

# **THE GRANNY SMITH STORY**

**SMEDG June 2022**

**Greg Hall  
Golden Phoenix International**

# **SMEDG June 2022 Granny Smith Mine**

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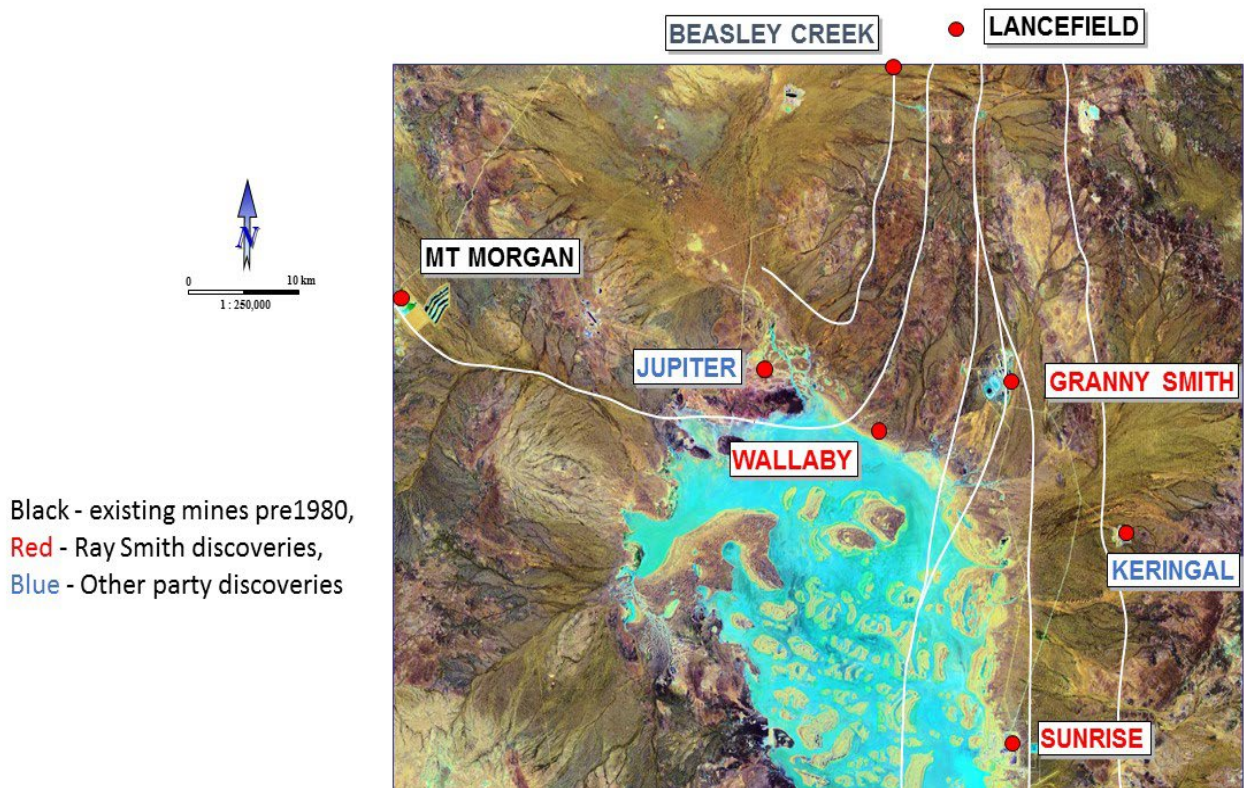
# **SMEDG June 2022 Granny Smith Mine**

## **1. Ray and Granny Smith**

# SMEDG June 2022 Granny Smith Mine

Ray Smith, a legendary prospector found visible gold at the site of the major gold discoveries of the 80's and 90's in the Laverton district, Granny Smith, Sunrise and Wallaby.

## ACTIVE GOLD MINES NEAR LAVERTON



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## **A BRIEF HISTORY FOLLOWS**

1944 Ray is discharged from the US Navy for medical reasons. He decides to become a prospector and moves to Val D'Or in Canada and starts to learn the art of prospecting. He meets and marries Laurende in Quebec.

1967 Ray comes to Laverton Australia drawn by the nickel boom and the discovery of nickel at Windarra. He settles in Laverton. He is financially supported by a Prospecting Syndicate of North American investors to whom he reports monthly. In 1971 the nickel price collapses but it happens the gold price is released from being tied to the USD at USD35/oz and starts to rise, so Ray starts acquiring gold mining leases including the old Lancefield gold mine.

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1976 Ray's brother who lives in Ecuador has a heart attack and Ray goes to Ecuador to tend to his brother and his brother's family. He gives the Lancefield title documents to a prospector friend with explicit instructions to pay the rents. Ray sends the funds to pay rents but the prospector keeps the money and does not pay the rents.

1979 Ray returns to Laverton from Canada with Noranda (a major Canadian mining company) in tow who wish to joint venture the Lancefield mine only to discover his prospector mate did not pay the rent. He was plained by WMC for non-payment of rent who were awarded the mining lease by the Mining Warden. Noranda does not proceed with a Joint Venture.

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1980 the gold price reaches USD400 per ounce. In the next year Ray prospects and finds visible gold on rocks at Granny Smith, Sunrise Dam and south of Just-in-Time mine (Wallaby).

Unfortunately for Ray gold is very mobile so his occurrences are no longer directly connected to the source deposit and it takes several partner explorers to finally make the discovery at each site. Granny Smith had three different explorers before the discovery hole was drilled in 1987, 8 years after pegging the ground. This site is 10km from Lake Carey.

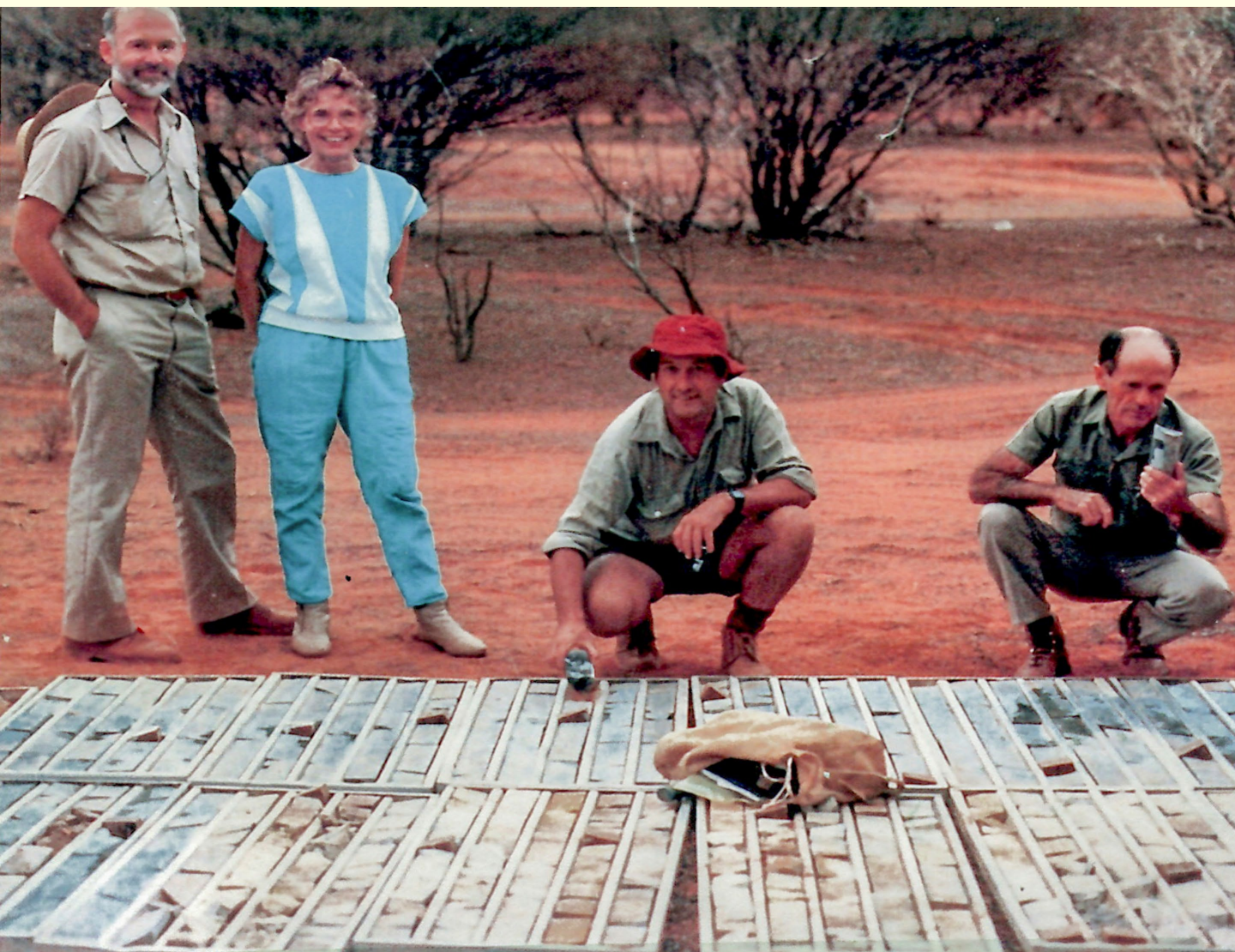


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## **SMEDG June 2022 Granny Smith Mine**

Ray and Laurende had one male child (Ray Junior) who married and his wife gave birth to a baby in 1979 but she was hospitalised so Laurende cared for the child. When Ray's prospecting had discovered gold occurrences Ray and Laurende would work together to peg mineral claims and later prospecting licences using actual wooden pegs driven into the ground. When pegging the licences at Granny Smith Laurende had this child strapped to her back. The first geologist who explored this site Tony Fawdon named the site Granny Smith after Laurende.

Ray was very proficient at finding "paint" gold on ironstone rocks. He would dolly the sample in a mortar and pestel, panned to estimate the head grade while marking the location onto a mineral claim map base. He would then wrap flagging around the rock and put it back on the ground where he found it. Ray said Granny Smith was the number 1 place in Laverton to find visible gold. Wallaby was number 3.

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Sunrise Dam had the discovery hole drilled in 1991 more than 12 years after first pegging the ground Sunrise Dam is 1 kilometre from Lake Carey.

Wallaby was never pegged by Ray Smith he informed Greg Hall prior to his departure again for Ecuador in 1992 that he found more and more gold in quartz on this fence line south of Just in Time mine but less and less quartz due to sand cover adjacent to Lake Carey.

The Granny Smith Exploration Joint Venture acquired the ground in 1993 over a distinctive magnetic anomaly on the edge of Lake Carey at the location pointed out by Ray Smith. It still took 4 years to drill the discovery hole in 1997.

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1990 Granny Smith mine is opened by Premier Carmen Lawrance and Ray is presented with a cheque for one million dollars by Placer Dome as payment for his 5% net profit royalty on their 60% share of production. Production had started in January 1990 and the official mine opening was May 1990.

1993 Ray leaves Laverton for prospecting in Ecuador and to visit his brother.

1995 or 6 Ray dies of cancer in Malta while prospecting in Romania

The story to 1988 as told to Greg Hall by Ray Smith in Laverton.



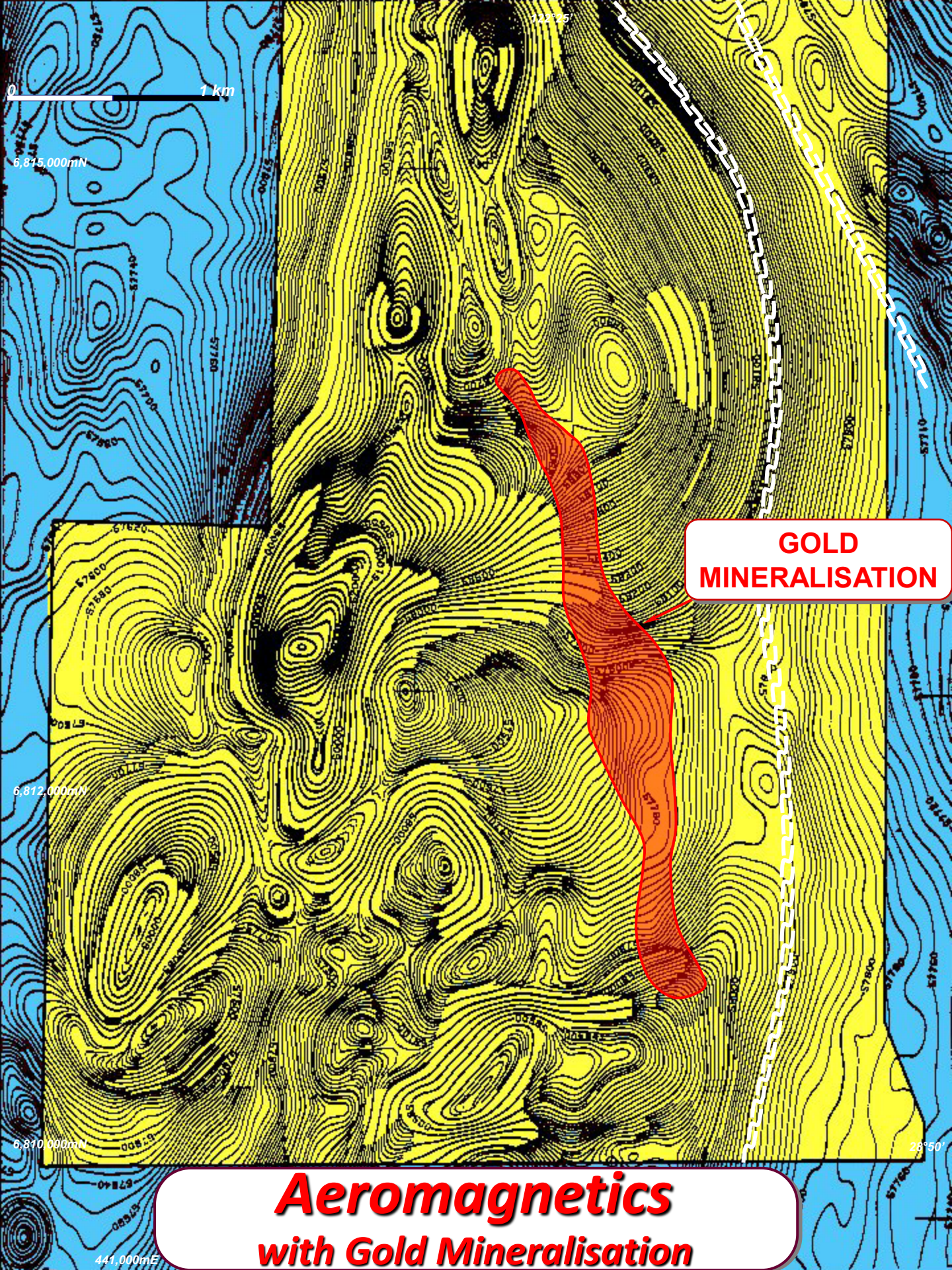
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## 2. Discovery

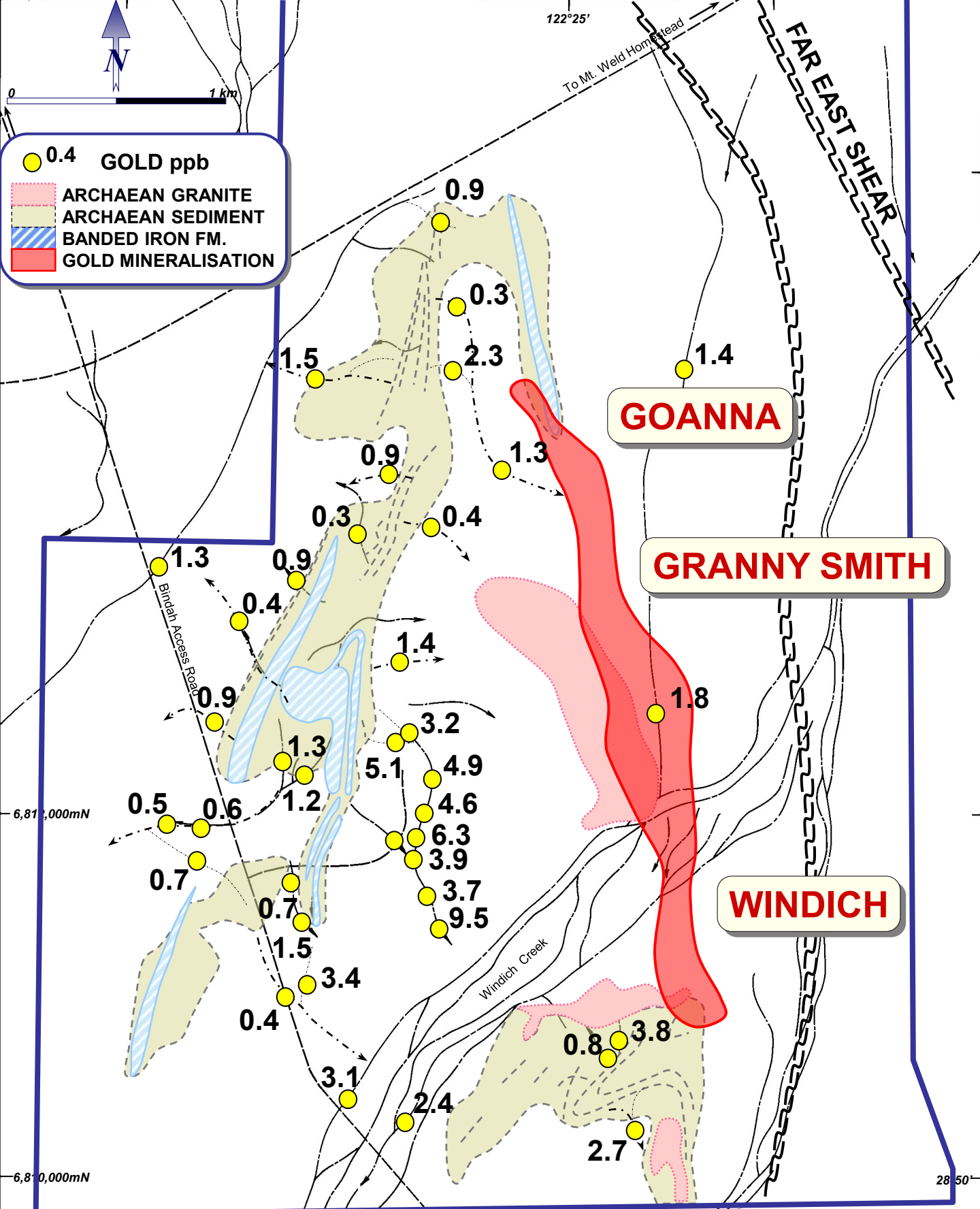




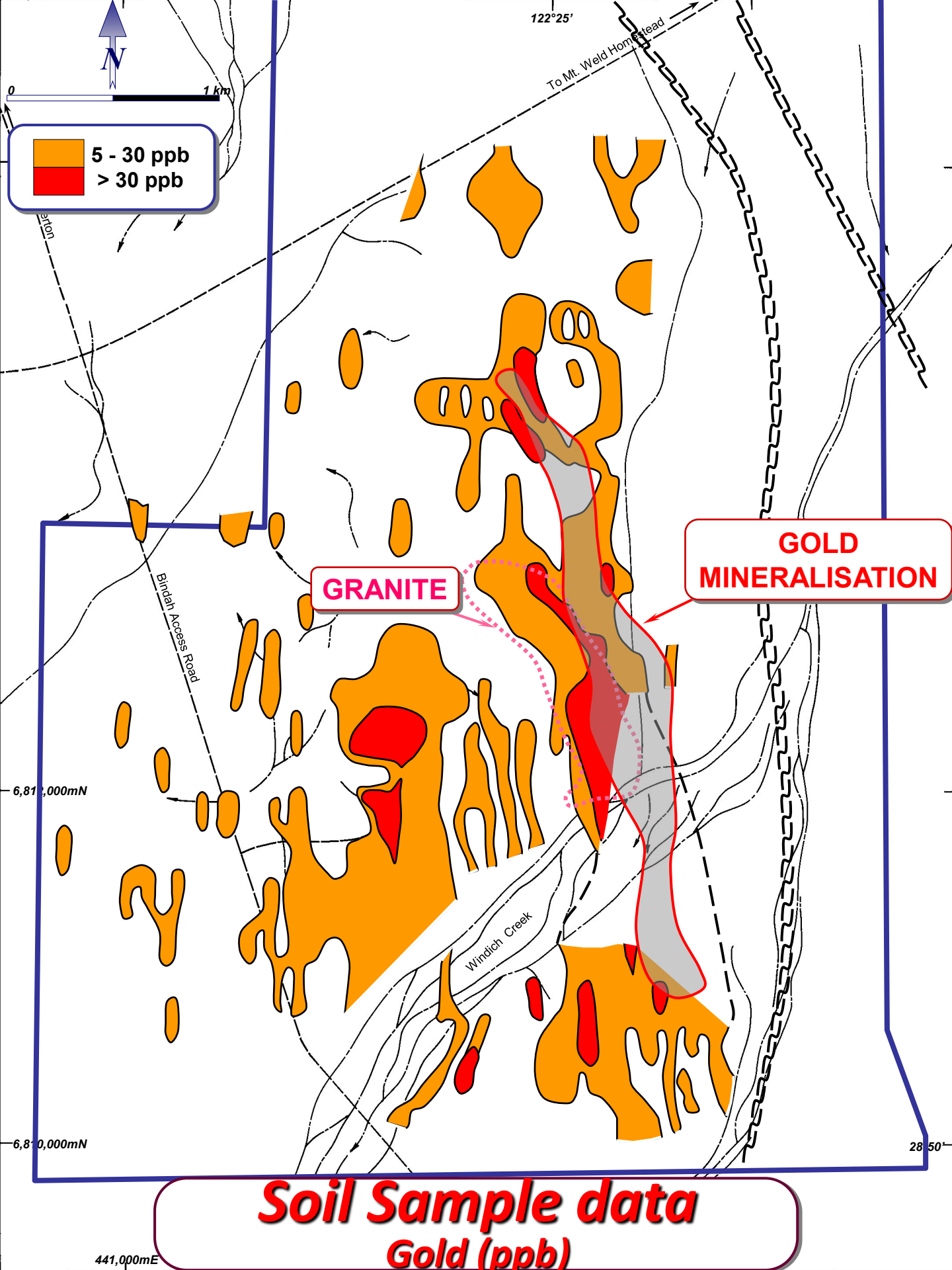
**GOLD  
MINERALISATION**

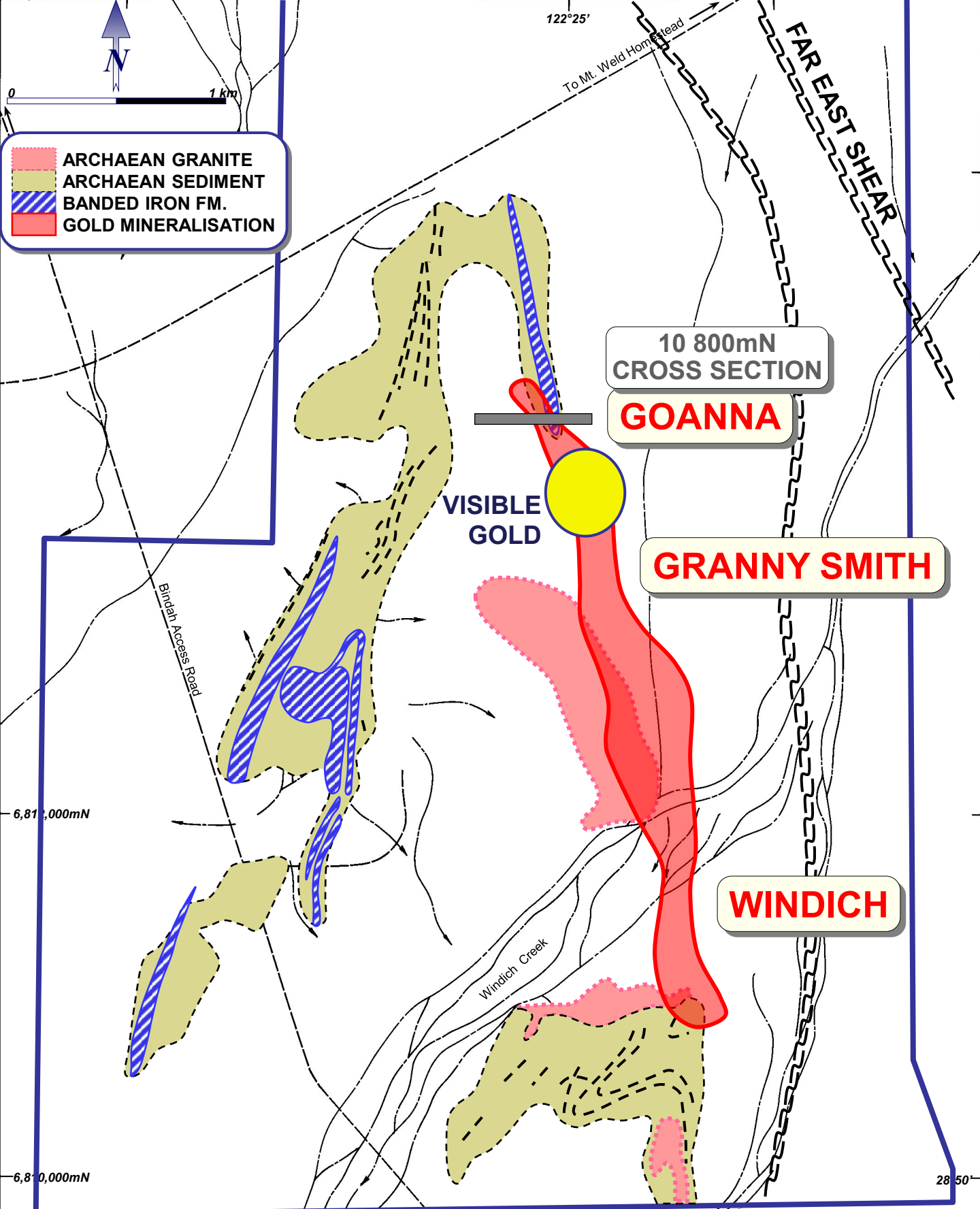
***Aeromagnetics  
with Gold Mineralisation***



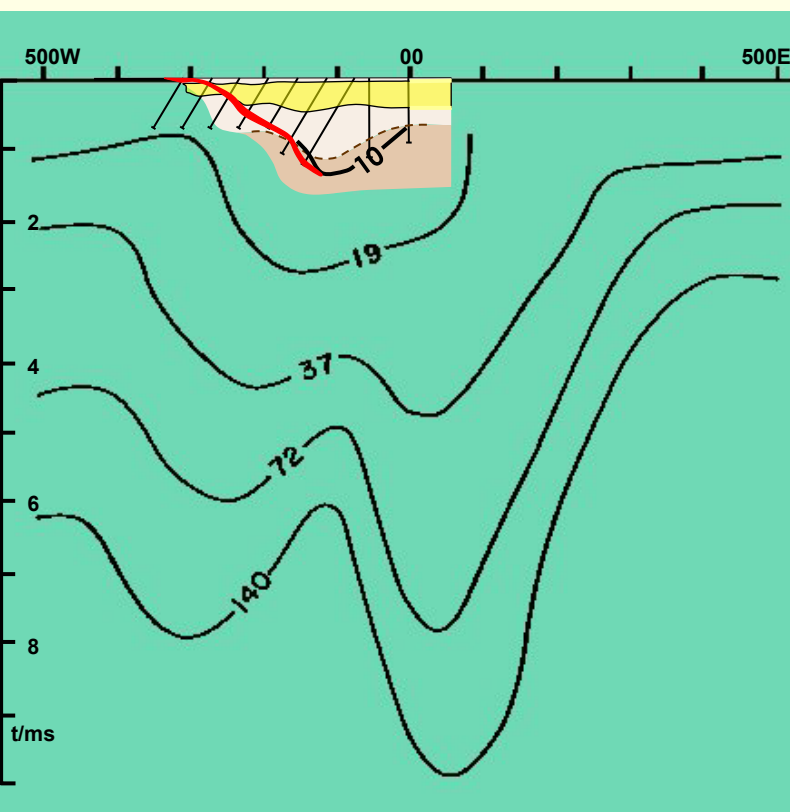
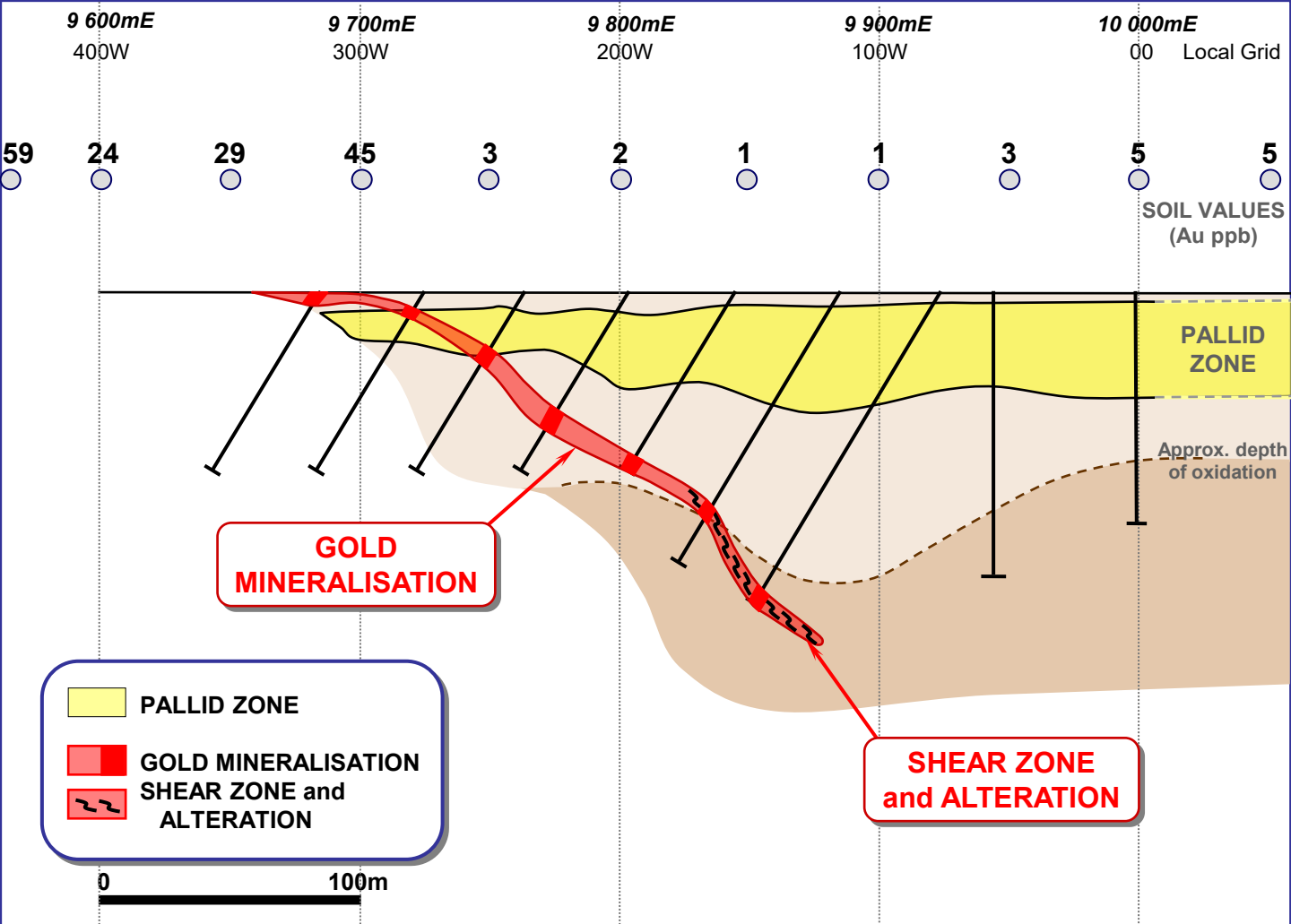


# Stream Sediment Sampling

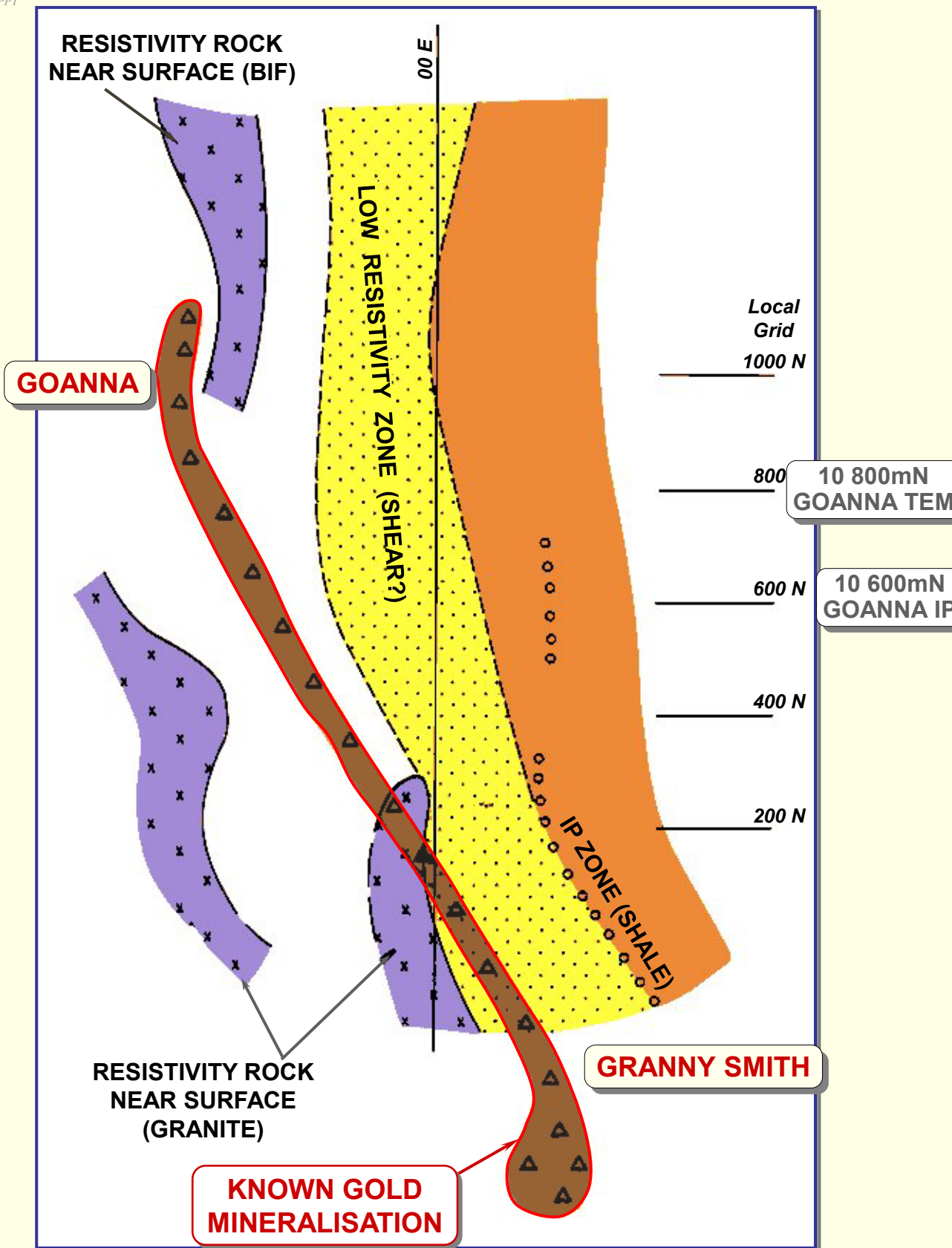




# Geology



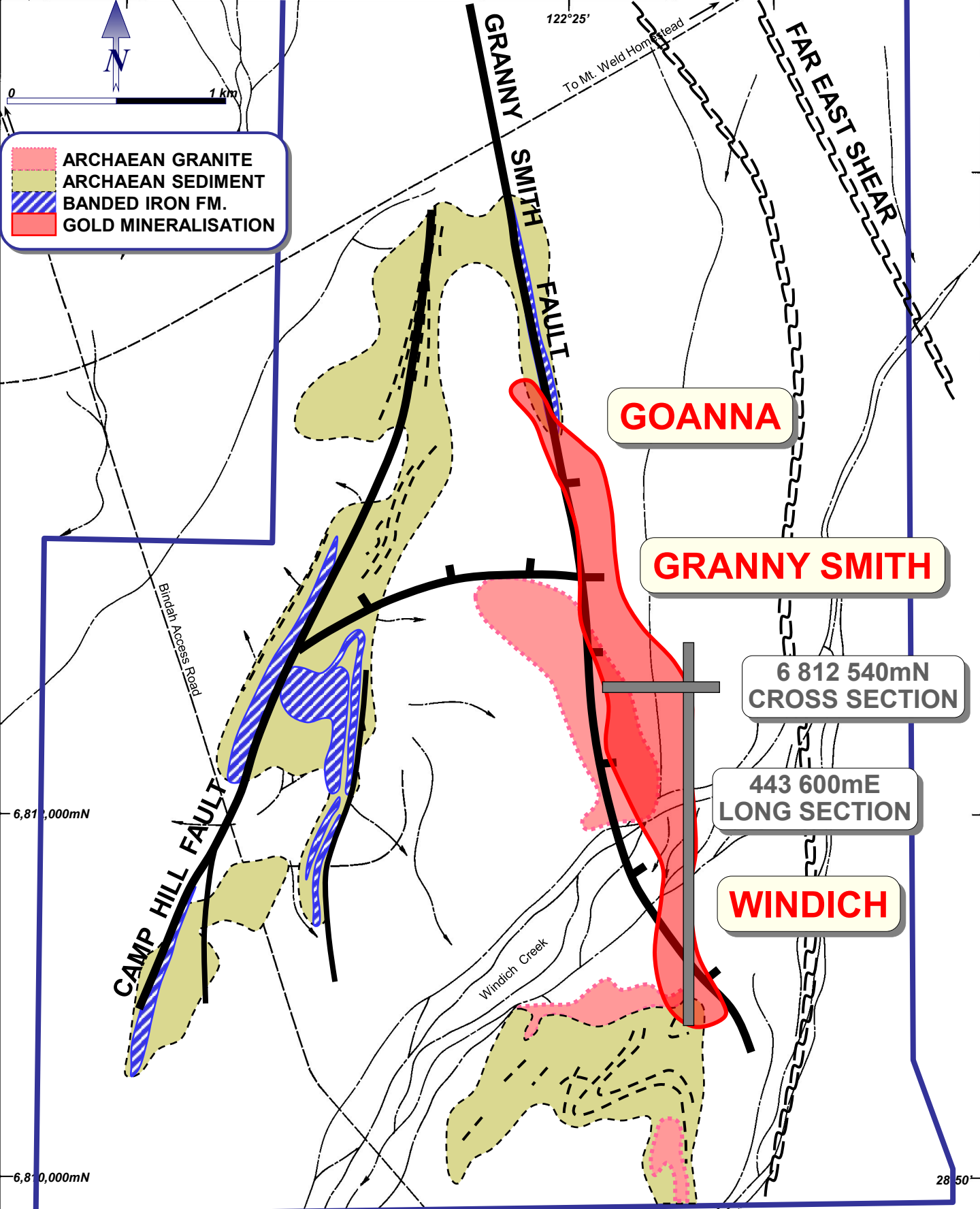
**GOANNA**  
**10 800mN**  
**Cross Section**  
**over TEM**



## GRANNY SMITH

# IP Survey Interpretation





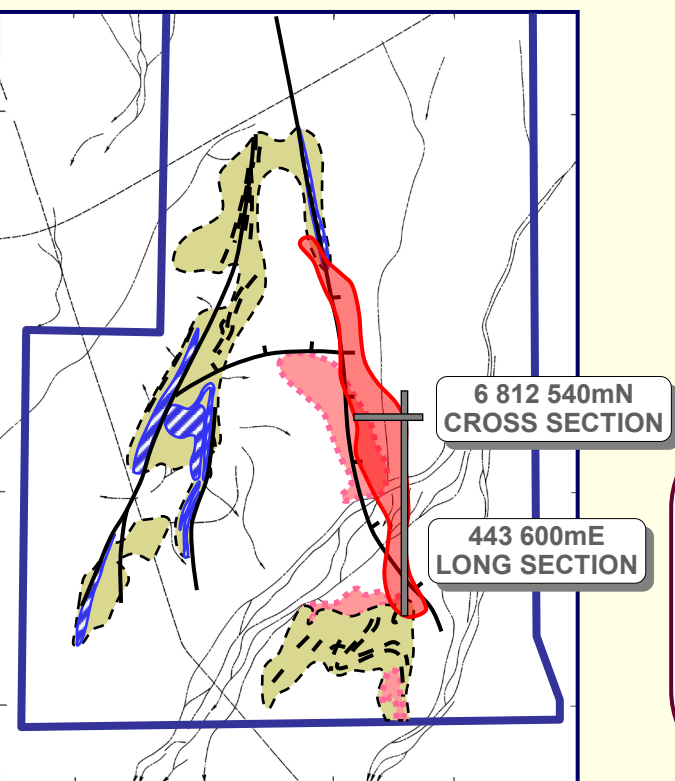
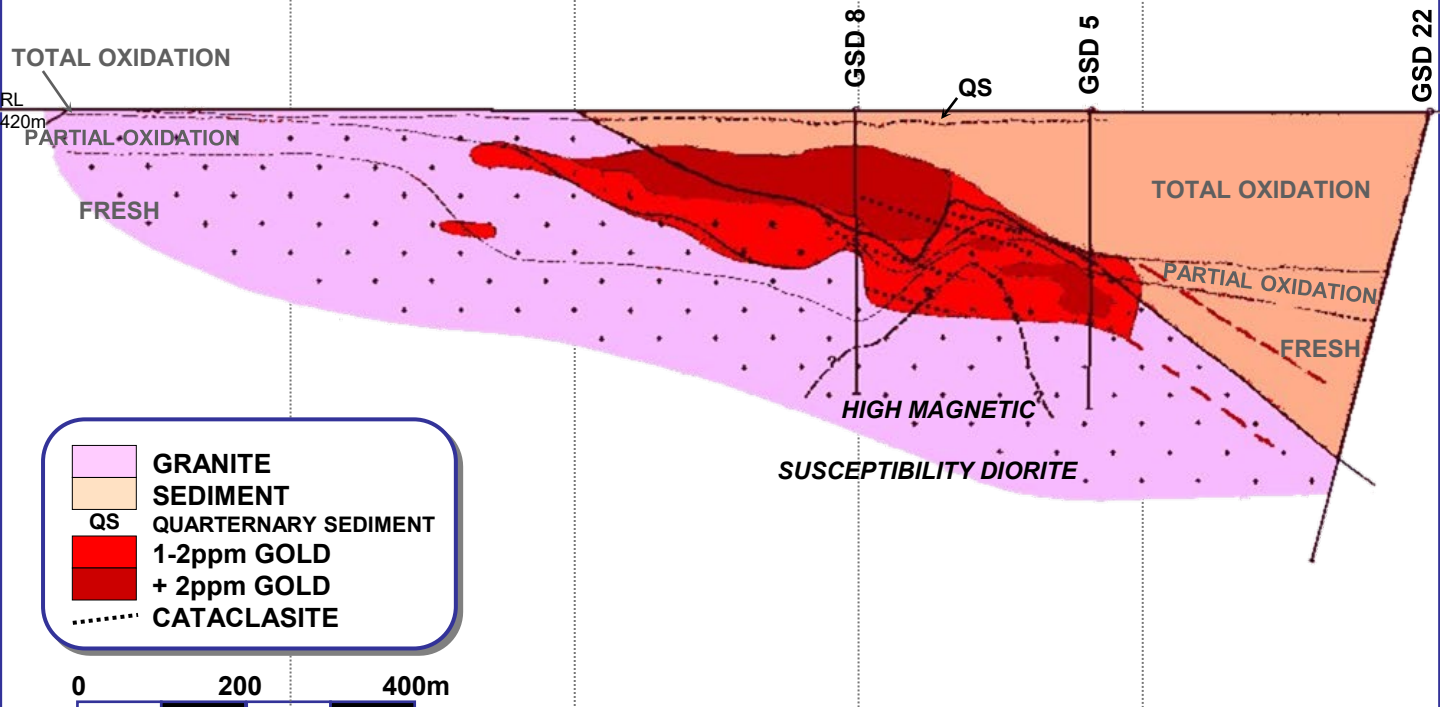
# Geology

443 400mE

443 500mE

443 600mE

443 700mE



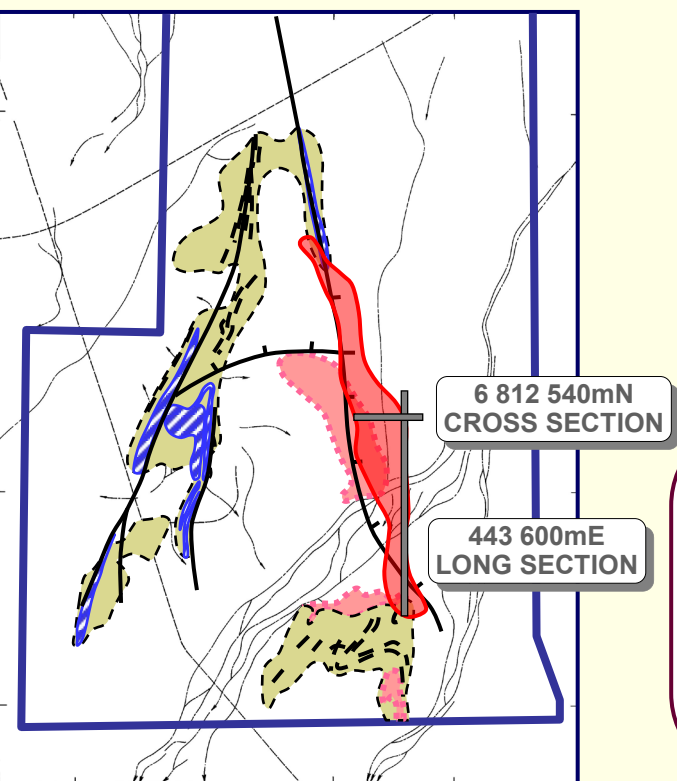
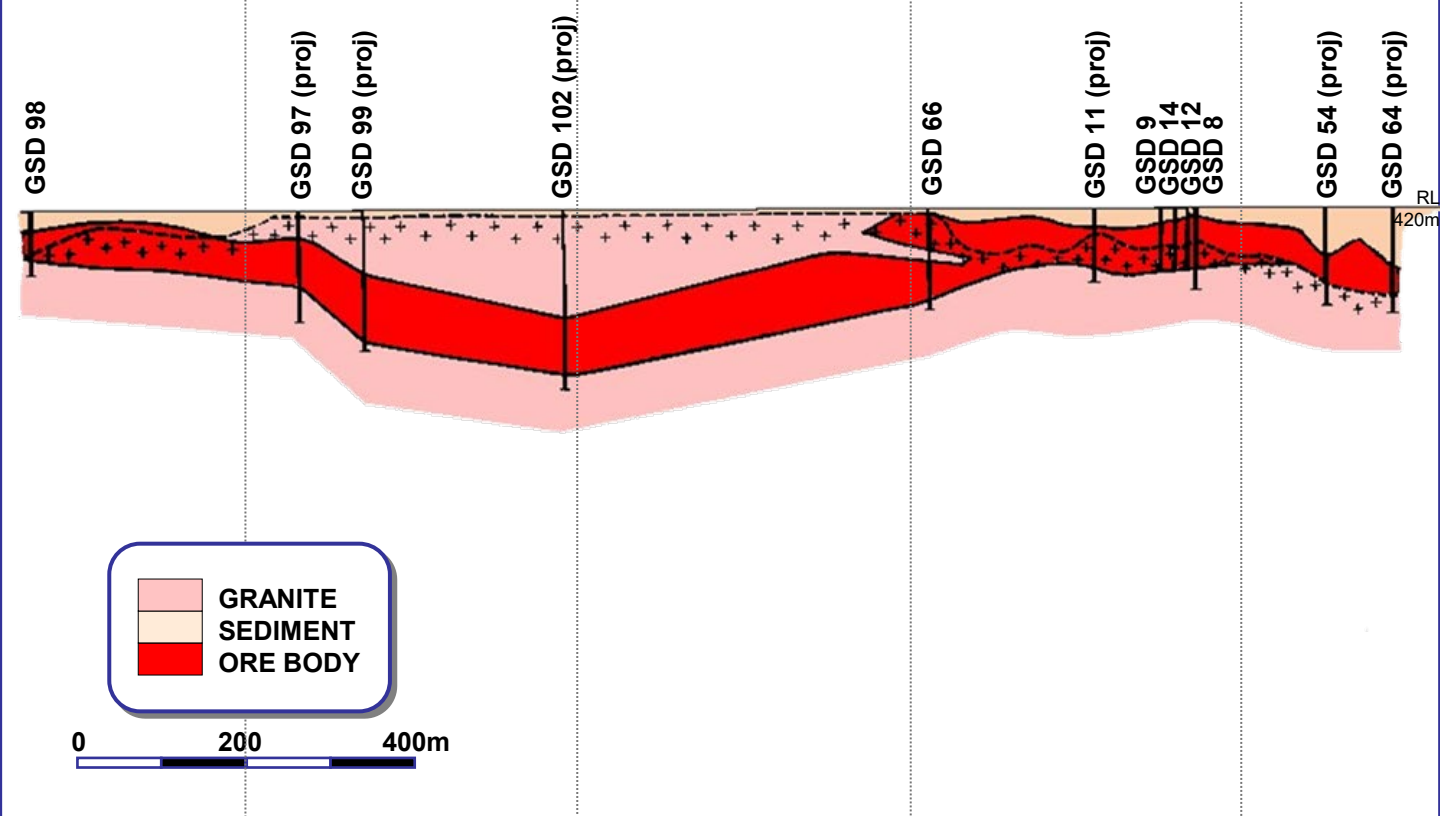
**GRANNY SMITH**  
**6 812 540mN**  
**Cross Section**

6 811 400mN

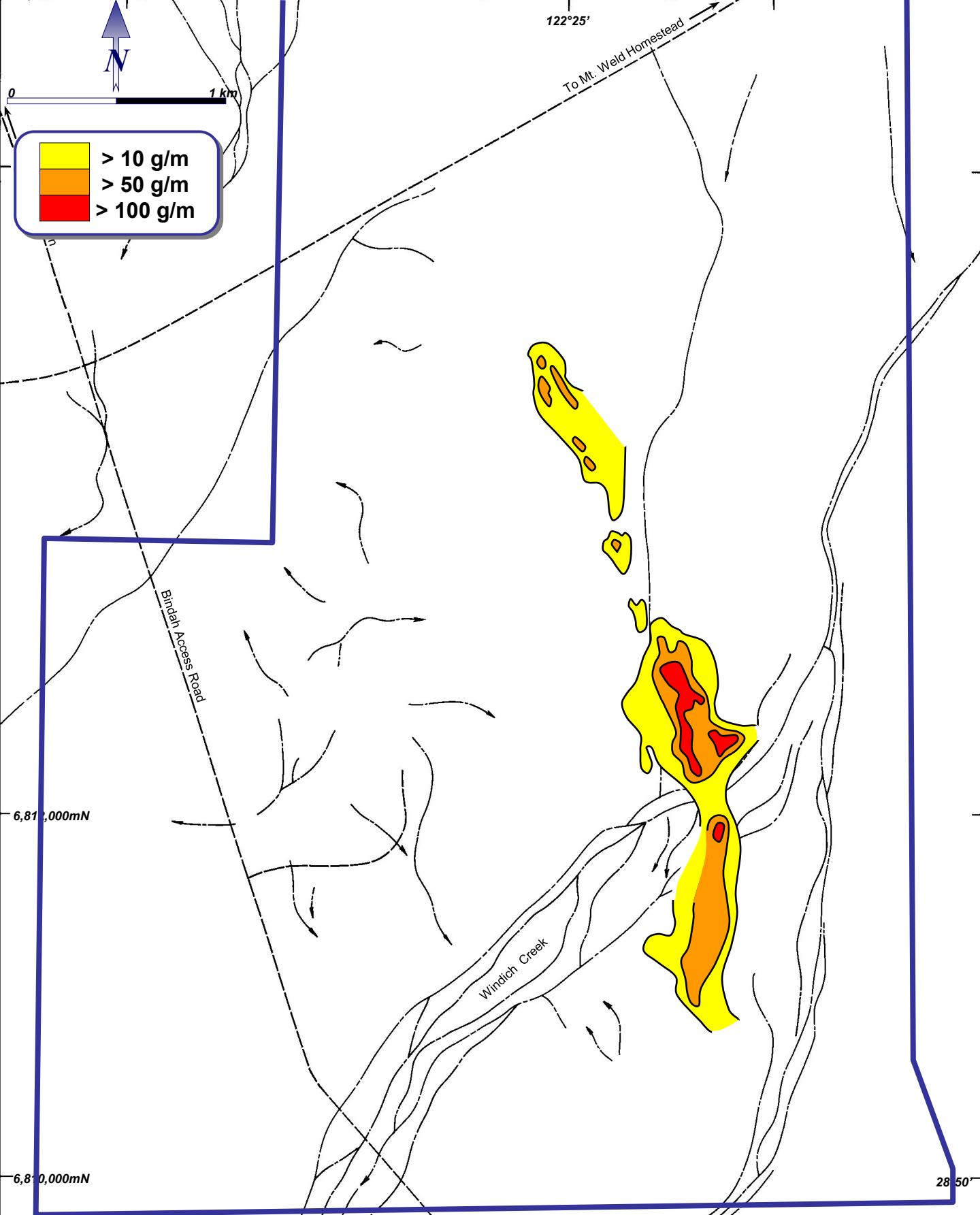
6 811 800mN

6 812 200mN

6 812 600mN



**GRANNY SMITH**  
**443 600mE**  
**Long Section**



# Gold Accumulation

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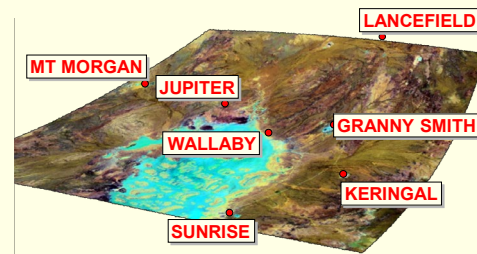
## **3. Mine Exploration**



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*Granny Smith  
Mine*





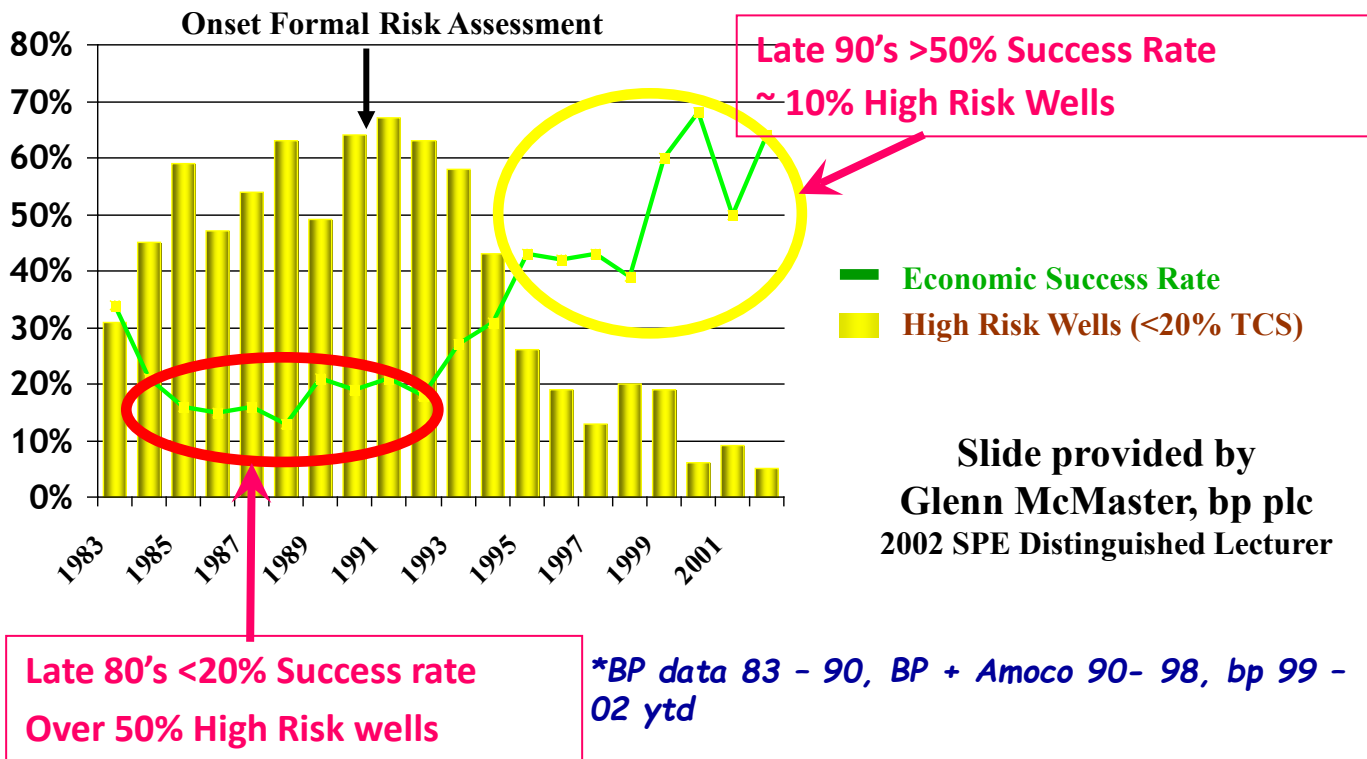
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## **EXPLORATION RISK ANALYSIS**

- Determination of formal protocols based on analysis of past exploration activity and rigorous assessment of that data
- The Oil exploration industry addressed this issue commencing 30 years ago
- That research produced a dramatic shift in exploration outcomes for major oil companies

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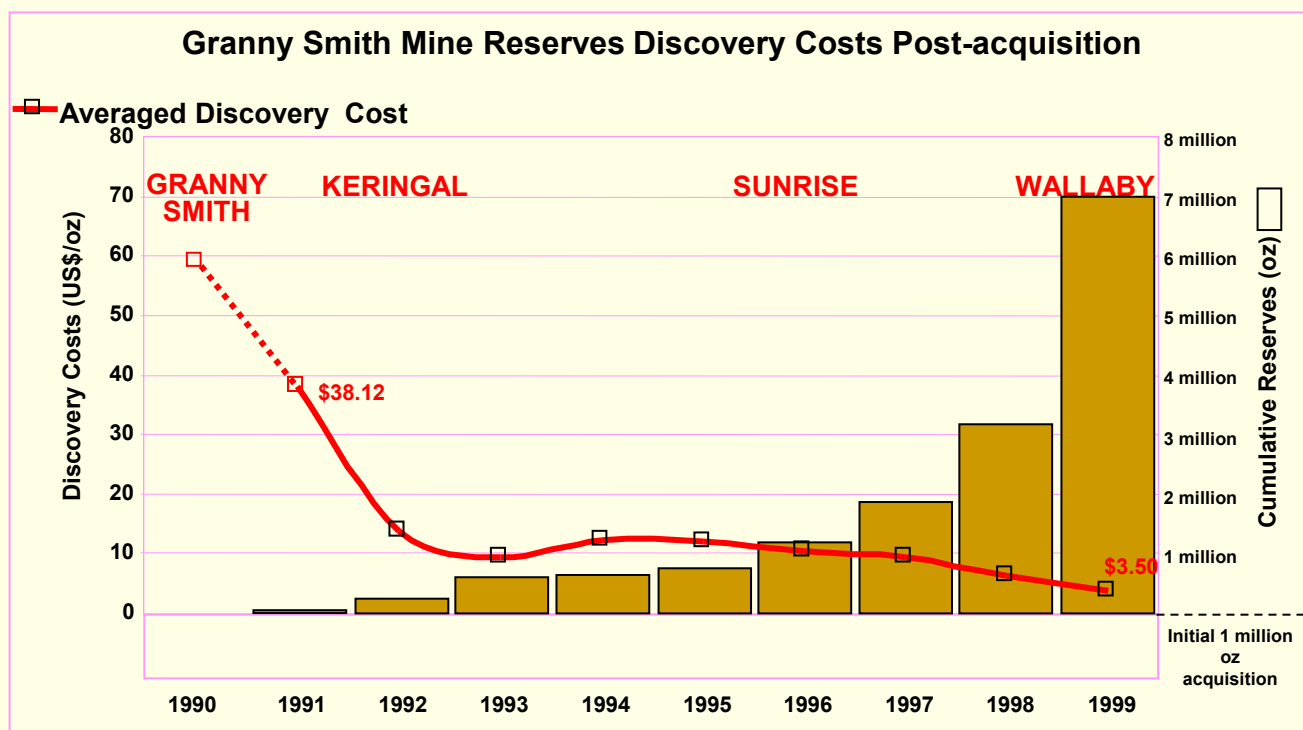
## Oil Industry Experience in Risk Management



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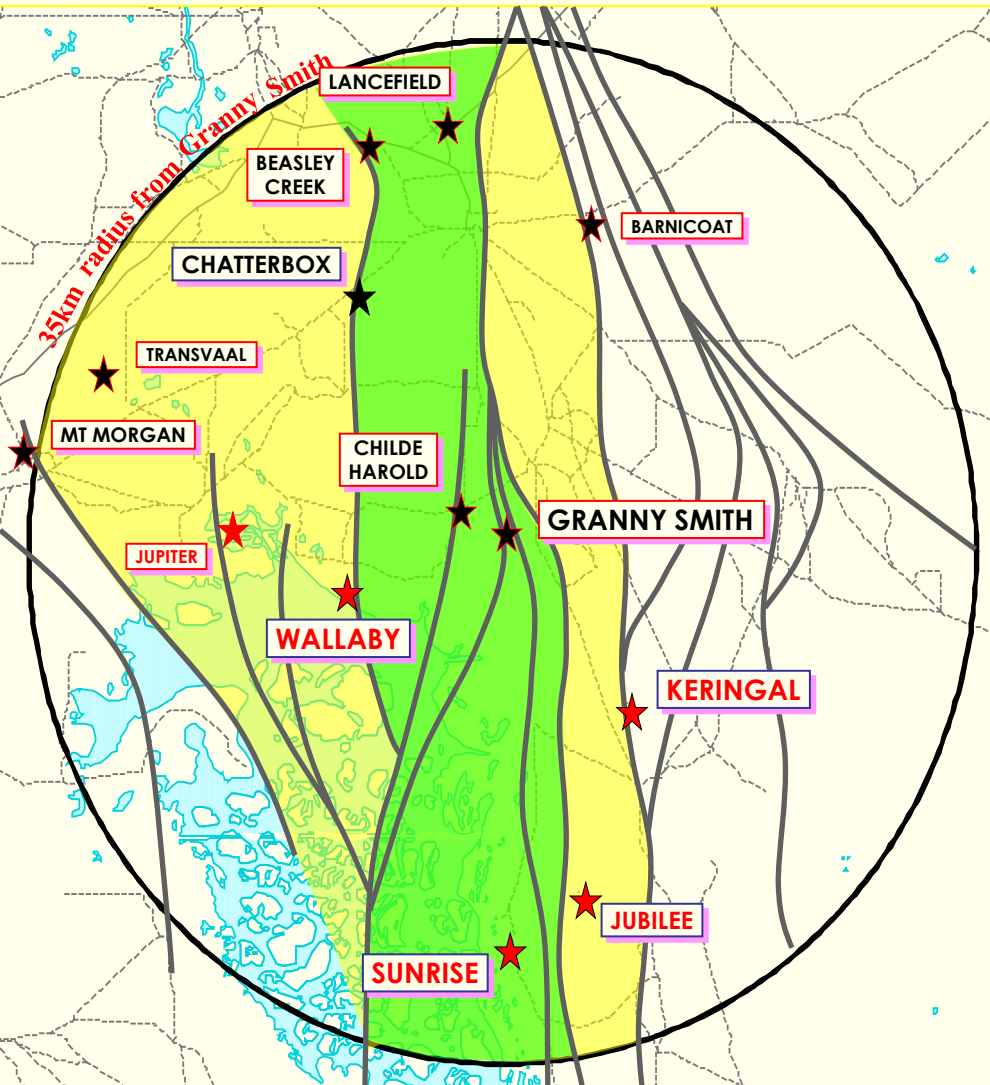
## Granny Smith Mine Exploration Discovery Costs – Costs/oz

1988 Acquisition Cost of Granny Smith Mine AU\$65M



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## Granny Smith Mine Exploration JV Area



### Deposits found pre-1991

★ >1Moz Au

★ <1Moz Au

### Deposits found post-1991

★ >1Moz Au

★ <1Moz Au

**Favourable Domain defined in 1991**

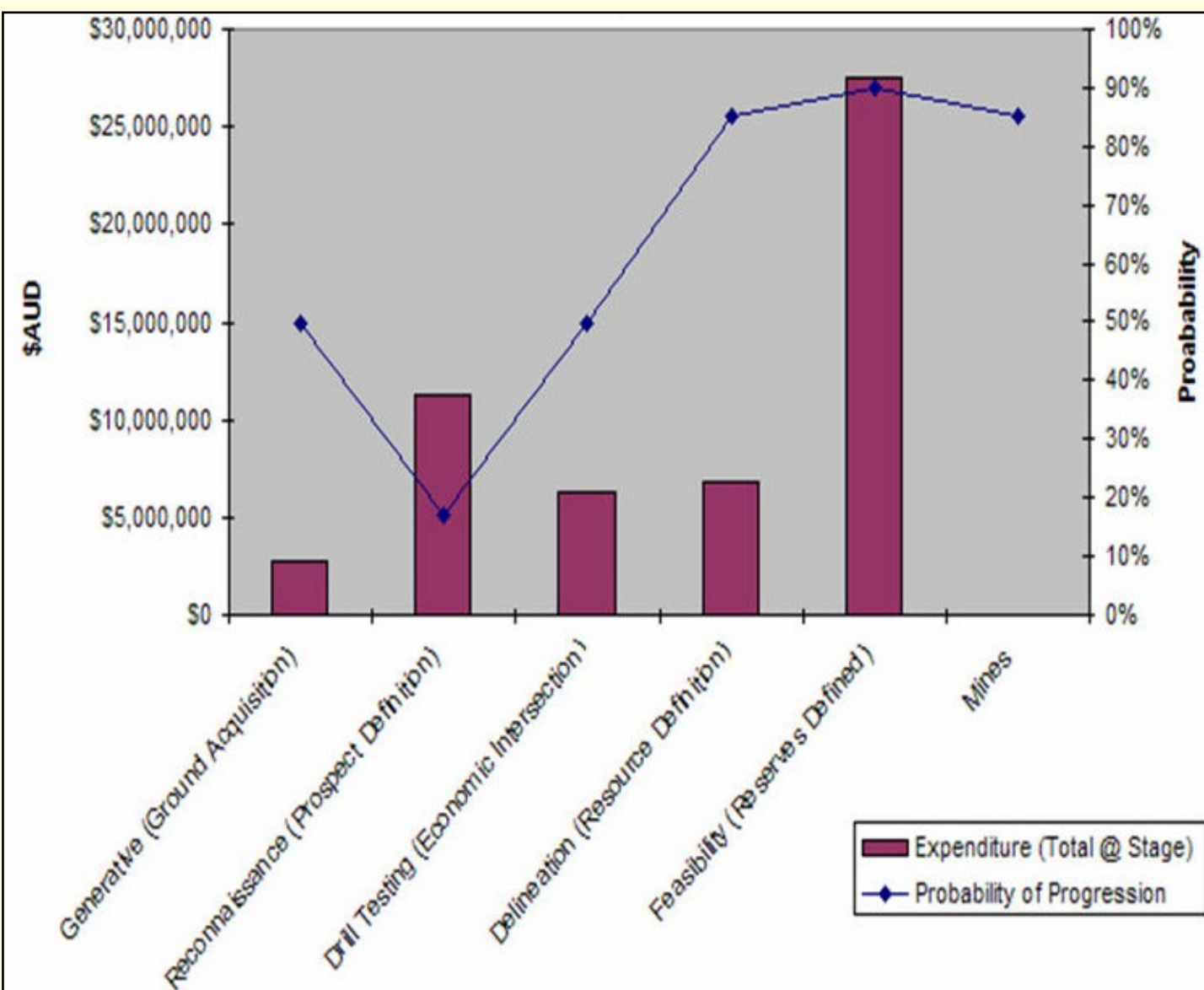
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## Granny Smith Exploration Expenditure Review 1984-2000

STAGE	EXPENDITURE NUMBER		AVERAGE COST Conversion Rate
Project Generation	\$2.7m	290 prospects 158 out of 290	\$9k 54%
Target Delineation	\$11.3 m	158 prospects 27 out of 158	\$70k 17%
Drill Testing	\$6.3m	27 prospects 15 out of 27	\$230k 56%
Resource Delineation	\$6.8m	15 prospects 13 out of 15	\$460k 87%
Feasibility Study	\$27.5m	13 prospects 12 out of 13	\$2,100k 92%
MINES	\$52m	12 mines	\$4,333k

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## Laverton Expenditure at Stage vs Probability of Progression to Next Stage





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## **Granny Smith Exploration Expenditure Review 1984-2000**

### **KEY PERFORMANCE INDICATOR 1**

Conversion rates higher than 50%

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## **Granny Smith Exploration Expenditure Review 1984-2000**

### **KEY PERFORMANCE INDICATOR 1 is achieved**

Target Delineation conversion rate is 50%

- 54 targets are delineated
- 108 projects are generated

Translates to cost saving of \$8.08M

- \$7.56M at Target Delineation Stage (108 by \$70K)
- \$0.52M at Project Generation Stage (58 by \$9K)

More time to focus on the best targets

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## **Granny Smith Exploration Expenditure Review 1984-2000**

### **KEY PERFORMANCE INDICATOR 2**

Time to progress from  
Target Delineation to Drill Testing  
should be one year

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## Granny Smith Exploration Expenditure Review 1984-2000

Target Delineation to Drill Testing Transition

<b>MINE</b>	<b>TIME (Years)</b>	<b>NPV</b>
1	1	High
2	1	Low
3	4 years	Medium
4	1	Low
5	5 years	Medium
6	1	Medium
7	6 years	Low
8	1	Low
9	1	Low

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## **Granny Smith Exploration Expenditure Review 1984-2000**

### **OPPORTUNITY LOSSES RELATED TO KPI 2**

#### **MINE 5**

- Savings on contract mining      \$60M
- Additional profit from higher gold price \$300M
- Higher throughput at mill      \$30M

#### **MINE 3**

- Savings on Contract Mining      \$60M
- Extra gold      \$40M

#### **MINE 7**

- Higher gold price      \$10M



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## **Granny Smith Exploration Expenditure Review 1984-2000**

**Mines 3, 5, 7 Opportunity Loss      \$500M**

**Less fleet costs      \$40M**

**Total Value of Opportunity Loss      \$460M**

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## **Granny Smith Exploration Expenditure Review 1984-2000**

**Opportunity loss far exceeds NPV at  
Decision to Mine**

**There is significant value to be gained by  
increasing exploration effectiveness**

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## **BEHAVIOUR**

**If you do not measure it**

**It does not matter**



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## **BEHAVIOUR**

**If you do not measure it**

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## **Kalgoorlie 07 Old Ground New Knowledge**

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**Test the hypothesis  
“we know what we are talking about?”**

**Prove yourself wrong  
“we don’t know what we are talking  
about?”**

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## Summary of Exploration Expenditure at Laverton, Western Australia, 1984 - 2000

Stage	Total Expenditure	Number of Prospects	Average Cost Per Project	Probability of Progression
<b>Generative</b>	<b>2.7M</b>	<b>290</b>	<b>9K</b>	<b>1 in 2</b>
<i>Ground Acquisition</i>				
<b>Reconnaissance</b>	<b>11.3M</b>	<b>158</b>	<b>70K</b>	<b>1 in 6 *</b>
<i>Prospect Definition</i>				
<b>Drill Testing</b>	<b>6.3M</b>	<b>27</b>	<b>230K</b>	<b>1 in 2</b>
<i>Economic Intersection</i>				
<b>Delineation</b>	<b>6.8M</b>	<b>15</b>	<b>460K</b>	<b>5 in 6</b>
<i>Resource Defined</i>				
<b>Feasibility</b>	<b>27.5M</b>	<b>13</b>	<b>2100K</b>	<b>9 in 10</b>
<i>Reserves Defined</i>				
<b>Mines</b>		<b>12</b>		<b>10 of 12</b>
<b>Total</b>	<b>54.6M</b>			

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## Lost Opportunity Cost 2007

### Cost of Not Recognising Targets in a Timely Fashion

#### Wallaby

—	Contract Mining Savings 120mt @ \$0.5/t	60M	
—	Gold Price \$300 => \$370/Oz		
	150M		
—	Plus 2M Oz on existing Reserve as a result of higher Au Price	150M	
—	Higher Throughput of Mill		<u>30M</u>
—			
	<b>390M</b>		

#### Granny Deeps

—	Saved on Contract Mining 120mt @ \$0.5/t	60M	
—	Extra Gold Mined 0.8MOz @ \$50/Oz		<u>40M</u>
	<b>100M</b>		

#### Jubilee

—	Gold Price \$280 => \$370/Oz		10M
	Less Cost of Fleet		

**Total 460M**

**-40M**



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## **Granny Smith Historic Exploration Statistics**

Based on review of 20 historic and current projects in the period between 1984 and 1999

Expenditure divided into 5 exploration phases from generative through to feasibility

