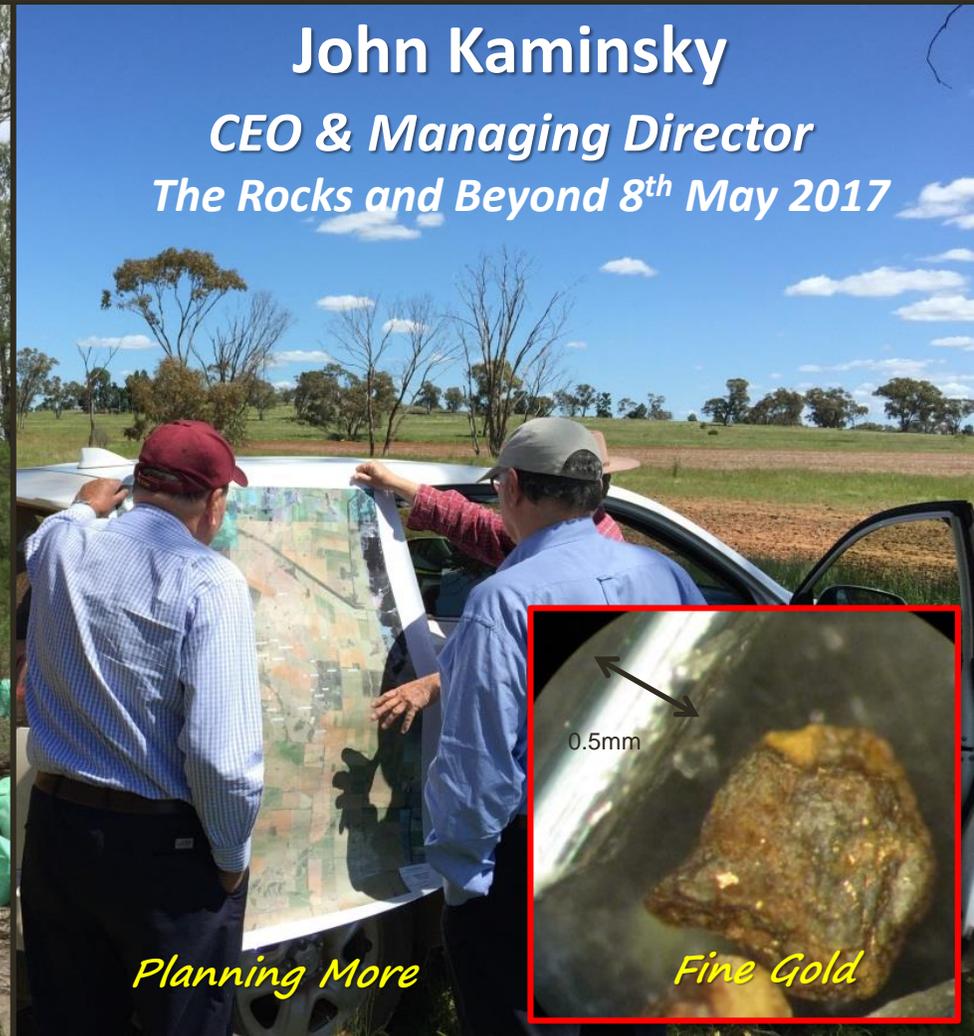


# *rimfire pacific mining nl*

*(ASX "RIM")*

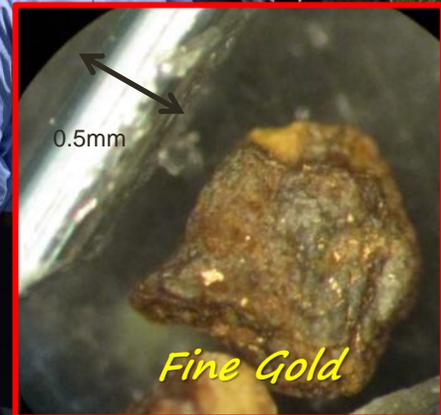
## *Sorpresa District Case Study Discovery at Fifield NSW*



**John Kaminsky**

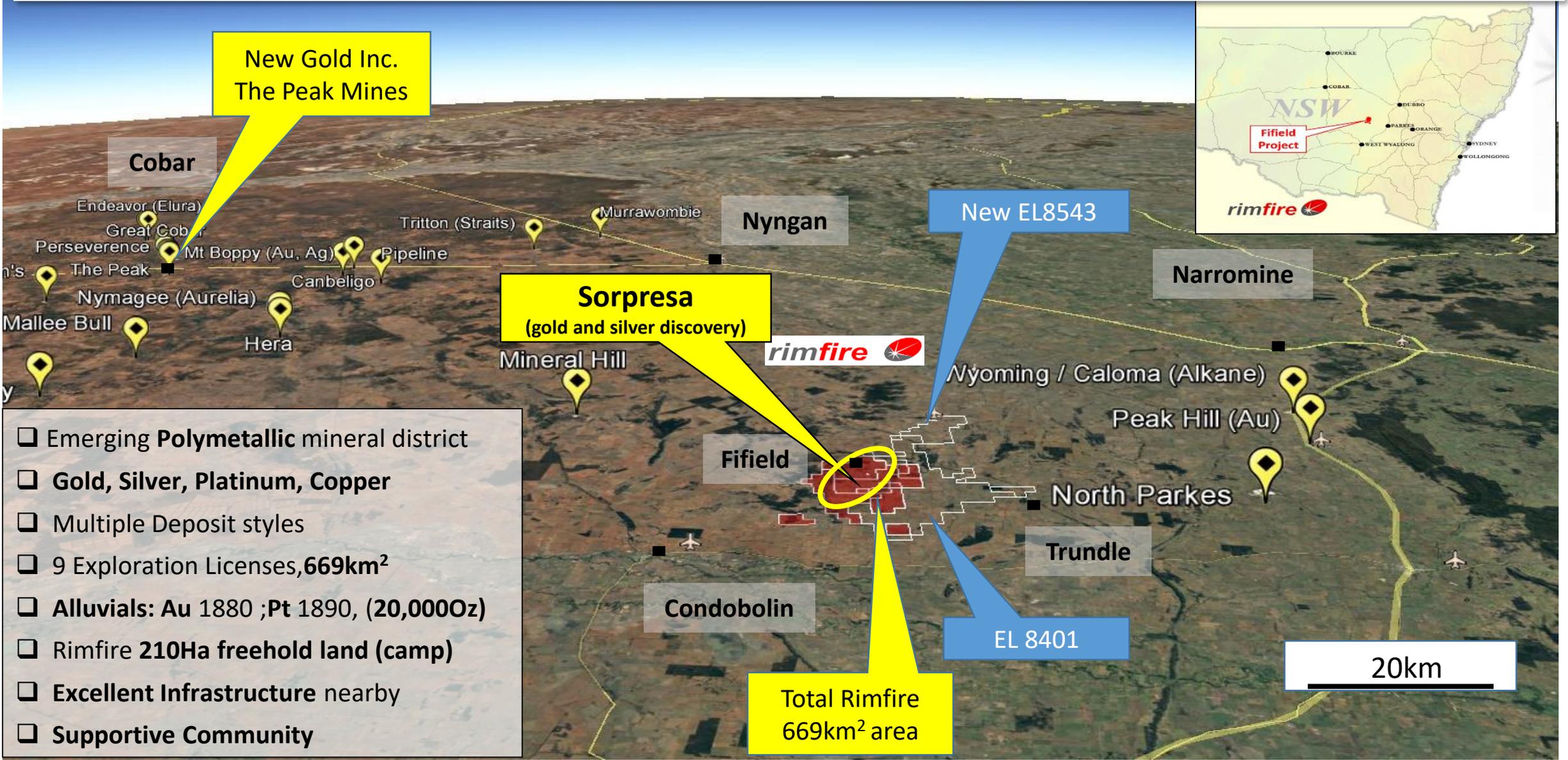
*CEO & Managing Director*

*The Rocks and Beyond 8<sup>th</sup> May 2017*





# Project Focus - Fifield NSW



New Gold Inc.  
The Peak Mines

Cobar

Sorpresa  
(gold and silver discovery)

New EL8543

Narromine

Fifield

Nyoming / Caloma (Alkane)

Peak Hill (Au)

North Parkes

Trundle

Condobolin

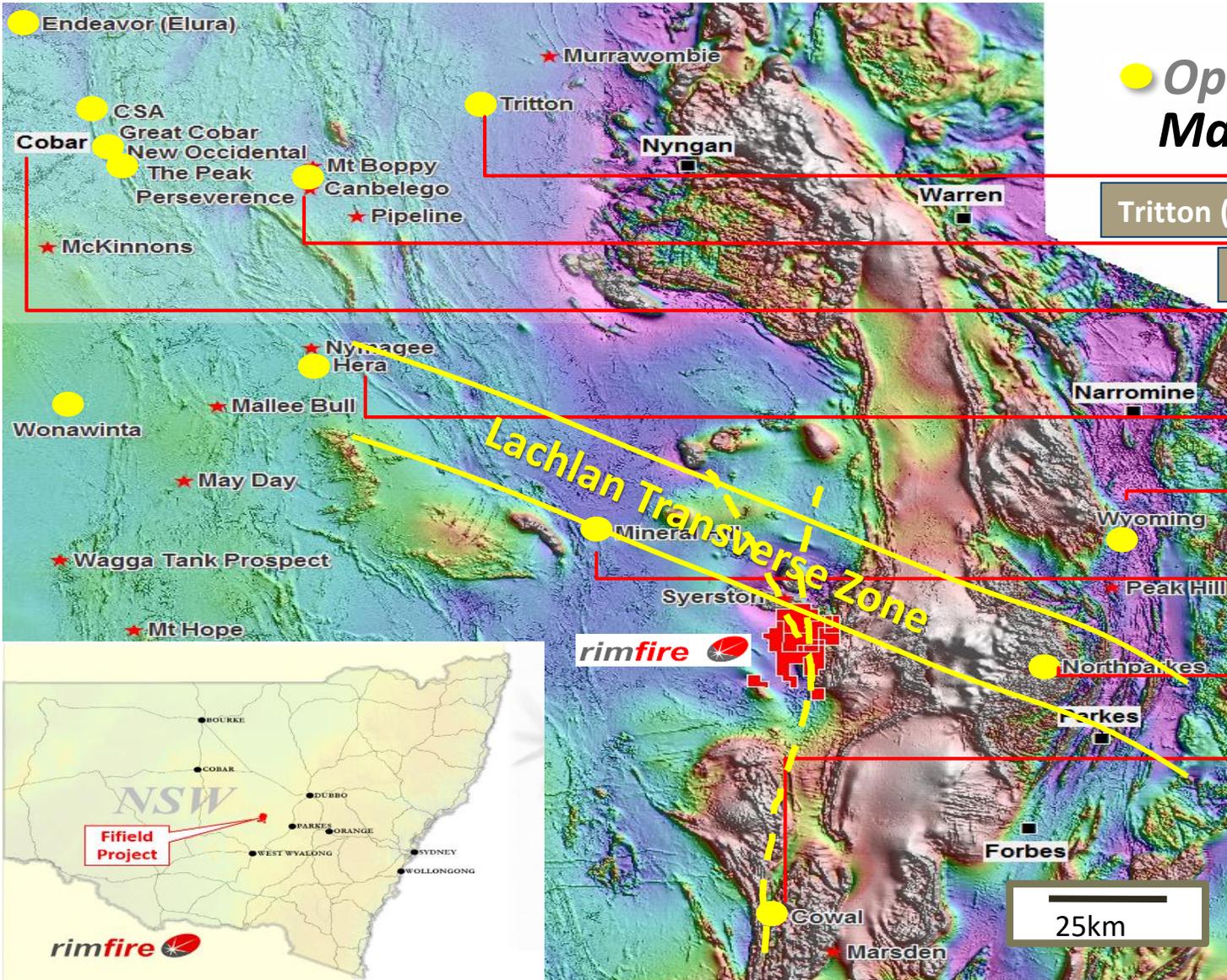
EL 8401

Total Rimfire  
669km<sup>2</sup> area

20km

- Emerging Polymetallic mineral district
- Gold, Silver, Platinum, Copper
- Multiple Deposit styles
- 9 Exploration Licenses, 669km<sup>2</sup>
- Alluvials: Au 1880 ;Pt 1890, (20,000Oz)
- Rimfire 210Ha freehold land (camp)
- Excellent Infrastructure nearby
- Supportive Community

# Project Focus - East Lachlan Fold Belt



## Operating Mines Major Cross structures at Fifield

Tritton (Cu) Straits Resources

Mt Boppy (Au) Southern Cross Goldfields

COBAR – 2.2Mt Cu, >7.0Moz Au, >4.7Mt Zn, >2.8Mt Pb and 145Moz Ag (pre-mining)

Hera / Nymagee (Au, Cu, Pb, Zn, Ag) Aurelia

Wyoming / Caloma (Au) Alkane Resources

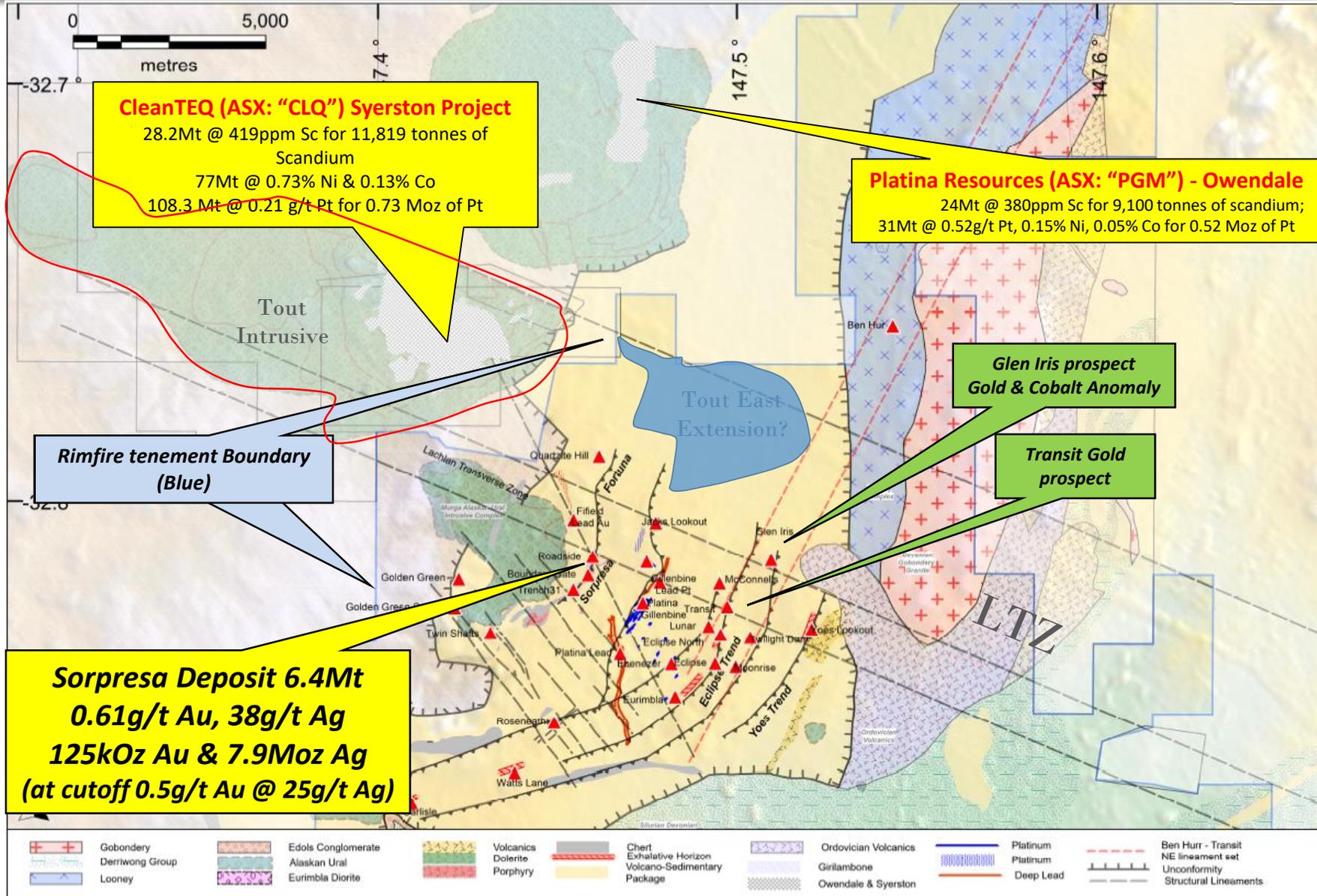
Mineral Hill (Au, Cu, Pb, Zn, Ag) KBL Mining

North Parkes (Cu/Au) China Mo Co.

Lake Cowl (Au) Evolution

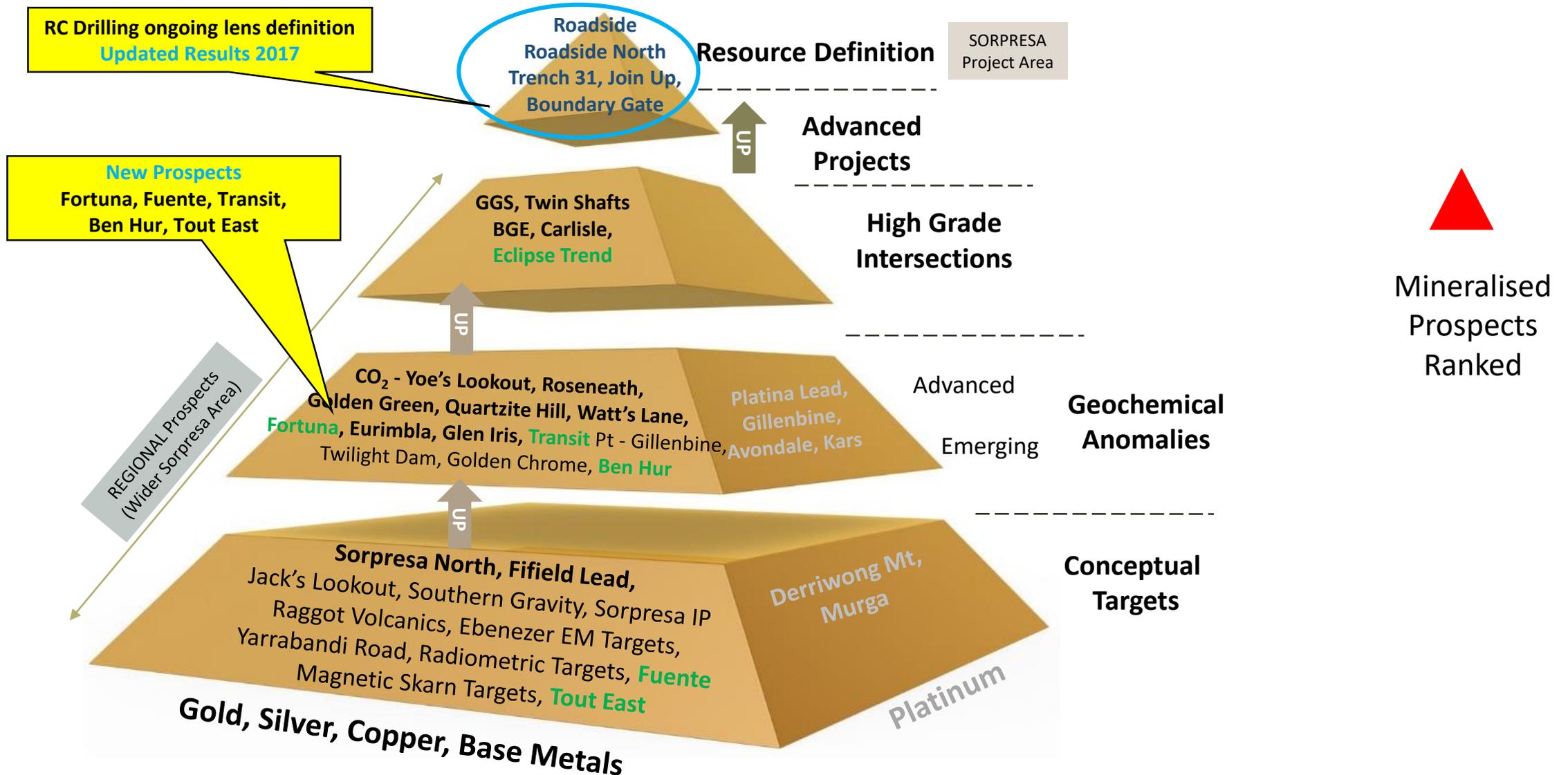
**Excellent geological setting**

# Project Focus - Local District Setting

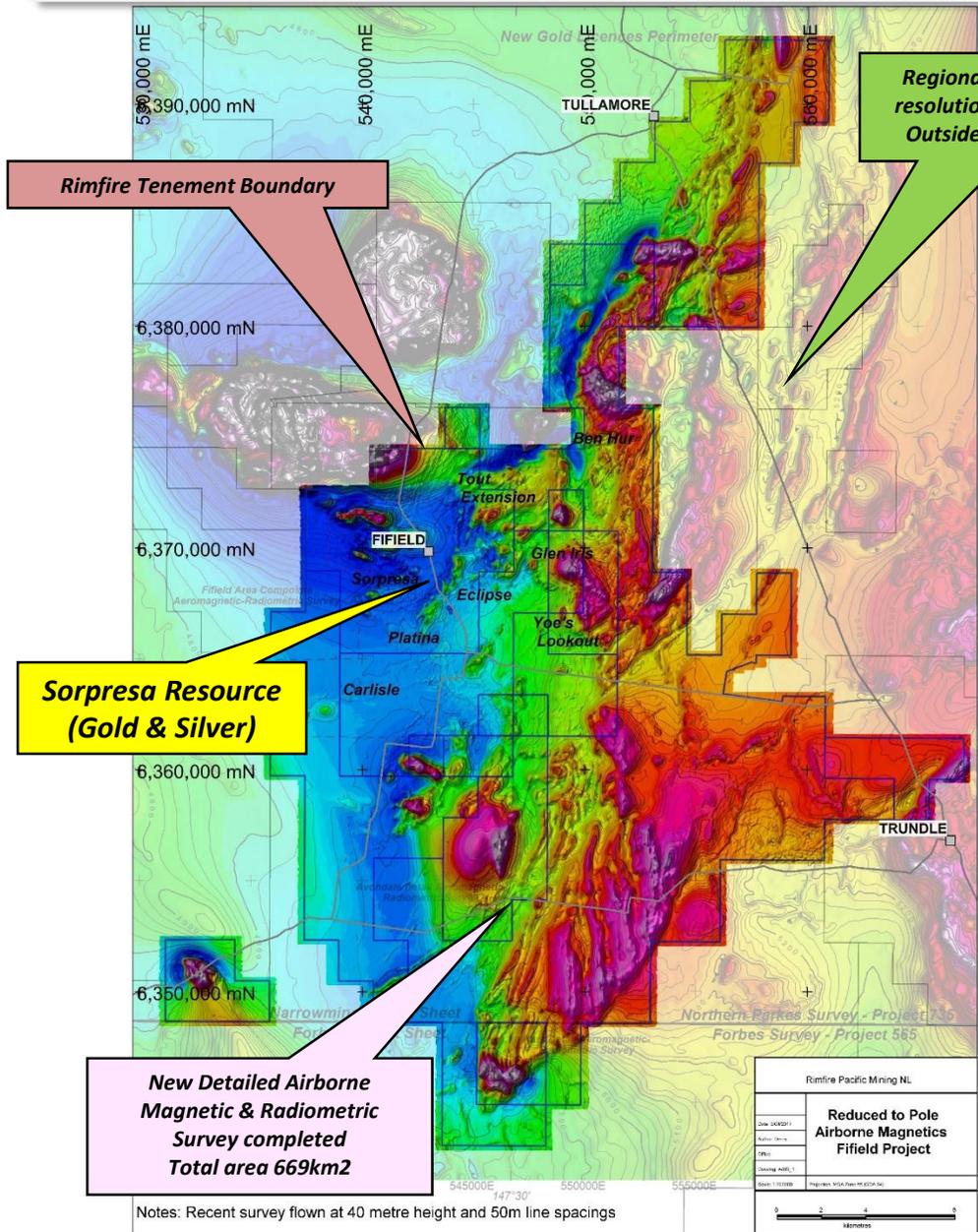


Mineralised Prospects

# Prospect Pipeline - March 2017 - Ranking



# Completed Airborne High Resolution Geophysics

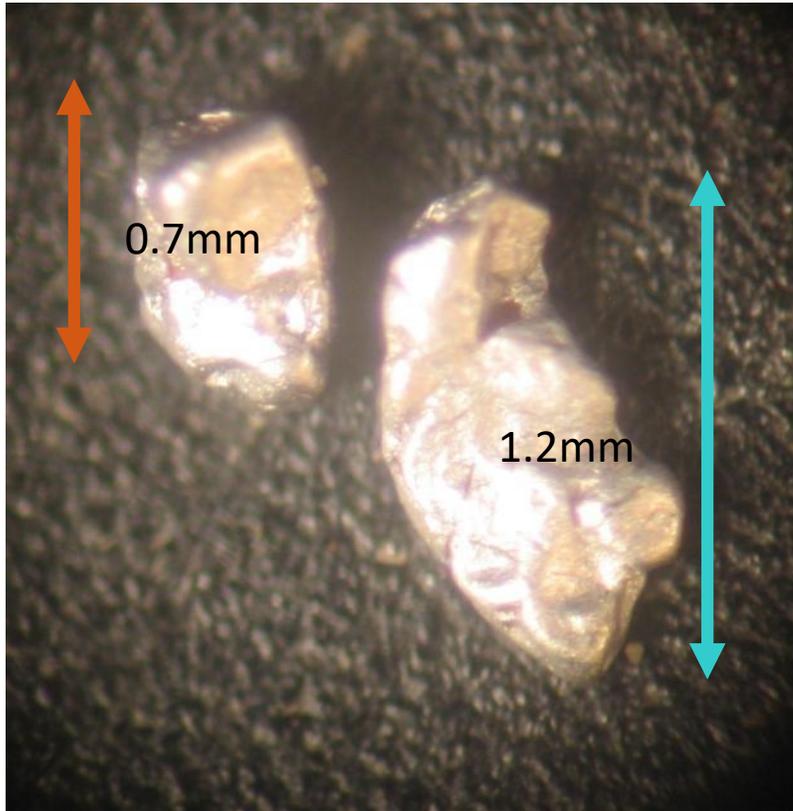


- ❑ 2017 expanded detailed geophysics (cover 669km<sup>2</sup>)
- ❑ 13,000 line km 50m width x 40m height
- ❑ A proxy for geology and structure
- ❑ Greater definition than government geophysics
- ❑ Structure and target definition
- ❑ Stitched to high resolution Rimfire surveys
- ❑ Geochemistry used to compliment the geophysics

(Magnetics Reduced to Pole)

# **Fifield - Coarse Primary Platinum Grains**

Main focus 2002~2010, ongoing



Bulk sampling needed



Bedrock Source

Repeatable

In situ

Re-entrant angle Pt grains

Pt Crystals

Beneath Sub Soil Clay Contours

In Clay Weathered Bedrock Breccia  
& Shears

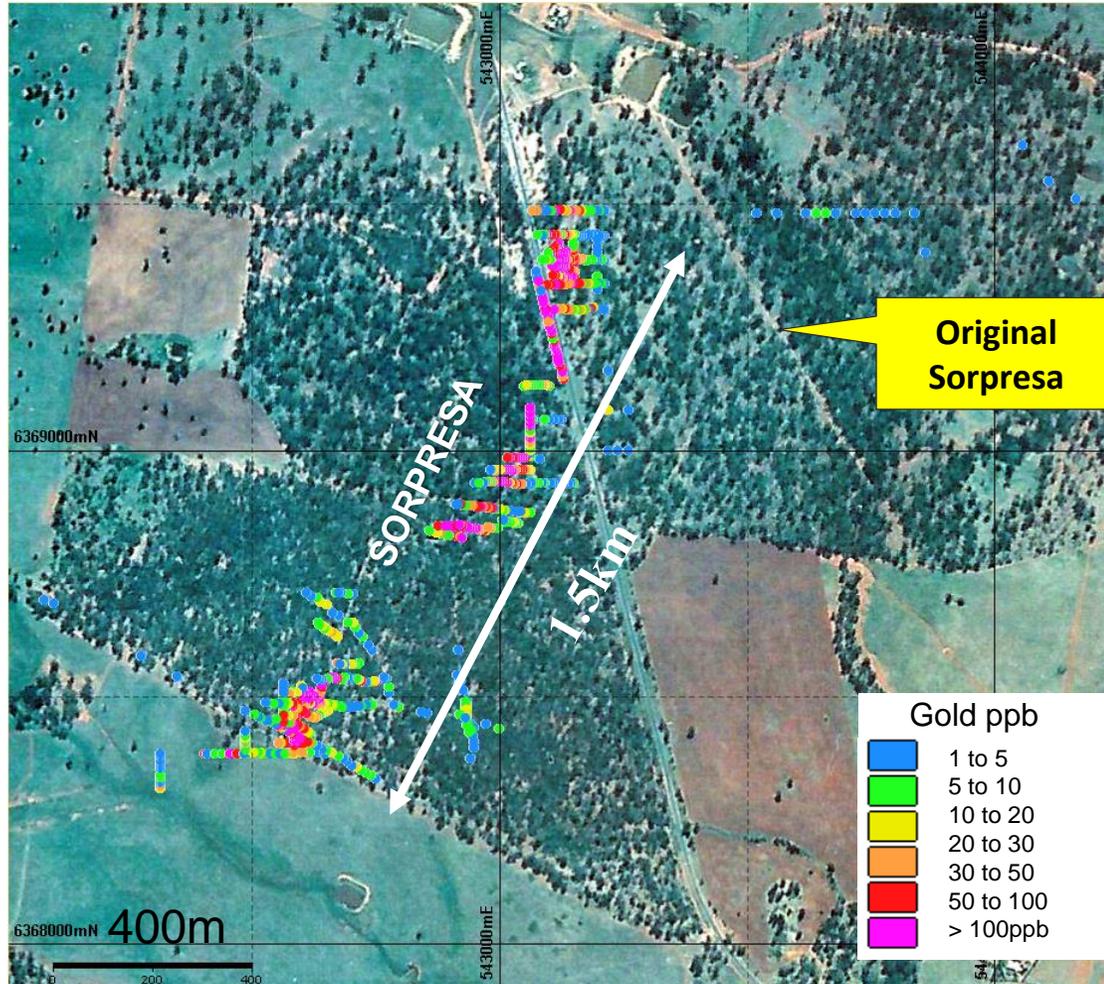
Discrete zones

*Geological & structural control –  
cross cutting veins*

# Knowledge Advances at Fifield through 2005~08

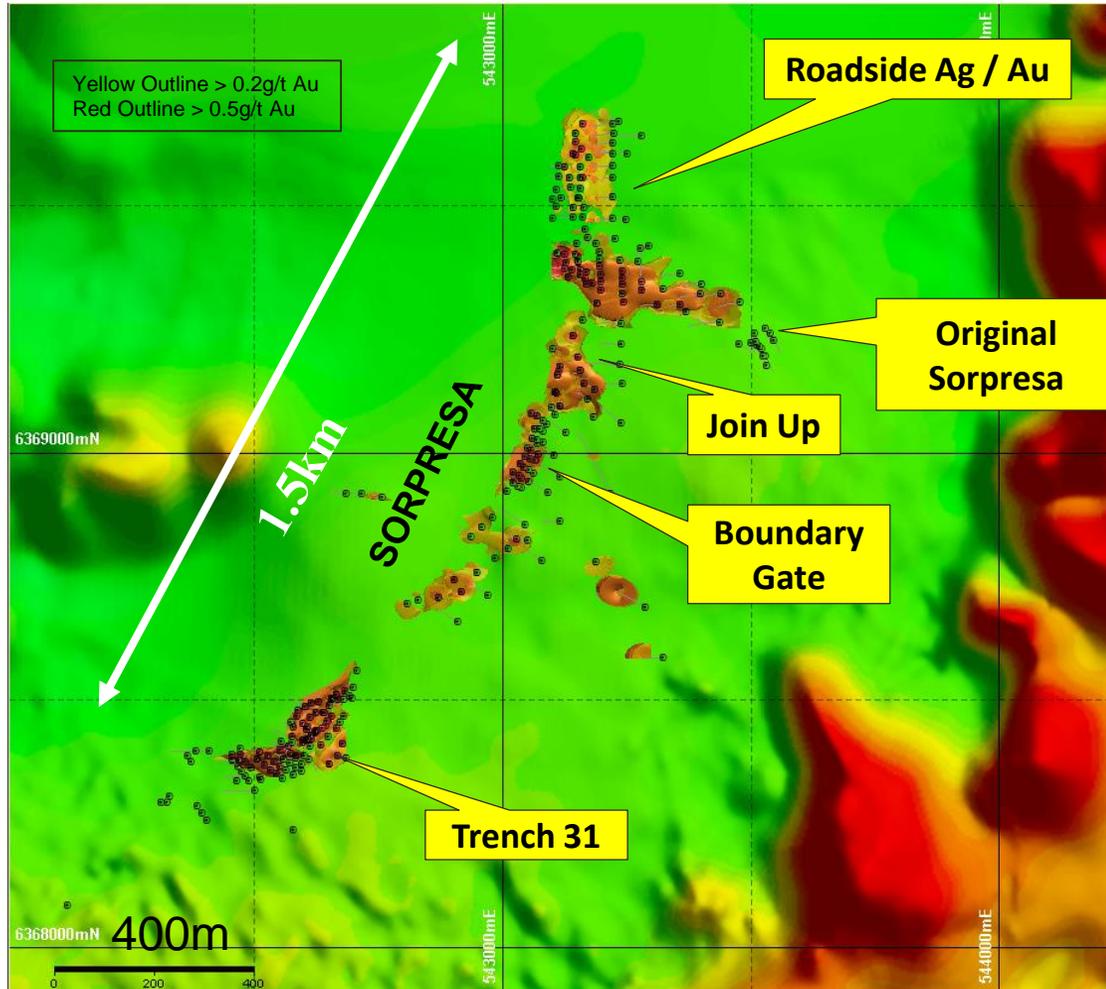
Issue of Difference in modern era of Exploration	Prior to Rimfire	Rimfire Advance
Drainage direction interpretation around Fifield	North to South	South to North
Rift Valley Setting	Not seen	Recognised
Coarse Pt recognised & recovered from Bedrock	No	Yes
Sampling size and system for Pt	Too small	Custom plant & larger samples
Focus on Magnetic Features mainly	Excessive	Integrated Field Based
A Geological Control Discovered on Pt	No	Yes
Geological Model for Pt in "Shear Zones"	No	Yes
Importance of "distinct Pt and Au zoning"	No	Yes
Disseminated Gold in rock	No	Yes
Large scale Gold and Base Metal Potential	Minor	Major

# *Sorpresa Discovery 2007 -2013*



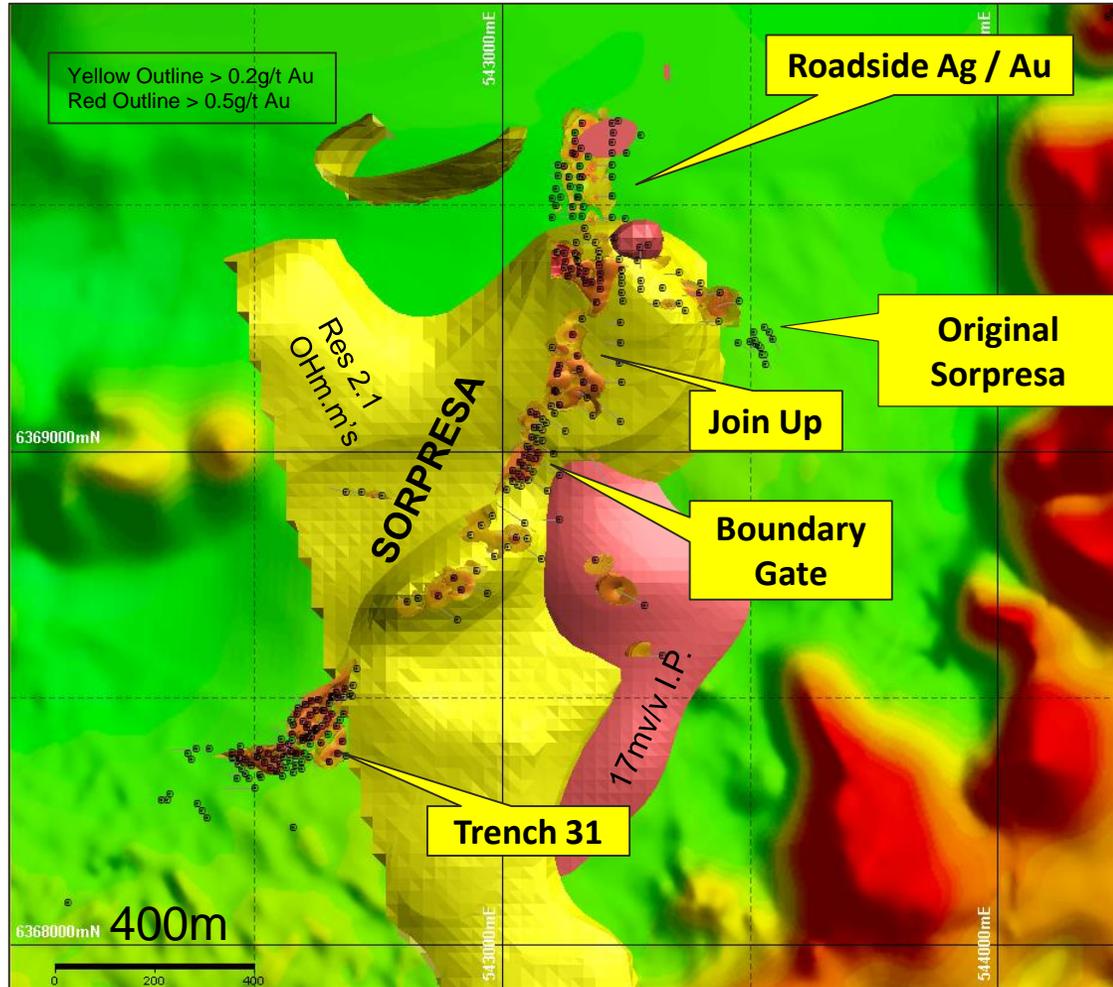
- ❑ Crown Land “Temporary Common”
- ❑ 2007 Gold in Rockchip 8.8g/t
- ❑ Soil and Auger drilling defined a curvilinear anomaly > 20ppb Au over a 1.5km strike.
- ❑ Trenching revealed near surface high grade Gold (9m @ 4.9g/t Au).
- ❑ RC Drilling defined high grade Au / Ag mineralisation within 5 structurally controlled pods along the gold anomaly
- ❑ Mineralisation breaks surface, high grades in places
- ❑ Zoned gold and silver
- ❑ Greenfields discovery confirmed missed by others

# Sorpresa Discovery 2007 -2013



- ❑ Drilling defined high grade Au / Ag mineralisation within 5 structurally controlled shoots along the gold anomaly
- ❑ Magnetics limited insight

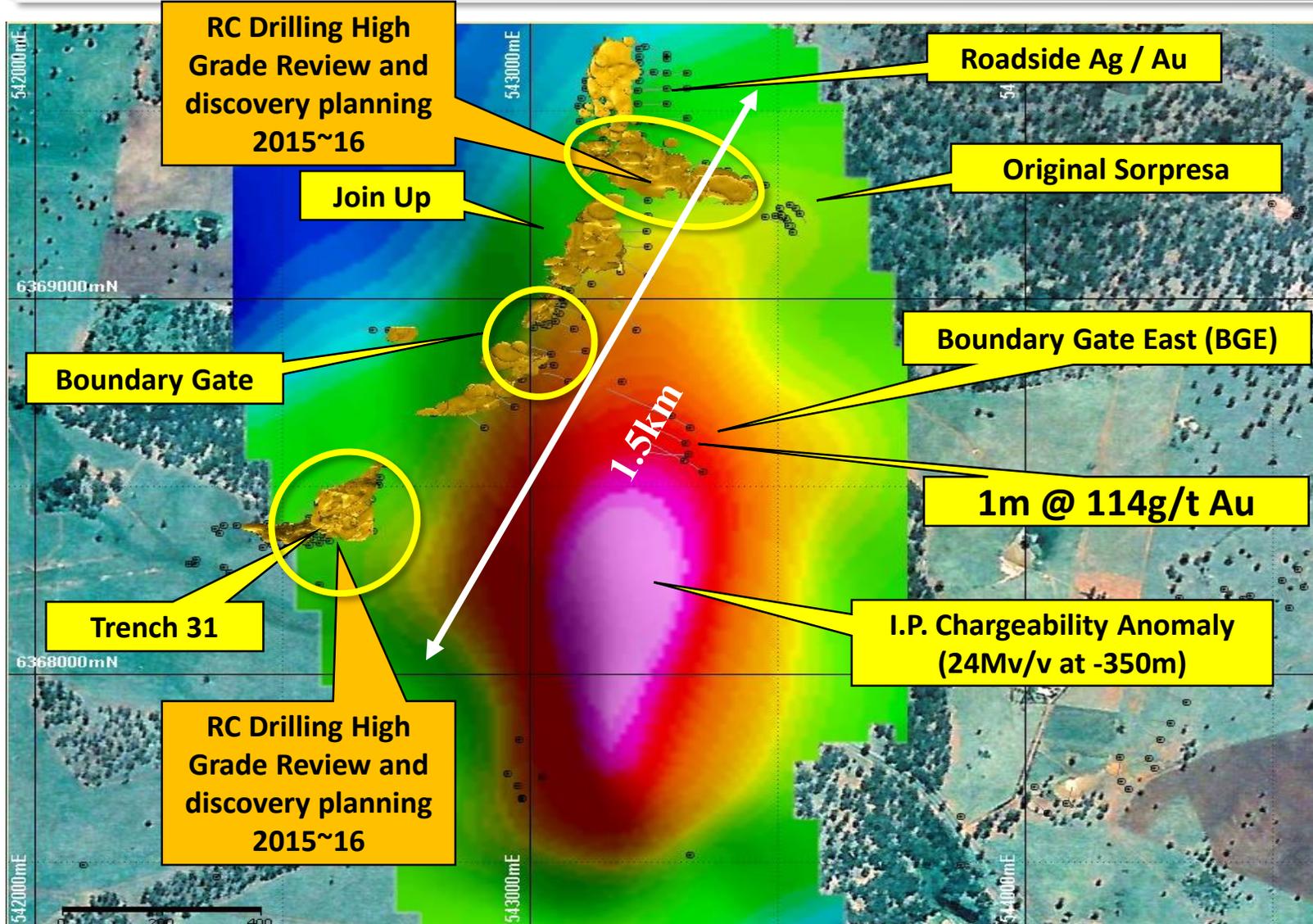
# *Sorpresa Discovery 2007 -2013*



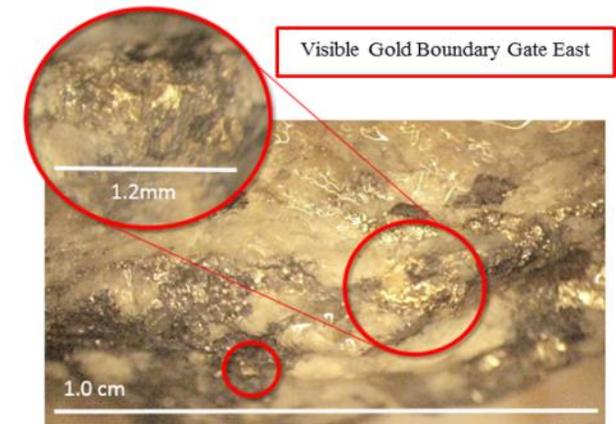
- ❑ Induced Polarization (I.P.) survey test line completed revealing chargeability and resistivity anomalies associated with the mineralisation.
- ❑ Gravity a tight correlation also
- ❑ 5 hole Diamond Drill Program intersects Bonanza Gold and significant widths to mineralisation.



# Sorpresa - Gold and Silver High Grade Lenses

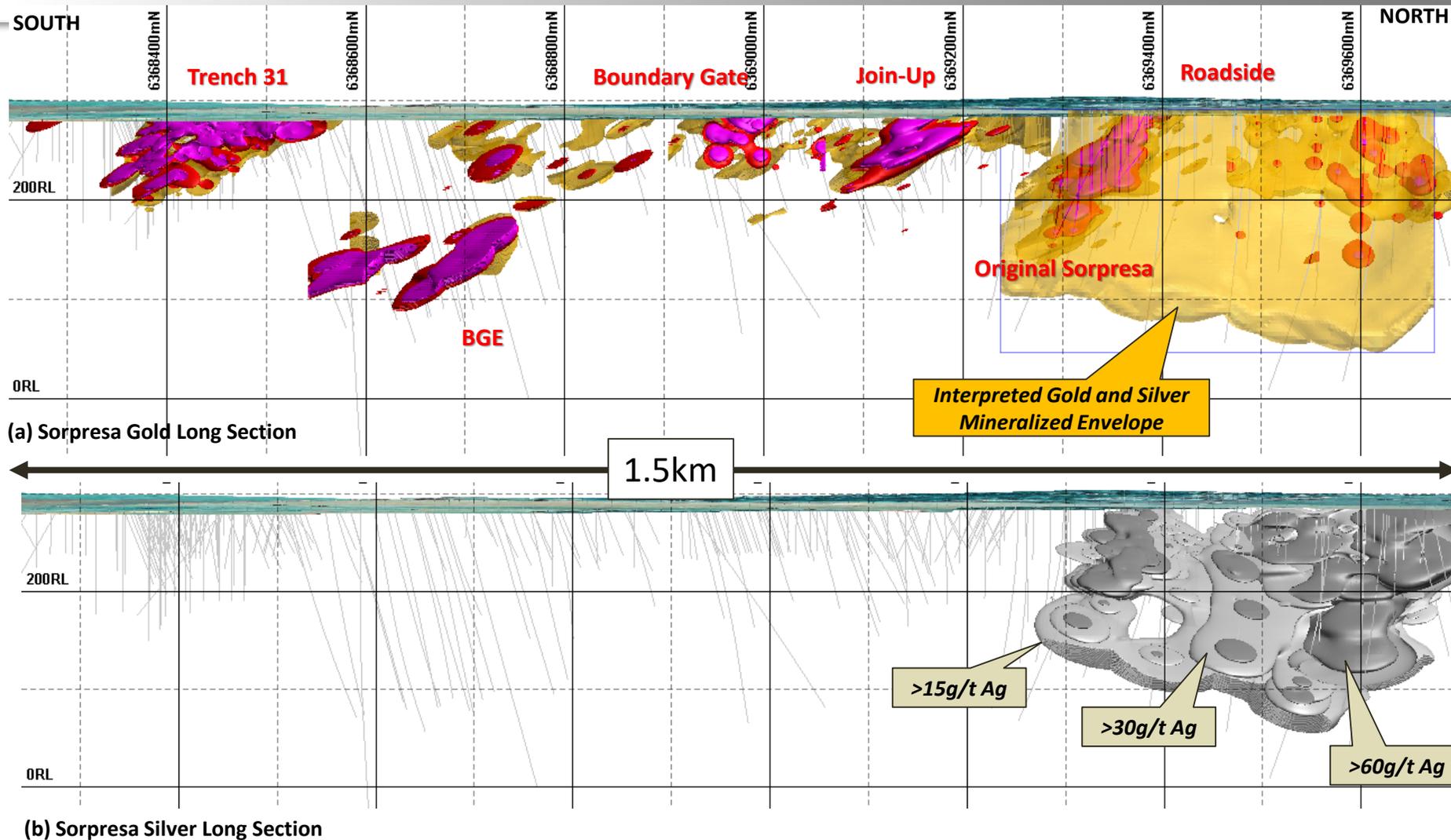


- ❑ Less than 10% of available geology tested (>18km<sup>2</sup>)
- ❑ Potential extensions and repeats under shallow cover
- ❑ Pursue High Grade lenses
- ❑ Examine economic case
- ❑ I.P. chargeability – to resolve



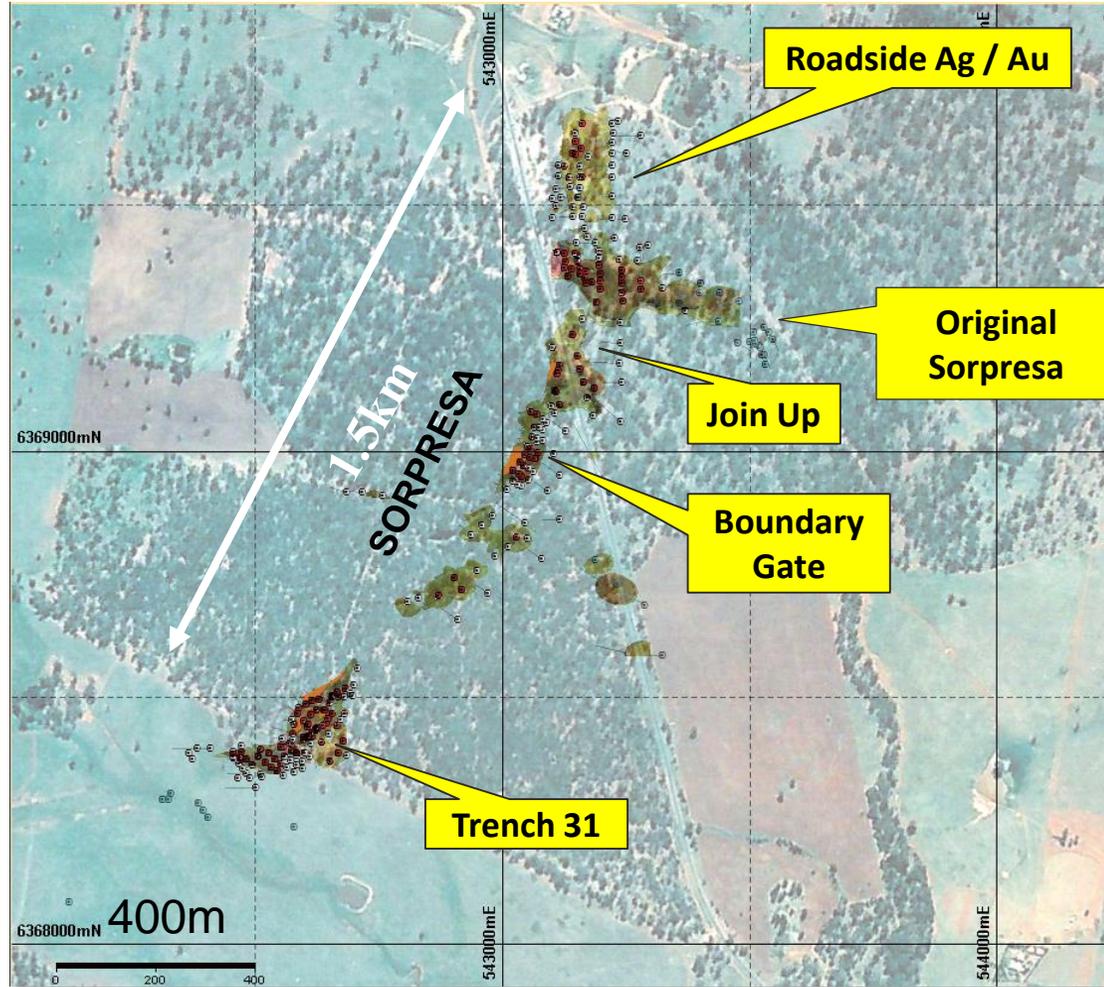
Implicit Model showing Au only (at June 2014) and is an interpretive exploration model imaging Au > 0.2g/t

# Sorpresa Au/Ag Envelope



**Roadside and Roadside North Implicit Model Long Section** looking west illustrating Gold and Silver mineralisation .  
 (Implicit Model is an interpretive exploration model imaging Gold: yellow >0.2 g/t Au, red >0.5 g/t Au, purple >1g/t Au, and Silver: Light Grey>15 g/t Ag and >30g/t Au, Dark grey >60 g/t Ag. Some labels refer to previously released material please refer to Table 1: Dates and Hyperlinks for previously referred to results in this report

# A closer look at the discovery



- Dec 2014 JORC Resource declared
- What is the district context?
- Sorpresa the first, but likely not the last or the best

# *Journey in the Discovery at Sorpresa (2007~2013)*

- ❑ Prospect beyond Platinum focus
- ❑ Undertook Geochemical Prospecting in the district
  - ❑ Noted up to 0.1g/t Au disseminated in sediments 3km west
- ❑ Old prospecting shaft 400m east of main Sorpresa
  - ❑ Sample of breccia assayed 8.8g/t Au, soft, no quartz
  - ❑ Flat topography, with veneer of soil cover
- ❑ Anything could exist below the soil and be undiscovered
- ❑ Auger line on 2m intervals, revealed gold anomaly
  - ❑ 12m > 0.3g/t Au
  - ❑ Confirmed the immediate extent, including Pb, Zn, Ag



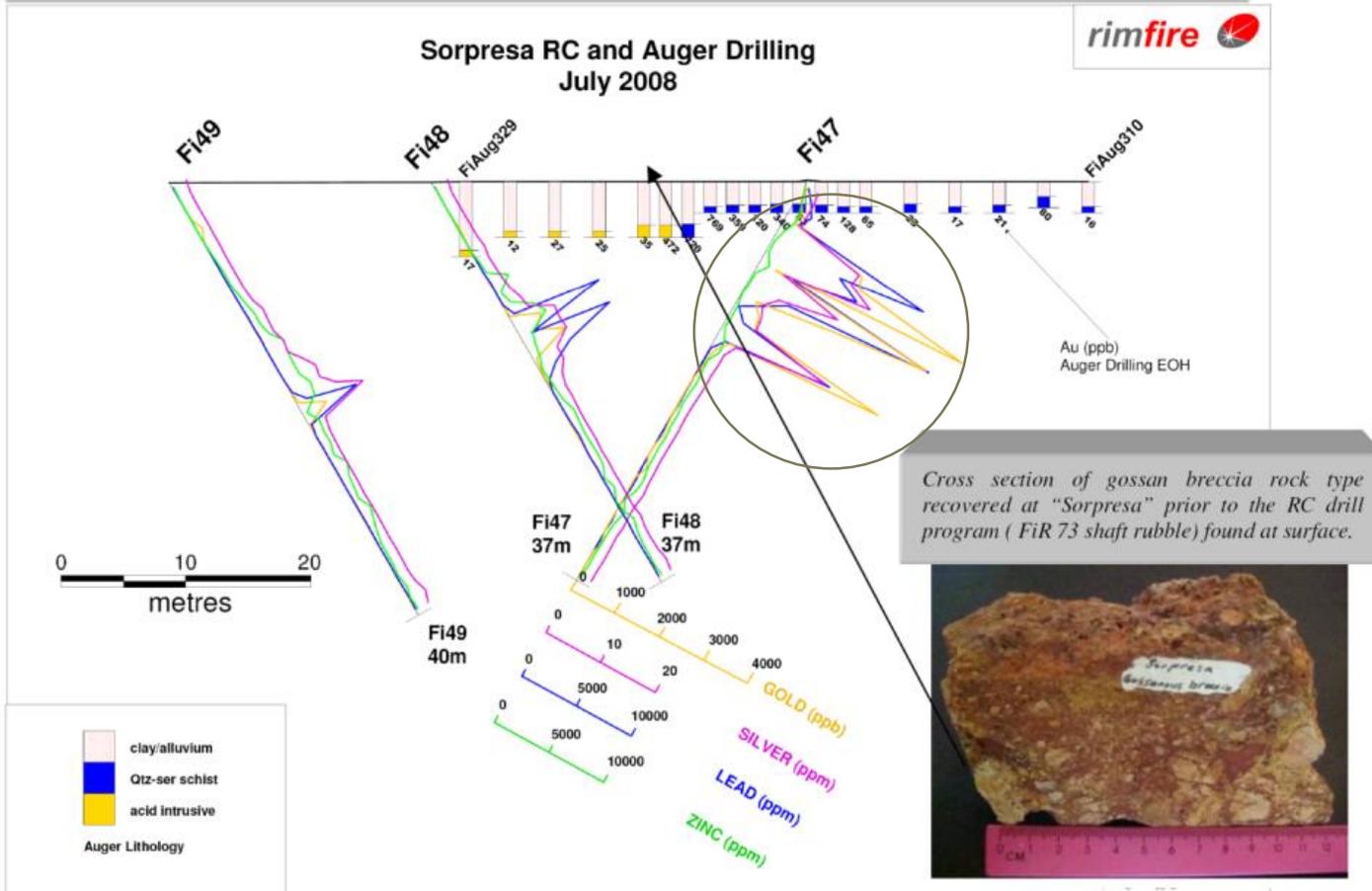
# *Journey in the Discovery at Sorpresa (2007~2013)*

- ❑ Wildcat RC holes at “Historic Shaft area”
  - ❑ Small intersection, Au & base metal (Pb, Ag, As, Sb)
- ❑ Weak magnetic low, and petrology assessment
  - ❑ Real or not real, it provided the “reason” for the footprint of the soil program
- ❑ Regolith assessment and enlarged soil program
  - ❑ Mild gold anomaly contoured, the best being 25~50ppb Au
  - ❑ Was it indicative of ore? Or just more of an elevated background seen elsewhere
  - ❑ Curvilinear geochemistry shape reflecting structure and geology?
- ❑ Soil results tested with tight auger drilling into bedrock
  - ❑ 45m zone, 5m spaced holes, > 0.1g/t Au (2m depth)
  - ❑ Best consecutive hole results across 10m, 1g/t, 2.6g/t, 0.4g/t Au



# Original Sorpresa Prospect – (2008)

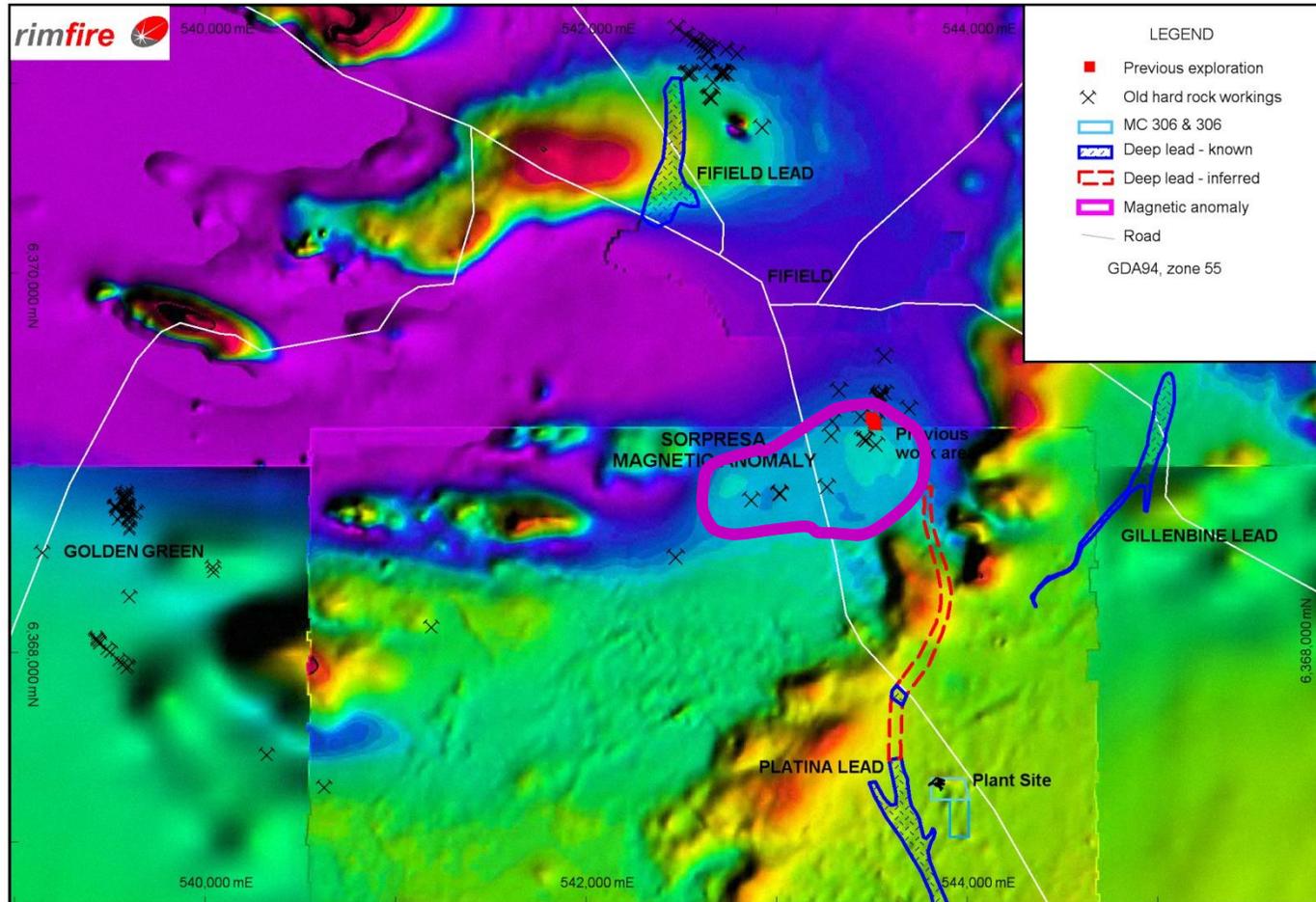
## Assay Results for Sorpresa Prospect Showing Auger Drill Line and RC Drill Hole Section



- RC Drill program intersection of 6m @ 2.5g/t Au
- Pathfinders Pb, Ag, Zn
- Dip not determined

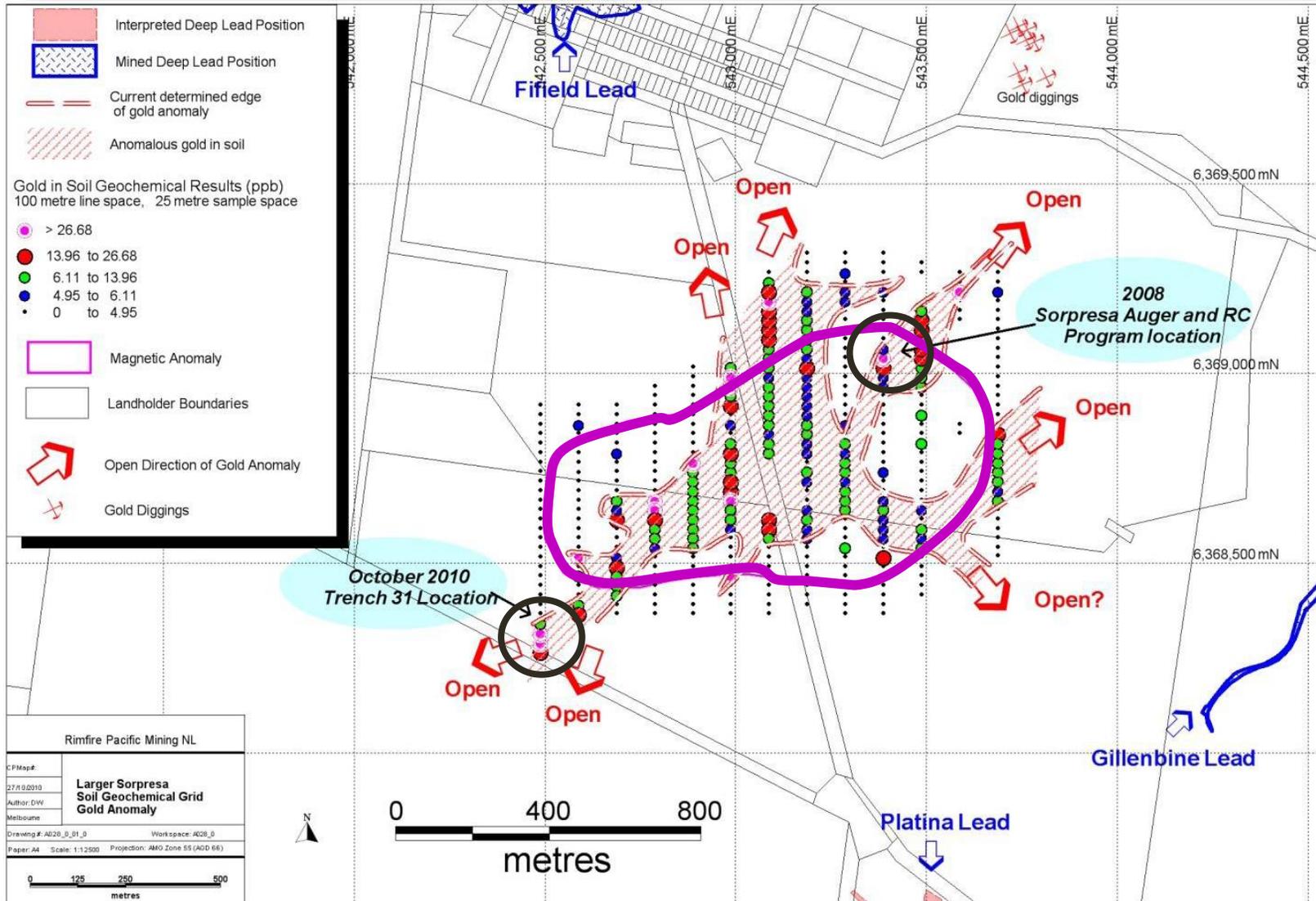
# Possible Larger target – Fragile (2009)

*Intrusive porphyry associated with a metamorphic aureole?*



- Magnetics & rock petrology indicate a possible larger Sorpresa target
- 1.1km x 0.5km anomaly
- More Soil geochemistry required
- IP Survey?
- Auger Drilling?

# Au Soil Geochemistry - Large and Real (2010)

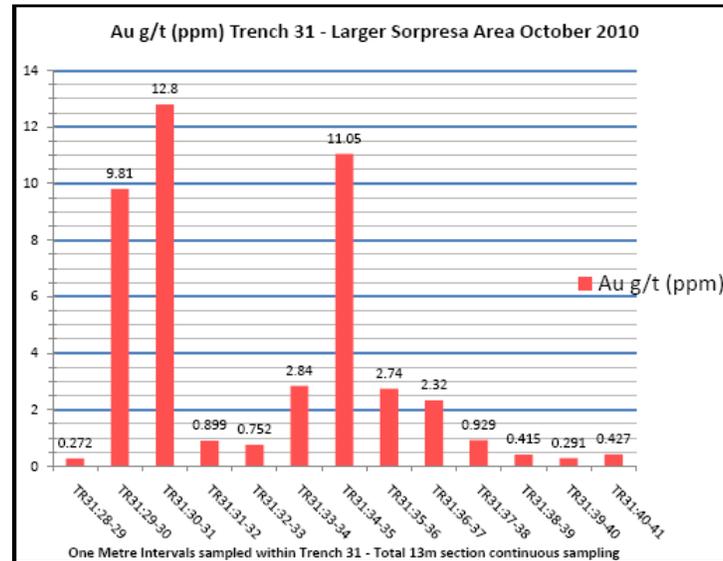


- Elevated Au ppb
- How real is it?
- 1.5km x 0.4km “open” Au soil anomaly established
- Test bedrock with auger drill
- Positive auger results
- Geology Exposure and rationale needed - trench
- Repeat the formula

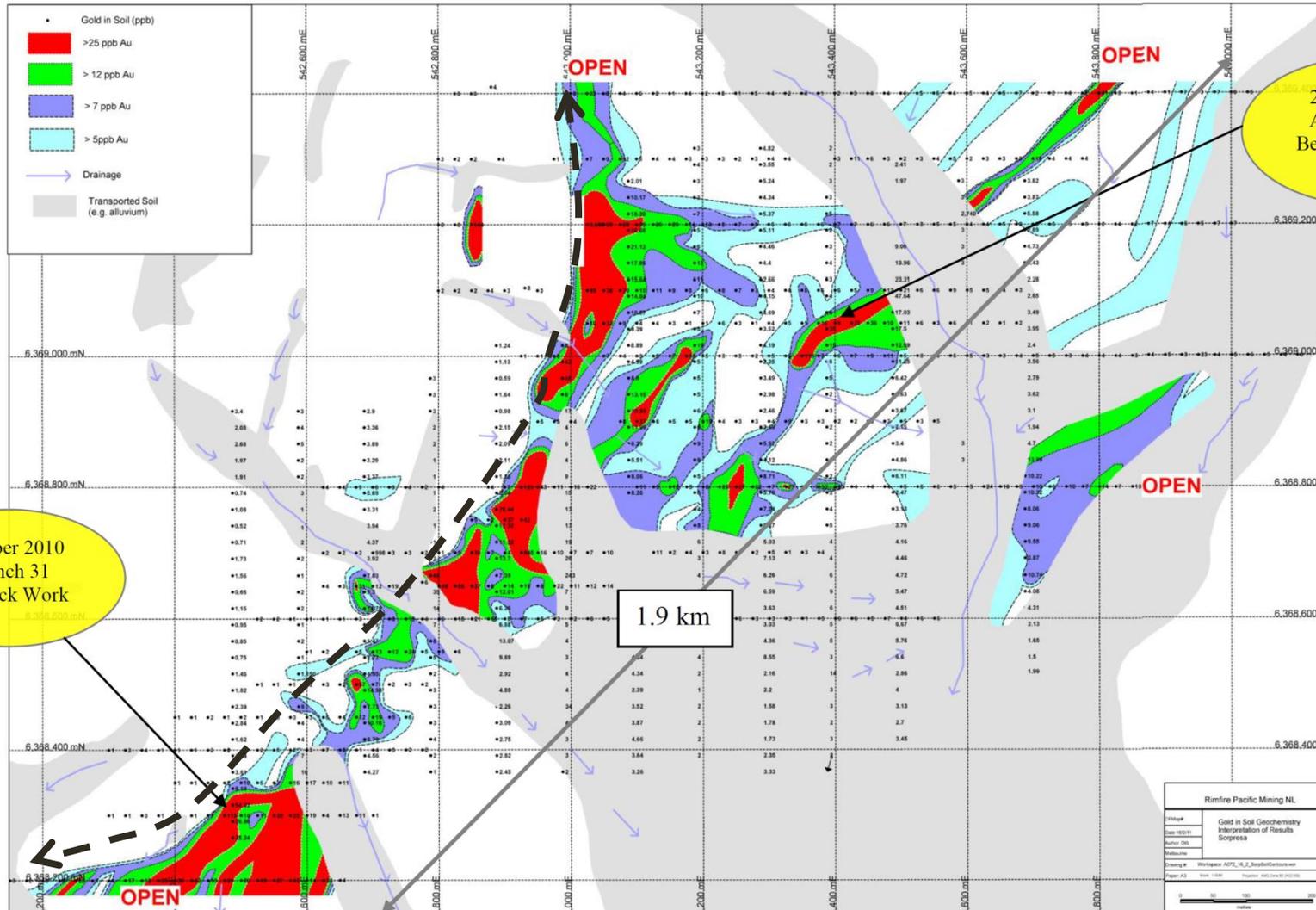
# Sorpresa Trench 31 Assay Results (2010)

SAMPLE DESCRIPTION	ME-ICP41 Ag ppm	ME-ICP41 As ppm	ME-ICP41 Bi ppm	ME-ICP41 Cu ppm	ME-ICP41 Mo ppm	ME-ICP41 Pb ppm	ME-ICP41 Sb ppm	ME-ICP41 Tl ppm	ME-ICP41 Zn ppm	Au-AA22 Au ppm	Au-AA26 Au ppm
TR31:28-29	0.4	145	<2	52	<1	69	3	<10	21	0.272	
TR31:29-30	0.9	192	<2	74	1	96	4	<10	27	>1.00	9.81
TR31:30-31	1.4	245	<2	121	1	98	8	<10	42	>1.00	12.8
TR31:31-32	0.4	155	<2	78	1	66	6	<10	36	0.899	
TR31:32-33	0.5	117	<2	58	1	59	4	<10	26	0.752	
TR31:33-34	2	119	<2	59	1	115	4	<10	29	>1.00	2.84
TR31:34-35	1.1	202	<2	100	1	133	5	<10	42	>1.00	11.05
TR31:35-36	1.3	275	<2	129	1	100	8	<10	33	>1.00	2.74
TR31:36-37	0.8	170	<2	60	1	121	6	<10	18	>1.00	2.32
TR31:37-38	0.2	160	<2	46	<1	183	8	<10	17	0.929	
TR31:38-39	0.2	300	<2	119	1	267	12	<10	43	0.415	
TR31:39-40	0.4	264	<2	106	1	221	9	<10	38	0.291	
TR31:40-41	0.2	119	<2	53	<1	135	5	<10	25	0.427	

- 2010 Soil Geochemistry Expanded – look at >25ppb Au
- 2010 Auger Bedrock (45m > 0.1g/t Au)
- 2010 Trench 31 (9m @ 4.9g/t Au)
- Provided best dip estimate 30deg East
- Video available



# Expanded Soil Geochemistry – RC Drill tested

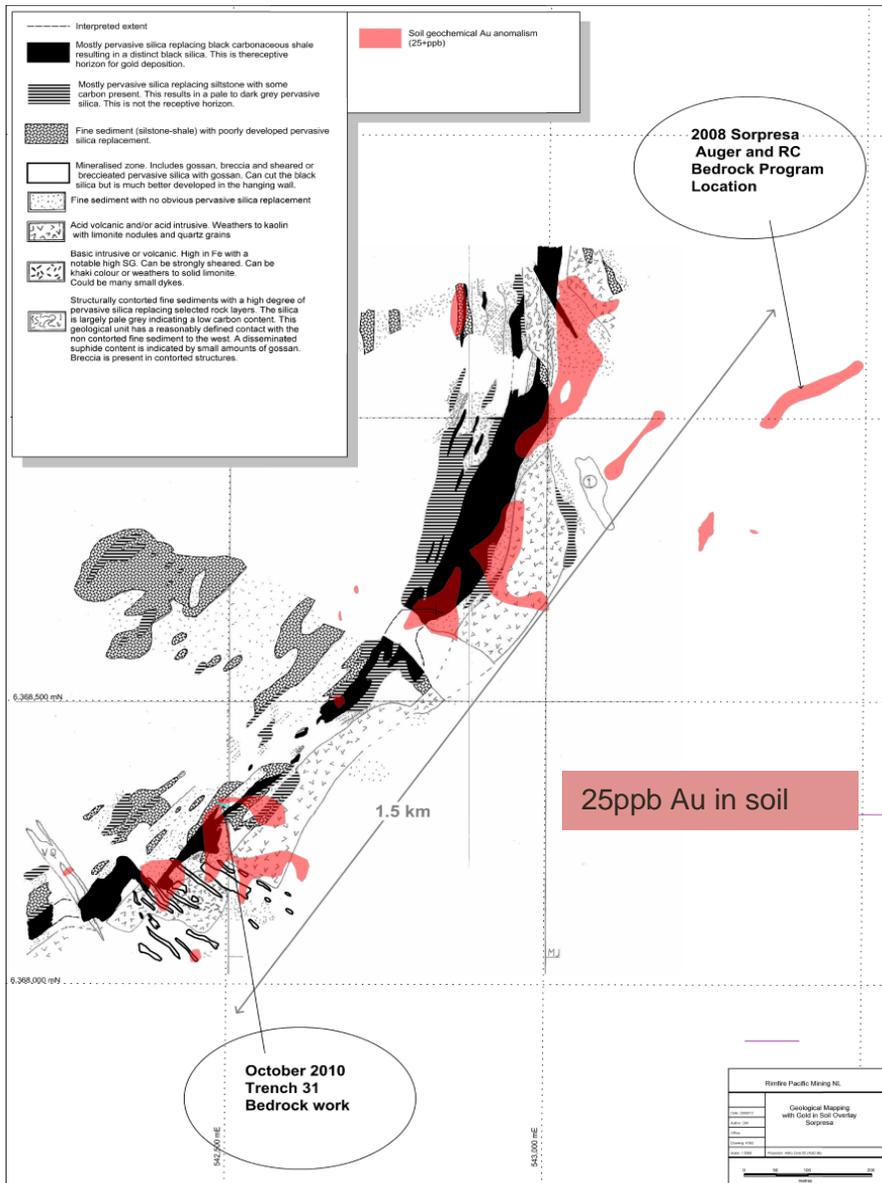


2008 Sorpresa Auger and RC Bedrock Program Location

October 2010 Trench 31 Bedrock Work

- 2011 RC drill program placed on expanded geochem >20ppb soil and auger
- 60deg angle holes
- Discovery confirmed

# Geology meets Au soil geochemistry 2012



## ☐ Au Geochemistry in context

☐ reliable residual soil areas

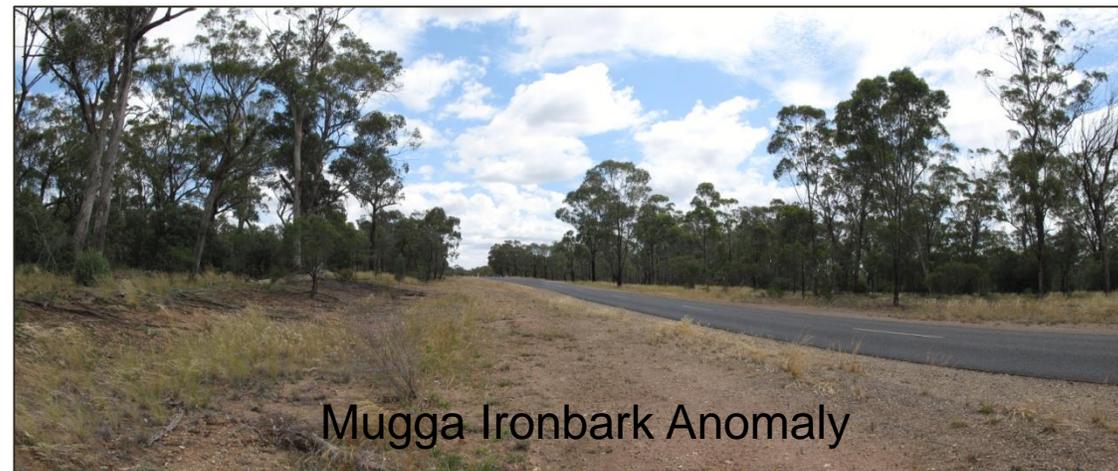
## ☐ QFP Rock – a fluid cap?

## ☐ Au Geochemistry – Geology – IP - Gravity

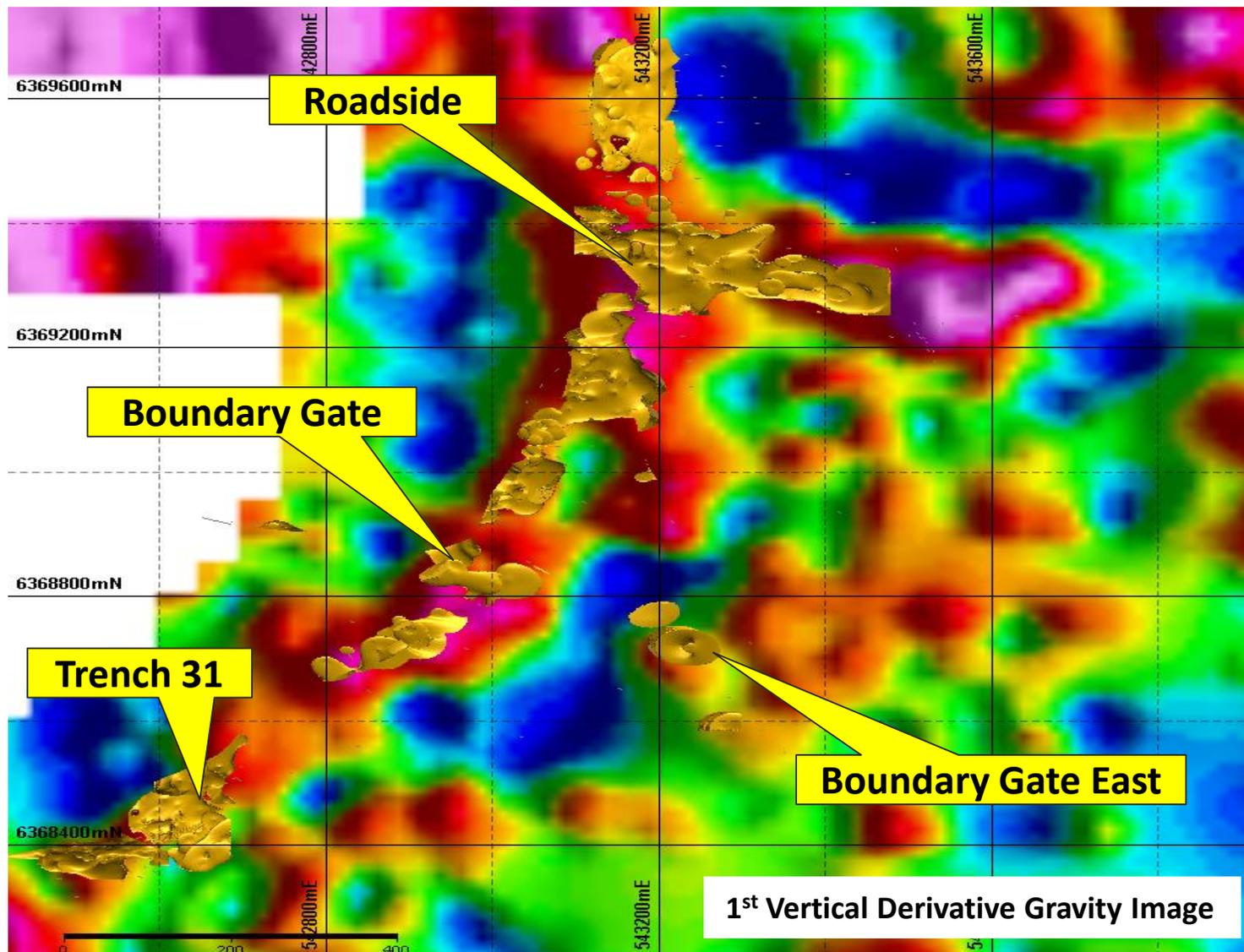
☐ A neat correlation

☐ Black Silica (carbon in silicified sediment)

## ☐ Pathfinders Pb, As, Sb, Ag also present



# *Sorpresa - Gravity - Regional Extensions*



- Excellent correlation of Mineralisation to Gravity
- Increased gravity relates to silicification.
- Look for repeats under cover?

*Implicit Model is an interpretive exploration model imaging Au > 0.2g/t*



# *Journey in the Discovery at Sorpresa Cont...*

## ❑ Big gold intersections in 2012 (Fi160, Fi212)

- ❑ 2 of the best in Australia for greenfields

## ❑ Silver zonation in the northern extent

## ❑ Small global resource established

- ❑ 6.4Mt for 125koz Au at , 7.9Moz Ag at 0.61g/t Au and 38g/t Ag (at 0.5g/t Au & 25g/t Ag cutoff)
- ❑ 3.0Mt @ 1.06g/t Au and 22g/t Ag for 103kOz Gold and 2.1MOz Silver (at 0.5g/t Au cutoff)
- ❑ 3.4Mt @ 54g/t Ag and 0.20g/t Au for 5.8MOz of silver and 22kOz Gold (at a 25g/t Ag cutoff)

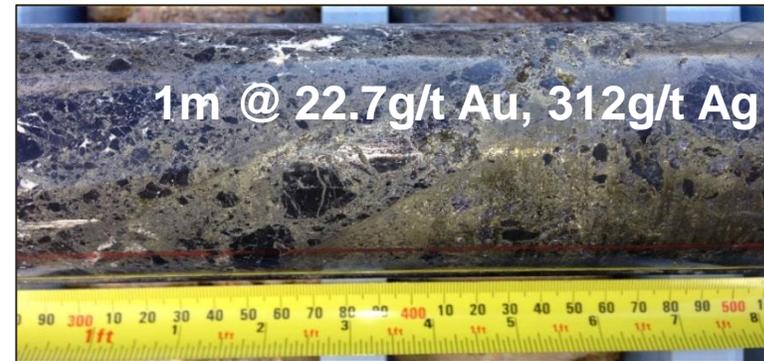
## ❑ Drilling has indicated 3~5 high grade lenses

- ❑ Metallurgy looks ok, more to do



# **Sorpresa – Significant Intersections**

	<u>Gold</u>	<u>Silver (Roadside)</u>
<b>Roadside</b>	<ul style="list-style-type: none"> <li>❑ 16m @ 5.32g/t Au</li> <li>❑ 7m @ 4.24g/t Au</li> <li>❑ <b>14m @ 24.4g/t Au</b></li> <li>❑ 21m @ 1.11g/t Au</li> </ul>	<ul style="list-style-type: none"> <li>❑ 12m @ 394g/t Ag</li> <li>❑ 28m @ 119g/t Ag</li> <li>❑ 26m @ 155g/t Ag</li> </ul>
<b>Original Sorpresa</b>	<ul style="list-style-type: none"> <li>❑ 13m @ 1.59g/t Au</li> </ul>	<ul style="list-style-type: none"> <li>❑ 20m @ 230g/t Ag</li> <li>❑ 10m @ 535g/t Ag (incl. 2m @ 2020g/t Ag)</li> </ul>
<b>Join-Up</b>	<ul style="list-style-type: none"> <li>❑ 30m @ 2.39g/t Au</li> <li>❑ 4m @ 21.9g/t Au</li> </ul>	<ul style="list-style-type: none"> <li>❑ 26m @ 90g/t Ag</li> <li>❑ 16m @ 175g/t Ag</li> </ul>
<b>Boundary Gate &amp; BGE</b>	<ul style="list-style-type: none"> <li>❑ 24m @ 2.17g/t Au</li> <li>❑ <b>1m @ 114g/t Au</b></li> <li>❑ 20m @ 2.14g/t Au</li> </ul>	
<b>Trench 31</b>	<ul style="list-style-type: none"> <li>❑ 6m @ 12.31g/t Au</li> <li>❑ <b>14m @ 21.9g/t Au</b></li> <li>❑ 9m @ 4.9g/t Au (trench)</li> <li>❑ 9m @ 18.1g/t Au</li> </ul>	



- *Two Australian Top 10 Greenfields Gold intersections (2012)*
- *Pathfinder Association (Ag, As, Sb, Pb, Zn) allows real time XRF recognition*
- *Oxide and Primary high grade mineralisation*

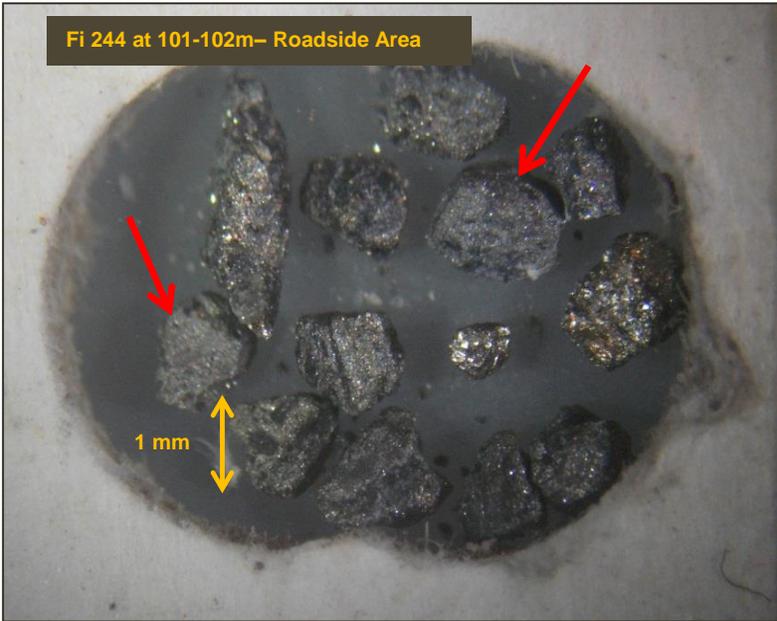


## *Sorpresa Fine Au Discovery Important Lessons*

- ❑ Subtle Mineralisation Expression – needed the extra steps
  - ❑ Only discovered due to eroded lenses at surface in geochemistry
- ❑ Tightened RC drill targets with Auger, no real exposure for dip
- ❑ Geology alone not the best vector – where within the horizon?
  - ❑ Pathfinders (Pb, As, Sb) aid discovery, XRF in real time drilling
- ❑ Majority of the area under shallow alluvium – more discovery
- ❑ Possible roles for geophysics (Gravity, IP, Magnetics)
- ❑ Observant but conventional style of exploration program
- ❑ Other gold areas noted at Fifield outside Sorpresa Area
  - ❑ Sorpresa may prove to be the easiest, but its will not the last nor the best

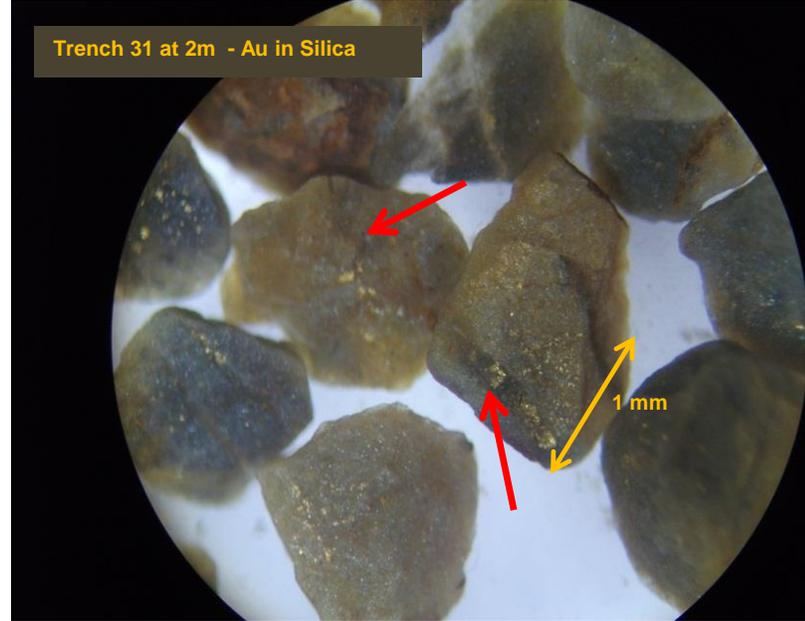
# Mineral Observations from the Field

Fi 244 at 101-102m– Roadside Area



- Primary mineralisation
- Pb, Ag Sulphides
- Massive Veinlets
- Metallurgy positive implications

Trench 31 at 2m - Au in Silica



- Fine Free Au in Silica
- Multiple phases including some sulphide veins
- High grade Au no upper limit in theory

Fi 214 at 21- 22m– Roadside Area

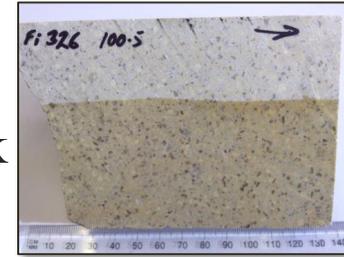


- Oxide zone
- Nodular Ag halides
- 943g/t Ag 20~22m

# **Diamond Core (2013) 5 Holes**

- ❑ Gold Receptive “black silica” horizon
  - ❑ Carbonaceous Sediments pervasively silicified, fractured, Au/Ag mineralised
  - ❑ Capping rock of Quartz Feldspar Porphyry, above the receptive horizon

QFP Capping Rock



Hole Fi 328 Mineralisation



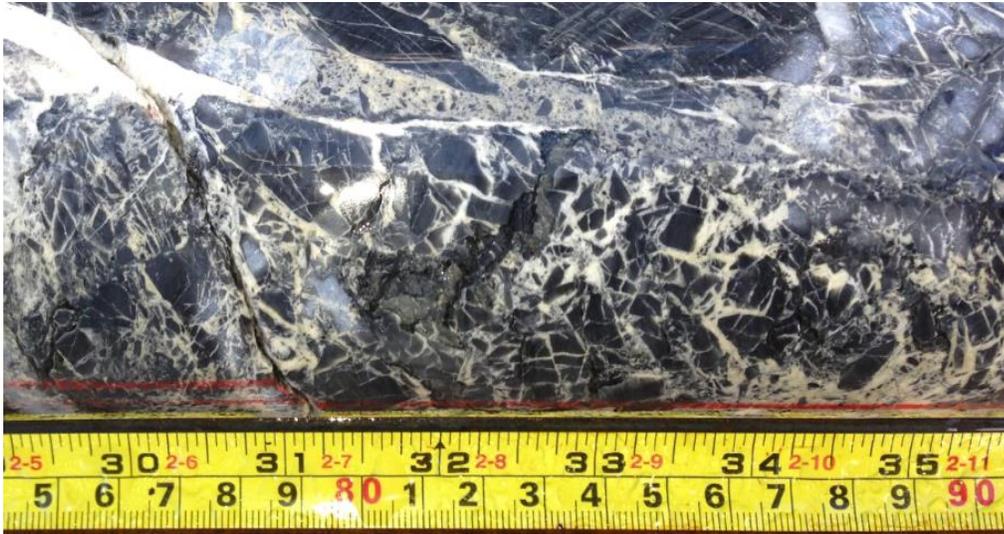
Porphyry Sill and Receptive Horizon in Fi 329



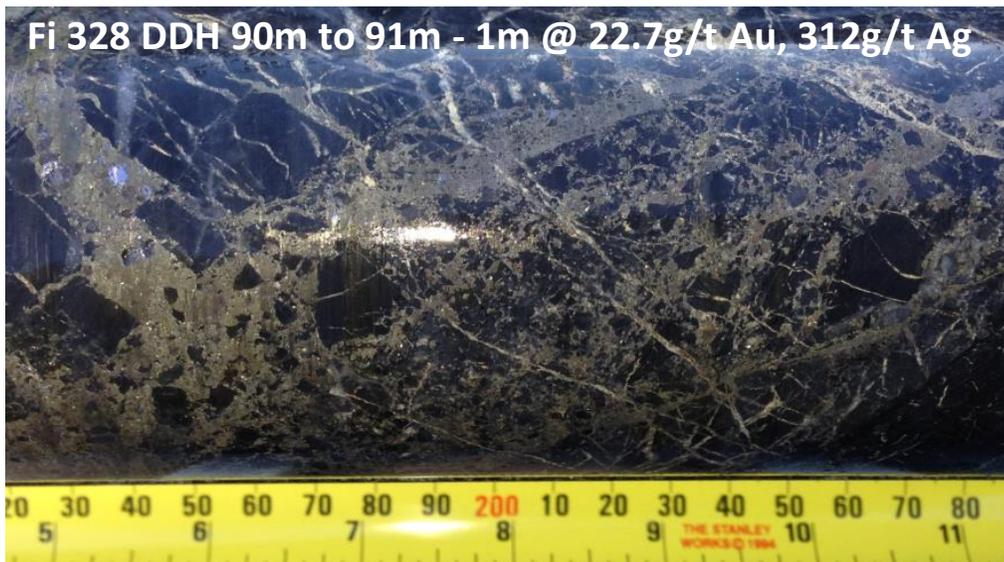
“receptive horizon” in Fi 325

Hole Fi 329 to 502m

# *Sorpresa* – What is it?



Fi 328 DDH 90m to 91m - 1m @ 22.7g/t Au, 312g/t Ag

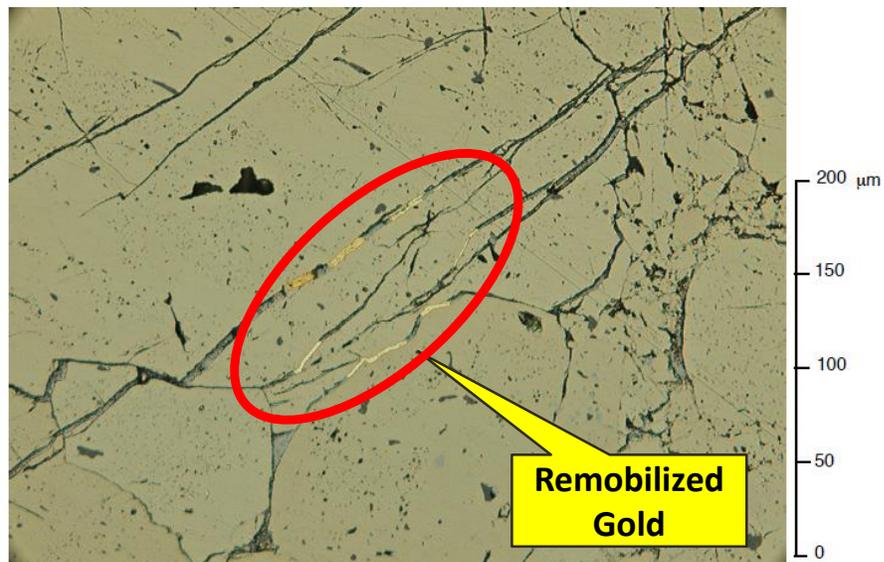
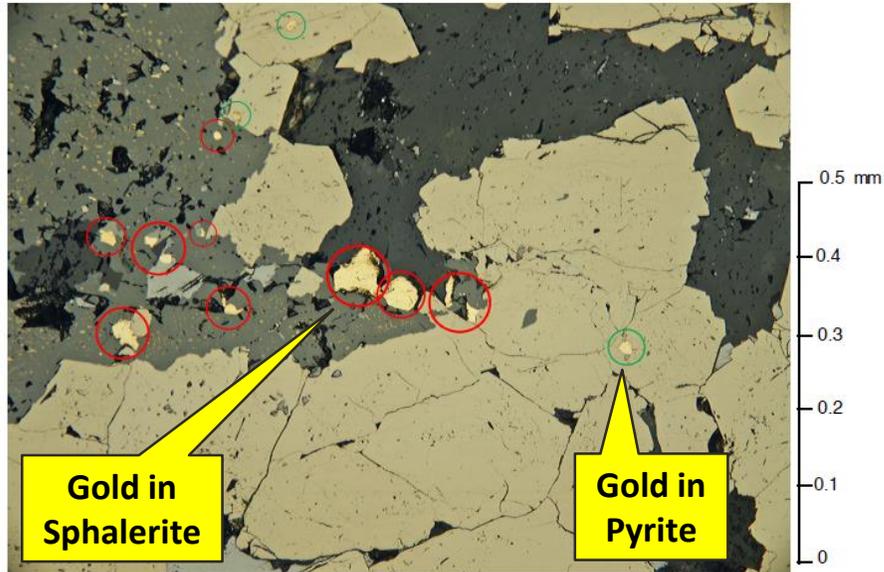


- ❑ Variably East dipping, gently folded, variably plunging mineralized plane;
- ❑ Comprised of carbonaceous shale and chalcedonic silica. Sheared and **brecciated** with free gold and gold in sulphides
- ❑ Sulphide mineralisation hosting gold and silver comprise:

*Pyrite = arsenopyrite > sphalerite > galena >> tennantite – tetrahedrite > chalcopyrite and native gold.*

- ❑ Mineralisation is best developed below a quartz felspar porphyritic sill complex, itself gently folded, and strongly altered.
- ❑ Healed Listric / thrust fault zone with important cross cutting faults

# *Sorpresa – What is it?*

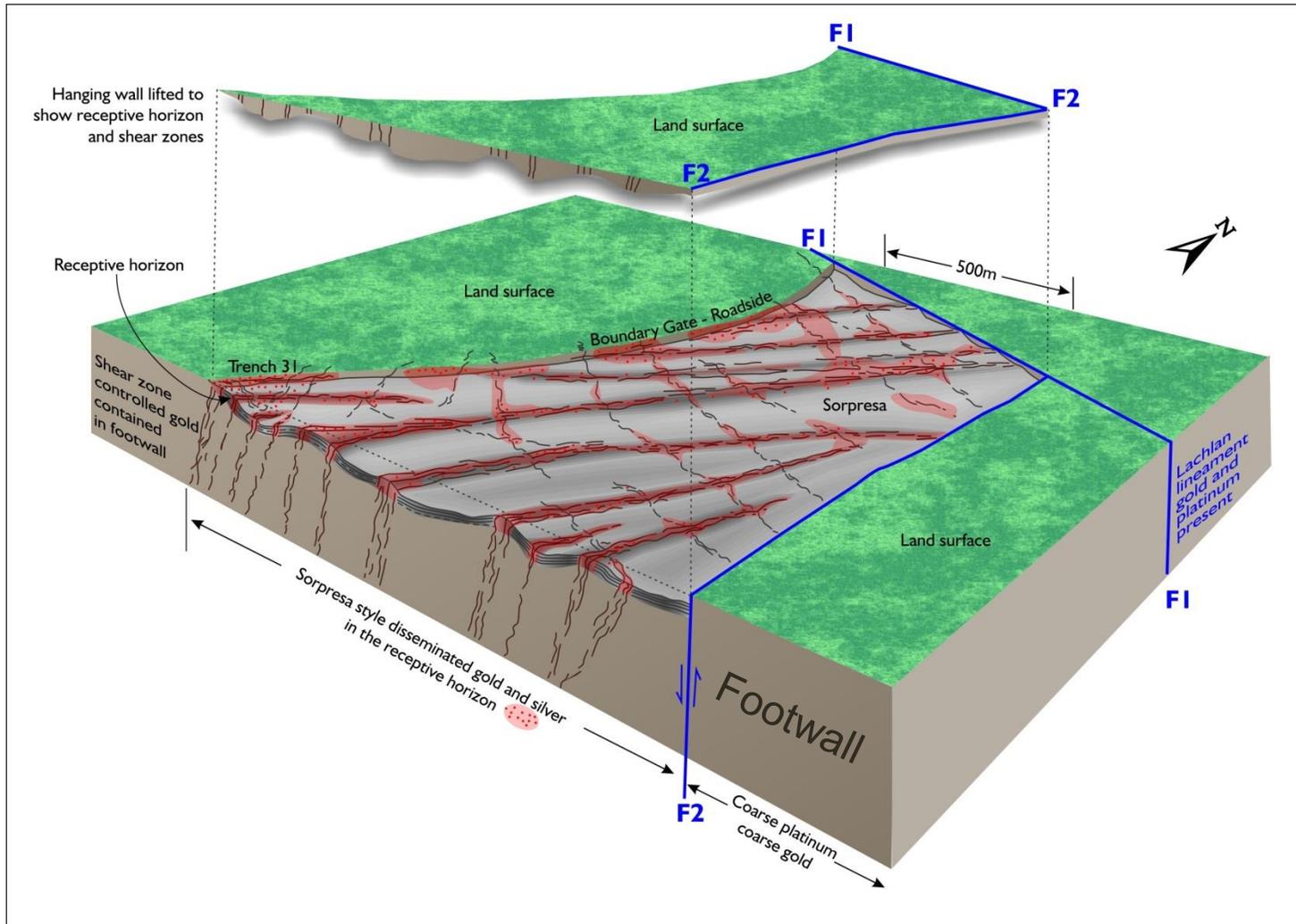


- Native Gold formed as ~2 – 50µm grains, moderately high fineness (i.e. Au > Ag)
- Most **Gold** occurs as free grains. In silver dominant zones gold occurs as inclusions in sulphides, such as sphalerite and pyrite
- Silver** occurs in Galena and Tennantite – Tetrahedrite.
- Mineralisation has a low temperature of formation indicating an Epithermal Setting.

## *Carbonate Base Metal Epithermal Au/Ag*

- Related to altered quartz porphyry of non defined age, but younger than Pt bearing intrusions
- Hosted in Ordovician carbonaceous sediments
- Age date(s) awaits determination for the mineralisation & porphyry

# Black Silica Geology Association Model Development

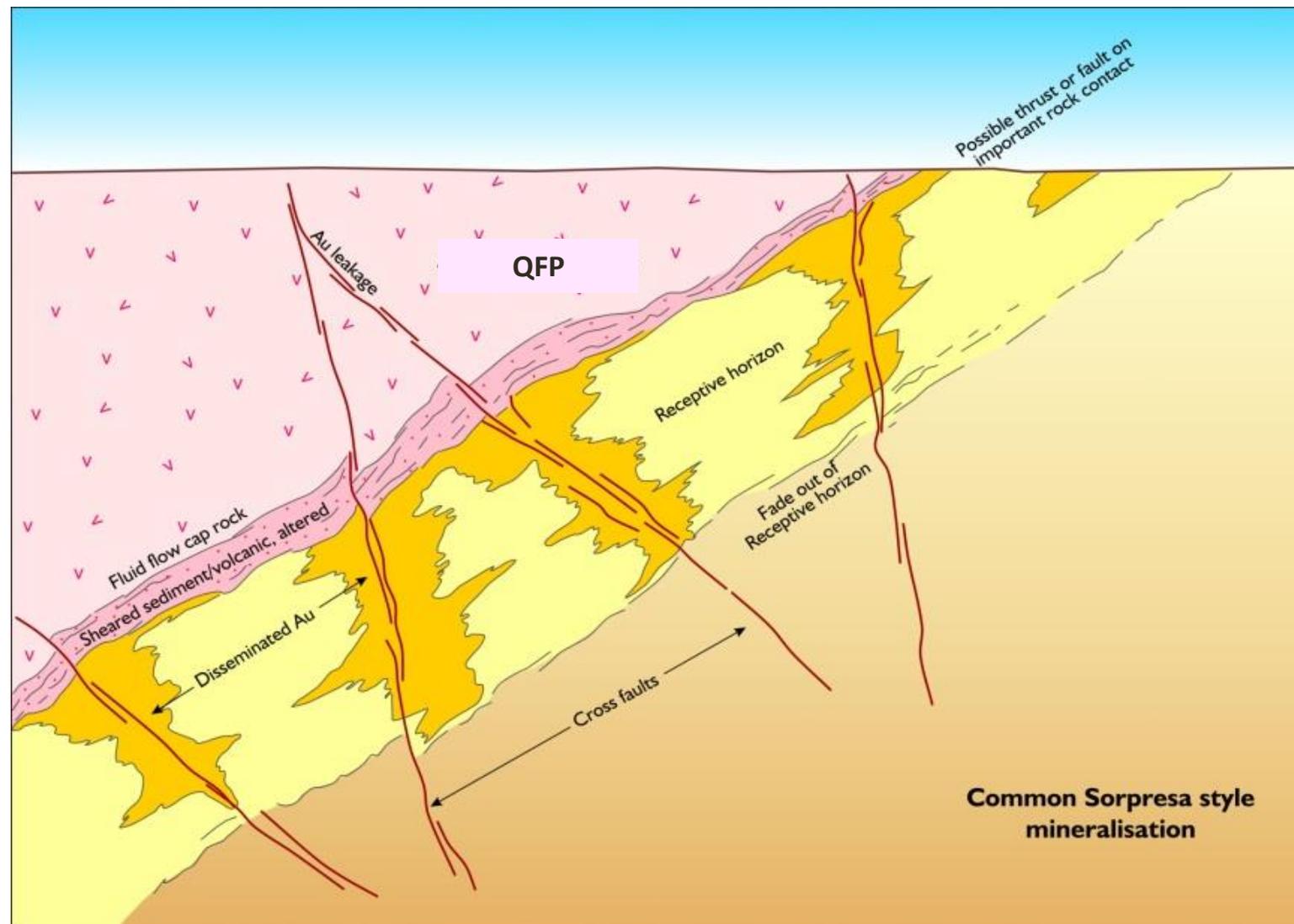


- ❑ Au receptive horizon
- ❑ Black Silica
  - ❑ 10~30m thick
- ❑ Shear zone control
- ❑ Intersecting shears important
- ❑ Lens-like 3D geometry



# Model Cross Sections

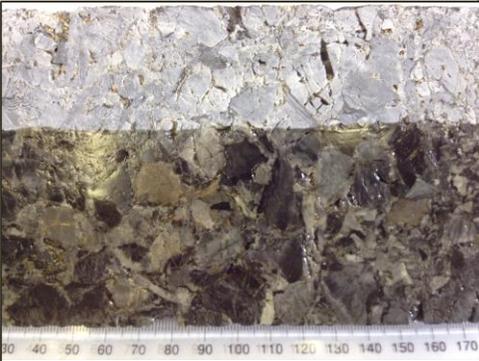
- ❑ Trench 31 Example
- ❑ Au receptive horizon
  - ❑ 10–30m thick
- ❑ Black Silica
- ❑ QFP Capping Rock
- ❑ Shear zone control
- ❑ Intersecting shears important
- ❑ Pod-like 3D geometry



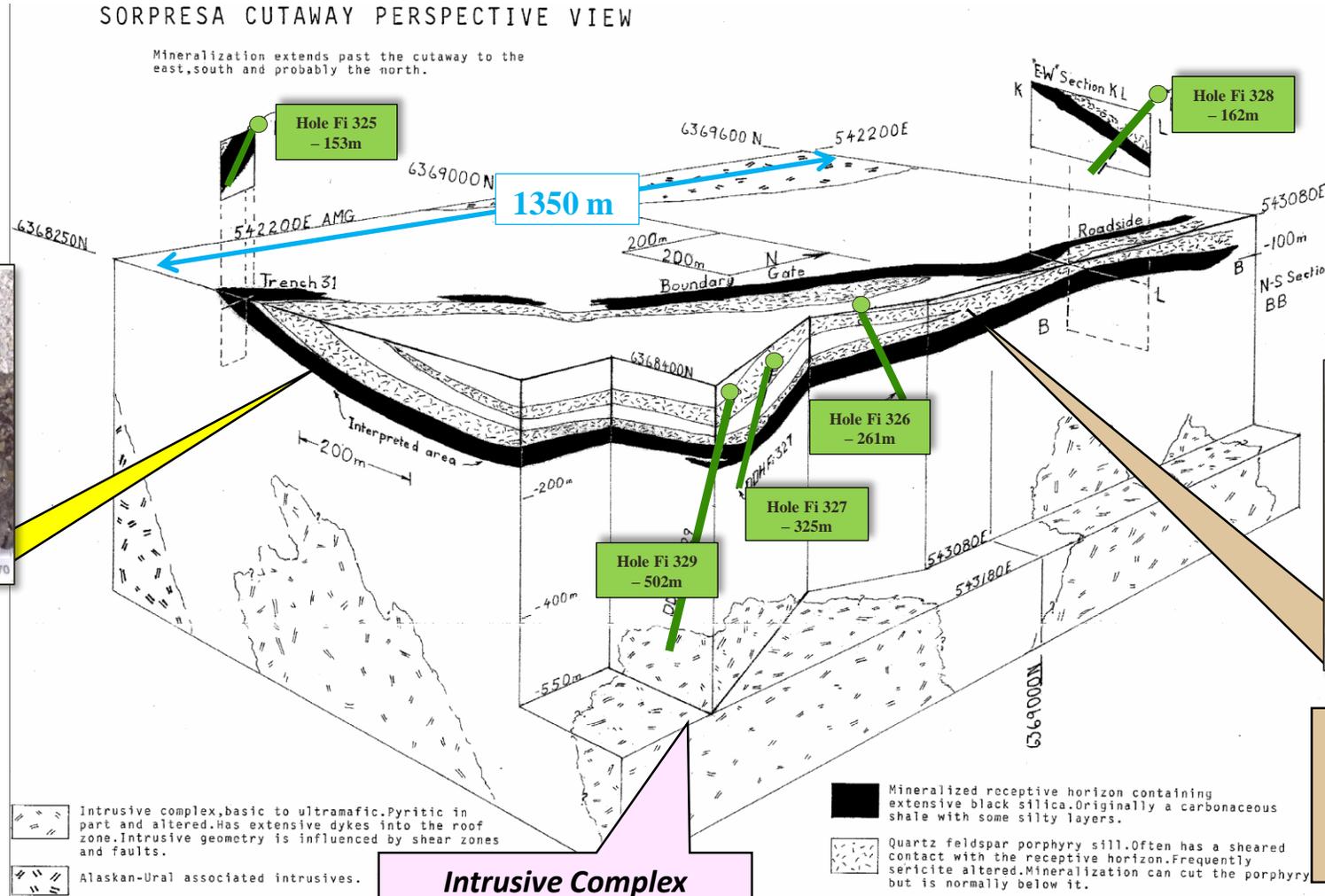
# Diamond Drilling - Shape and Continuity

## SORPRESA CUTAWAY PERSPECTIVE VIEW

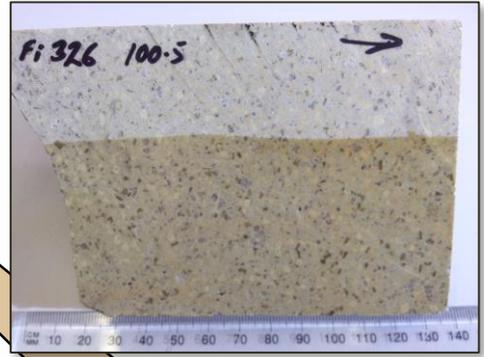
Mineralization extends past the cutaway to the east, south and probably the north.



**Gold and Silver  
Carbonaceous,  
Silicified  
Mineralized horizon**

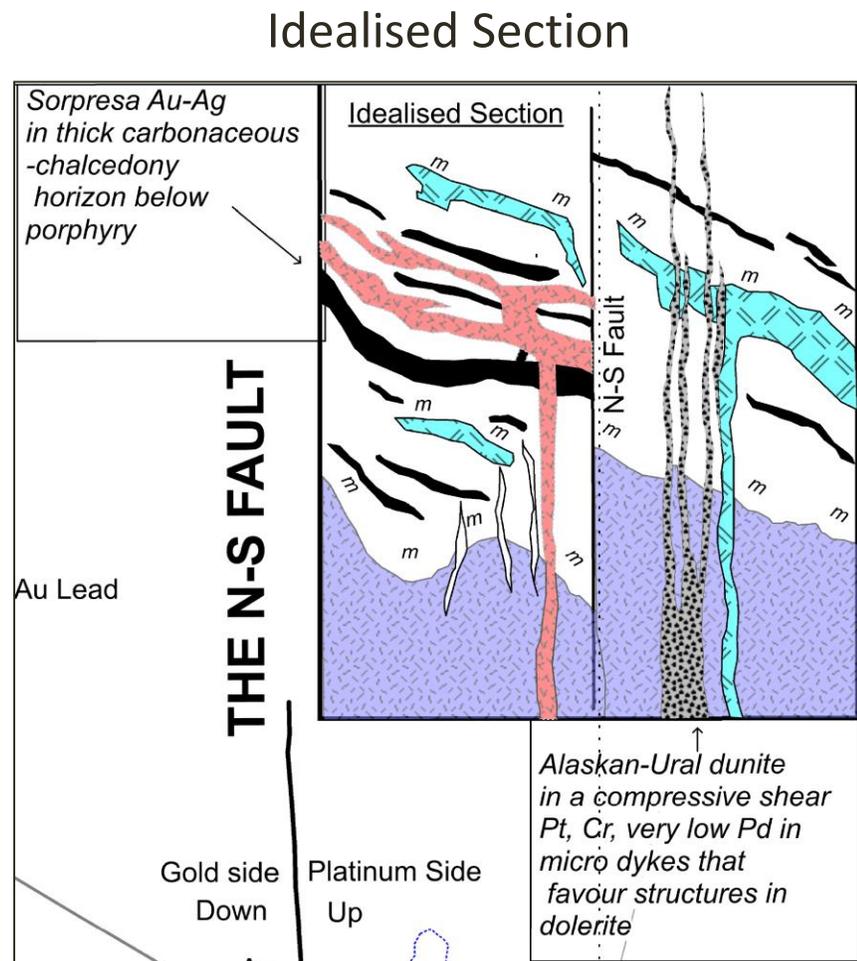
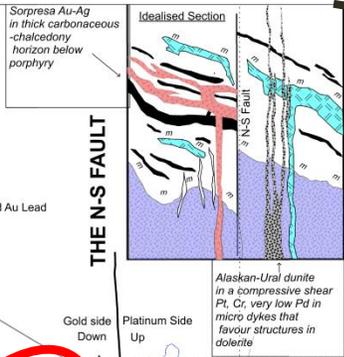
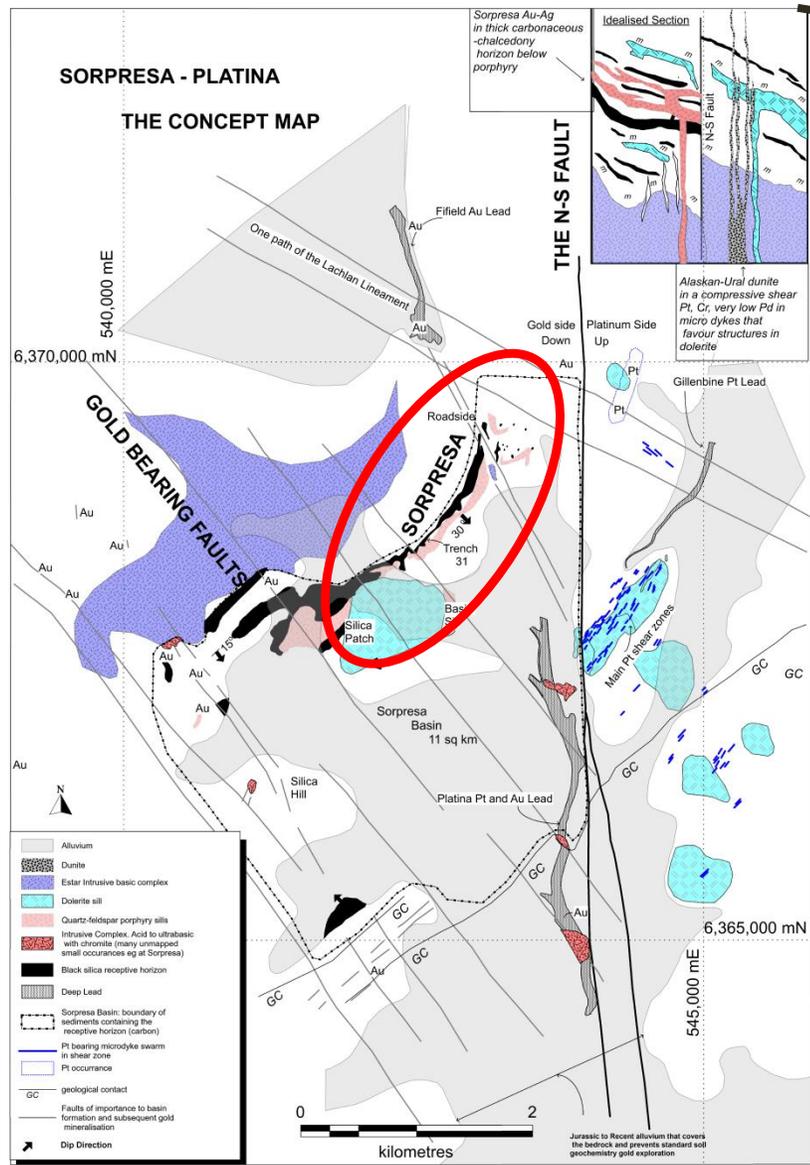


**Intrusive Complex  
Mafic-UM  
pyroxene hornblendite  
Pyritic and altered**



**QFP Sill  
Sericite altered  
Sheared contact with  
receptive horizon**

# Sorpresa - Concept Map (2016)



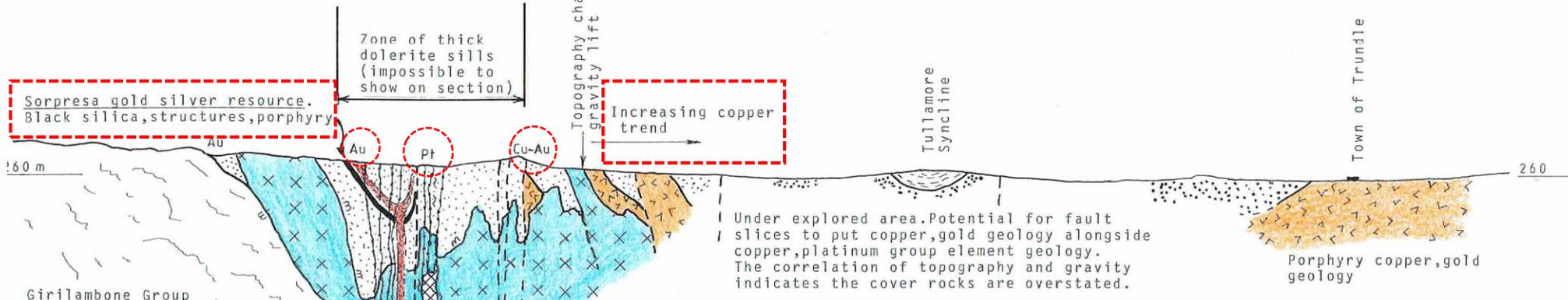
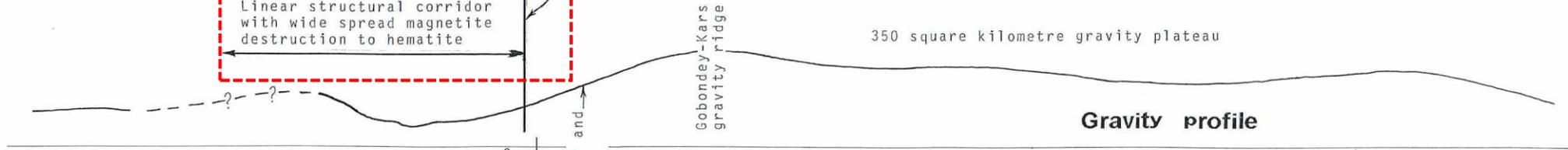
□ Porphyry conduits provide sills above receptive horizon

Girilambone Group  
Girilambone Terrane

The Tullamore Suture as mapped by Rimfire. This is close to the Geol Survey position referred to as the "Cryptic Tullamore Suture" or the "east branch of the Gilmore Suture"

Linear structural corridor with wide spread magnetite destruction to hematite

The Upper Ordovician magmatic arc rocks. (Best known for their hosting of porphyry copper, gold deposits). Exposures of these rocks are limited as younger sediments and volcanics overlay them. The western extent is guided by Geol Survey mapping



**Diagrammatic geological section**

0 5  
Horizontal scale 5 kilometres

Vertical scale  
Surface topography 50 m

Diagrammatic Geology contains unspecified vertical exaggeration

Porphyry dykes and sills

Productive Pt, Platina.

Alaskan-Ural Pt low Pd.

Dunite dyke swarm in compressive shear zone

High grade copper, gold structurally controlled

Deep rooted, mantle tapping faults associated with the Tullamore Suture

- Metamorphic contact
- Fault
- Dykes
- Derriwong Group Silurian-Devonian siltstone, sandstone conglomerate and volcanics.
- Un named host rock to Sorpresa. Silstone, sandy siltstone carbonaceous shale, possible chert, varied volcanics and volcanoclastics. Commonly shallow dipping. Interpreted to be sediments and volcanics in a rift basin that is structurally associated with the Tullamore Suture.
- Upper Ordovician magmatic arc rocks
- Intrusives**
- Mafic to ultramafic intrusives commonly ascribed to an Alaskan-Ural style. Probably multiple mantle derived intrusives spanning the Upper Ordovician to Silurian period, not necessarily all Alaskan-Ural style.
- Inferred dunite parent to a Pt bearing dyke swarm with associated breccia pipes. Classical low Pd coarse Pt that has been the source rock for the Pt, Au Platina Deep Lead

# *Key Success Factors for our Exploration*

- ❑ People – Team - World Class prospector – backed by management
  - ❑ Curiosity, tenacity, strong motivation
  - ❑ Discovery champion and ownership (more than a project manager)
- ❑ Instinct to keep going when it is tough – “There’s more to this”
  - ❑ Delicate balance, not a science project. Choices.
  - ❑ Outside referees of high quality – rigorous review – deep thinking
- ❑ Low level techniques as a first pass, multiple data types
  - ❑ Mapping, regolith assessment, air photo reviews and archives
  - ❑ Soils, augers, trenching
  - ❑ Tune the areas with quick coverage, panning and microscope
- ❑ Adaptive and Innovative approach with inhouse capability
  - ❑ Continuity of knowledge development critical, sign posts easily lost
  - ❑ Inhouse rapid deployment through on site gear, use of XRF, diamond sludge

# **Key Success Factors for our Exploration**

- ❑ Follow the data – even if the model concepts do not fit
  - ❑ Be adaptive to the facts
  - ❑ Sorpresa is still an emerging understanding
- ❑ Courage to test! Diamond Program 2013
- ❑ Permanent Base in the district - Freehold
  - ❑ Part of the community, providing opportunity, not visitors
  - ❑ Fully equipped (auger, RC drill, backhoe, loader etc.)
- ❑ Manage Costs – Inground Spend/Head Office
  - ❑ Tune targets before expensive testing
  - ❑ Balance between coverage time and costs (overheads keep ticking)
- ❑ Strong field based work ethic and persistence
  - ❑ The harder you work in the field the luckier you get



# *Case Study Roadside – Real Time Adaptation*

- ❑ Sorpresa - Roadside area 300m north expansion in 5 days
- ❑ No laboratory assays, used XRF and Panning
- ❑ 0.5m subcrop exposure of gossan
  - ❑ IP near surface?
- ❑ Soil grid XRF Pb, As
- ❑ Auger traverse on best Pb
- ❑ RC Drilling – 6/6 intersections
  - ❑ confirmed with XRF, panning, binocular
- ❑ Large rig completed down dip drilling



# *Relationship with Department – better outcomes*

## Compliance Audit purely another layer of redtape?

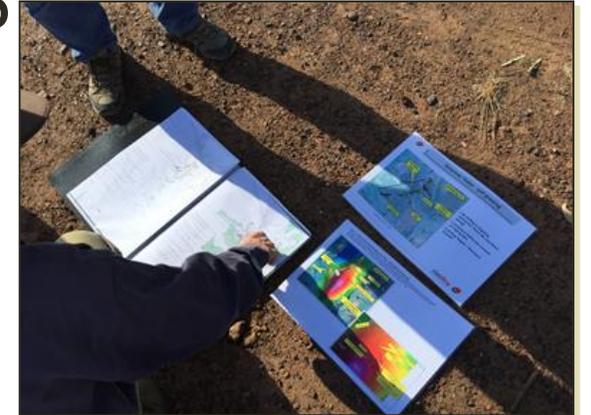
- Useful engagement process
- Passed with flying colours (and made requests for some changes)

## Rimfire Built credibility and systems in core areas

- Licence Compliance
- Environmental
- Safety
- Community

## Demonstrate and discuss sensible flexibility needs

- Adaptive exploration critical for cost effective and timely outcomes
- Reduce unnecessary record keeping for both





# Permits for Drilling getting tougher, but...

Pre 2010	2010 to 2013	2014 to 2016	2016	2017
General area only needed	Indicative holes in general area	Specific collars, 10m movement allowed, poor adaptability,	Audits, Licence Compliance, Enviro Permits, Community	<b>Rimfire submission as part of Audit “more flexibility please”</b>
Photo on Rehab only	Photo pre, post and monitoring	Photo for each specific drill site	Rimfire flagged “inflexibility” for sensible adaptation a problem	<b>Risk Based approach adopted, example photos required only</b>
	Site Inspection, moved to generic photo points for high impact	New permit if want to add holes or change holes, new photos	Changes agreed by Dept . Polygonal approval RC drilling, less specific	<b>Rimfire maintains logs &amp; conducts internal audit, risk based</b>
				<b>Ambit permit now provided for auger and aircore for low impact areas</b>

*Discussion and great practical outcome based on mutual recognition >*

# *The approach to the New Gold partnership*

- ❑ Aggregated 4 million ounce gold equivalent outcome goal
  - ❑ 10 year mine life, lower third of costs
- ❑ The New Gold and Rimfire combined exploration approaches are complimentary
  - ❑ Big picture architecture
  - ❑ Nimble focused prospecting
  - ❑ Multiple concepts
- ❑ Maximise the discovery potential



# Partnership benefits to Rimfire – No downside

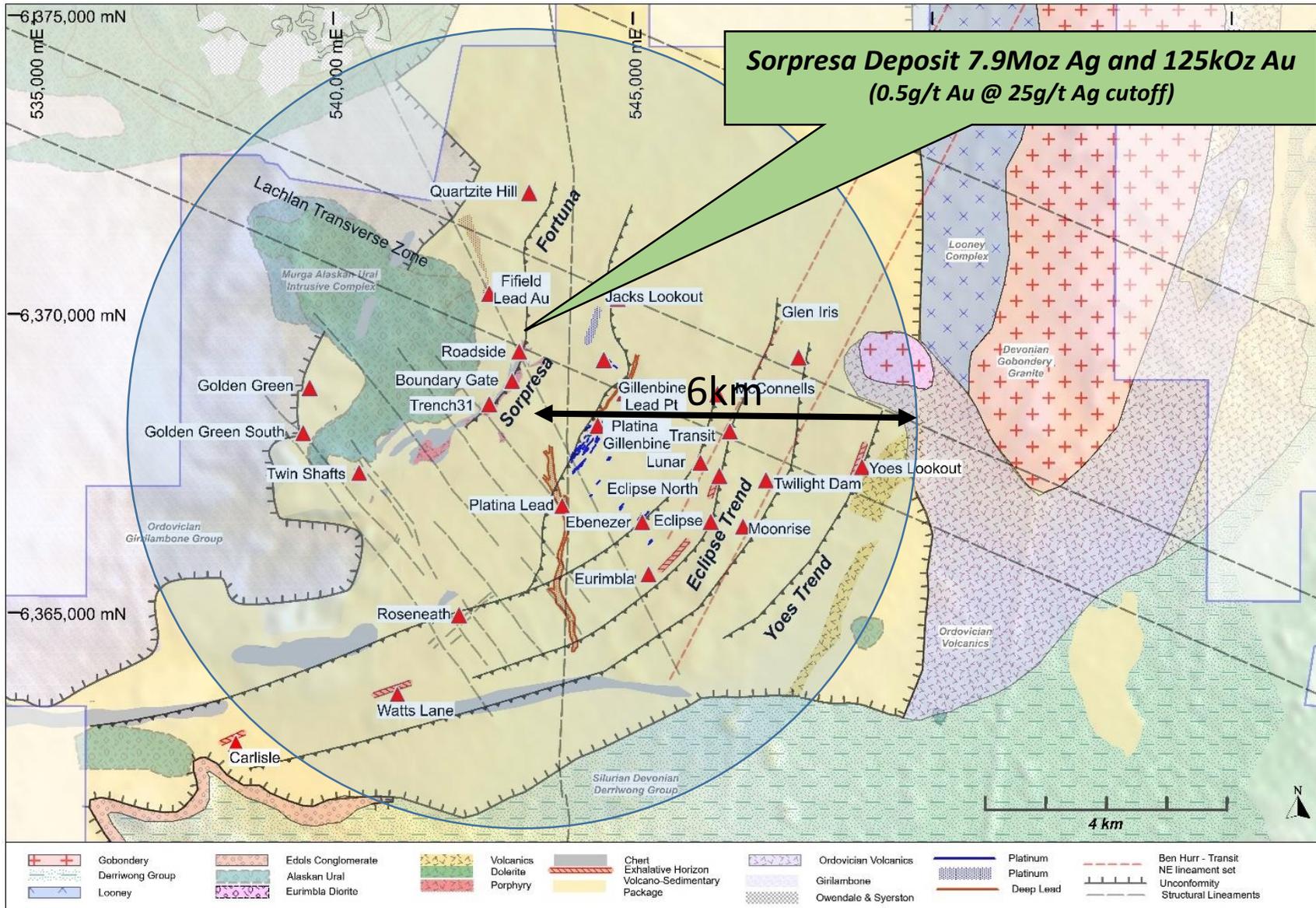
- ❑ *Excellent culture and people at New Gold Inc. – genuine partnership, collaborative*
- ❑ *New Gold association creates greater awareness and branding for Fifield area and Rimfire*
  - ❑ *Knowledge in relevant styles of mineralisation*
  - ❑ *Discovery capability – looking for “World Class Orebodies”*
  - ❑ *Development expertise*
  - ❑ *International network*
  - ❑ *NSW experience*
- ❑ *Equity investment \$0.5m plus \$2m minimum spend in first year*
  - ❑ *Benchmarks highly*
- ❑ *If less than \$7m spend in 3 years – no interest earned*
  - ❑ *Rimfire retain 100% of project area*
  - ❑ *Can pursue the Sorpresa area*
- ❑ *Rimfire has direct spending control of 15% of the first A\$7 million funded by New Gold*
  - ❑ *Direction into the project area*
  - ❑ *News flow participation*
- ❑ *Rimfire can spend additional \$3m on its own account as a credit to the project area*



- ❑ The detailed airborne magnetics & radiometric survey completed
  - ❑ Data interpretation is ongoing
  - ❑ Important contribution to geology framework and discovery targeting
- ❑ Major regional geochemistry (144km<sup>2</sup>) drilling with mapping
  - ❑ 250m holes space, 1km lines spaced (Aircore/Auger)
  - ❑ The objective to advance the understanding of the broader area
- ❑ Alteration chemistry review on existing and new sampling
  - ❑ Any insights on new vectors
- ❑ Geology assembly and data gap analysis – iterative
- ❑ Priority targets for testing DDH and RC Drilling

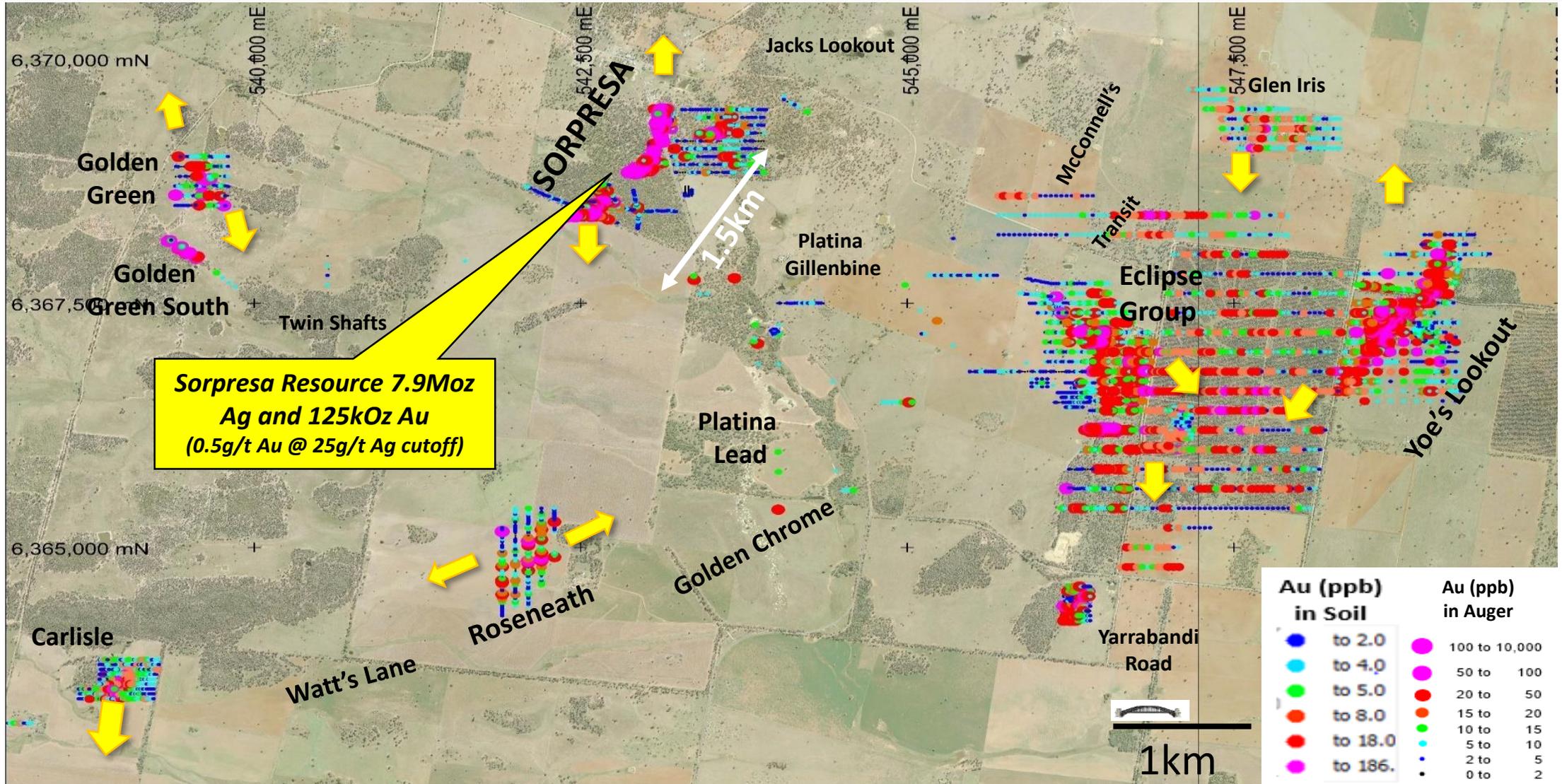
- ❑ More than 13 priority areas identified by Rimfire for prospecting assessment
  - ❑ Mapping, geomorphology, sampling and concept advancement
  - ❑ Possible extension of neighbouring mineralisation “Tout Intrusive - CleanTEQ”
  - ❑ New concepts for gold emerging
- ❑ First 4 target areas due for testing (incl. Sorpresa Corridor)
  - ❑ Transit, Southern Gravity, Alteration target, Northern anomalies
- ❑ Drilling completed within the Sorpresa resource
  - ❑ The objective to advance the understanding of these areas - orientation of higher grades
  - ❑ Remodel, assess
  - ❑ Metallurgy (gravity) completion

# Regional Exploration – within 6km radius



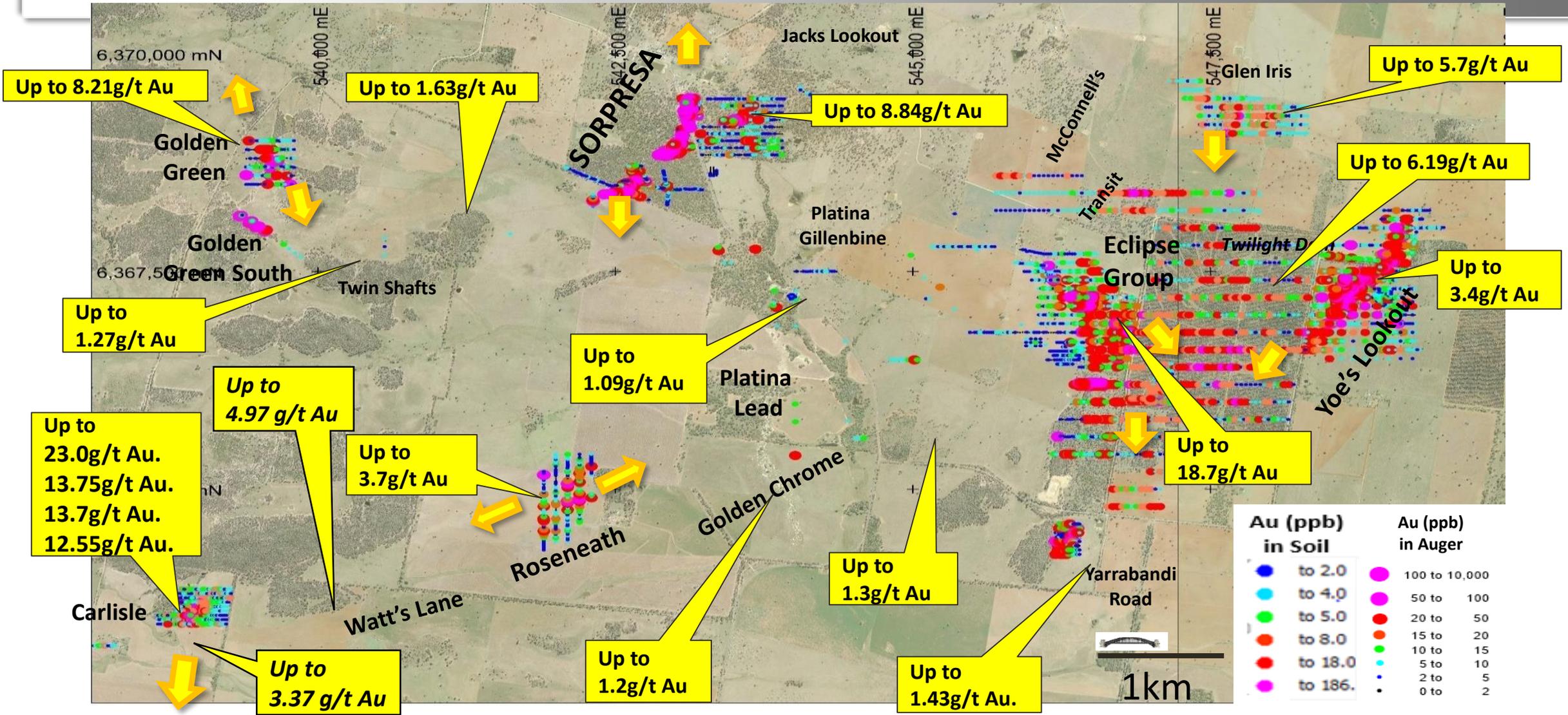
- New prospects
- More insights developing
- Sorpresa Corridor
- Copper Signature
- Regional Geochemistry
- Potential for large discoveries
- Sorpresa the first, not the last

# Regional Exploration - Auger & Soils (2015)



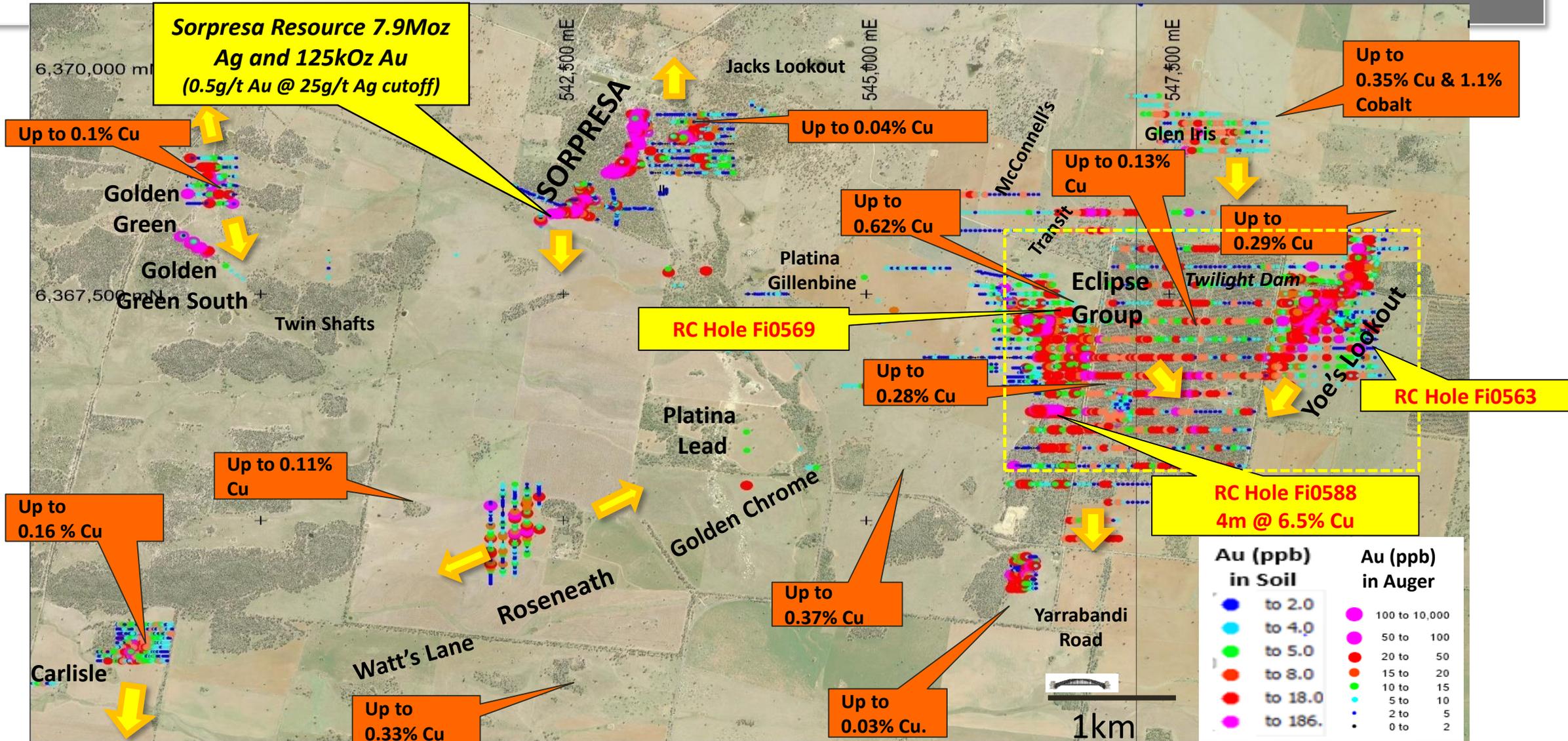
Gold geochemistry in Auger and Soils

# Regional Gold Footprint – Rock Chips Shown



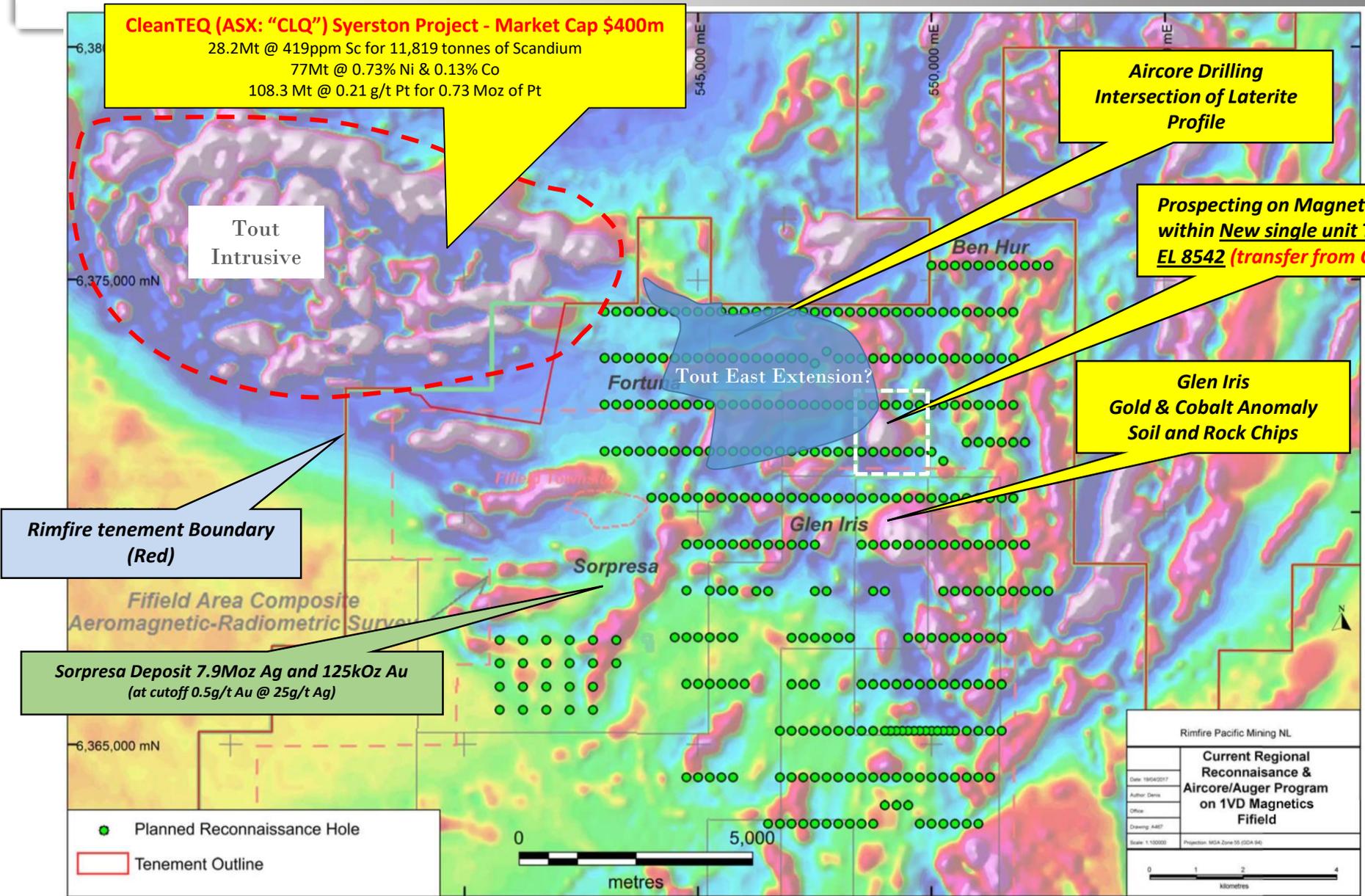
*A gold district has emerged*

# Regional Exploration - Copper Rockchips on Gold

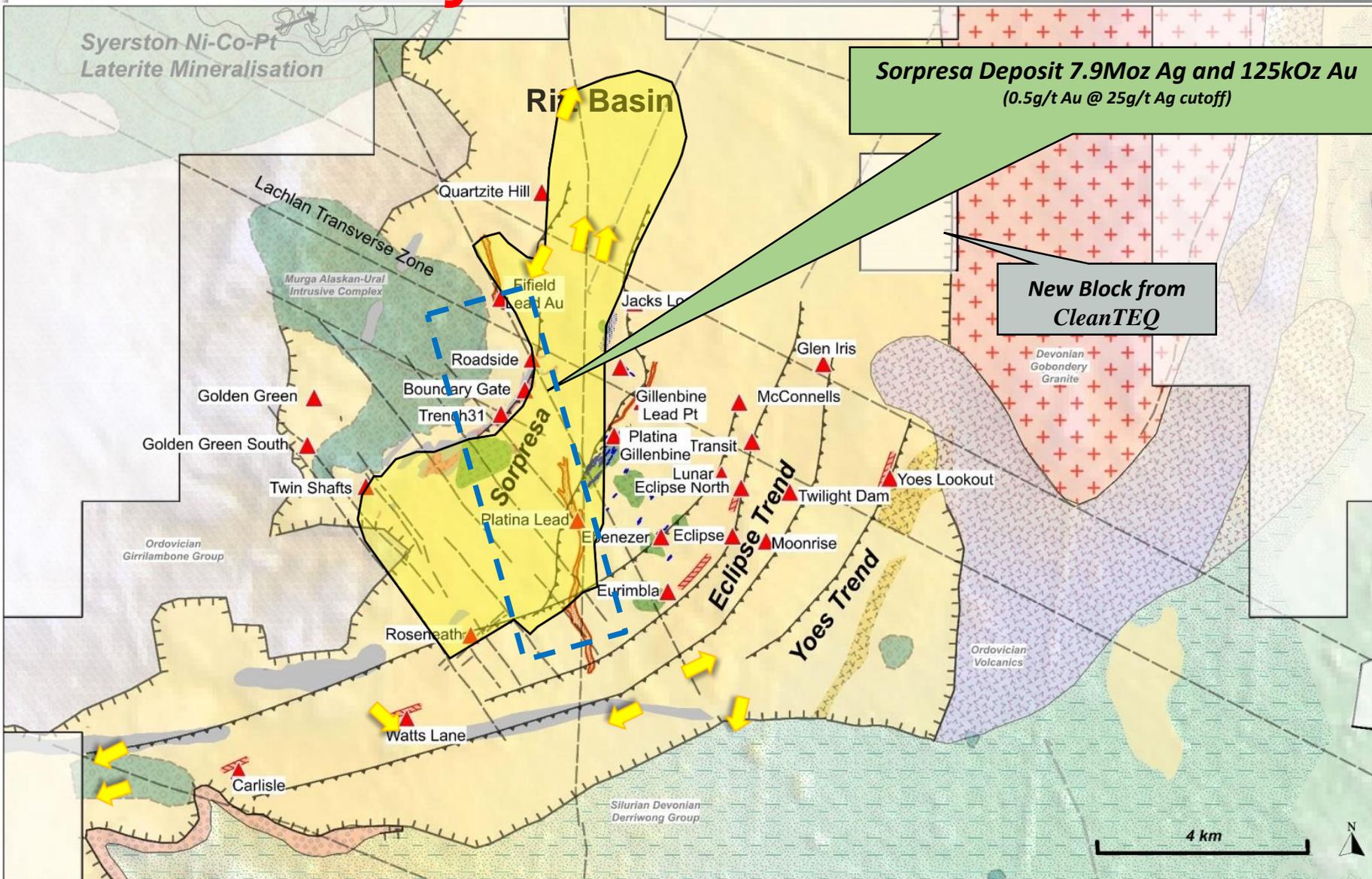


**A gold and copper district has emerged!**

# Expand Regional Geochemistry – Aircore/Auger



# Discovery Growth - 2016~17



**Sorpresa Deposit 7.9Moz Ag and 125kOz Au**  
(0.5g/t Au @ 25g/t Ag cutoff)

**New Block from CleanTEQ**



Sorpresa style geology with Au potential

Expanded from 11km<sup>2</sup> to 18km<sup>2</sup>

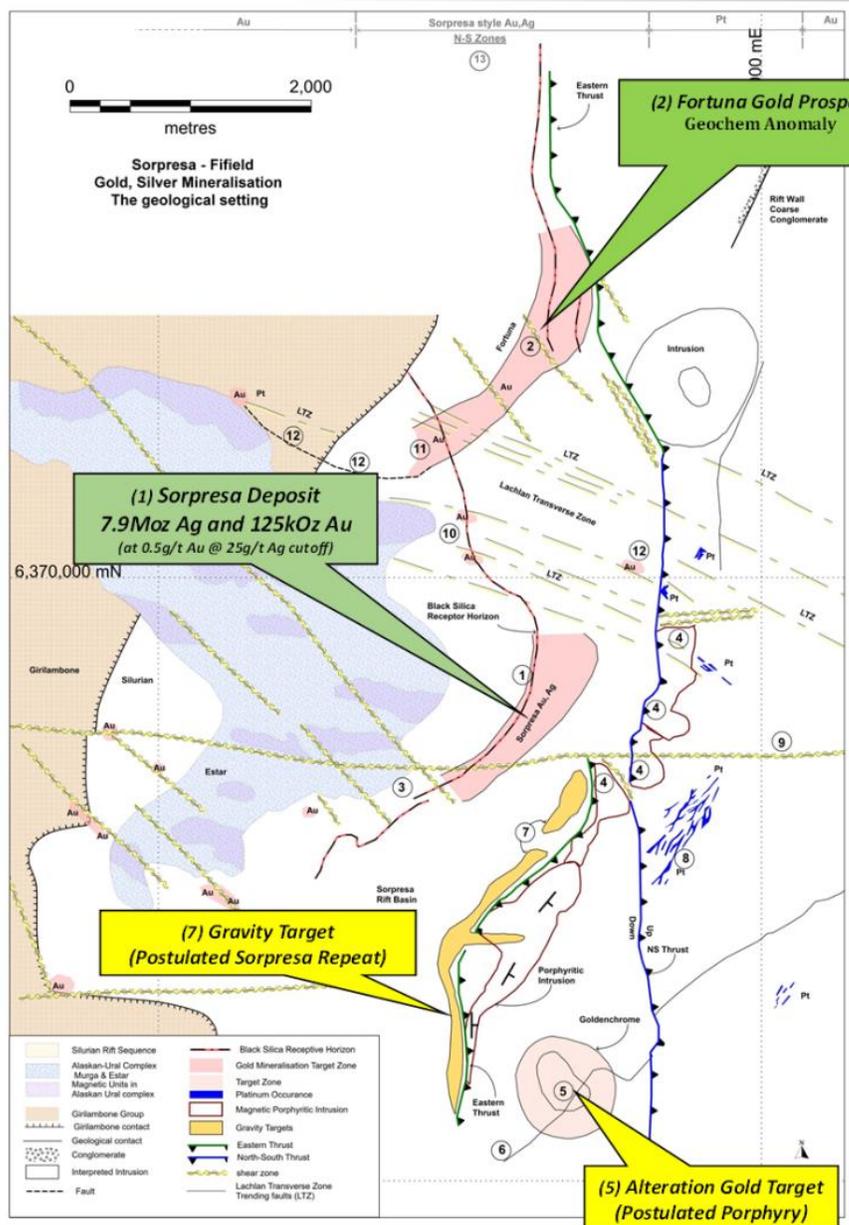


Gravity Survey – drill targets for repeats of Sorpresa Au & Ag

⇒ Discovery Growth

	Gobondery Granite		Edols Conglomerate		Volcanics Dolerite Porphyry		Chert Exhalative Horizon Volcano-Sedimentary Package		Ordovician Volcanics Gorrilambone Group		Platinum Shears Platinum Deep Lead		Structural Lineaments Inferred Thrust Faults
	Derriwong Group		Alaskan Ural Complex Eurimbla Diorite										Unconformity

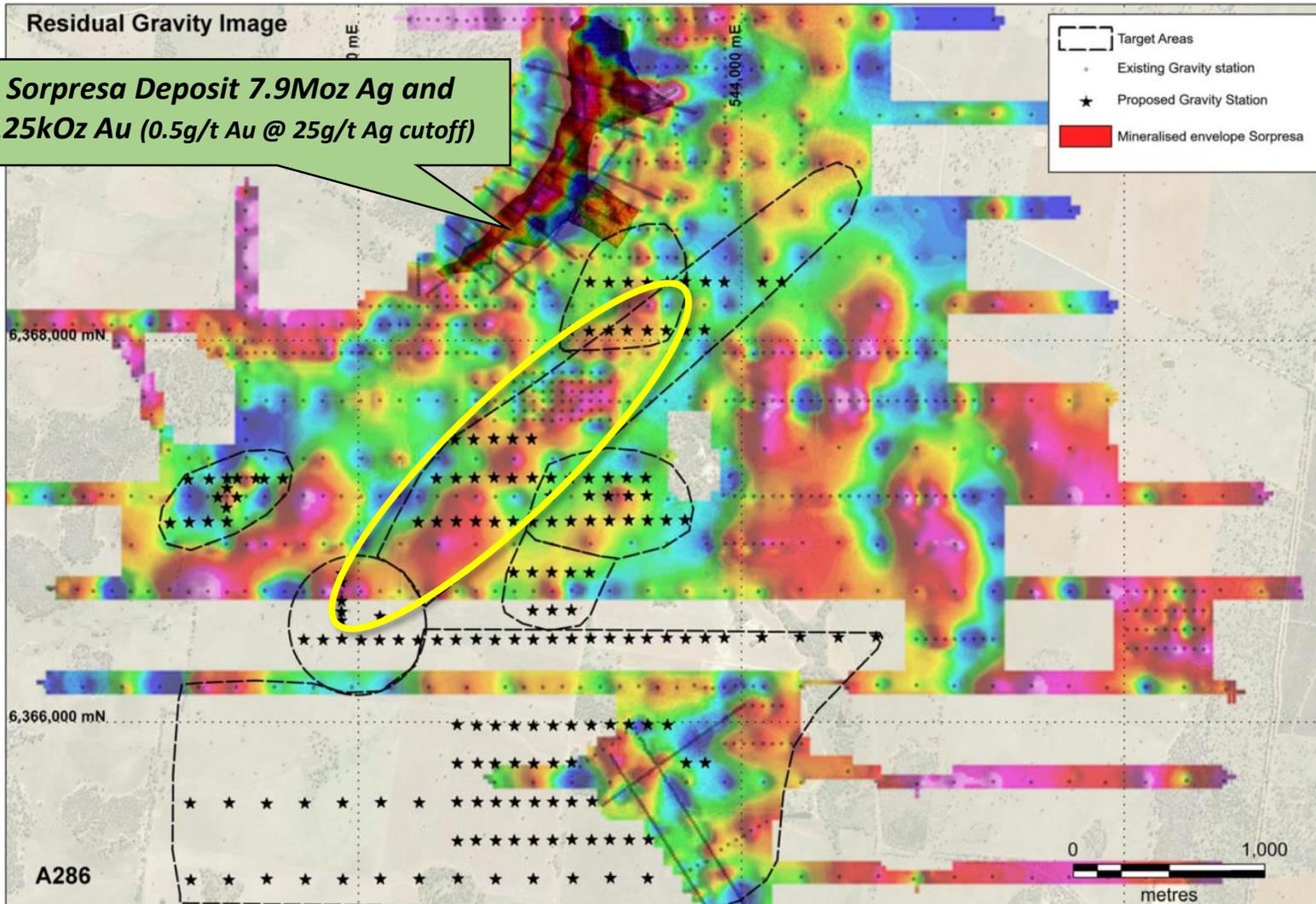
# Discovery Growth – Sorpresa Corridor



- ❑ Sorpresa “is proof of Concept” for Au potential
- ❑ Corridor 7km x 2km, North – South Orientation
  - ❑ 13 prospective target areas
- ❑ **Fortuna Prospect (2)** stronger order geochem
- ❑ **Gravity Repeat (7)**, Sorpresa style under cover?
- ❑ Intense Alteration zone **Gold Porphyry target (5)**
  - ❑ Multiple porphyry parents likely in district
- ❑ Fertile corridor more to yield

➔ **Discovery Growth**

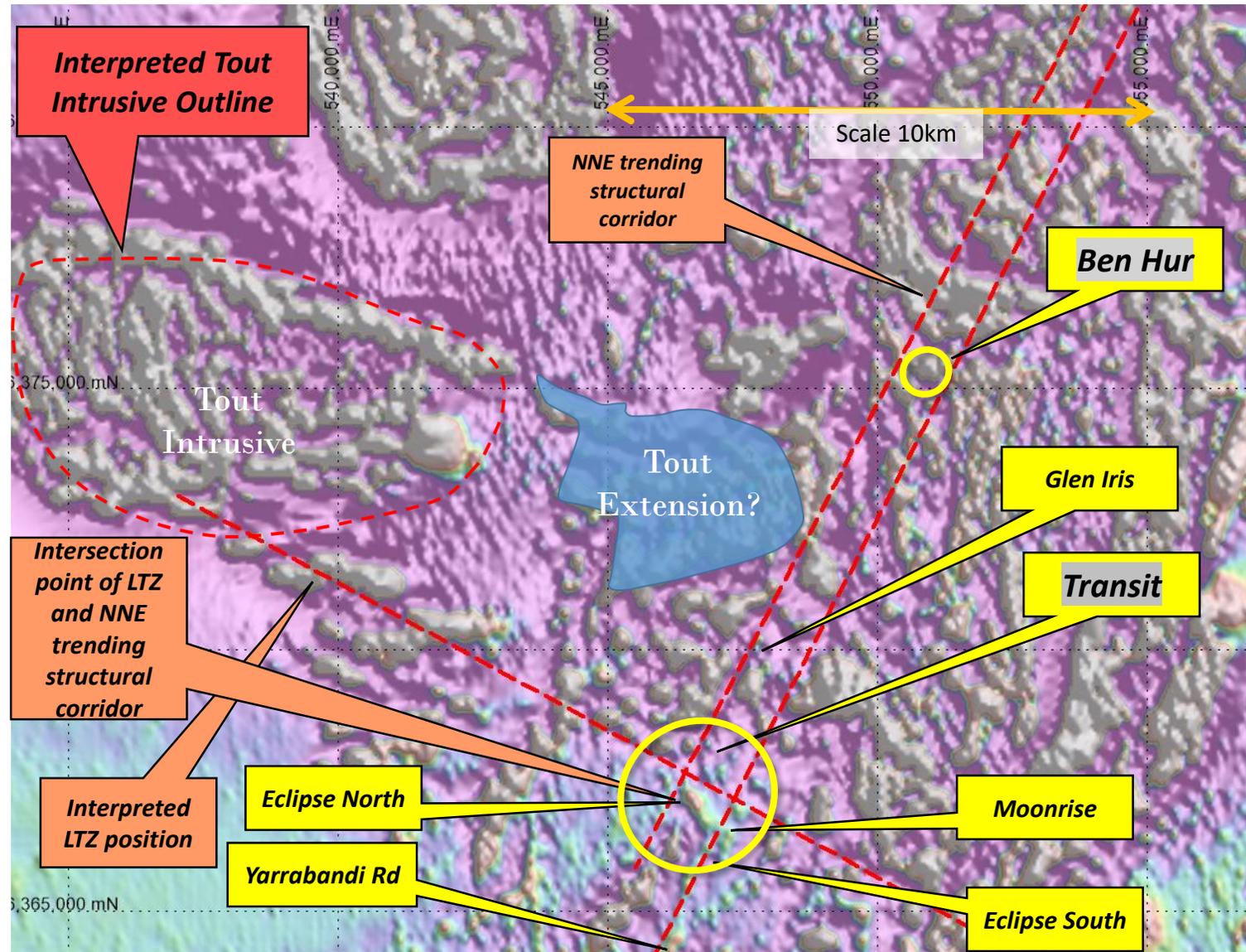
# Sorpresa – Gravity Survey Extension & Infill



- ❑ Excellent correlation of Mineralisation to Gravity
- ❑ Increased gravity relates to silicification
- ❑ Major 2km long, Subparallel target on a magnetic contact position
- ❑ Oblique RC drilling traverses proposed across Sorpresa basin (up to 250m depths)

# Interpreted structures to major prospects on 1VD magnetic image

- ❑ Interpreted NNE trending 15km structural corridor
- ❑ Many prospects associated with the Eclipse Trend occur directly on these interpreted structures
- ❑ The major mineralised zone occurs where the LTZ regional structure crosses the NNE trending structural corridor
- ❑ Eclipse North could represent a possible dilational jog
- ❑ Possible Tout Intrusive extension (red outline)



# *Sorpresa the first but not the last*

- ❑ Sorpresa was found as a subtle geochemistry expression
  - ❑ Less than 10% of 18km<sup>2</sup> known geology drill tested
- ❑ Missed for 130 years, walked over by the platinum miners
- ❑ The Fifield context looks compelling for more discoveries
  - ❑ Multiple deposit styles and metals
  - ❑ Complex interwoven geology
  - ❑ Deep structures, cross cutting faults
- ❑ A strong partnership with New Gold
  - ❑ To help deliver the area potential



 *Please stay tuned for updates at Fifield*



*Thank you*

ASX Code "RIM"

[www.rimfire.com.au](http://www.rimfire.com.au)

[rimfire@rimfire.com.au](mailto:rimfire@rimfire.com.au)

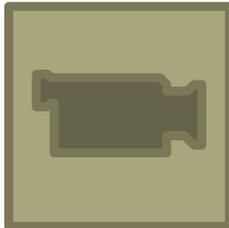
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- ❑ **Competent Person Statement:** *The information in this presentation that relates to Exploration Results is based on information compiled by Colin Plumridge who is deemed to be a Competent Person and Member of The Australasian Institute of Mining and Metallurgy. Mr Plumridge has over 45 years’ experience in the mineral and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. and is a consulting geologist to the Company. Colin Plumridge has sufficient experience that is relevant to the style of mineralization 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’. Colin Plumridge has previously consented to the inclusion of the matters based on his historic information in the form and context in which it appears.*
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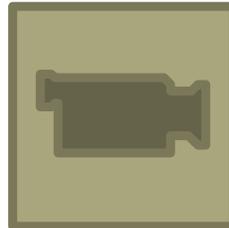
# **Appendix – Additional Information**

- ❑ **Independent Industry Benchmark studies on Junior Resource Sector available at Rimfire website**
  - ❑ **14<sup>th</sup> Nov 2014 – [Exploration Industry Presentation AGM Nov 2014 Mr Richard Schodde](#)**
  - ❑ **27<sup>th</sup> Nov 2015 - [Presentation Exploration Trends Richard Schodde AGM 2015](#)**
- ❑ Slides on Sorpresa Resource and Preliminary Metallurgy
- ❑ Project Summaries at Fifield
- ❑ Videos (below) on Historic Trench 31 discovery and Sorpresa 3D model (as at May 2014)

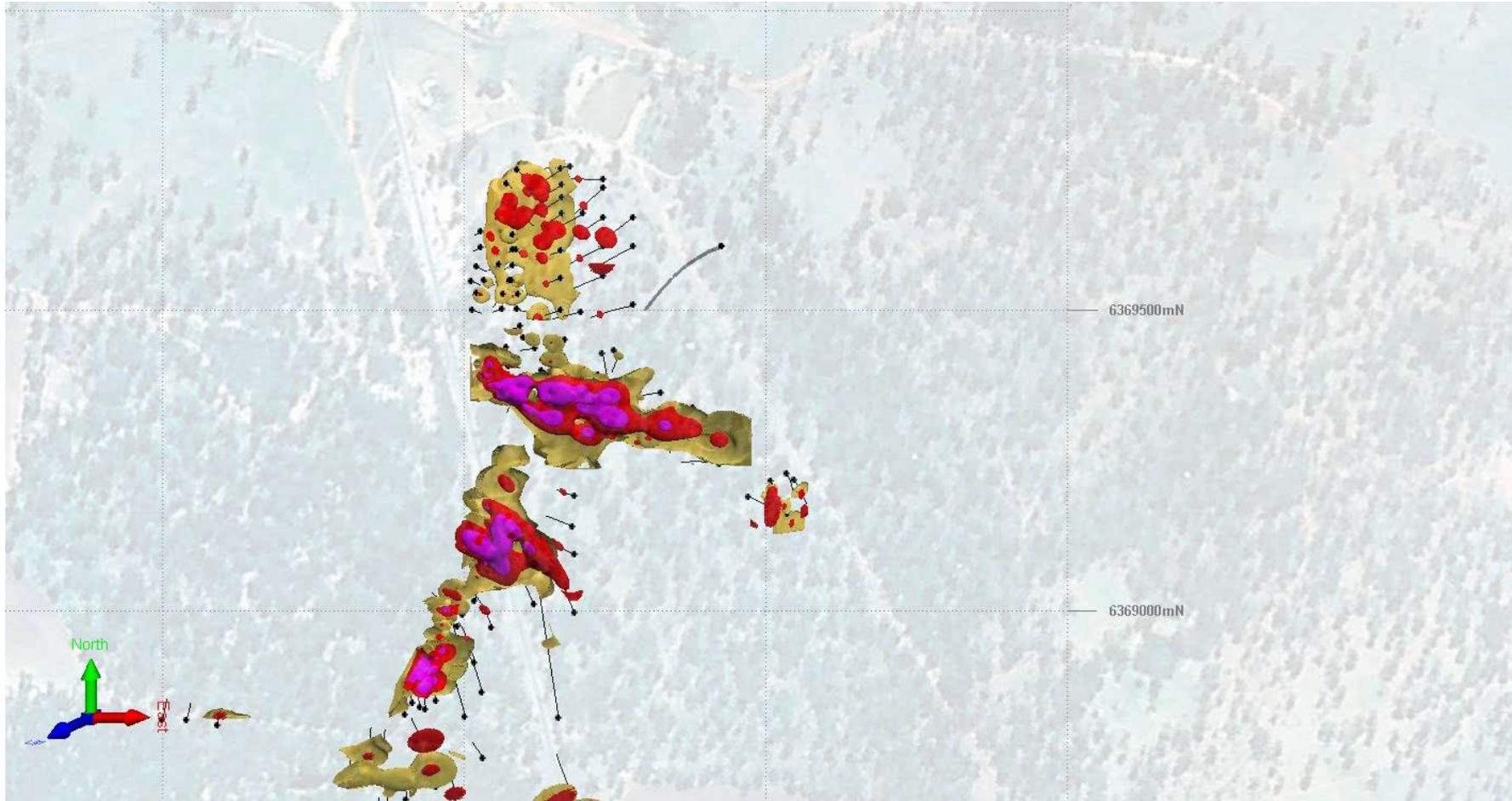
[Trench 31 Discovery  
2010 Video](#)



[Sorpresa 3D Model  
2014 Gold Video](#)



# 3D Exploration Model (Gold Only Shown)



***Sorpresa Implicit Model illustrating higher grade Gold mineralisation*** (*Implicit Model is an interpretive exploration model imaging (a) Gold: yellow >0.2g/t Au, red >0.5g/t Au, purple >2g/t Au*) – 500m grid lines

# Appendix-Sorpresa Maiden Resource

- ❑ *Maiden Inferred and Indicated Mineral Resource for the Sorpresa Deposit comprises;*
  - ❑ 6.4Mt for 125kOz of gold and 7.9Moz of silver (at 0.5g/t Au & 25g/t Ag cutoff)
- ❑ *The Gold dominant portion of the Sorpresa system represents;*
  - ❑ 3.0Mt @ 1.06g/t Au and 22g/t Ag for 103kOz Gold and 2.1MOz Silver (at 0.5g/t Au cutoff)
- ❑ *The Silver dominant portion of the Sorpresa system represents;*
  - ❑ 3.4Mt @ 54g/t Ag and 0.20g/t Au for 5.8MOz of silver and 22kOz Gold (at a 25g/t Ag cutoff)
- ❑ *Mineralization is continuous at higher cutoffs, at a 1.0g/t Au & 60g/t Ag cut off of;*
  - ❑ 1.9Mt @ 1.11g/t Au and 68g/t Ag for 68kOz Gold and 4.2Moz Silver
- ❑ *70% of gold ounces and 62% of the Silver ounces are within 100m from surface, with an initial metallurgy study (Dec 2013) suggesting up to 93% Au and 74% Ag recoveries*
- ❑ *An internal Sorpresa conceptual study will be undertaken, focusing on the oxide zone and higher grade lenses to assist the Company in determining the forward strategy*
- ❑ *Exploration of already defined Sorpresa extensional and satellites targets beyond the current resource boundaries, including to the east, south and west*

# Appendix-Sorpresa Maiden Resource

**Table 1: Sorpresa Mineral Resource estimate reported under JORC 2012**

Resource	Cut off	Category	Mt	Grade		Contained Metal	
				(g/t) Au	(g/t) Ag	Koz Au	Moz Ag
Gold	0.5 g/t Au	Indicated	2.0	1.14	27	73	1.7
		Inferred	1.0	0.9	12	29	0.4
		Total	3.0	1.06	22	103	2.1
Silver	25 g/t Ag	Indicated	2.1	0.21	62	14	4.2
		Inferred	1.2	0.19	40	7	1.6
		Total	3.4	0.20	54	22	5.8
Combined	0.5 g/t Au & 25 g/t Ag	Indicated	4.1	0.67	45	88	5.9
		Inferred	2.2	0.51	27	37	2.0
		Total	6.4	0.61	38	125	7.9

**Notes:**

- Sorpresa Mineral Resource reported to JORC 2012 standards, at 0.50 g/t Au and 25g/t Ag cut-off
- The figures in this table are rounded to reflect the precision of the estimates and include rounding errors.

# Appendix Sorpresa - Oxide Metallurgy - 2013

## ❑ 3 composite Oxide Zone Samples across Sorpresa

- ❑ 3 locations, 130m of mineralization, 30 drill holes
- ❑ Standard 24 hr CIL test at 75 micron

## ❑ Additional Test on Met1 - Silver Roadside\*

- ❑ 48 hour CIL, finer grind, improved recoveries
- ❑ Improved recoveries to 89.1% for gold and 72.3% for silver

## ❑ No problems with clays or carbon/graphite

## ✓ Very Good Metallurgical recoveries (additional testing completed Oct 2015 )



Sorpresa is “native gold”

Sample ID and Location	Number of 2m interval samples used for composite sample	Head Assays, g/t		Recovery % (Standard CIL)	
		Au	Ag	Au	Ag
Met1 – Roadside *	24	1.22	73	84.3	68.9
Met2 – Trench 31	21	2.82	7.3	96.8	72.6
Met3 – Trench 31 SW	20	2.54	7.9	94.5	78.5

# Appendix – Project Summaries

Project Name or Type	Metals	Current or target	Comments
Sorpresa	Au, Ag	250,000 oz Au eq	Resource & can grow
Platina-Gillenbine <sup>1</sup>	Pt	0.8 ~ 1.0M oz target	Bulk sampling proof of concept
Regional Portfolio <sup>2</sup> > 30	Au, Cu	Multi Million Ounce	Target Discovery Potential
Platina Paleo Channel <sup>3</sup>	Pt	20~50,000 oz target	Low Capex, Proof of concept

Note 1, 2 and 3 : These are exploration targets only under the JORC 2012 Code and do not constitute a resource as insufficient work has been done to date.