



Adelaide Resources Limited

**SA**  
EXPLORATION  
& MINING  
CONFERENCE

# Development potential of the Barns/Baggy Green gold camp

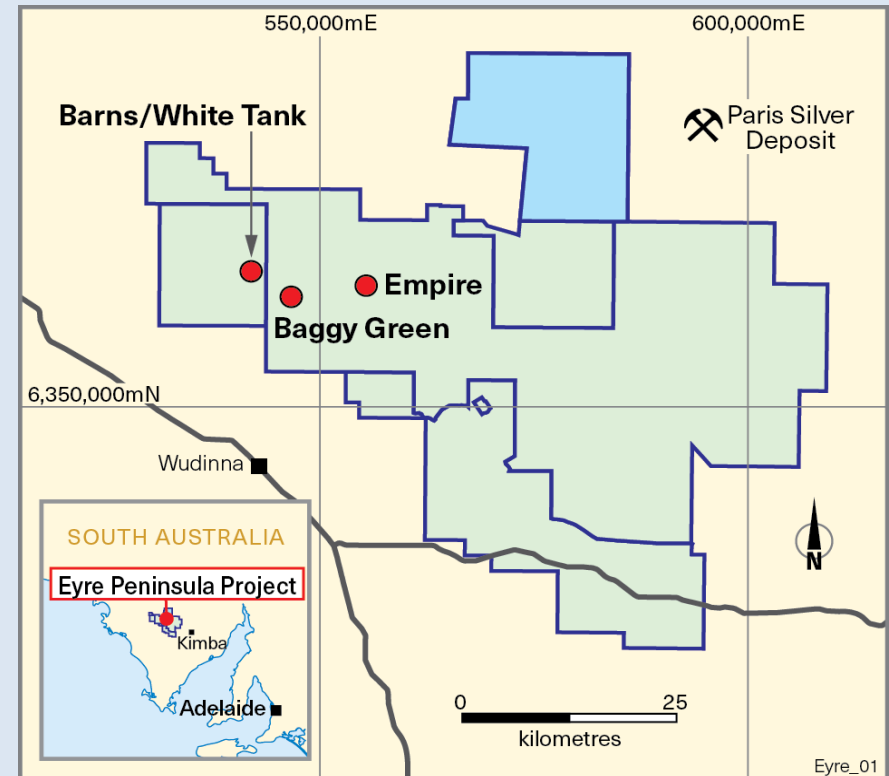
*2 December 2016*





# Eyre Peninsula gold

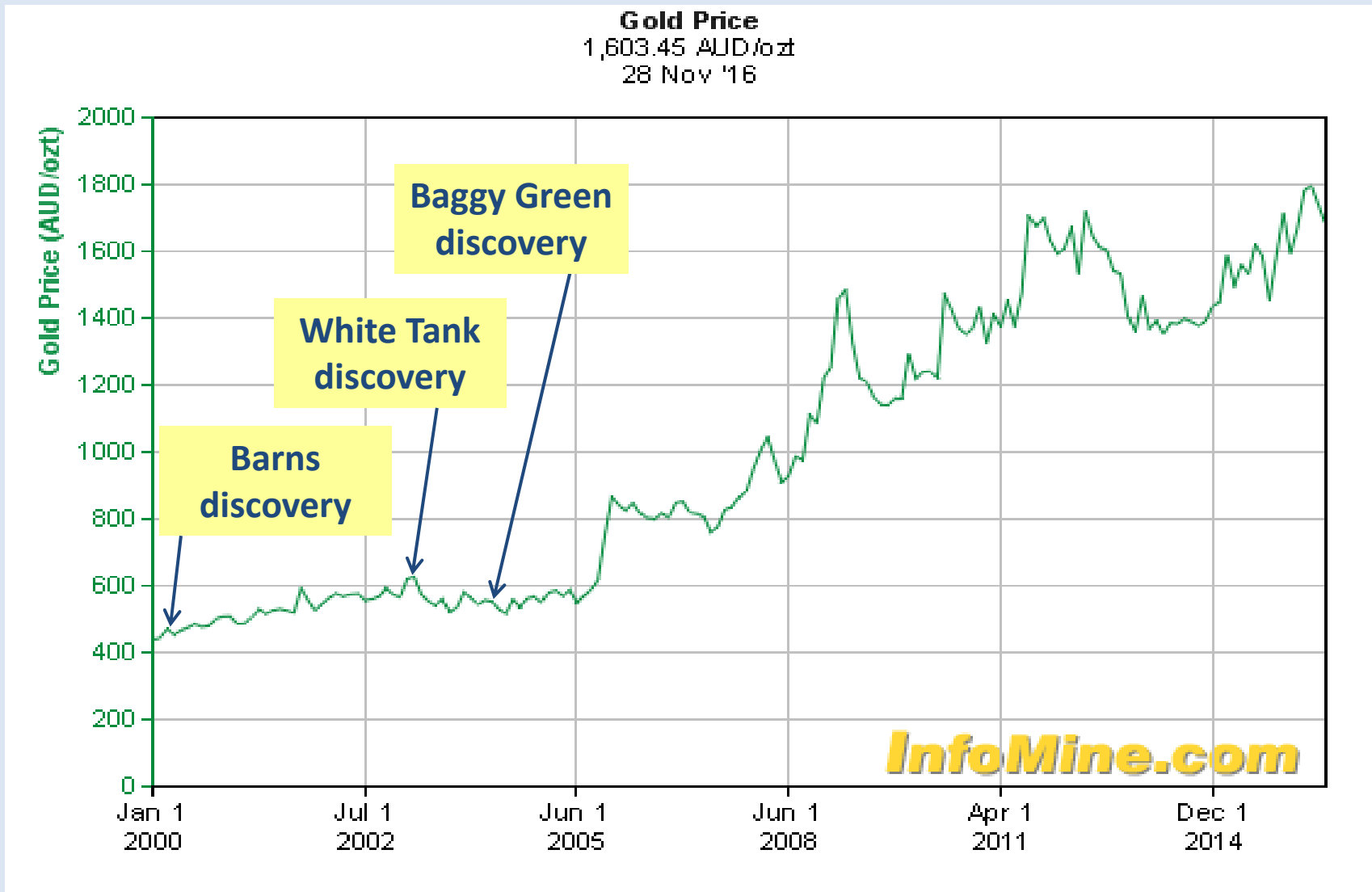
## Large project in Central Gawler Gold Province

- Substantial 2,807km<sup>2</sup> project
- Barns Camp gold deposits (Barns, Baggy Green, White Tank) all 100% owned
- Deposits found in early 2000's by testing calcrete gold geochemical anomalies

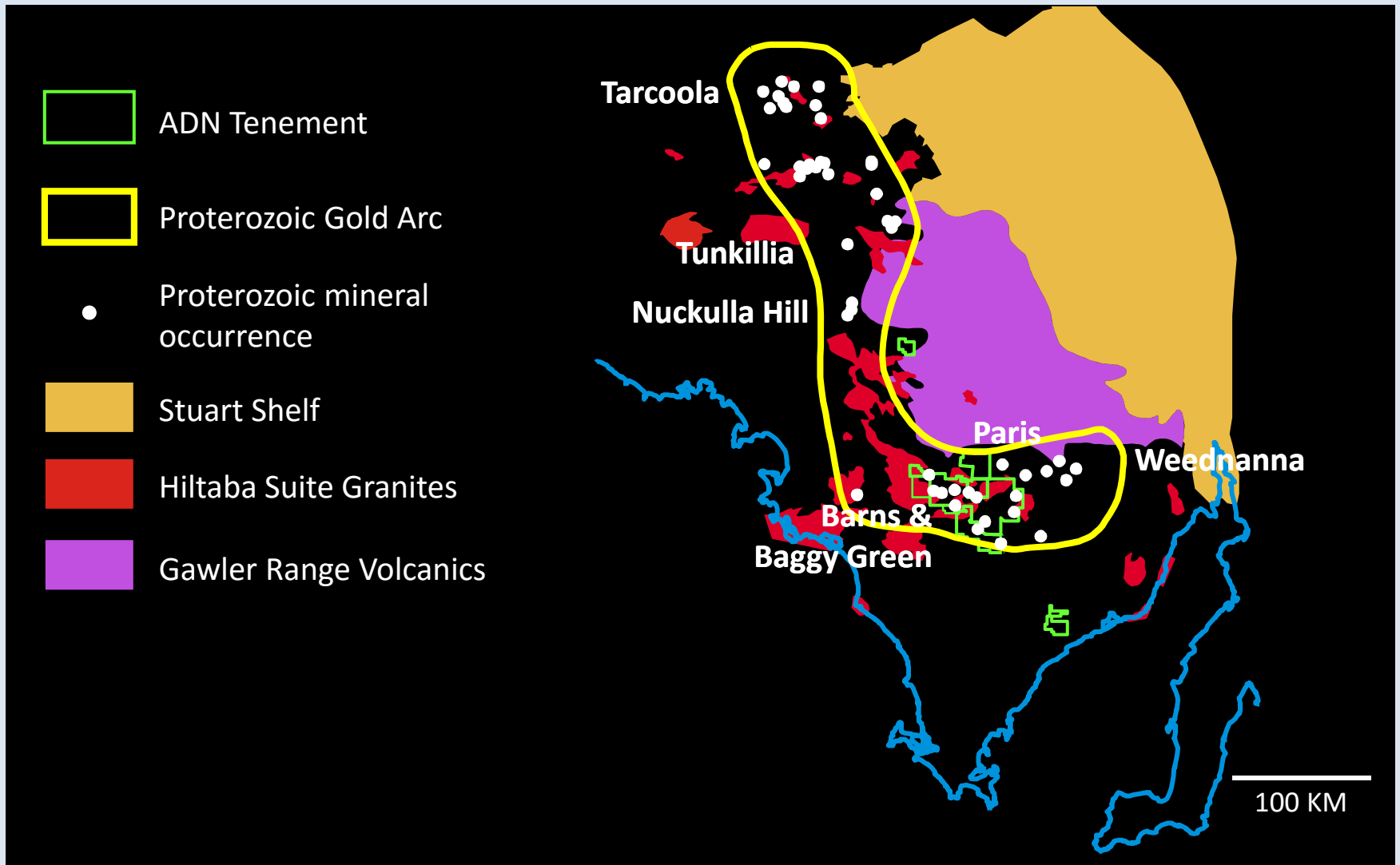


-  Adelaide Resources Exploration Licence
-  Thurlga Joint Venture (with Investigator Resources Ltd)

# What has changed to make us focus on these deposits again?

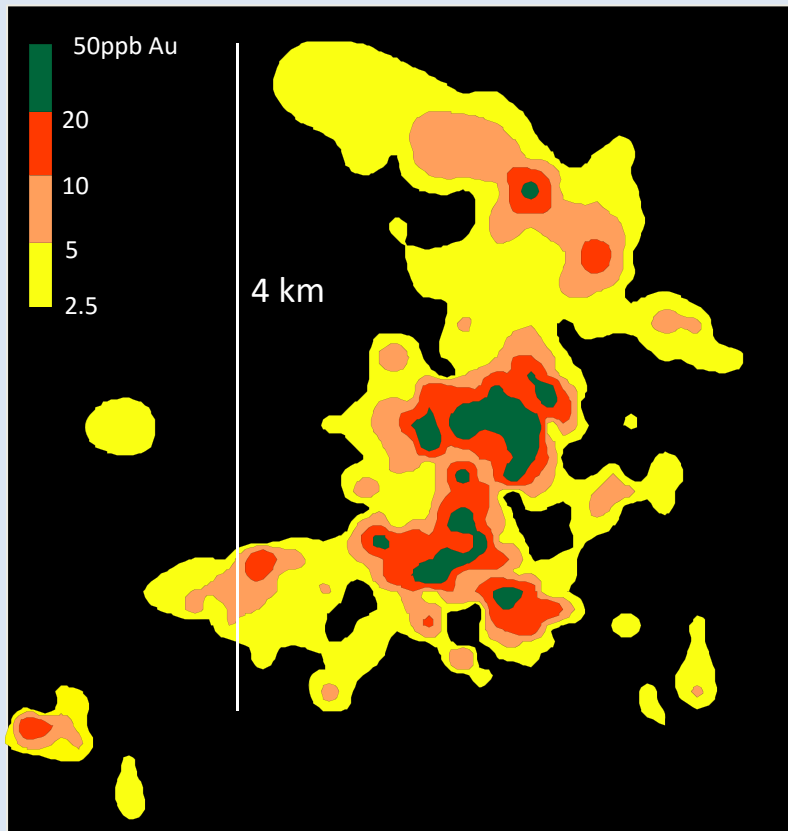


# Central Gawler Gold Province



# Barns calcrete gold geochemistry

Discovery in 2000 a result of applying (what was then) a new exploration tool

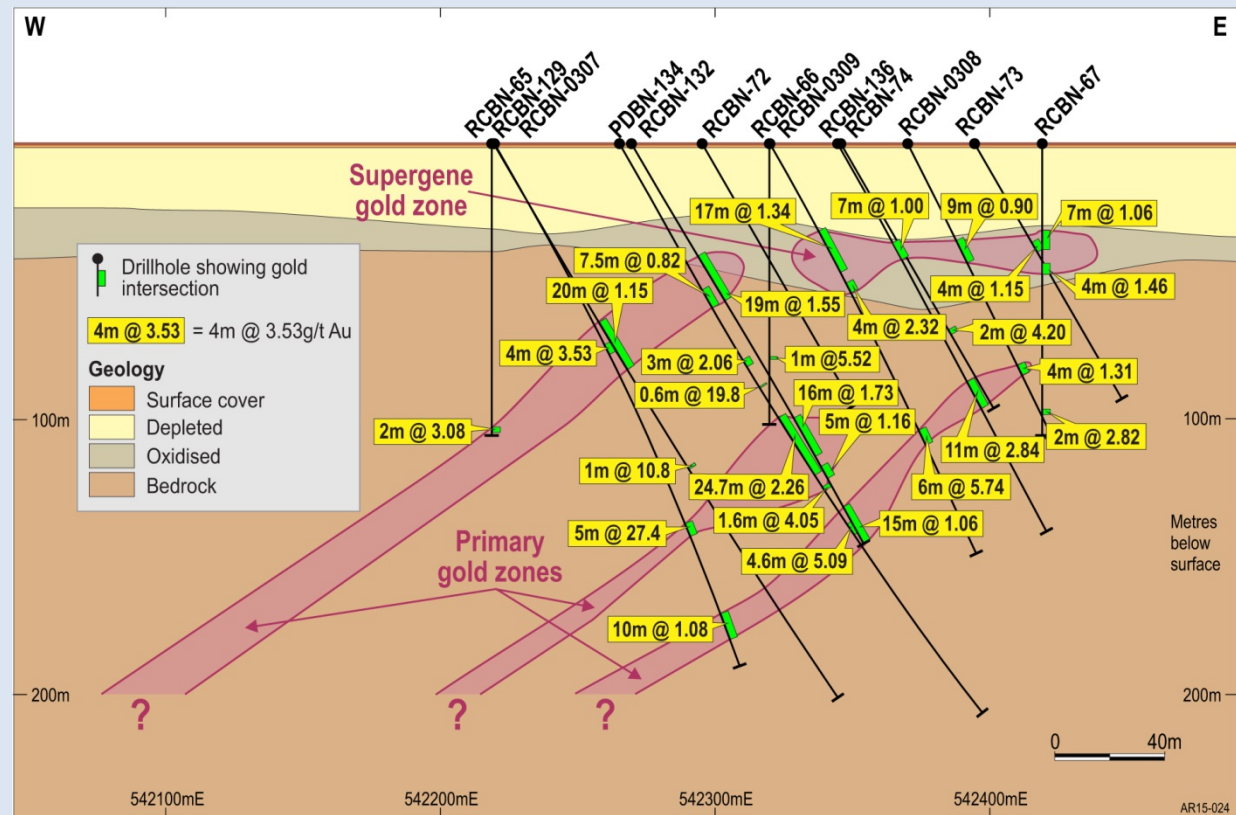


1000 M

# Barns gold prospect cross section

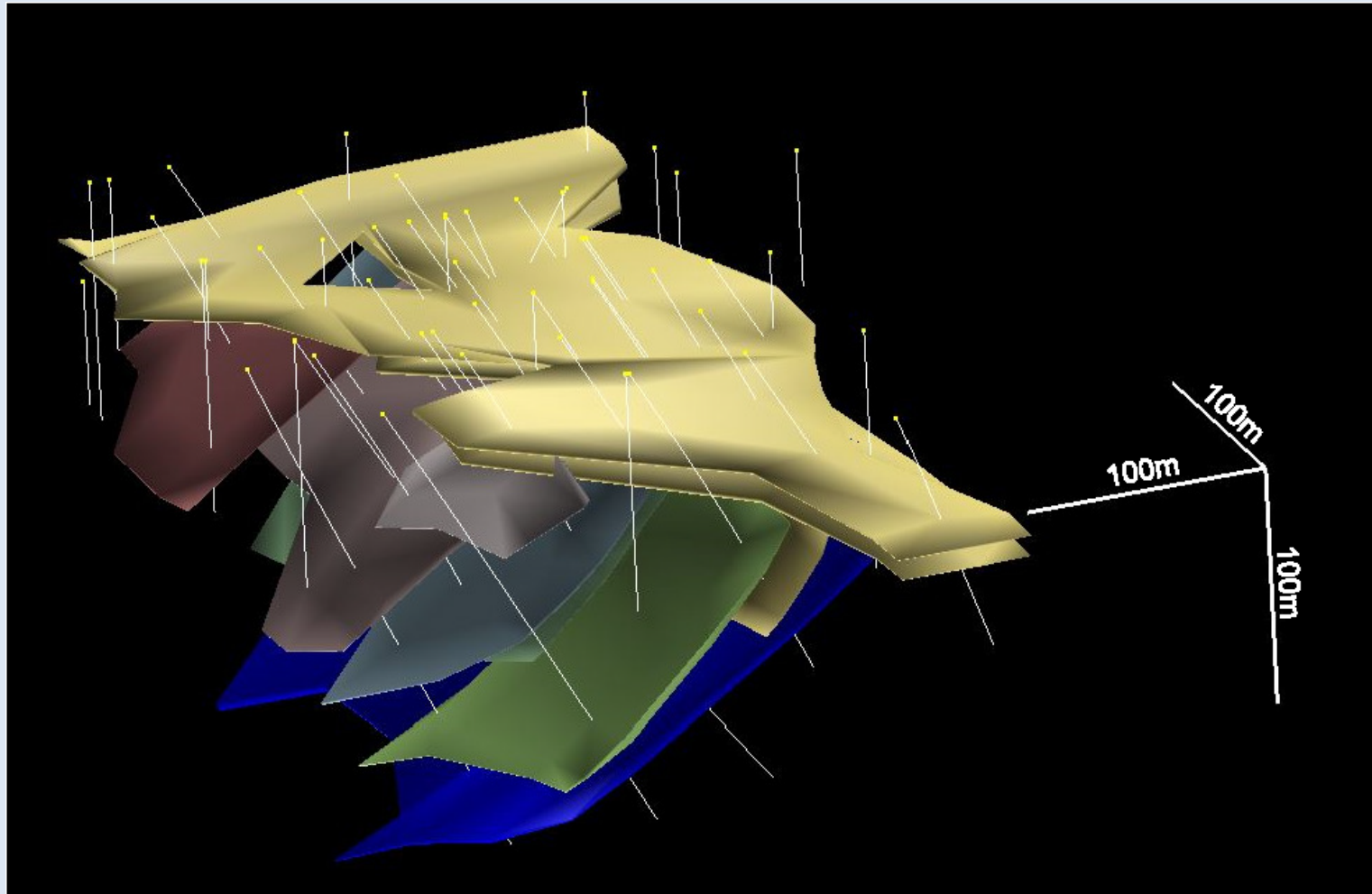
## Multiple moderately dipping lodes beneath flat lying supergene zone

- Drill hits include:
  - 5m @ 27.4g/t gold
  - 11m @ 2.84g/t gold
  - 13m @ 4.04g/t gold
  - 13m @ 3.06g/t gold
- Multiple stacked lodes separated by low grade or barren rock



# Barns – 3-D resource deposit model

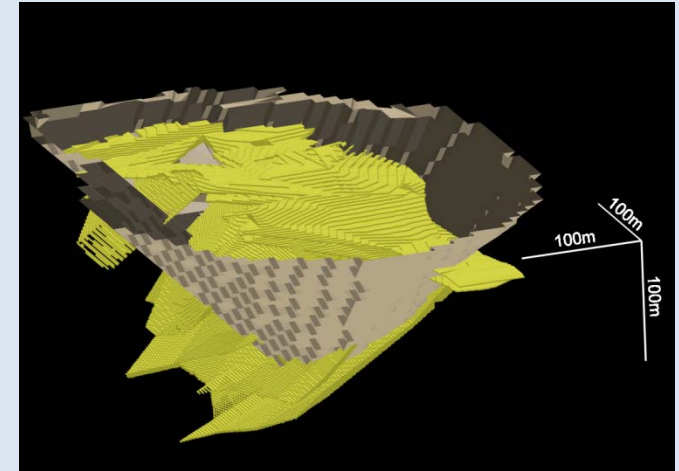
Detailed deposit modelling completed in Q1 2016



*Barns mineralisation model looking NE. Intersecting drill holes shown as pins.*

## Barns – assessment done May 2016

- Deposit model assessed by Independent resources industry experts Mining Plus Pty Ltd and Maptek Pty Ltd who then respectively analysed and reviewed the results of the modelling and of each other's work.
- The results of these investigations were positive and provided confidence to advance the project.
- Assessment recommendations
  1. Estimate a JORC Mineral Resource
  2. Metallurgical assessment
  3. Find more shallow ounces at Barns or nearby



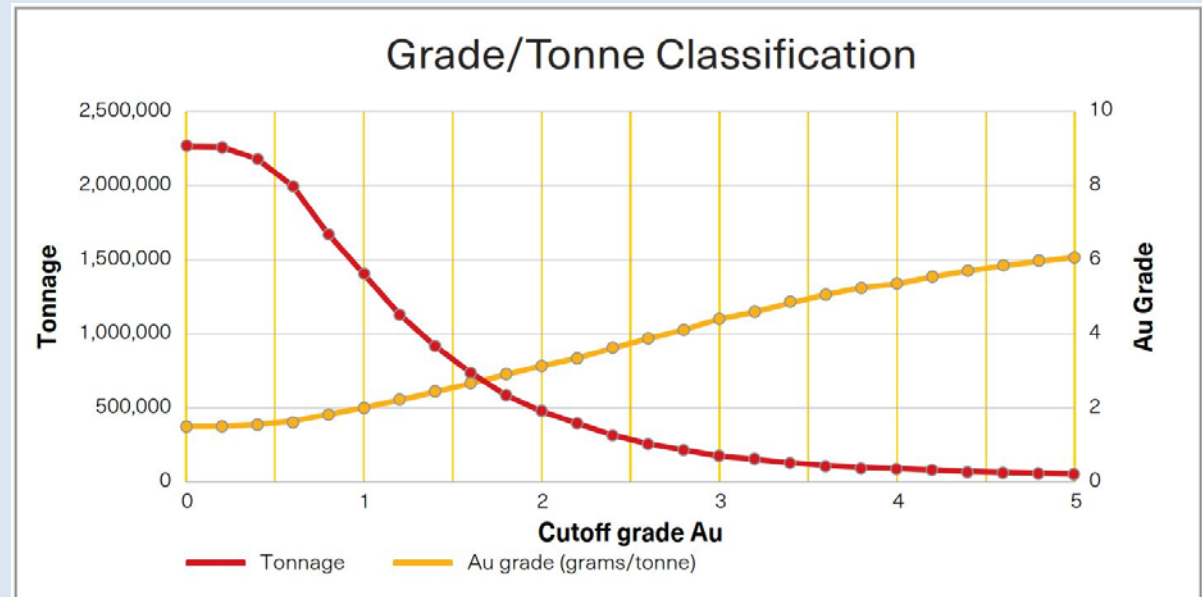
***Note this assessment was not a “Scoping Study”!!!***



# 1. Estimate a JORC Mineral Resource for Barns

**107,000 ounce maiden Mineral Resource announced July 2016**

- Mining Plus Pty Ltd and Adelaide Resources Ltd jointly responsible for resource estimate



Mineralisation	Cut-Off	Indicated			Inferred			Total		
		Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Primary	0.5	-	-	-	1,500,000	1.7	80,000	1,500,000	1.7	80,000
Supergene	0.5	380,000	1.4	17,000	230,000	1.3	10,000	610,000	1.4	27,000
<b>Total</b>	<b>0.5</b>	<b>380,000</b>	<b>1.4</b>	<b>17,000</b>	<b>1,730,000</b>	<b>1.6</b>	<b>90,000</b>	<b>2,110,000</b>	<b>1.6</b>	<b>107,000</b>

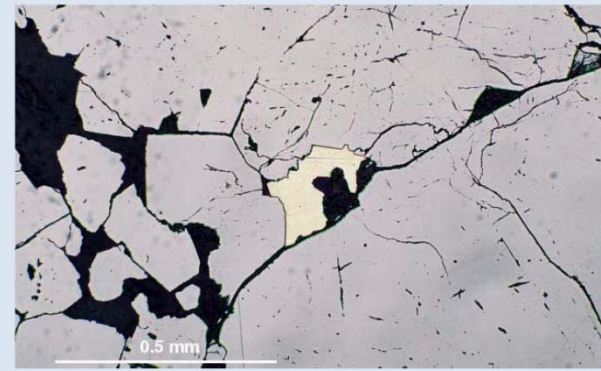
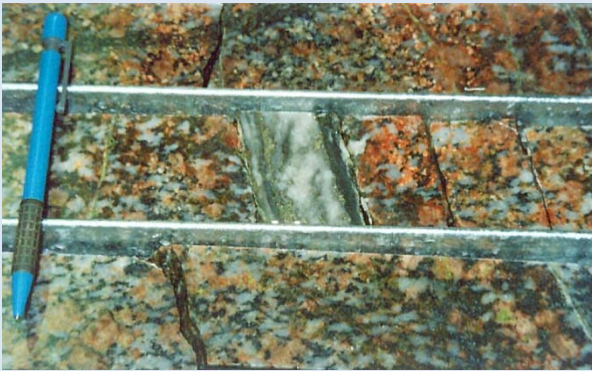
The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition. All tonnages reported are dry metric tonnes. Minor discrepancies may occur due to rounding to appropriate significant figures.

<sup>(1)</sup> Full JORC 2012 compliance information was disclosed upon release of the Mineral Resource estimate. See ADN's ASX release dated 19 July 2016.

## 2. Metallurgical assessment of Barns mineralisation

**Goal is to determine gold recoveries and inform flow sheet design**

- We don't anticipate any negative metallurgical issues
- Native gold is present (generally as 20-200um grains)
- Simple mineralogy (pyrite association – no As, rare associated Cu, Pb sulphides)
- One historical composite RC sample from Barns gave overall gold recovery of 97.2%



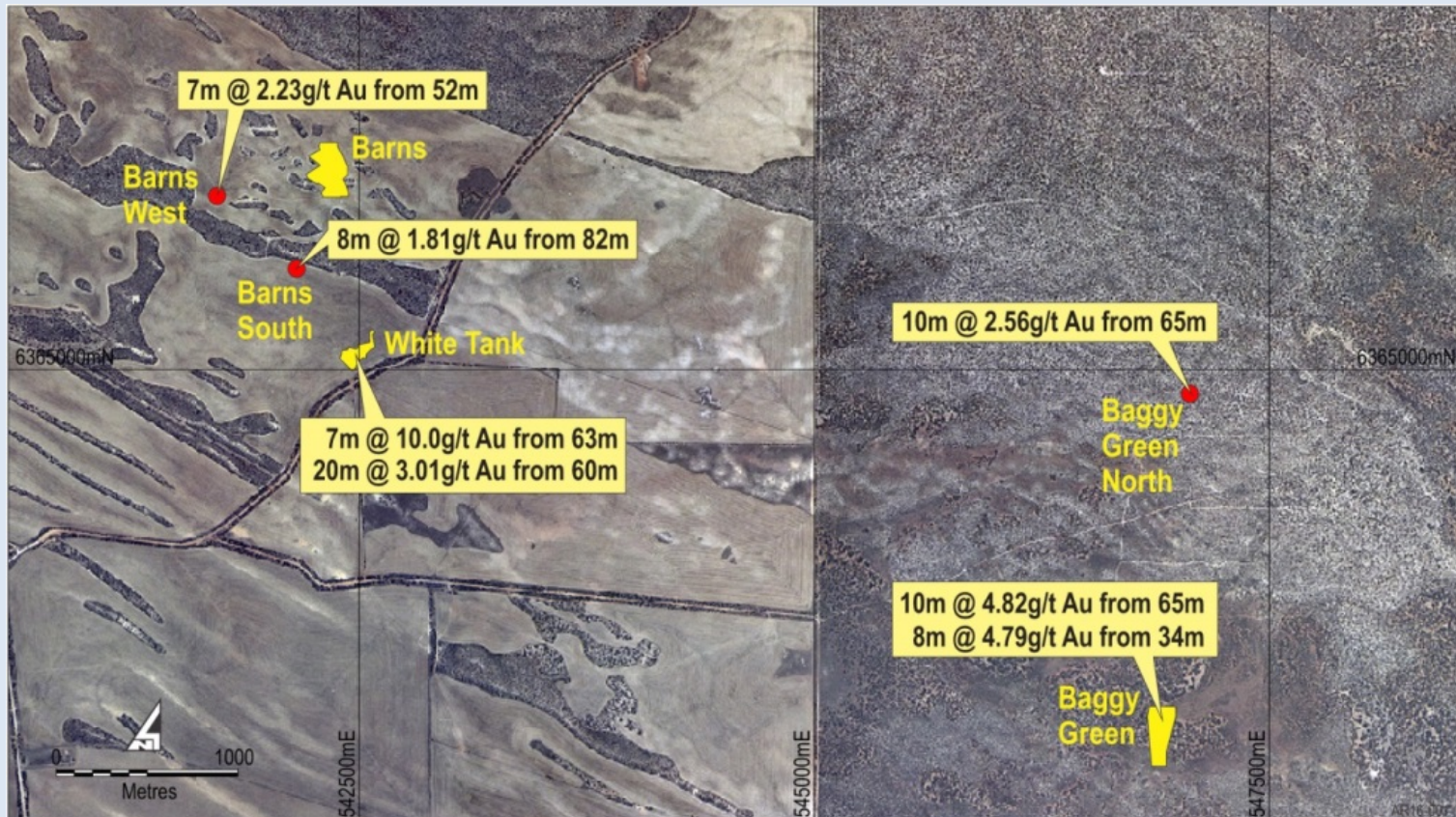
### **Current metallurgical test programme**

- Three  $\frac{1}{4}$  core composite samples produced – one supergene and two primary zone
- Testwork underway – grind establishment, bottle role, gravity, leach, flotation tests
- Results anticipated later this month

### 3. Find more shallow ounces at Barns or nearby

Additional shallow resources in the Barns Camp would improve project robustness

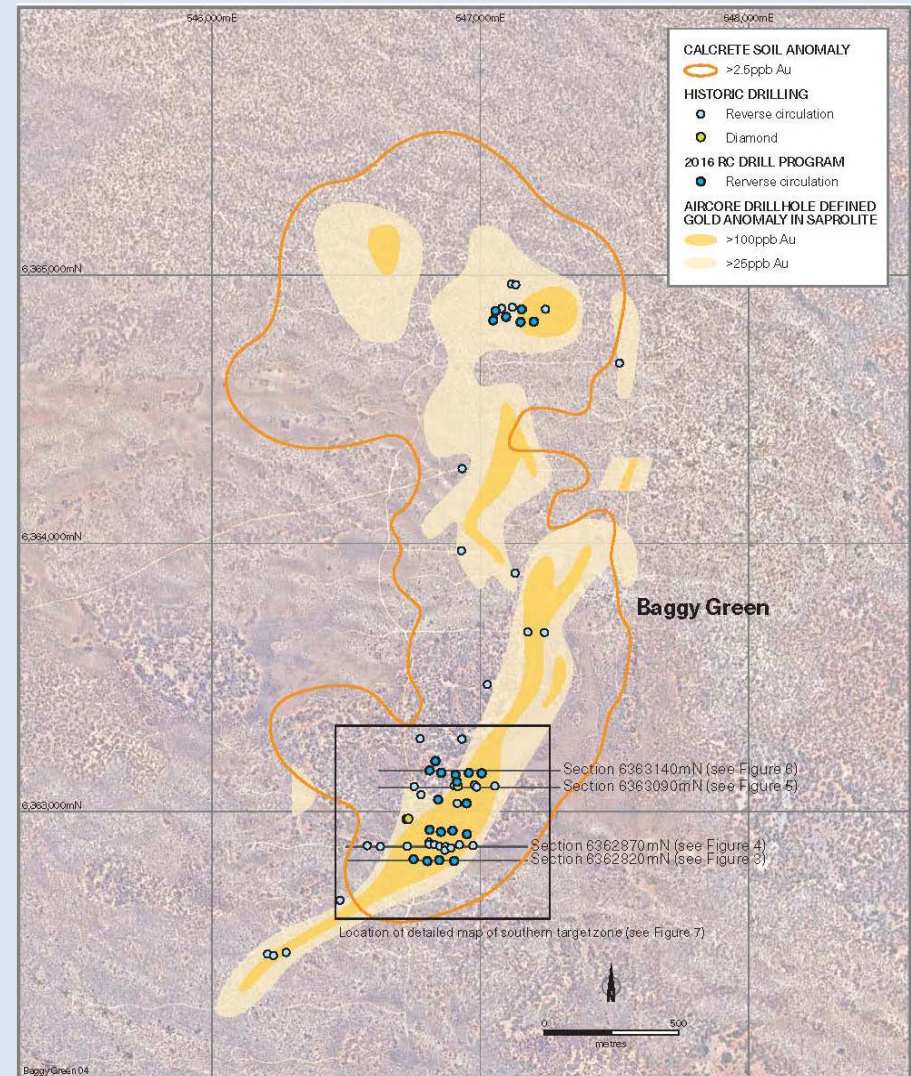
- Past drilling has discovered other prospects that can build local resource base
- Baggy Green assessed as a good opportunity to achieve this goal



# Baggy Green prospect history

## Located <6km from Barns

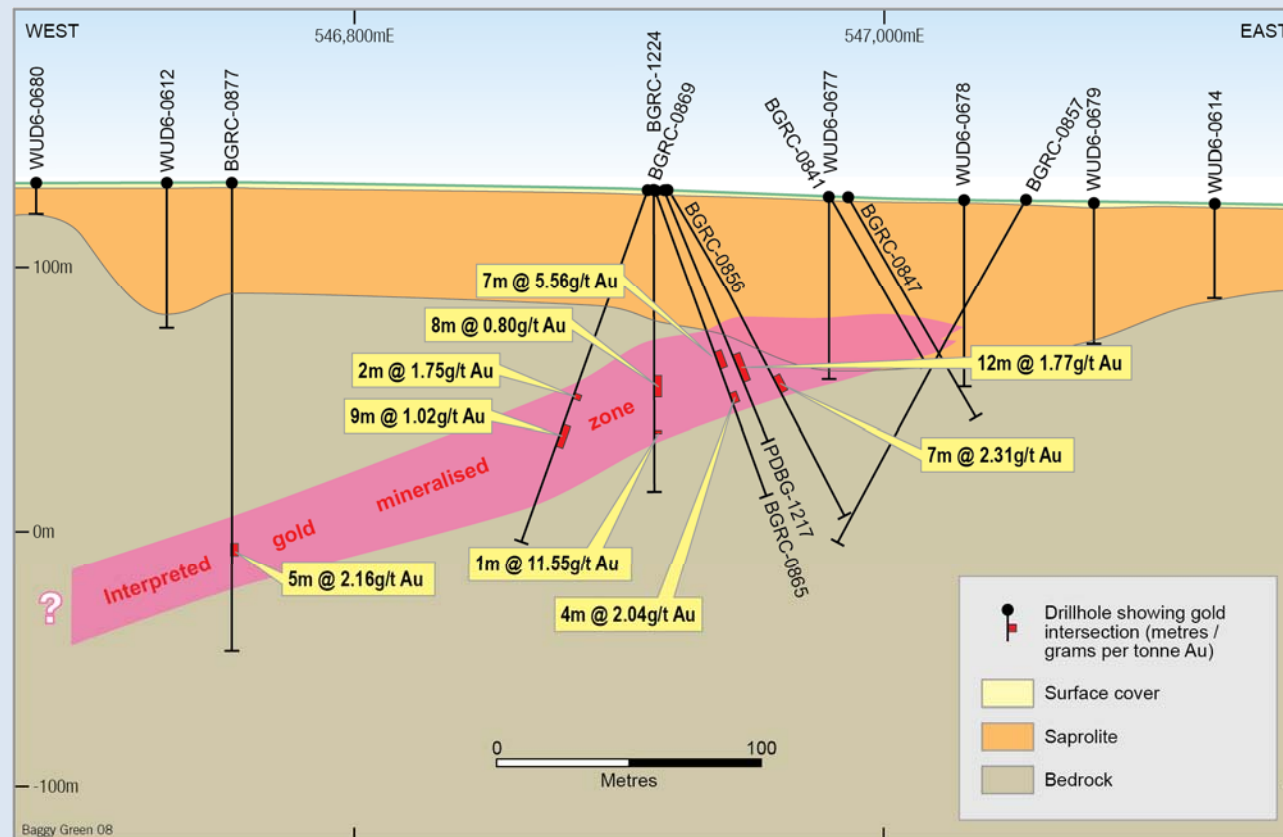
- Originally indicated as 3km long gold anomaly in regional calcrete geochemical survey
- Aircore drilling defined coherent zones of gold mineralisation in saprolite
- Potentially economic grade and width intersections recorded in 2004 RC drill holes when project in JV with Newmont



# Baggy Green – cross section through southern target zone

## Principal mineralised shear structure is well defined

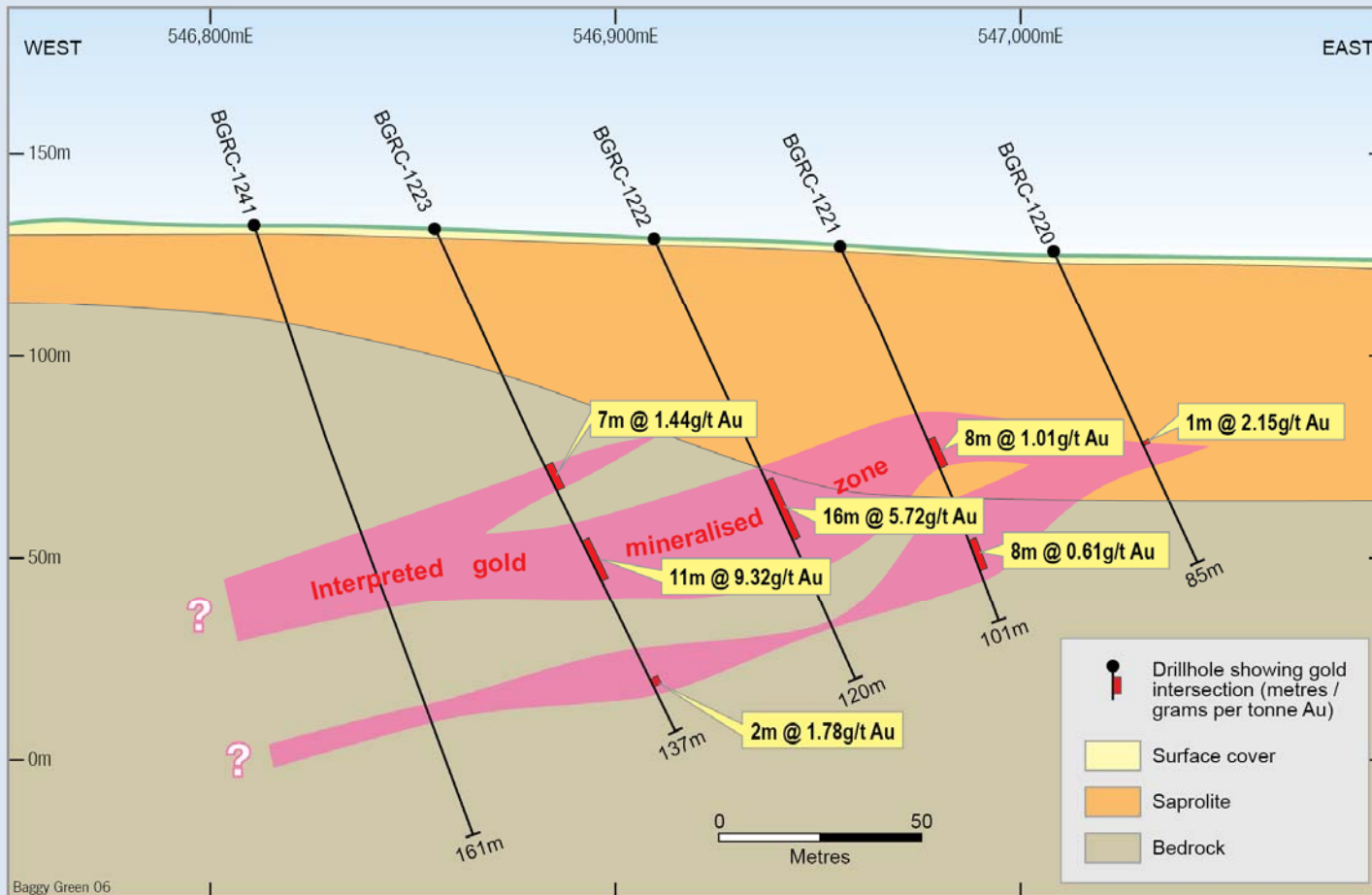
- Average true width of primary zone is 27 metres
- Gentle dip – 450m west of eastern limit, the gold zone is still <200m below surface
- Higher grade gold shoots are present within plane of structure



# Baggy Green – recent RC programme

## Recent drilling programme completed

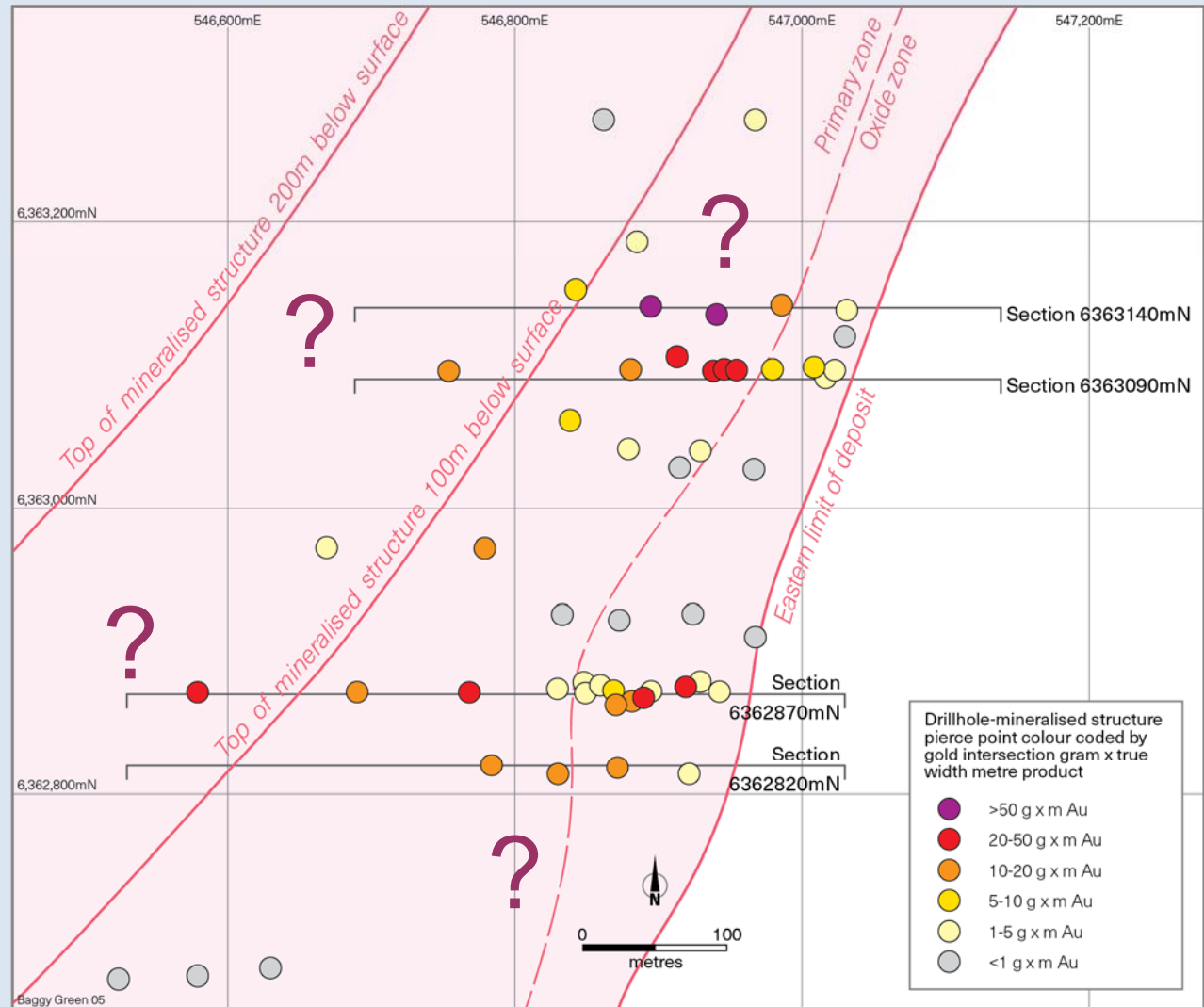
- Results include the two best intersections achieved to date at Baggy Green
- Down-dip and along strike continuity of mineralised zone confirmed



# Baggy Green – plan projection of area now drilled in detail

## Detailed drill coverage over 500m x 250m zone

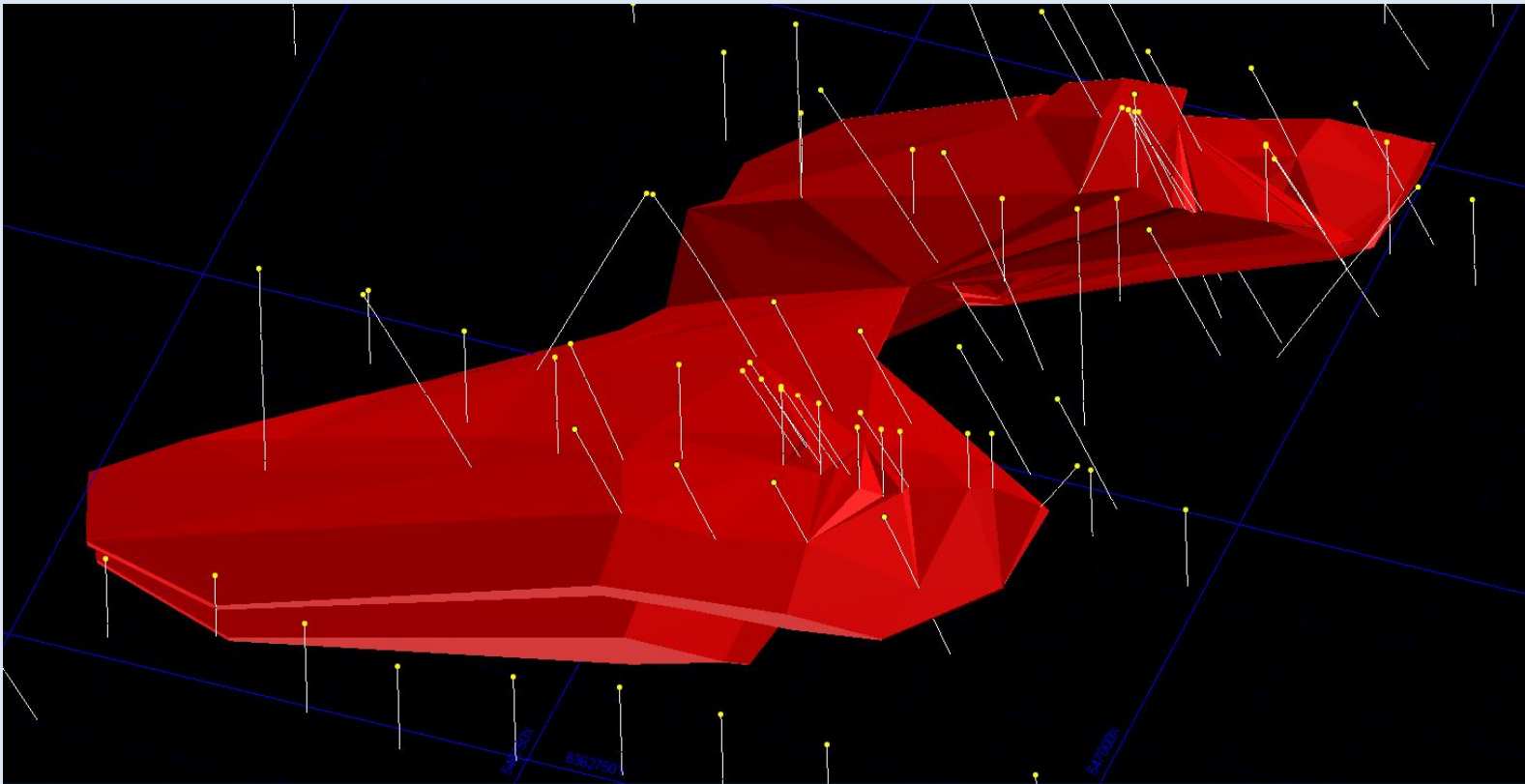
- Most intersections commence <100m below surface (shallow ounces)
- Variable grade in plane of mineralised structure (high grade shoots)
- Mineralisation remains open to north, south and down-dip



## Baggy Green – preliminary 3-D model

Recent RC programme confirms Baggy Green can materially add to local resource base

- Model boundaries using nominal 0.5g/t gold cut-off (Barns used same cut-off)
- Preliminary model volume is > 1 million m<sup>3</sup> (cf. Barns model of 1.2 million m<sup>3</sup>)



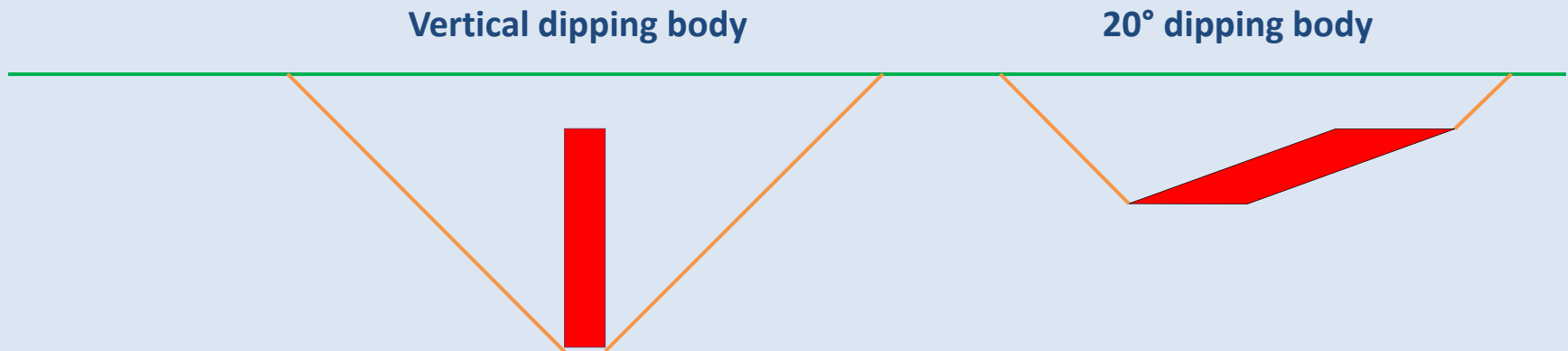
*Baggy Green mineralisation model looking NNW. Drill holes shown as pins.*



# Economic impact of a shallow dipping mineralised zone

## Assume

- mineralised body is 30m wide x 300m down-dip
- 40 metres of depleted cover above mineralised body
- 45° pit wall angle (or footwall dip if <45°)



	Vertical dipping body	20° dipping body
<b>Waste : Ore</b>	13 : 1	4.5 : 1
<b>Au oz/vert m factor</b>	1	2.9
<b>Horizontal ore width</b>	30m	88m
<b>Pit depth</b>	340m	143m

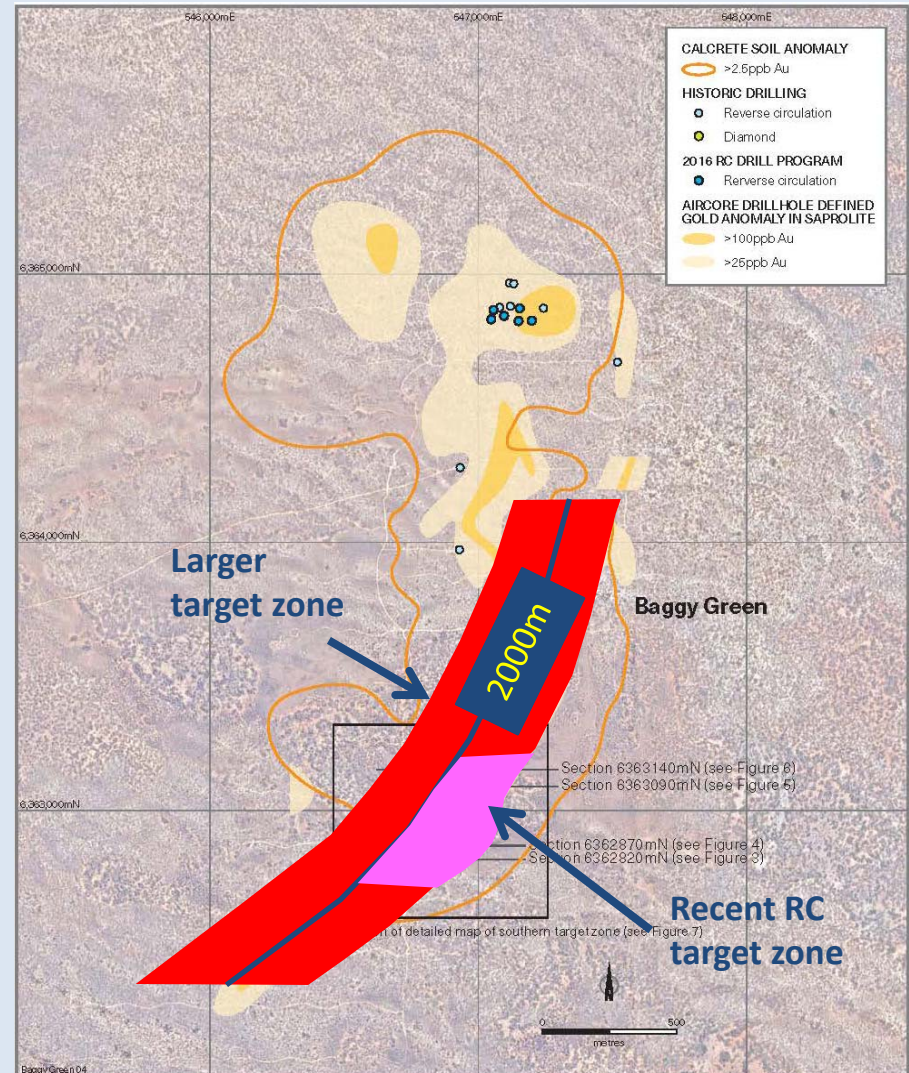
*(based on cross section – pit ends ignored)*

# Baggy Green – potential for much bigger target

Area of detailed drilling is part of a much larger potential target.

- The southern zone is interpreted to have a strike of 2000 metres and remains open to the SW
- Assuming consistent dip and width, to 200 metres below surface the volume where gold potential is high is ~50 million tonnes
- If even a modest portion of this prospective volume is mineralised at economic grade, the deposit could be of significant size

**Barns could be the satellite to a much larger deposit at Baggy Green!**



## Barns/Baggy Green pros and cons

### Pros

- Coherent zones of relatively shallow mineralisation
- Excellent opportunity to grow camp resource base and improve economics
  - Barns and Baggy Green remain open. Other satellite targets identified
- Gentle dips (particularly at Baggy Green) are good for minimising strip ratios and pit depths, and maximising ounces/vertical metre
- Upper shallow depleted zone is soft saprolite clay
- Indications that metallurgy will be positive
- Good location and supportive landowners

### Cons

- Higher gold grades would be nice – lower grades limit pit depths
- Pre-strip required to remove depleted clay zones
- Grade variation in plane of mineralisation – (positive or negative?)
- Single ore source preferred to multiple sources (shallow ounces important)
- Requires construction of stand-alone treatment facility

## Barns – comparison with other SA gold projects

	Portia <sup>(1)</sup>	Tarcoola <sup>(2)</sup>	Barns <sup>(3)</sup>
Company	Havilah Resources ( <b>HAV</b> )	WPG Resources ( <b>WPG</b> )	Adelaide Resources ( <b>ADN</b> )
Resource	720Kt @ 2.90g/t Au	973Kt @ 3.12g/t Au	2,100Kt @ 1.60g/t Au
Resource Ounces	<b>67,000</b>	<b>97,500</b>	<b>107,000</b>
Reserve	360Kt @ 4.7g/t Au	710Kt @ 3.1g/t Au	?
Reserve Ounces	53,600	71,000	?
Depth of barren cover	75 metres	17 metres?	27 metres
Nature of cover	Unconsolidated seds?	saprolitic clay	saprolitic clay
Nature of gold	very coarse (nuggets)	fine grained (native)?	fine grained (native)
Recovery method	high efficiency gravity	CIP (Challenger Mill)	?
Est. gold recovery	95%	95%	?
Economics	✓	✓	?
Market Capitalisation <sup>(4)</sup>	<b>\$102.6M</b>	<b>\$51.4M<sup>(5)</sup></b>	<b>\$5.3M</b>

### Information sources and notes

<sup>(1)</sup> see Havilah Resources Limited (ASX:HAV) release dated 20 November 2015 titled "A new mining force in South Australia."

<sup>(2)</sup> see WPG Resources Ltd (ASX:WPG) release dated 1 September 2016 titled "Tarcoola gold project – Updated Feasibility Study and Revised Ore Reserve Estimate."

<sup>(3)</sup> see Adelaide Resources Limited release dated 19 July 2016 titled "Maiden 107,000 ounce gold resource estimated for Barns deposit.."

<sup>(4)</sup> Calculated as at 28 November 2016 – ignores listed and unlisted options

<sup>(5)</sup> WPG's market capitalisation also incorporates value for the Challenger Operation

## Andromeda Metals

- Adelaide Resources has completed its 20<sup>th</sup> year listed on ASX
- The Board composition and exploration portfolio of the company has changed considerably since listing
- We are taking the opportunity to rebrand ourselves to reflect these changes and reinvigorate ourselves with the broader investment community
- Reasoning behind the name
  - ‘Andromeda’ to symbolise the Andromeda Galaxy which has a central core of metal-rich stars
  - “Metals’ to indicate that although our major focus is gold, and to an extent copper and lithium, other metals may also be considered
- There will be a new logo and additional refreshment of our website
- The ASX ticker code will remain ‘ADN’
- The name change takes effect on 1 January 2017

# Disclaimer, Competent Person's statement and JORC statements

## Disclaimer

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## Competent Person's statement

The information in this presentation that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Chris Drown, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Drown is employed by Drown Geological Services Pty Ltd and consults to the Company on a full time basis, acting as the Company's Managing Director. Mr Drown 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 Drown consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## JORC Code 2012 statements

The information relating to Adelaide Resources' past exploration to 30 November 2013 and its assessment of exploration completed by past explorers was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The information relating to Adelaide Resources' exploration since 1 December 2013 has been reported in compliance with the JORC Code 2012. See ADN's ASX releases dated 19 July 2016 titled “Maiden 107,000 ounce gold resource for Barns deposit”; dated 3 November 2016 titled “First Baggy Green holes deliver exceptional results”; and dated 28 November 2016 titled “Baggy Green set to increase local gold resources”.



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**THANK YOU**

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