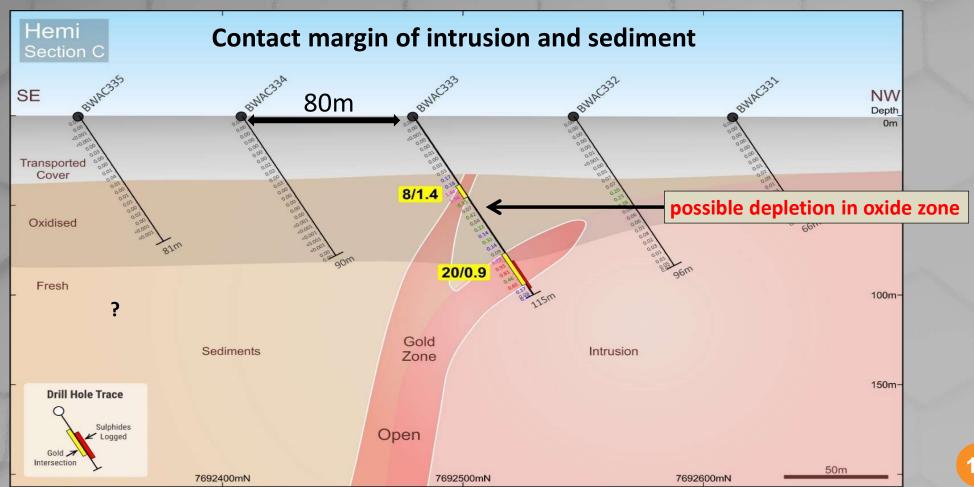
DE GREY Hemi Section B - Aircore Results





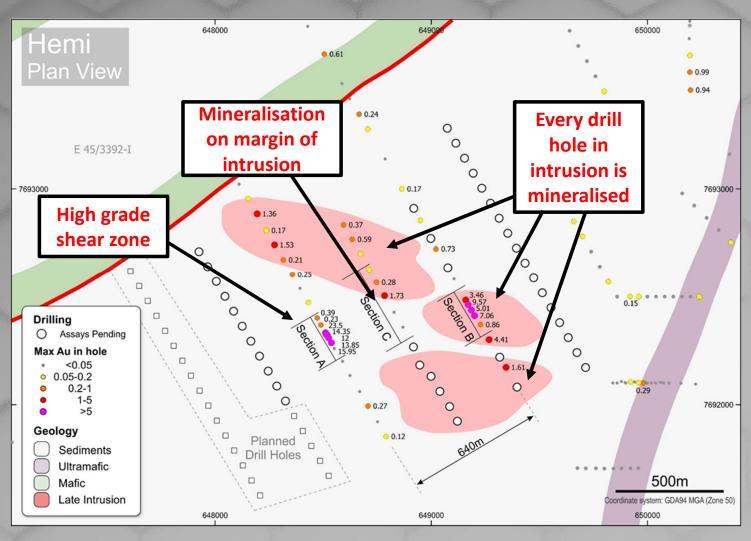
DE GREY Hemi Section C - Aircore Results

Early days and plenty of space to fit high grade zone





DE GREY Hemi – Encouraging maximum gold





DE GREY Immediate programs at Hemi

Further 39 aircore holes with results pending

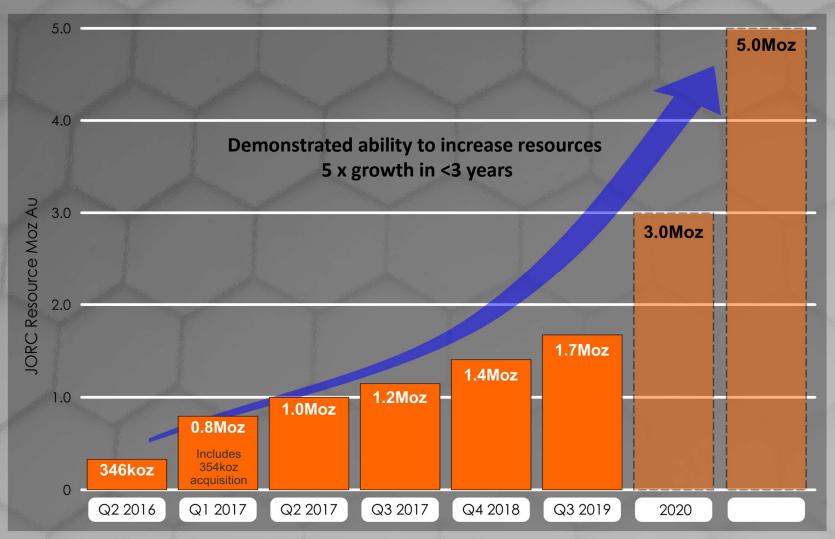
Remobilising Aircore, RC & DD Rigs (post Cyclone Damien)

- A/C continue with stepout and infill along 2.5km strike
- RC initially targeting mineralisation to ~200m depth
- DD initially targeting mineralisation to ~300m depth & metallurgy
- Overall targeting inferred resource on nominal 80m x 40m spaced holes

Expect strong news flow in the coming months!!



DE GREY De Grey's Rapid Resource Growth





DE GREY Work Programs underway

Production

Reserves

Feasibility - Plant design, Metallurgy, Mining, Ore sorting

Resources - RC and diamond drilling

New Discoveries - Aircore drilling

2Mtpa PFS

1.7Moz targeting +3.0Moz

200km Shear Zones
7 Intrusion Targets
40 Geochem Anomalies
New discoveries at Hemi, Antwerp and Buckle



DE GREY Withnell Shear - 624koz & Growing

Drilling beneath and along strike of existing open pits and well defined shallow resources

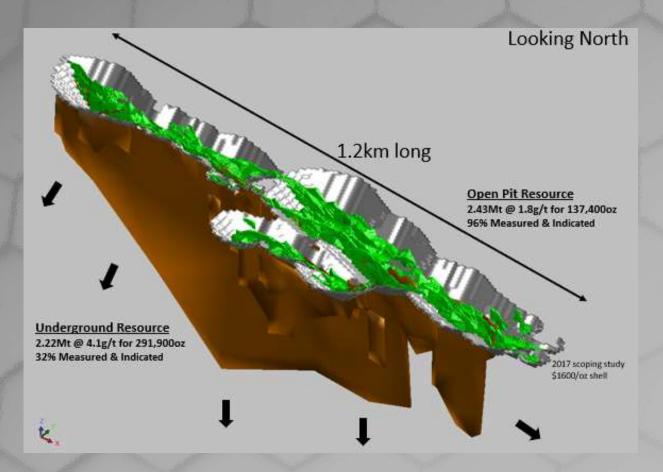


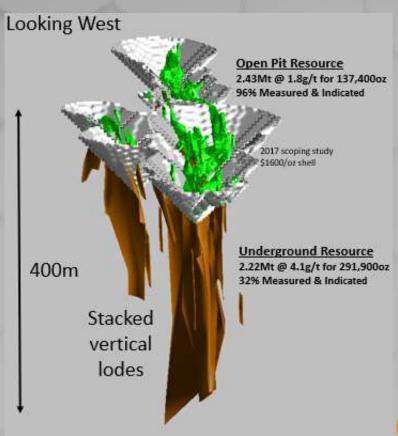


DE GREY Withnell Deposit - Potential

Withnell Deposit
Withnell Underground

Total Resource 4.65Mt @ 2.9g/t for 429,300oz 2.22Mt @ 4.1g/t for 291,900oz







DEGREY Withnell - High Grade U/G Lodes

Withnell Underground (reclassified) 2.22Mt @ 4.1g/t for 291,900oz



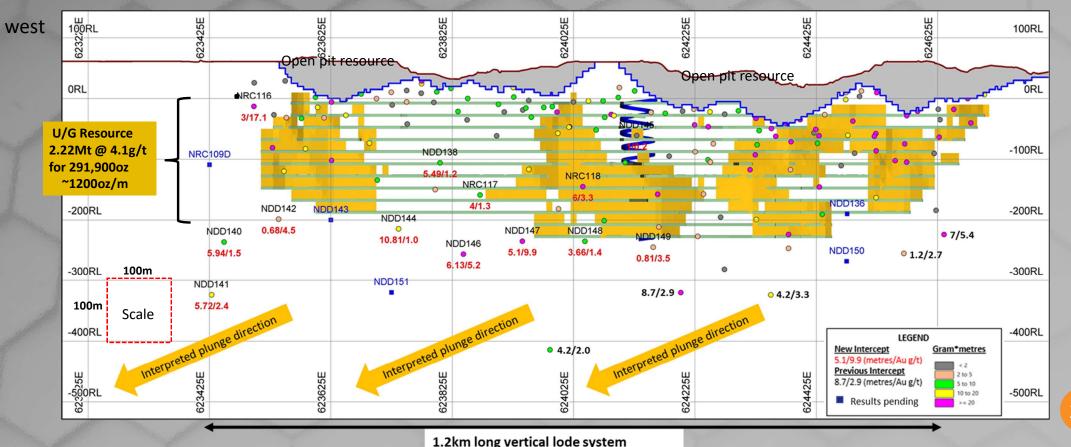


DE GREY Withnell - Resource Extension Drilling

Withnell Underground Resource

2.22Mt @ 4.1g/t for 291,900oz

Drilling targeting 100m x100m step out resource extensions below main lodes – Resource update pending

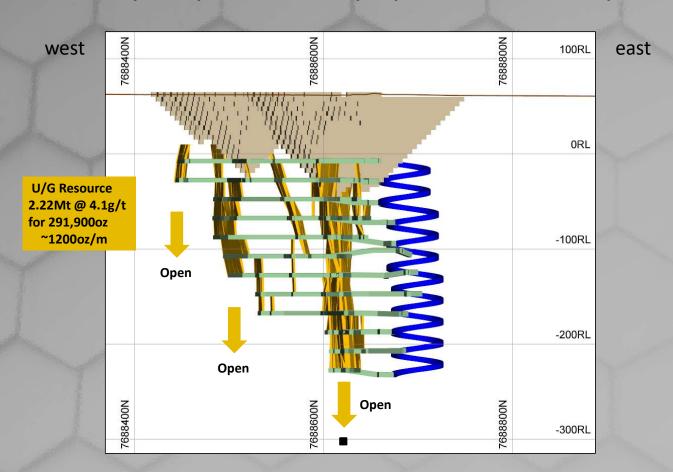


east



DE GREY Withnell - Underground Potential

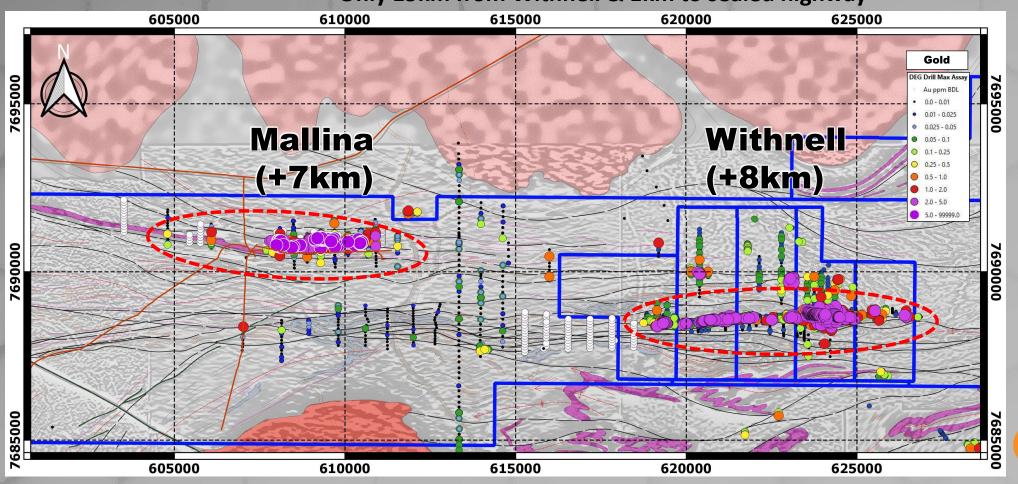
Underground scoping study underway based on conceptual open pit cutback followed by conceptual decline off open pit, 20m sublevel development.





DE GREY Mallina - Potential Large Gold System

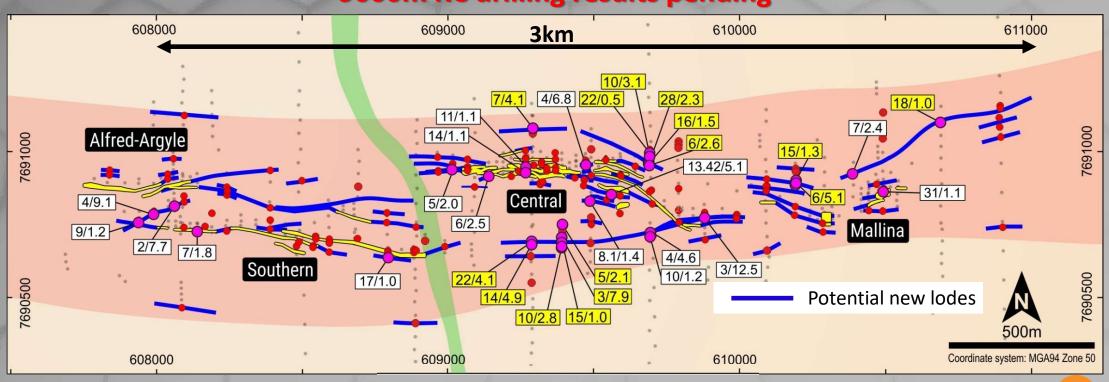
Potential to increase resources beyond the existing 161koz Only 15km from Withnell & 1km to sealed highway





DE GREY Mallina Resource Extensions

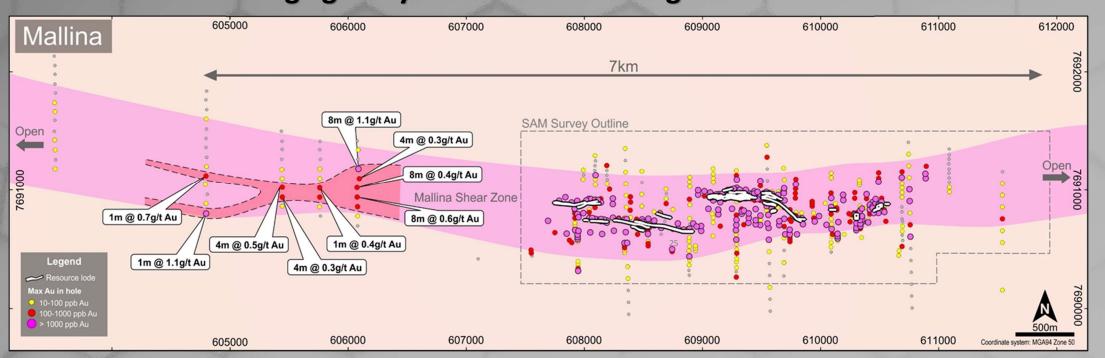
Numerous intersections outside of the current 161koz Resource Current under drilled 3km orebody with potential to extend +7km 9000m RC drilling results pending





DE GREY Mallina – A Large +7km Gold System

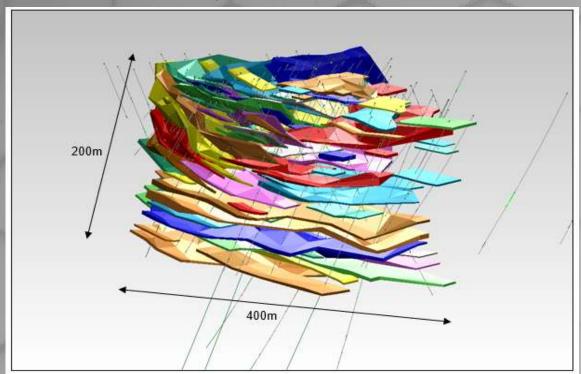
New gold mineralisation defined to west Large gold system now +7km long x 700m wide



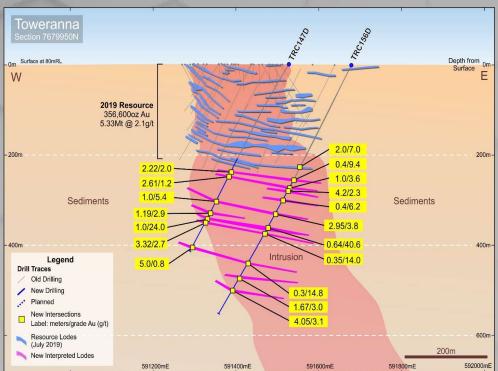


Toweranna Resource Model

Toweranna 5.33Mt @ 2.1g/t for 356,600oz Nested quartz veins in intrusion



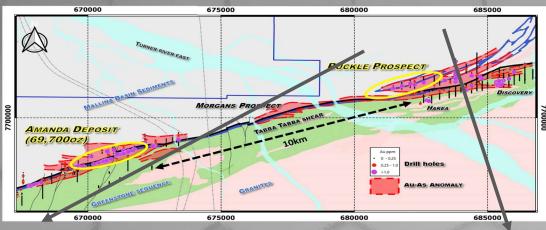
Drilling extends mineralisation to beyond 600m depth – further results pending

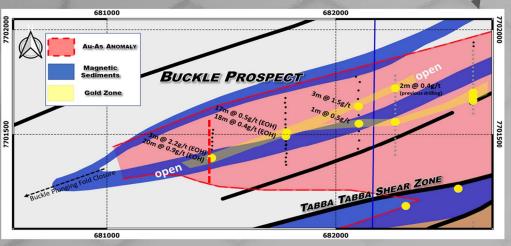


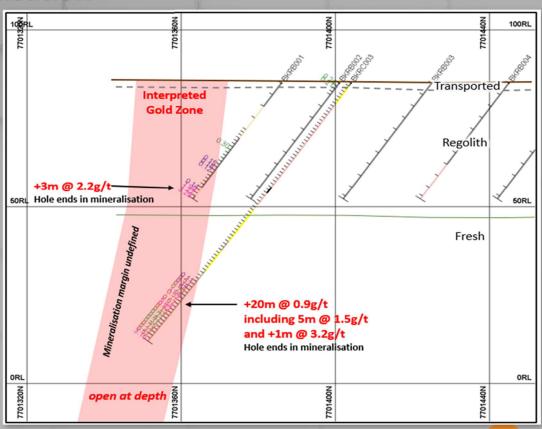


Buckle - New Gold Discovery

Tabba Tabba Shear – Buckle Discovery RC Holes ended in Mineralisation



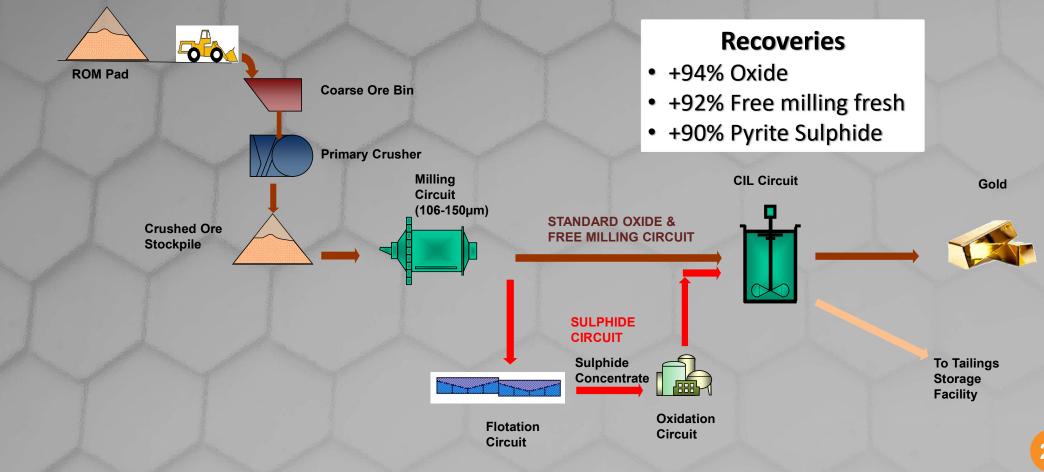






Economic Studies

Simplified plant - conventional circuit





Path to Development



Economics timeline driven by new resource growth



De-risking - resource increases, recoveries, processing



PFS - Pit optimisations on new resources



Variability metallurgy, geotech requirements on pits



Simplify processing design & financial models



- > Immediate focus on HEMI drilling
 - Further aircore samples in lab, aircore drilling to continue along strike
 - RC drilling to ~200m
 - Diamond drilling to ~300m
 - Metallurgy test work
 - Define scale of mineralised system
 - Targeting initial inferred resource
- > Mallina RC and diamond results
- > Update on economics
- > Resource update on all drilling to end of 2019



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Pilbara Gold Project Resource 1.7Moz, July 2019

Area	Туре	Measured			Indicated			Inferred			Total		
		Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz
Withnell Mining Centre	Oxide	0.92	1.9	55,400	3.05	1.5	151,900	1.12	1.3	48,200	5.09	1.6	255,500
	Fresh	0.62	1.7	33,500	6.77	2.1	463,100	5.30	2.3	389,300	12.69	2.2	885,800
	Total	1.54	1.8	88,900	9.82	1.9	615,000	6.43	2.1	437,500	17.79	2.0	1,141,400
Wingina Mining Centre	Oxide	2.68	1.8	152,100	1.84	1.5	87,600	2.21	1.1	74,900	6.74	1.5	314,500
	Fresh	0.40	1.6	20,500	0.68	1.6	34,900	4.04	1.3	168,400	5.12	1.4	223,800
	Total	3.08	1.7	172,700	2.52	1.5	122,500	6.25	1.2	243,200	11.86	1.4	538,400
TOTAL Pilbara Gold Project	Oxide	3.60	1.8	207,600	4.90	1.5	239,400	3.34	1.1	123,100	11.83	1.5	570,100
	Fresh	1.02	1.6	54,000	7.45	2.1	498,000	9.34	1.9	557,600	17.81	1.9	1,109,700
	Total	4.62	1.8	261,600	12.35	1.9	737,500	12.68	1.7	680,700	29.65	1.8	1,679,700



Statements

Competent Persons Statements

The information in this report that relates to **Exploration Results** for the Pilbara Gold Project is based on, and fairly represents information and supporting documentation compiled by Mr Philip Tornatora, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr Tornatora is an employee of De Grey Mining Limited. Mr Tornatora has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The Information in this report that relates to Mineral Resources for Pilbara Gold Project is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. De Grey advises that no material changes have occurred to the resource estimates since the date of publication of September 2017.

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Pilbara Gold Project on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release. Material ASX releases are listed below.

Forward Looking Statements

Statements regarding De Grey's plans with respect to the mineral properties, resource reviews, programmes, economic studies and future development are forward-looking statements. There can be no assurance that De Grey's plans for development of its mineral properties will proceed any time in the future. There can also be no assurance that De Grey will be able to confirm the presence of additional mineral resources/reserves, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of De Grey's mineral properties.



ASX References

Previously Released ASX Material References

Resources: Pilbara Gold Project increases gold resources by >20% to over 1.2Moz, 28 September 2017

2018 Total Gold Mineral Resource increases to 1.4Moz, 3 October 2018 2019 Total Gold Mineral Resource – 21% increase to 1.7Moz, 16 July 2019

Economics: Positive Scoping Study at Pilbara Gold Project, 4 August 2017

De Grey increases study scale to 2Mtpa, 22 February 2019

Positive gold recoveries enhance Pilbara Gold Project potential, 12 February 2019

Exploration: Toweranna and Blue Moon drilling results, 2 February 2018

Shallow High-Grade Gold at Mt Berghaus, 28 May 2018

Mallina Drilling provides further strong shallow gold intersections, 15 June 2018

Toweranna drilling expands high-grade gold footprint, 3 July 2018

Amanda Resource potential increases, 7 August 2018 Further strong gold hits at Mt Berghaus, 10 September 2018 Mallina gold mineralisation continues to deliver, 1 March 2019

Toweranna –high impact resource extension drilling underway, 13 March 2019

Further high grade drilling results achieved at Withnell, 20 March 2019

136m @ 2.0g/t with additional high-grade drill results at Toweranna, 15 April 2019

Multiple High Grade Intercepts continue at Toweranna, 21 May 2019

Ongoing High Grade Intercepts at Toweranna, 11 June 2019 Multiple new targets increase exploration potential, 2 July 2019

Withnell drilling continues to delineate high grade gold lodes 11 July 2019

Mallina drilling, new targets and metallurgy update, 15 July 2019 New high grade gold zones at Mallina, 27 September 2019 High grade gold veins at Toweranna, 3 October 2019 Mallina continues to deliver, 11 November 2019

Positive drill results extend Withnell potential, 25 November 2019 Expanded drilling program commences at Mallina, 26 November 2019

High grade gold veins at Toweranna, 26 November 2019 New Gold Discoveries at Hemi and Antwerp, 17 December 2019 New Gold Mineralisation defined at Buckle Prospect, 16 January 2020 Hemi confirms potential for major Discovery, 6 February 2020

Further impressive thick and high grade gold at Hemi, 11 February 2020