ASX:GBZ

Unravelling the 309 and Lone Sister Gold Deposits

Mark Lindsay - SMEDG Meeting, 8 December 2022

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- The information in this report that relates to Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Neil Norris, who is a Member of The Australasian Institute of Mining and Metallurgy and The Australasian Institute of Geoscientists. Mr Norris is a full-time employee of the company, and is a holder of shares and options in the company. Mr Norris has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.
  Mr Norris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.
- The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.
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Acknowledgements

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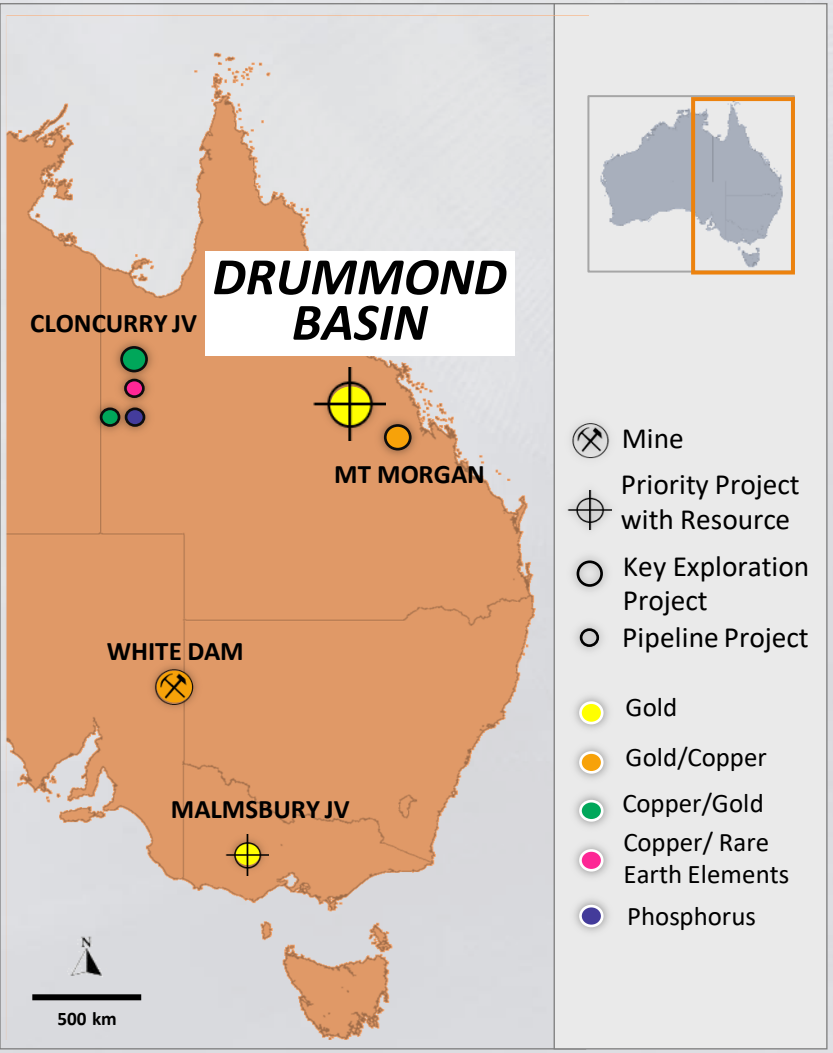
GBM – Junior Explorer and Producer with Eastern Aust Focus



Successful, experienced global team with a history of building value

Peter Mullens, Executive Chairman

Mine & exploration geology international experience

Peter Rohner, Managing Director

World leading figure in metallurgy

Peter Thompson, Non-Executive Director

Extensive mining finance experience

Sunny Loh, Non-Executive Deputy Chairman

Corporate strategy, finance and investor relations experience

Tom Cooney, Chief Operating Officer

Extensive Engineering Experience

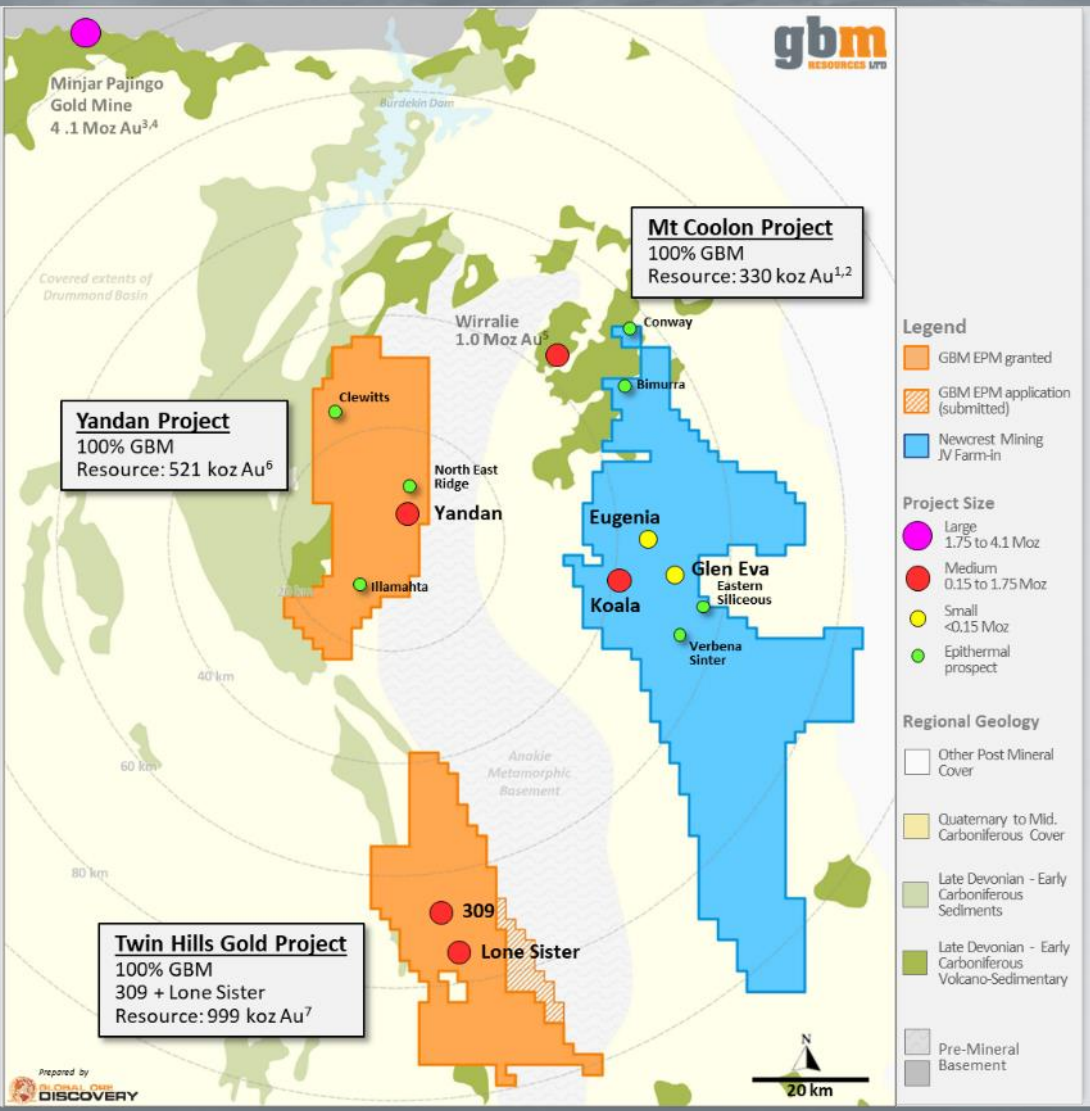
Mark Lindsay, Chief Geologist

History of discovery and building geological understanding

2020 – 2022 GBM delivered

- ~ 1 Moz Au resource at Twin Hills
- 560 % increase in gold resources
- Added exciting Twin Hills and Yandan projects to portfolio
- Malmsbury project JV with Novo Resources Corp
- Non-Core asset disposals :
  - Milo Brightlands sale ~$2.5 million (cash and shares)
  - Mayfield sale ~ $0.5 million (cash and shares)
  - Mt Morgan vend to SmartSet

Drummond Basin – Flagship Gold Project



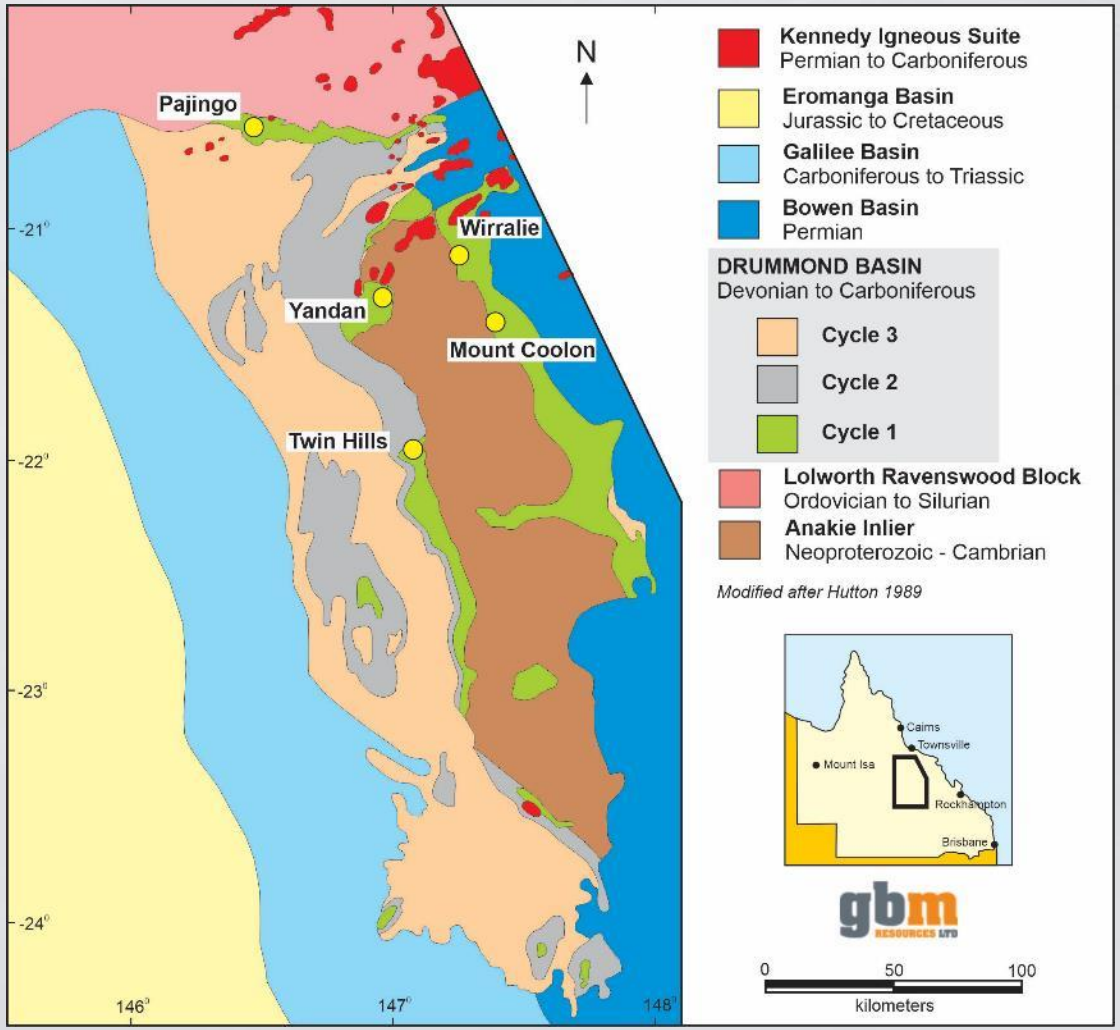
- Significant Drummond Basin tenement position (>4,500 km^2 granted and under application) in prospective region
- 13 defined epithermal systems in portfolio and many more prospects
- High potential for new discoveries and to increase and upgrade resources

GBM Project	Location	JORC 2012 Resources[7]			
		Tonnes (000's)	Au (g/t)	Au (ounces)	Cut-off (Au g/t)
Yandan	East Hill, South Pit	21,500	0.8	521,000	0.3
	Inc. East Hill	*1,900*	*3.6*	*218,000*	1
Mt Coolon	Eugenia, Koala, Glen Eva	6,653	1.5	330,500	0.4
Twin Hills	***309, Lone Sister***	***23,110***	***1.3***	***999,200***	0.4 and 2.0
	309 and Lone Sister Open Pit	*21,760*	*1.2*	*854,700*	*0.4*
	309 and Lone Sister UG	*1,350*	*3.3*	*144,500*	*2*
GBM Drummond Basin Total		**51,263**	**1.1**	**1,850,700**	

Predominately on granted Mining Leases

1. GBM ASX Announcement, 18 Jan. 2019, Mt Coolon and Twin Hills Combined Resource Base Approaches 1 Million Ounces
*2. GBM ASX Announcement, 4 Dec. 2017, Mt Coolon Gold Project Scoping Study *Including Tailings*
3. Evolution Mining. Pajingo-Fact-Sheet_March-2016_web-1.pdf
4. Osborne & Chambers. (2017). Pajingo Gold deposit. In Philips (ed), Australian Ore Deposits. AusIMM. Monograph 23
5. Drummond Gold Limited , 24 Oct 2014, Mining 2014 Presentation, October Brisbane
6. GBM ASX Announcement, 23 Dec 2020, Mt Coolon and Yandan Combined Resources Total 852,000 oz following completion of Yandan acquisition
7. GBM ASX Announcement, 5 December 2022, Twin Hills Gold Project Upgrades to ~ 1 Moz Mineral Resource

Drummond Basin – Regional Geology



- Drummond Basin is 450 km long, 100 to 150 km wide, Late Devonian to Early Carboniferous sequence of volcanic and sedimentary rocks
- The Basin is separated into eastern and western arms by the Neoproterozoic to Lower Cambrian Anakie Inlier - a horst-like basement block of green schist facies metavolcanic and metasedimentary rocks.
- The Drummond Basin has been partitioned into three cycles (Olgers, 1972) with the bulk of known mineralisation hosted within Cycle 1.
- Cycle 1 comprises andesitic to rhyolitic volcanics and a variety of sedimentary rocks and hosts known gold deposits
- Development of the Drummond Basin ceased with the middle Carboniferous Kanimblan Orogeny (Fenton & Jackson, 1989).

Drummond Basin – Discovery History

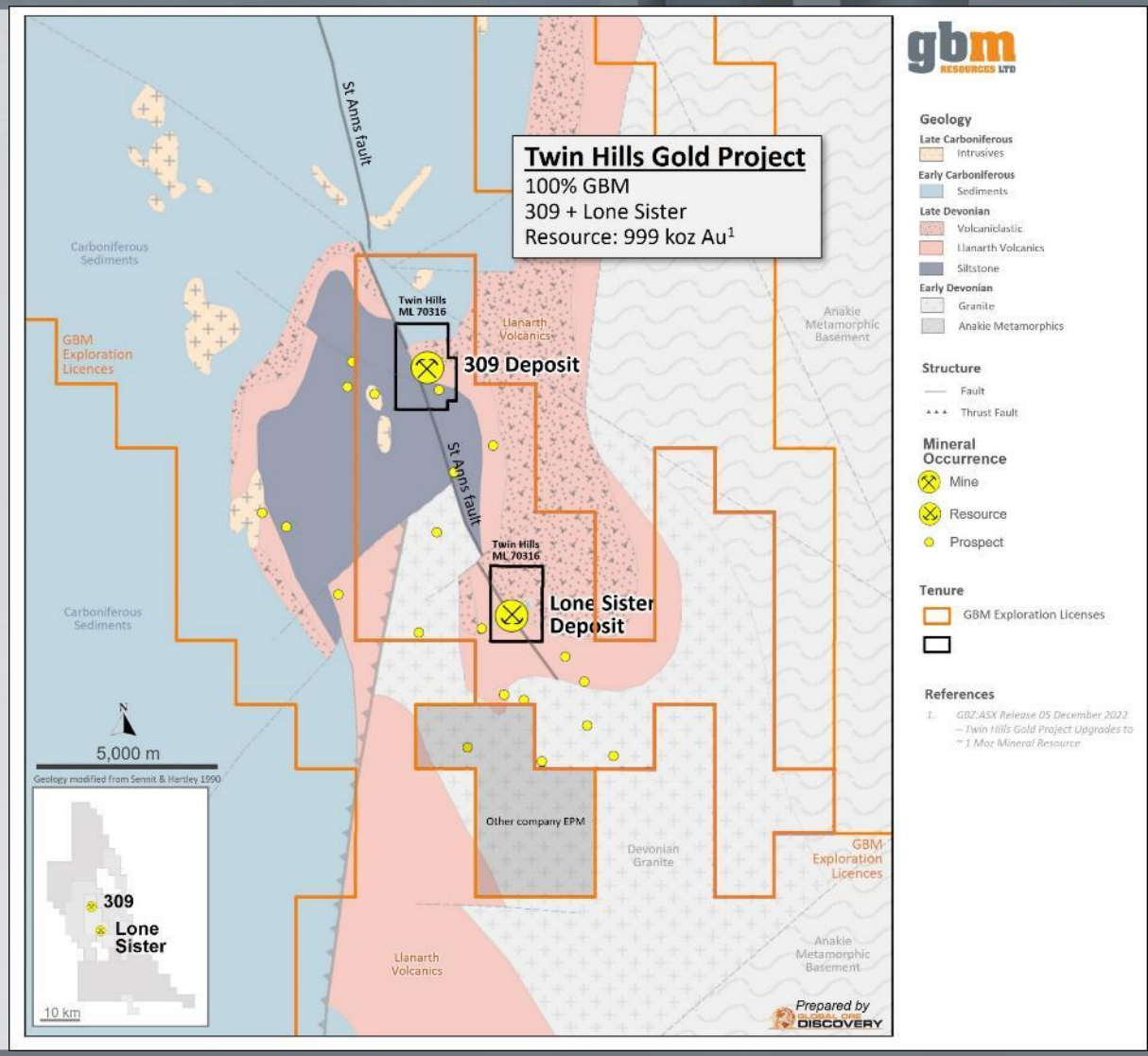
- Drummond Basin is Australia's pre-eminent Epithermal terrane
- The Basin hosts a variety of LS epithermal deposit styles and has produced > 4.5 million ounces of gold.
- First significant gold discovery was at Koala (Mt Coolon) in 1913
- The discovery of Pajingo by Battle Mountain in 1984 and Wirralie by Austmax Resources in 1986 lead to substantial exploration in the 1980's and early 1990's
- Limited exploration in the last 30 years and much of the Basin remains underexplored.

Twin Hills

Entrance Portal to 309 Underground Mine, September 2020

Twin Hills – Discovery and Development History

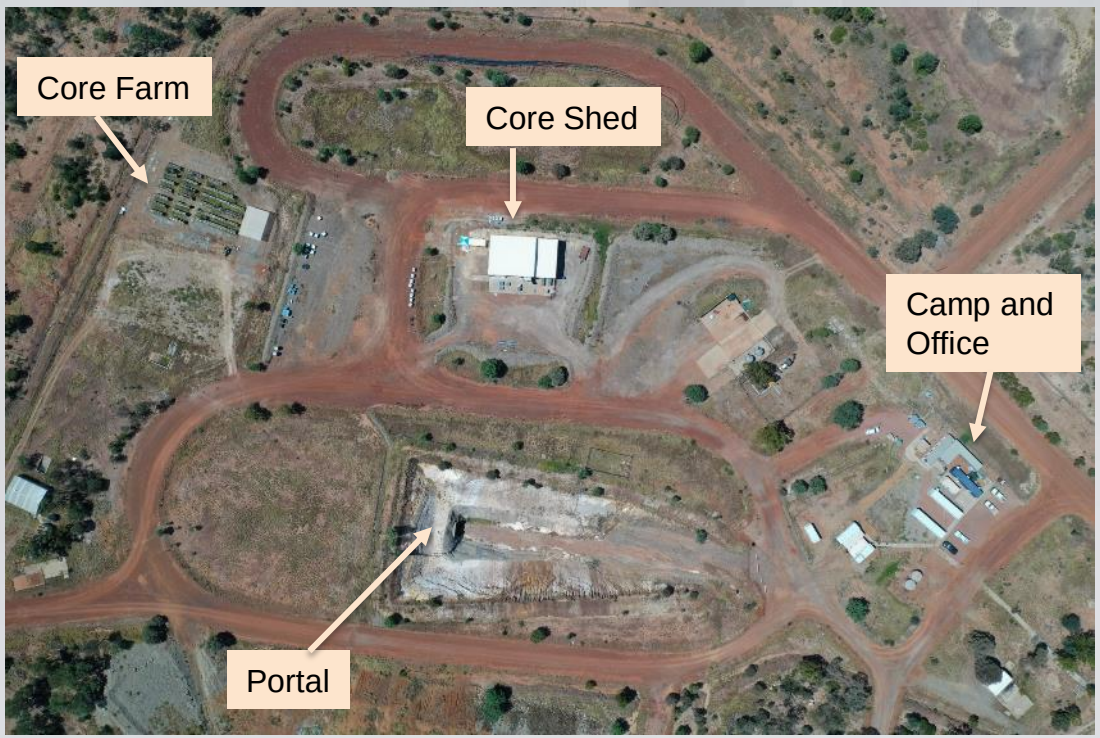
- Twin Hills project comprises 309 and Lone Sister deposits and numerous prospects
- Gold first discovered by Metana Minerals in 1987
- BMA Gold extracted ~ 78 kt @ 9.2 g/t Au for 23,195 oz Au between 2006 and 2007 from underground decline operation to 130 m deep
- Ore was trucked 280 km to Rishton (near Charters Towers) for processing (~$A700 / oz gold price at the time)
- 2006 – 2021 sporadic work including geophysics, geochemistry, and drilling.
- Previous focus on trucking ore rather than considering Twin Hills as a stand-alone operation.



Twin Hills – GBM Acquisition

- **Acquired by GBM in 2022**
- **Resource of 633,000 oz Au[1] at acquisition**
- Cornerstone acquisition for GBM at highly competitive acquisition cost of A$5.53 (~ US$ 4.00) per gold resource ounce.
- Substantial infrastructure includes
  - Existing mining lease
  - Existing 309 portal and decline
  - Sheds, camp, office, core store
  - Adjacent to sealed highway
- **Twin Hills current resource of 999,200 oz Au[2]**

58% increase (366,200 oz Au) in resources in 1 year



Infrastructure at 309 Deposit

But… before we got to the new resource models there were significant challenges to understand the geology

1. GBM ASX Announcement, 17 January 2022, Transformational Acquisition of High-Grade Twin Hills Gold Project Completes
2. GBM ASX Announcement, 5 December 2022, Twin Hills Gold Project Upgrades to ~ 1 Moz Mineral Resource

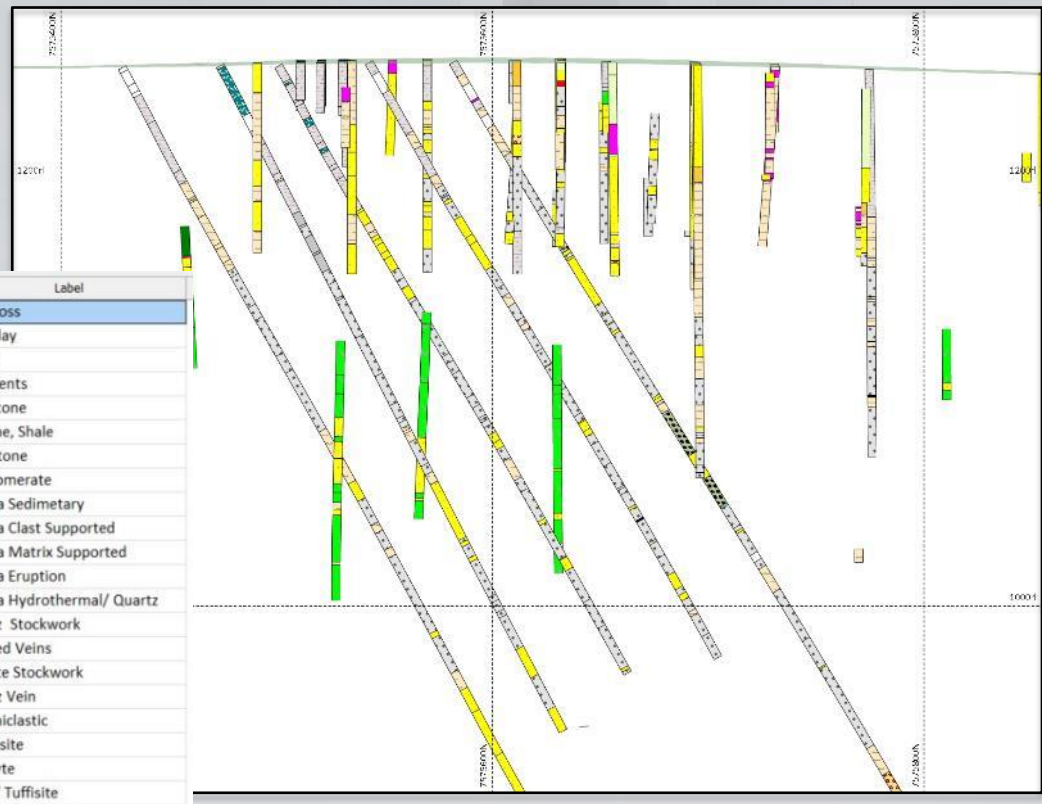
309 Deposit – Historical Interpretation

Historical Interpretation

- 309 deposit geological setting previously interpreted as prograding alluvial fan, diatreme / maar complex, phreatic / phreatomagmatic breccia in graben, fault controlled, breccia controlled, epithermal, components of mesothermal, etc.
- Logging inconsistent within programs and between companies and lithology mixed with mineralisation
- Most of the geological features of the deposit recognised but described and interpreted in different ways.

	Value	Label
1	LO | NL | NS | PC|OCL	Core Loss
2	RCY | RSF | TC | TCG | TCY | TS | CLAY	Soil, Clay
3	SIN	Sinter
4	S	Sediments
5	SM|SMD|SMU	Mudstone
6	SSL|SSH|SSHC|SSLC	Silstone, Shale
7	SS|SST|SSC	Sandstone
8	SGC | SGM	Conglomerate
9	BXS	Breccia Sedimetary
10	BXC	Breccia Clast Supported
11	BXM	Breccia Matrix Supported
12	BX	Breccia Eruption
13	BXH|BXQ	Breccia Hydrothermal/ Quartz
14	QVS	Quartz Stockwork
15	SH5	Sheeted Veins
16	FLVS	Flourite Stockwork
17	QV|OQV	Quartz Vein
18	SV|SVBX|VCC	Volcaniclastic
19	I | IA | IAAT | IALT | IAT | IAXLT|IABX	I Andesite
20	ITR	Trachyte
21	DYK|VTR	Dyke / Tuffisite
22	FAT | FPRX | FT | FXLT | FXT | F | FVT|SSLT|FLT	Tuff
23	FR | FRF|FRBX	Rhyolite
24	SZ|FZ|MFT	Fault
25	FD	Dacite
26	GD | GDI	Granodiorite
27	MB	Basalt
28	G | GAP | GDO | GFP | GQFP | GR	Granite
29	CS | GSY	Calc Silicate

Twin Hills Historic Logging Codes.



309 Deposit section 505550 E Looking west. Note different generations of work have logged the same rocks in different ways

Complex geological relationships in drill hole 309DD22006

This complexity is common is the centre of the deposit

Quite a challenge if it was RC chips rather than core!

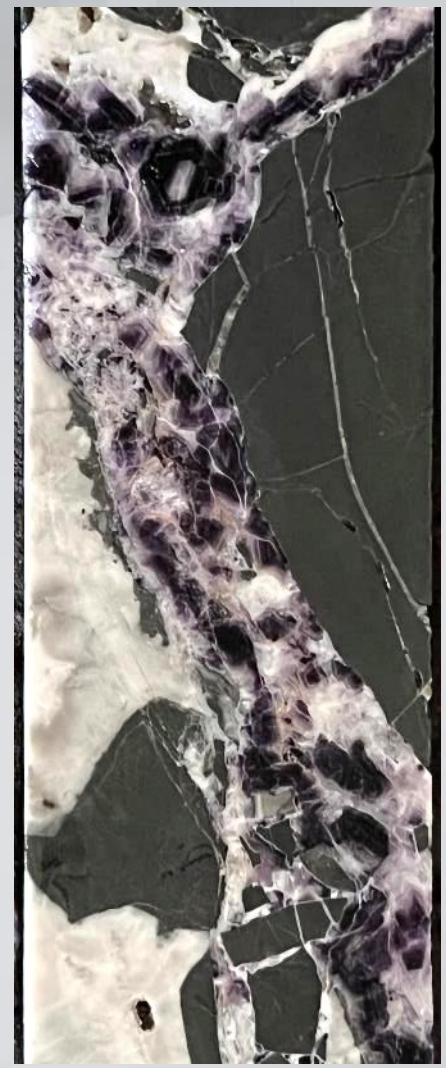
309 Deposit Geology – Towards a New Mineralisation Model

- Key to unravelling deposits is to map the hydrothermal system.
  - Need to identify and record mappable units.
  - This is not detailed logging, the aim is to see the shape of the system and key conduits.
- The main components of the hydrothermal system to map will vary for each deposit but might include
  - Contacts
  - Alteration
  - Mineralisation
  - Brecciation
  - Lithology
  - Distribution of main economic minerals
- This is a simple process, the key is to identify which features to map out and record them consistently
- Important to record observed relationships (i.e. paragenetic, structural, textural) along the way. Make sketches and notes on paper and keep a photographic journal.
- Don't get hung up on things you don't understand – record the question and move on. The answer is probably in the next hole.
- At the end of the process you should be able to sketch a cartoon of the deposit showing the main features and their relationships.

Photograph showing fluorite-adularia (salmon pink)-chalcedony vug fill within an earlier formed milled matrix breccia at 392.7 m in 309DD22009.

309 Deposit Geology – Mapping the Hydrothermal System

- Several drill holes were selected for initial inspection to identify key components of hydrothermal system
- Components selected for logging were
  - Lithology – historically a lot of confusion regarding interpretation of main units and their genesis
  - Contacts – in particular the contacts of the main breccia unit
  - Mineralisation broken down into
    - Style (breccia, sheeted veins, stockwork veins, other)
    - Mineralisation type (Quartz – Fluorite, Silica overprint Fluorite, Quartz only, Silica pyrite)
    - Total quartz %
  - Alteration was not used as the system has been pervasively silicified
- Historic core was cleaned and photographed.
- 6 drill sections were selected to provide representative coverage of the deposit
- All holes on those sections were relogged using core photos



Photograph of multi-stage quartz-chalcedony-fluorite breccia fill at 143.7 m in 309DD22011. This breccia is coincident with an interval of 5 m @ 9.73 g/t Au from 143 m.

309 Deposit Hydrothermal System Mapping
Key Outcomes - Lithology

Youngest

Oldest

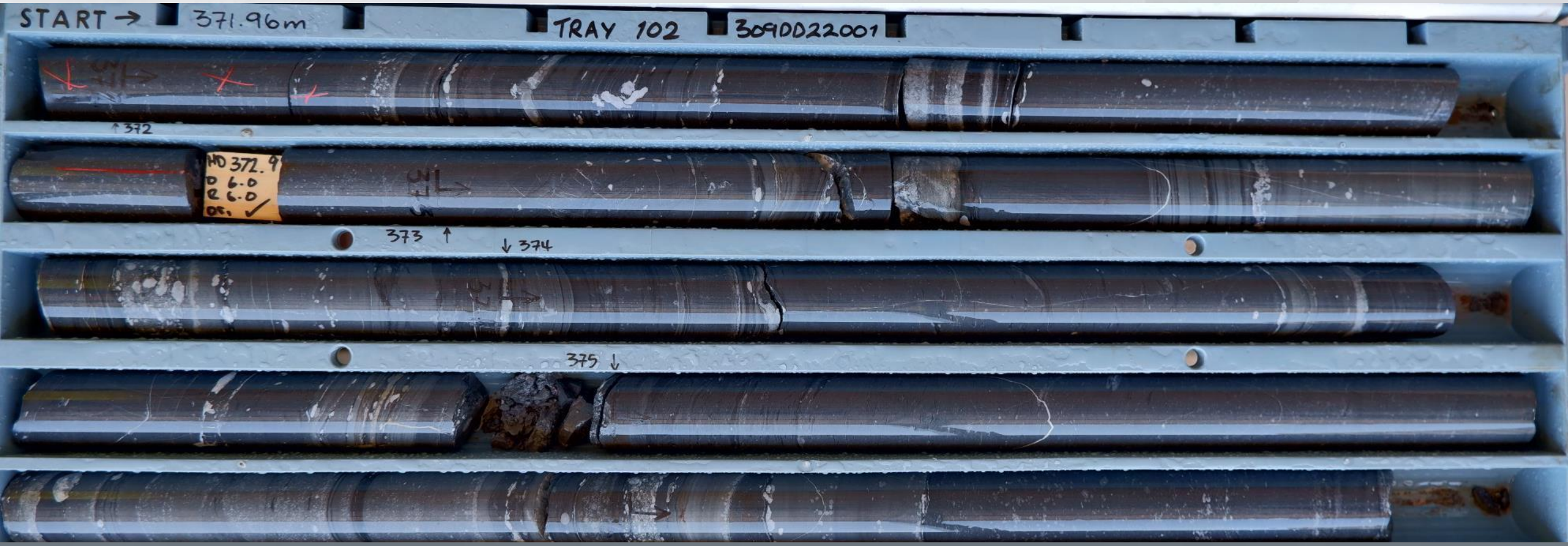
- Trachyte – pepperitic margins seen in several places including where it is hosted by BXM (Milled Matrix Breccia) suggesting that Trachyte is younger than BXM and that BXM was wet when trachyte emplaced.
- Suite of breccias (including BXM but not hydrothermal breccia)
- Interbedded tuffs and siltstone. Abundant soft sed deformation and graded bedding, rip up clasts, scours, possible drop stones.
  - ➢ <u>Includes possible marker bed</u>. Contains large rounded clasts of andesite
- Well bedded siltstone (unsure if carbonate is destroyed by altn or depositional env. changes). Soft sed deformation, grading, rip up clasts, scours.
- Well bedded, calcareous and weakly carbonaceous siltstone.
- Andesite volcaniclastics (To be confirmed)

Interbedded siltstone and crystal rich tuff with scours and possible drop stone THRCD755, 374 m

Trachyte dyke/sill intruded into milled matrix breccia showing lobate margins with pepperitic texture. THRCD861, 126 m.

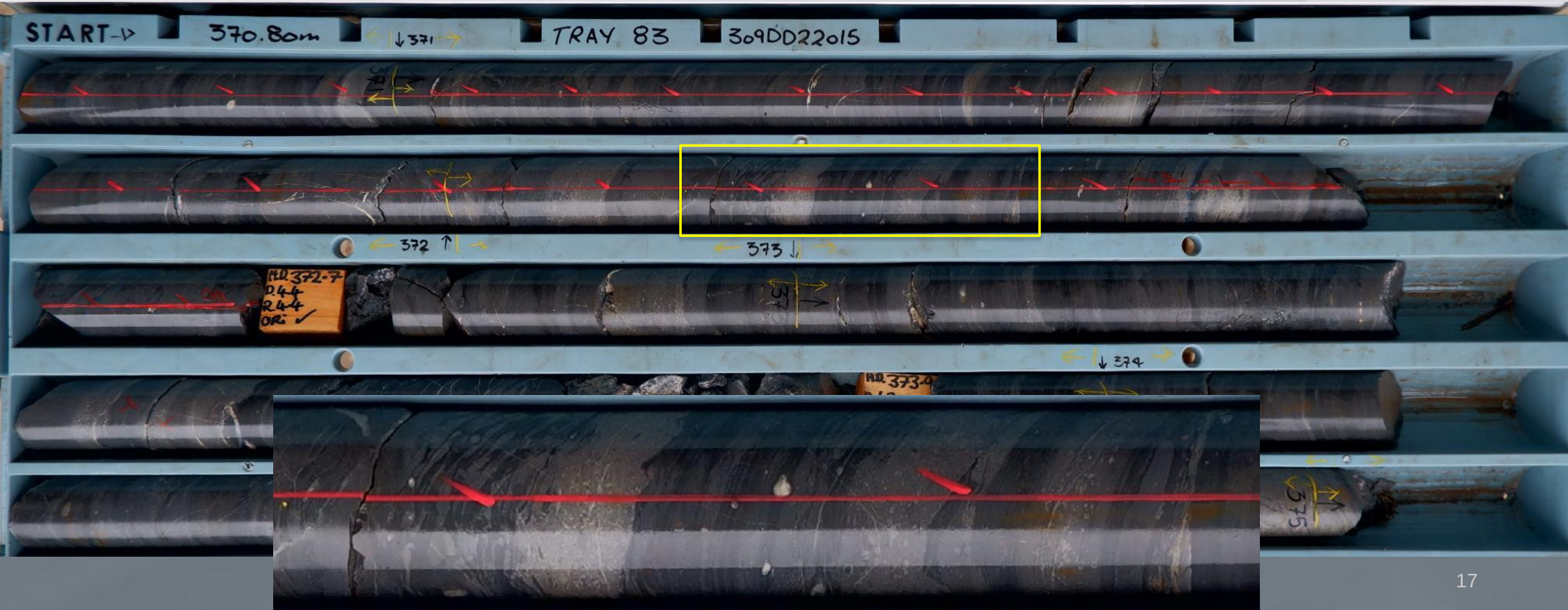
309 Deposit - Calcareous siltstone

- Well bedded calcareous and weakly carbonaceous siltstone with abundant carbonate nodules.
- No evidence of metamorphism and limited/no brecciation.



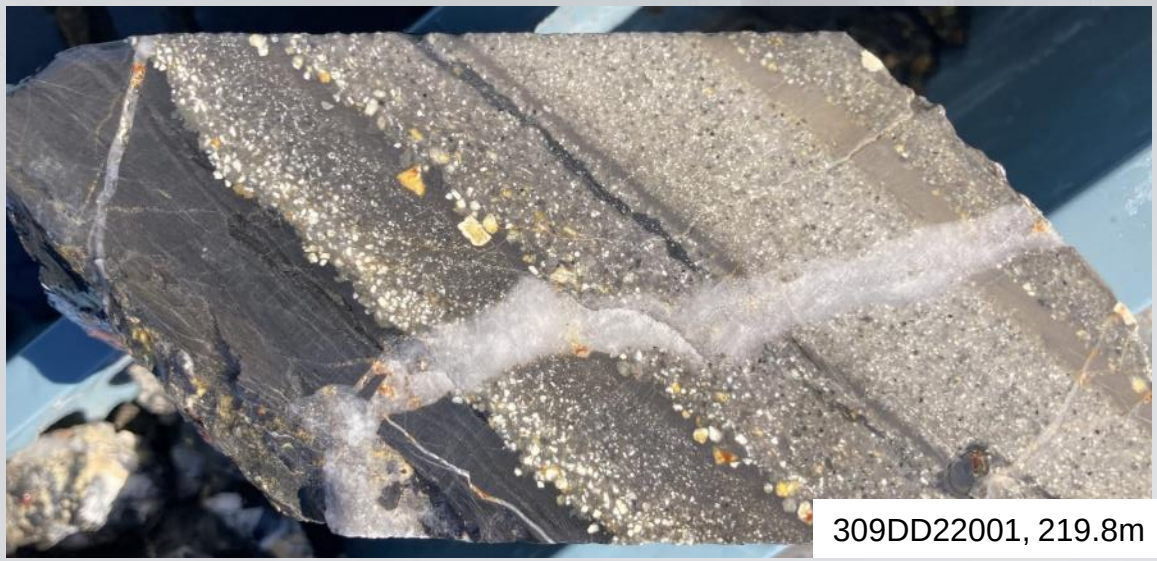
309 Deposit - Siltstone

- Well bedded siltstone (unsure if carbonate is destroyed by altn or depositional env. changes).
- Soft sed deformation, grading, rip up clasts, scours.



309 Deposit – Interbedded Tuff and Siltstone

- Well bedded with abundant soft sed deformation and graded bedding, rip up clasts, scours.
- Feldspar crystals deposited in layers common



309DD22001, 219.8m

THRCD891, 562m

309 Deposit – Interbedded Tuff and Siltstone

309DD22004 127.2 – 131.5 m

309 Deposit – Interbedded Tuff and Siltstone (or ash?)

309 Deposit – Marker Bed

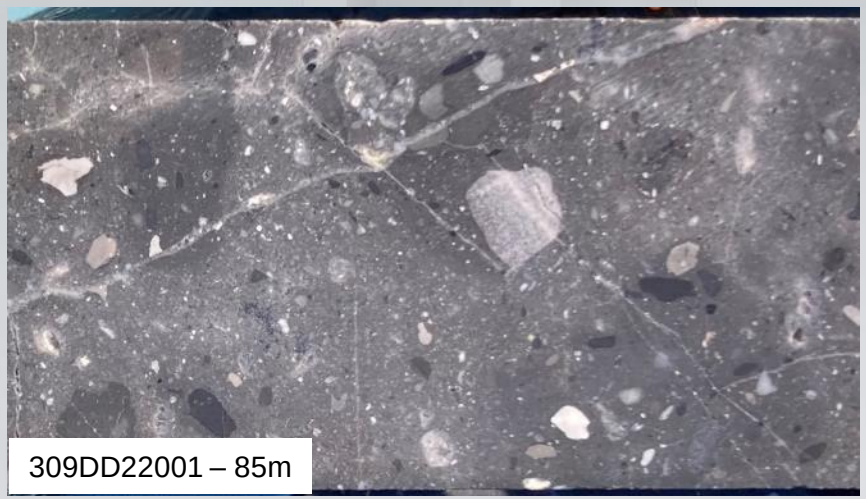
- Contains large rounded clasts of andesite.
- Often preferentially altered

THRCD757, ~338 – 341.2 m

309DD22015 315.7 – 320.15 m

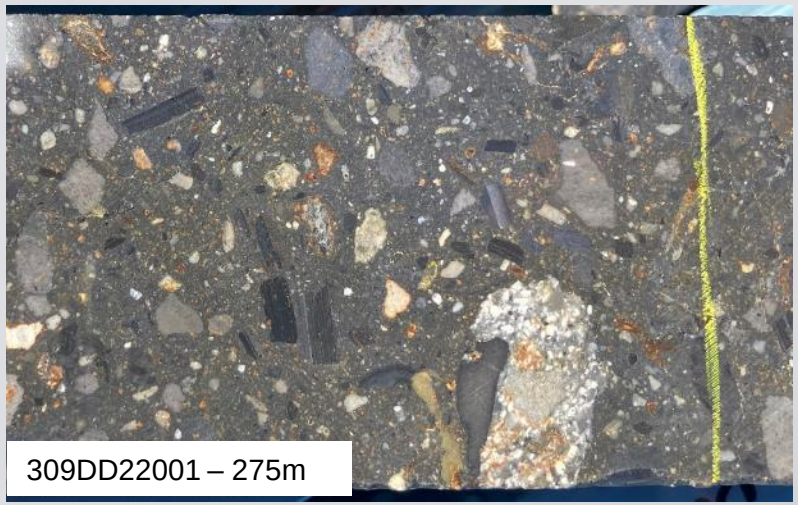
309 Deposit - Milled Matrix Breccia (BXM)

- Thick package of polymict breccia with rock flour matrix overlies the interbedded siltstone and tuffs and contains abundant clasts of underlying rocks.
- Internal facies variation is evident with zones of clast supported breccia, zones dominated by specific clast types, and in places a clear gradation to breccia with well-rounded pebble to cobble sized clasts and little matrix.
- The overall shape of the BXM at 309 is broadly as a layer sub-parallel to bedding with potential examples of the BXM having intruded along and locally cross-cut, bedding planes.
- Drill holes consistently passed through the milled matrix breccia into the underlying, typically undeformed, siltstones and tuffs.
- A diatreme invoked by previous models was not found, though the breccia could still represent a distal expression of a diatreme.



309DD22001 – 85m

Both photos are color. Rock above is heavily silicified



309DD22001 – 275m

309 Deposit - Milled Matrix Breccia (BXM)

- Clasts comprised of all lithologies seen below.
- In this example the BXM is clast rich but here are also clast poor versions

309 Deposit - Milled Matrix Breccia (BXM)

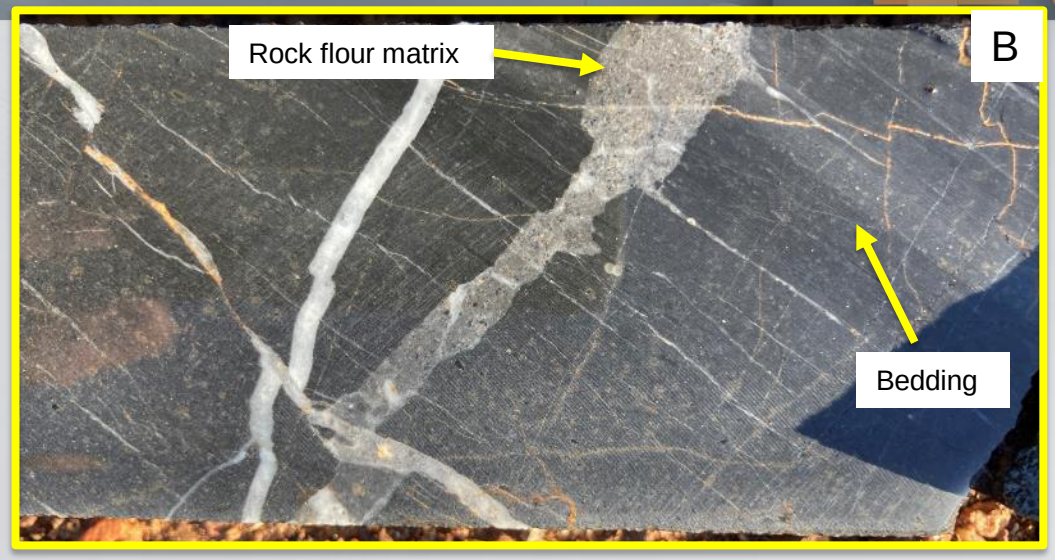
- Clear grading of breccia facies from matrix supported to clast supported and from fine grained to coarse grained

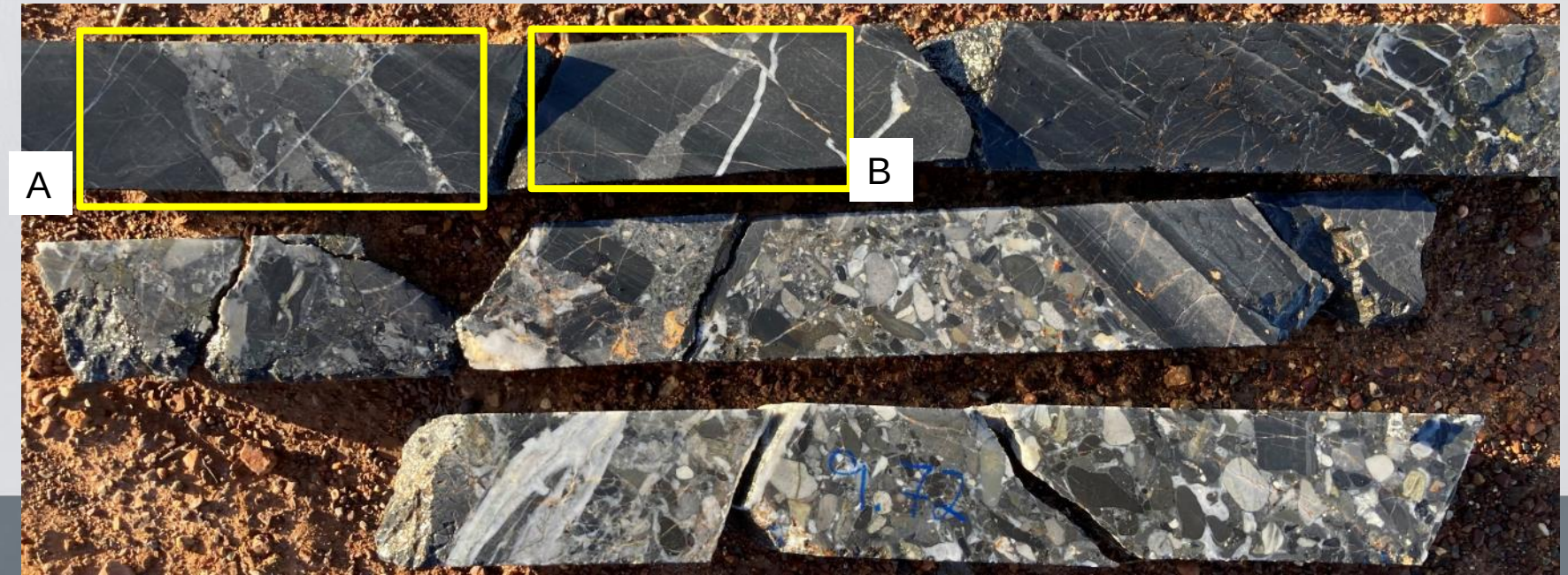
309 Deposit - Milled Matrix Breccia (BXM) Contacts

Sharp contact between BXM and underlying siltstones.
Note that there is little deformation in the siltstones.

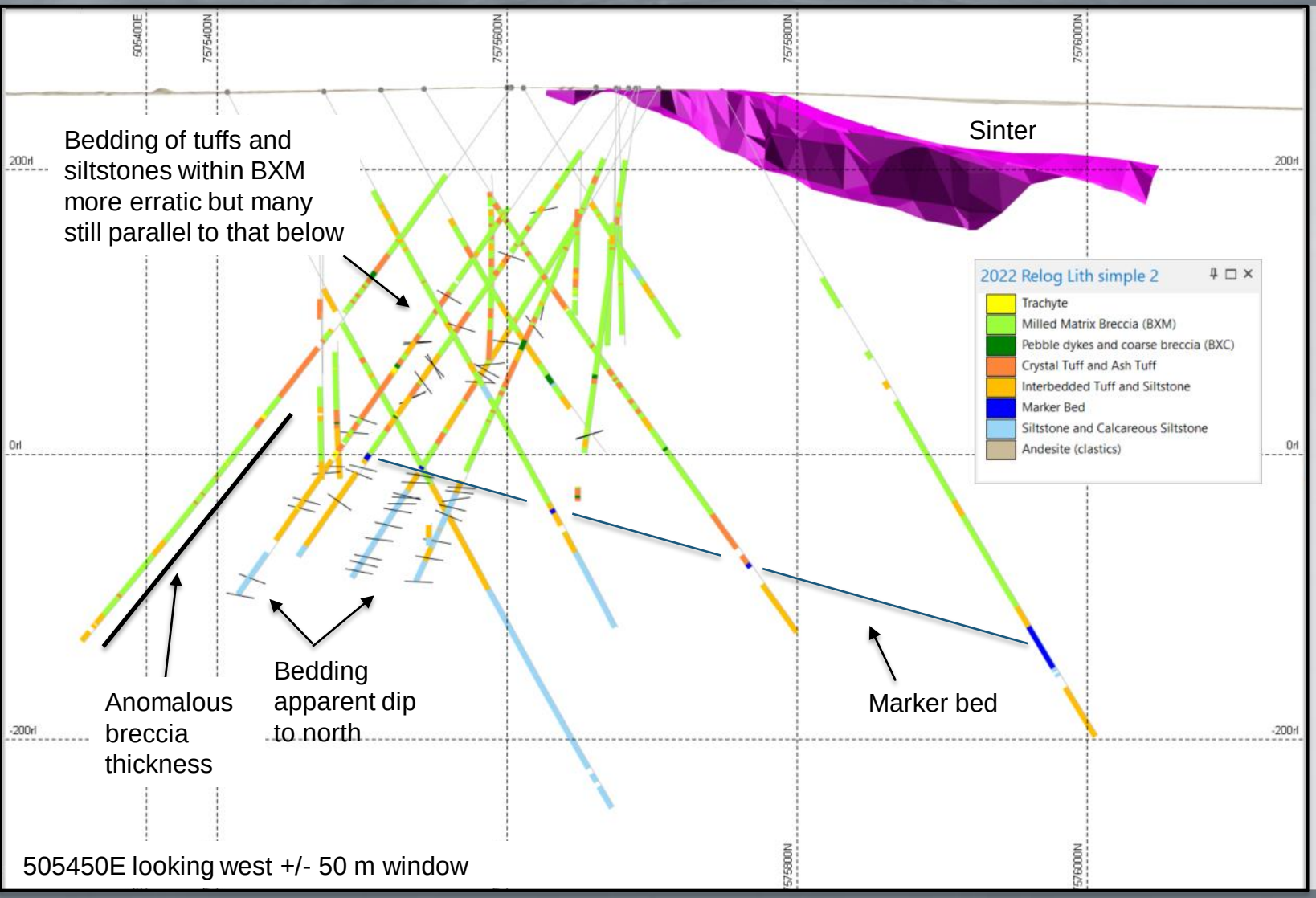
309DD22015

309 Deposit - Milled Matrix Breccia (BXM) Contacts





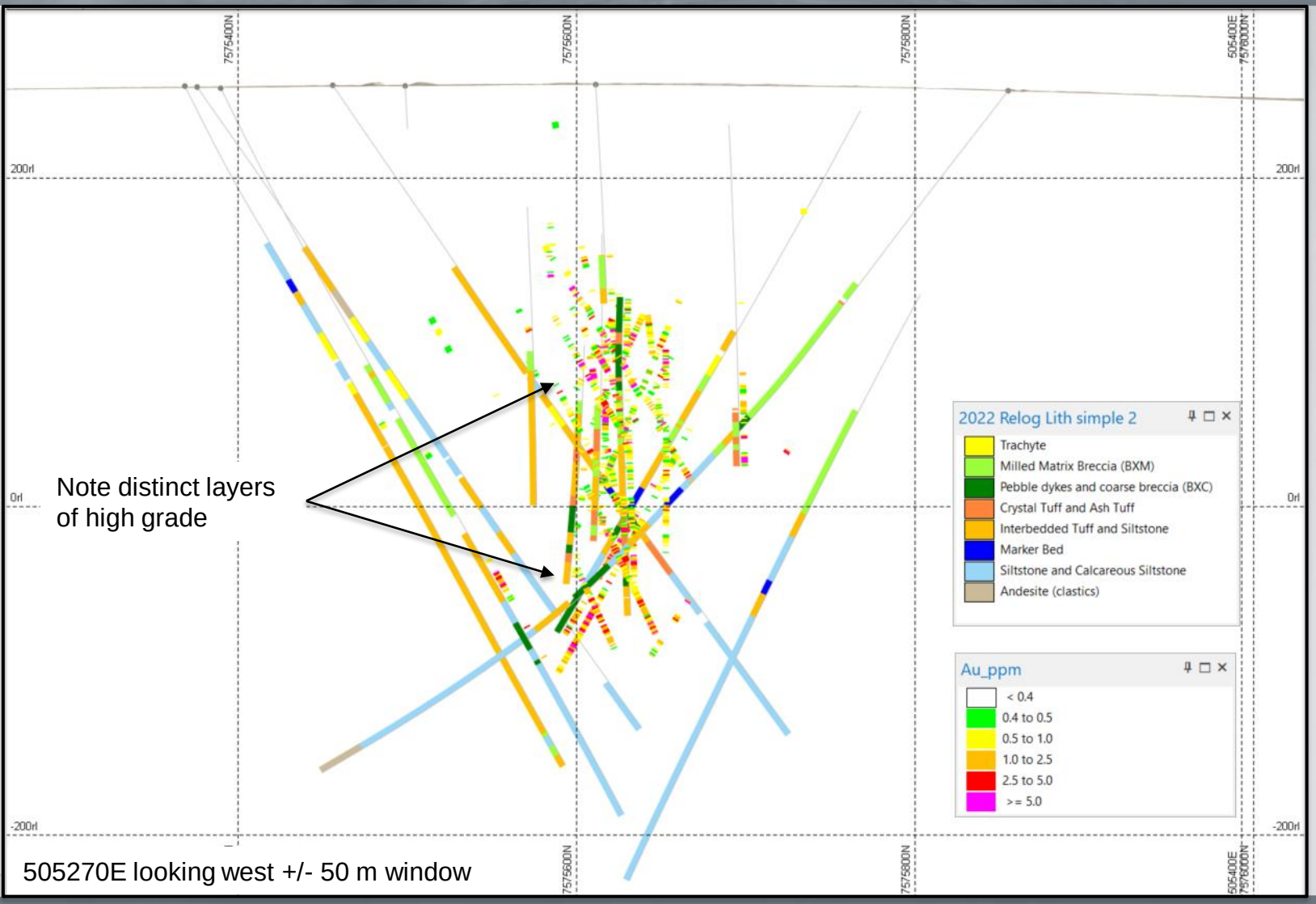
309 Deposit – Distribution of lithology



- Marker bed real. Sub parallel to bedding, the overlying sinter and presumably the palaeo surface.
- The overall shape of the BXM at 309 is broadly as a layer sub-parallel to bedding
- Drill holes consistently passed through the BXM into the underlying siltstones and tuffs.
- A diatreme invoked by previous models was not found, though the breccia could still represent a distal expression of a diatreme.
- Genesis of BXM remains enigmatic

Next → How does mineralsiation compare to lithology?

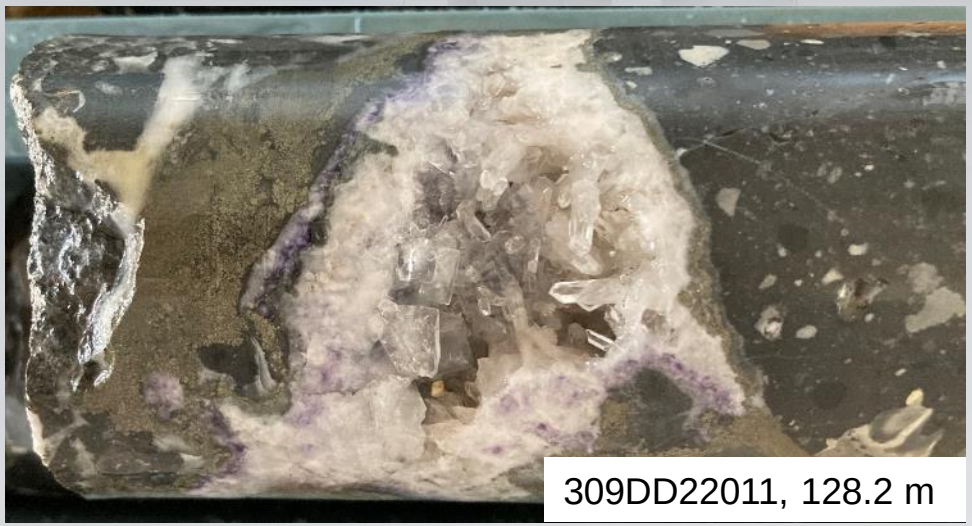
309 Deposit – Lithology vs Gold



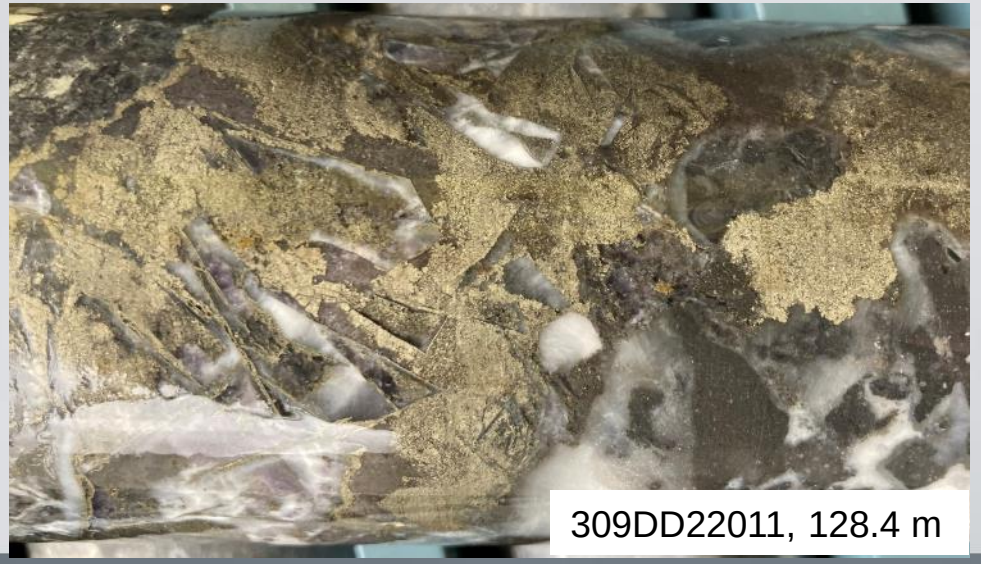
- Gold mineralisation shows no clear relationship to lithology
- High grades in a variety of rock types and at different depths
- Gold mineralisation clearly an overprint
- Put BXM genesis questions on hold
- Focus on other aspects of the hydrothermal system

309 Deposit Hydrothermal System Mapping
Key Outcomes - Mineralisation

- On surface, sinter crops out along an arcuate trend that rings near surface gold mineralisation.
- Colloform banded chalcedony infills breccia at the top of the system.
- Spectacular bladed fluorite-chalcedony-quartz ± adularia-pyrite-gold veins and breccia fill are most common in in the middle and upper parts of the deposit and appear to form in layers.
- The fluorite bearing veins are progressively replaced by later stages of silicification and corresponding higher gold grades.
- Quartz-chalcedony-pyrite veins with visible gold as electrum and bonanza grades > 100 g/t Au appear to post-date most other mineralisation and were observed in the deeper parts of the deposit.

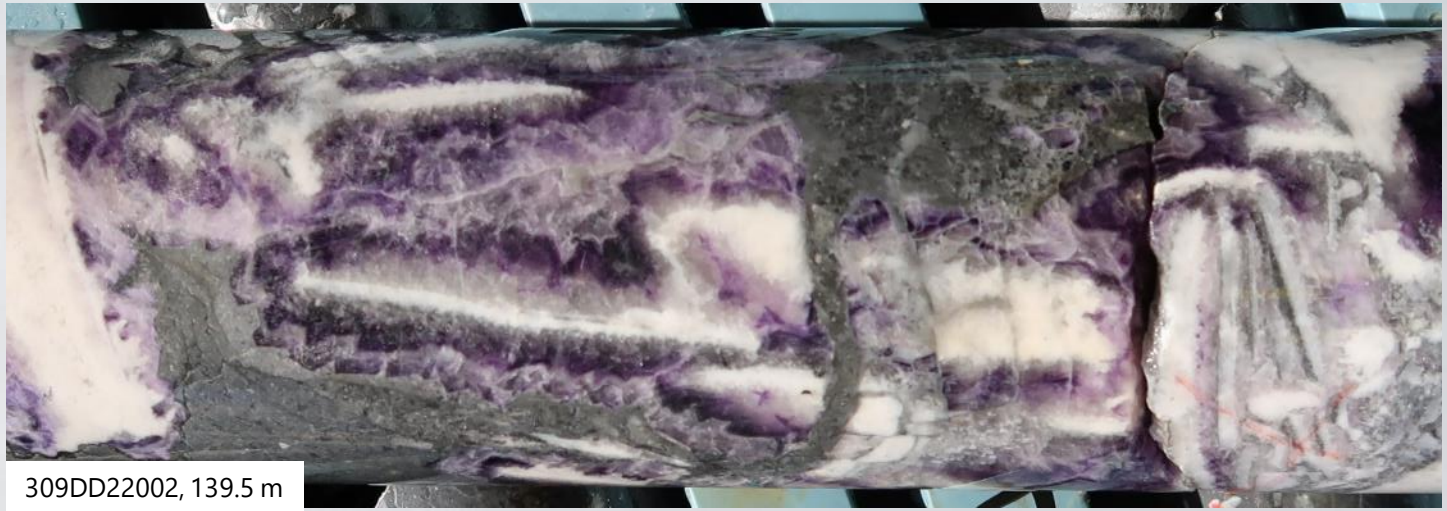


309DD22011, 128.2 m

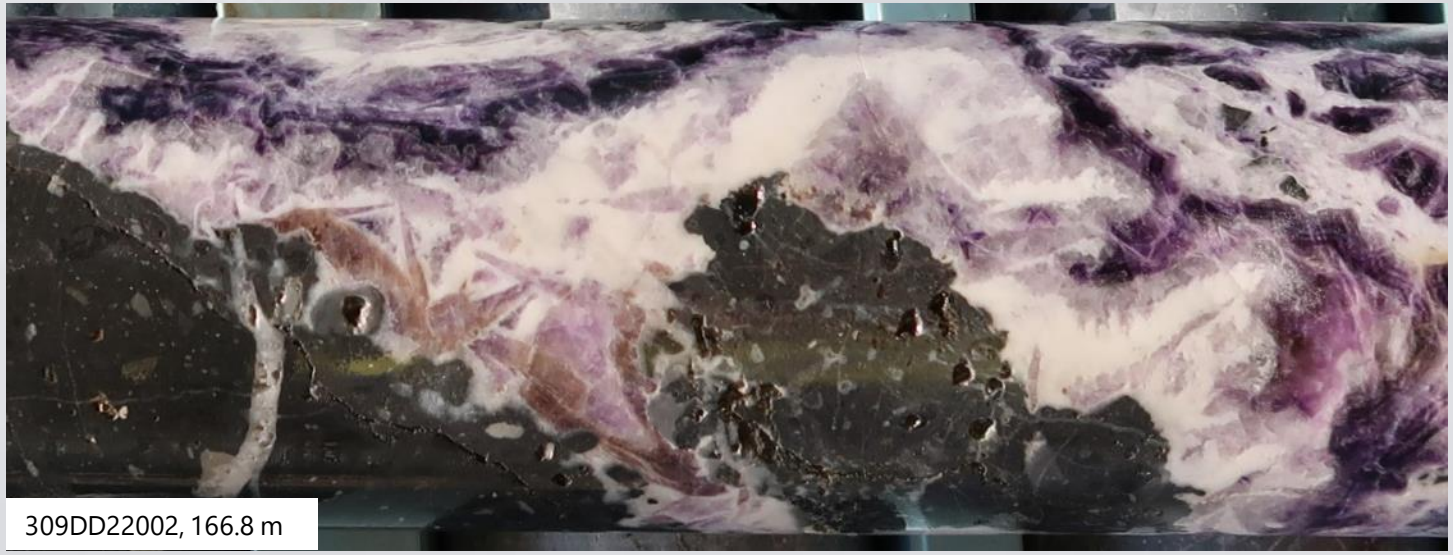


309DD22011, 128.4 m

Twin Hills – 309 Mineralisation – Early Fluorite



309DD22002, 139.5 m



309DD22002, 166.8 m

Photos showing coarse fluorite crystals partly replaced by chalcedony. Bladed textures are common in epithermal deposits but usually develop after carbonate.

The fluorite forms as breccia and vein fill and is concentrated in a specific layer within the deposit.

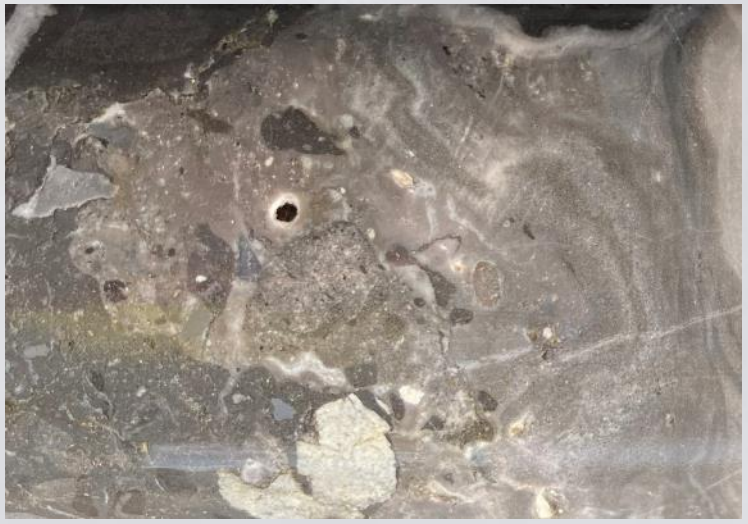
309DD22016 – 157.5 m

Twin Hills – 309 Mineralisation – Silica overprint

Fluorite replaced by chalcedony and quartz to produce bladed textures at 143.4 m in 309DD22002.

Multi-stage quartz-chalcedony breccia infill from 309DD22001 at 192.2 m. The interval including this sample assayed at 1 m @ 54.94 g/t Au from 192 m in a broader interval of 16 m @ 13.39 g/t Au from 187 m. Both comb and moss textures are apparent and fine-grained sulphides are present in bands near the vein walls.

309 Deposit – Unusual veins



Chalcedony veins with highly irregular margins. In top photo one side the vein trends around clasts in the host milled matrix breccia. On the other side the vein appears to gradationally assimilate the wall rock with chalcedony appearing to mix with the wall rock matrix. We interpret these textures to indicate vein emplacement into a partially unconsolidated host.

Twin Hills – 309 Mineralisation – High Grade veins

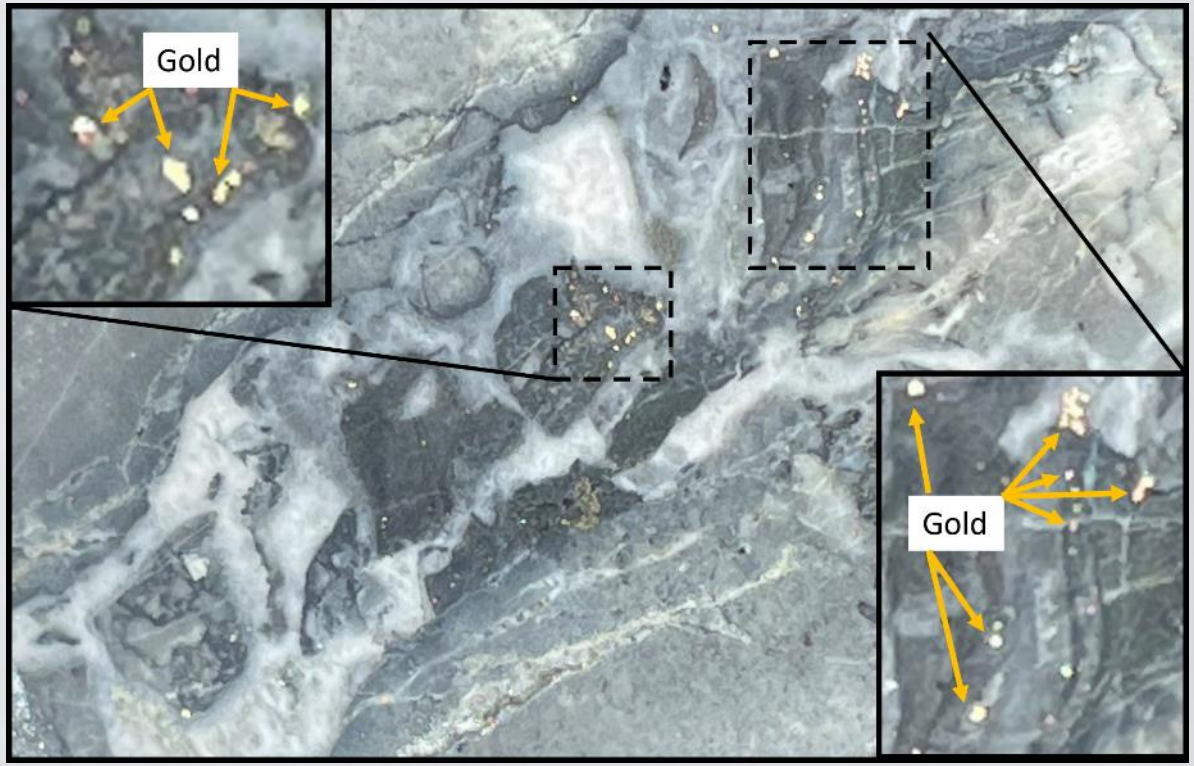


Photo showing multi-stage quartz-chalcedony-pyrite breccia vein with visible gold at 287.8 m in 309DD22016. The interval assayed at 0.5 m @ 166.05 g/t Au.

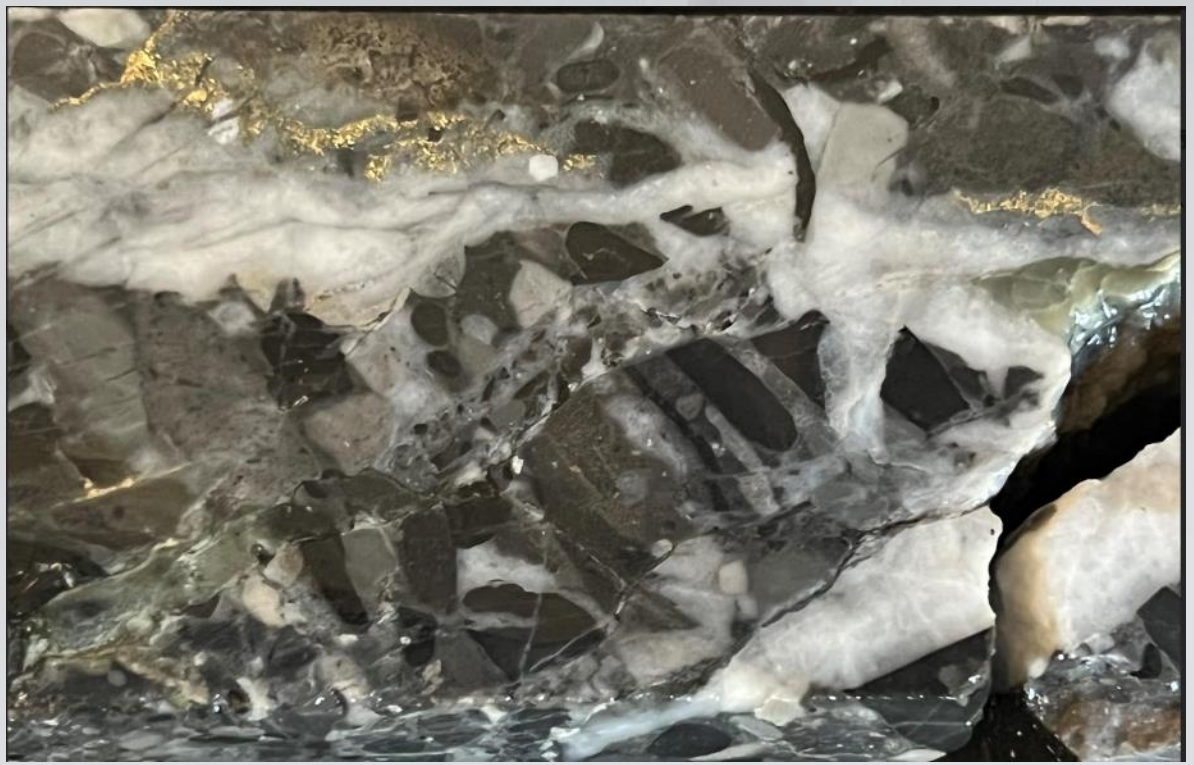
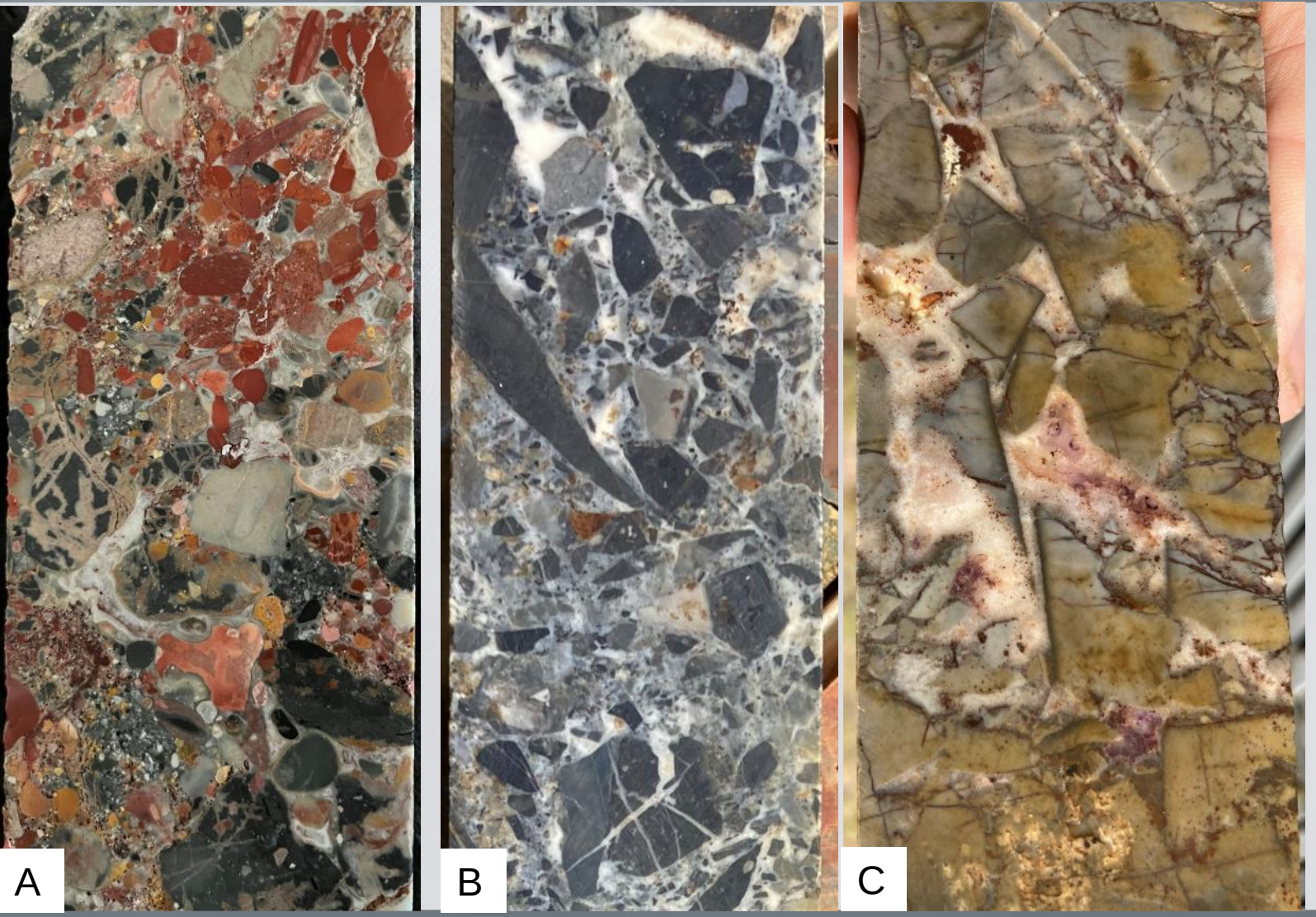


Photo showing abundant visible gold as electrum intersected by 309DD22005 in an interval of 1m @ 129.39 g/t Au and 55.43 g/t Ag from 327 m. Gold is hosted by chalcedony veins that breccia.

309 Deposit – Breccia with hydrothermal fill



(A) Breccia from 62.1 m in 309DD22012 that hosts 9 m @ 2.58 g/t Au from 54 m. Note the well-rounded polymict clasts that show various styles of alteration and oxidation state. The breccia has a matrix of rock flour variably replaced by chalcedony and infill of colloform banded chalcedony. GBM interprets this to represent a hydrothermal eruption breccia likely genetically related to the sinter mapped on surface.

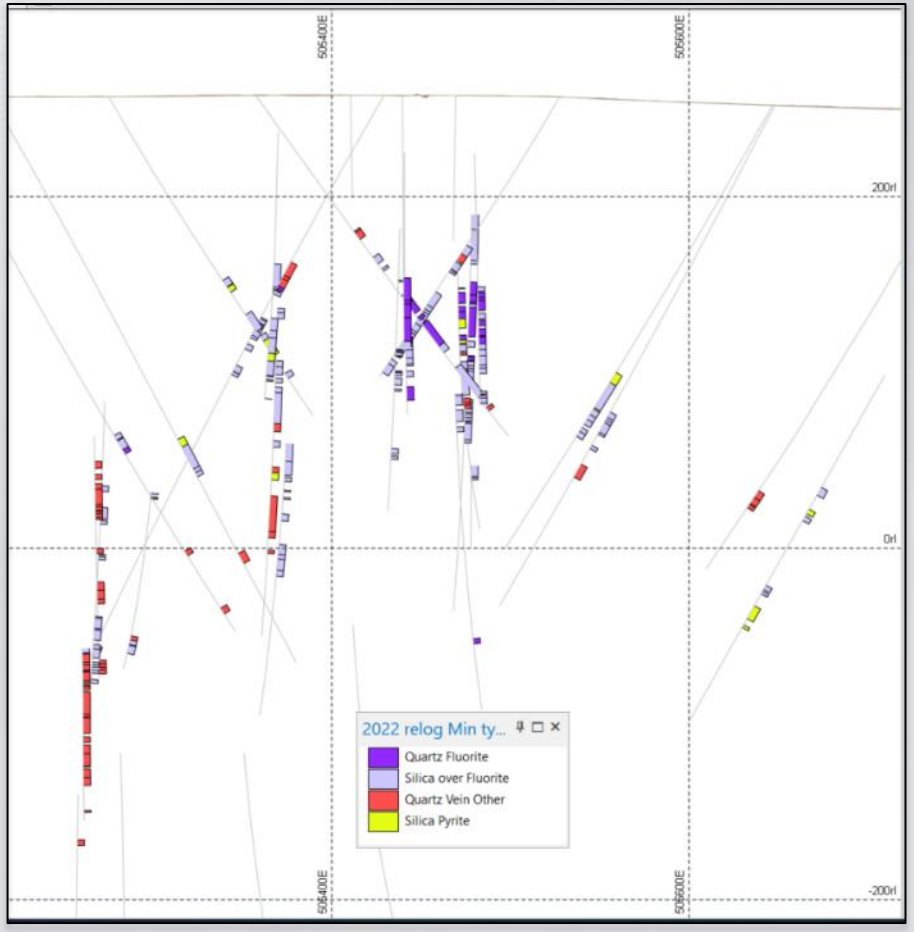
(B) Hydrothermal breccia with quartz infill from THRCD 861, 206 m

(C) Hydrothermal breccia with quartz-fluorite infill from THRCD827, 397 m

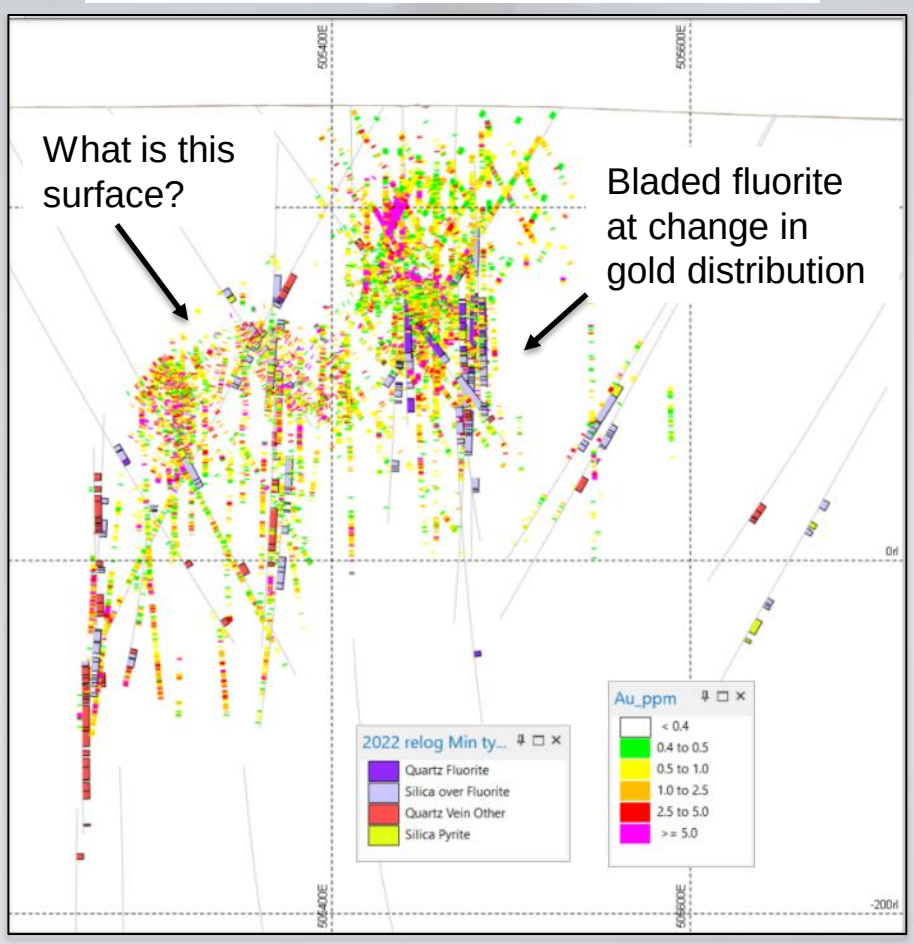
309 Deposit – Mineralisation

- When plotted in 3D the Style of Mineralisation (breccia, sheeted veins, stockwork veins, other) did not show significant trends
- Total Quartz % showed zonation outwards from the middle of the system
- Mineralisation type (Quartz – Fluorite, Silica overprint Fluorite, Quartz only, Silica pyrite) showed a clear distribution and very interesting relationship to gold mineralisation

Mineralisation type



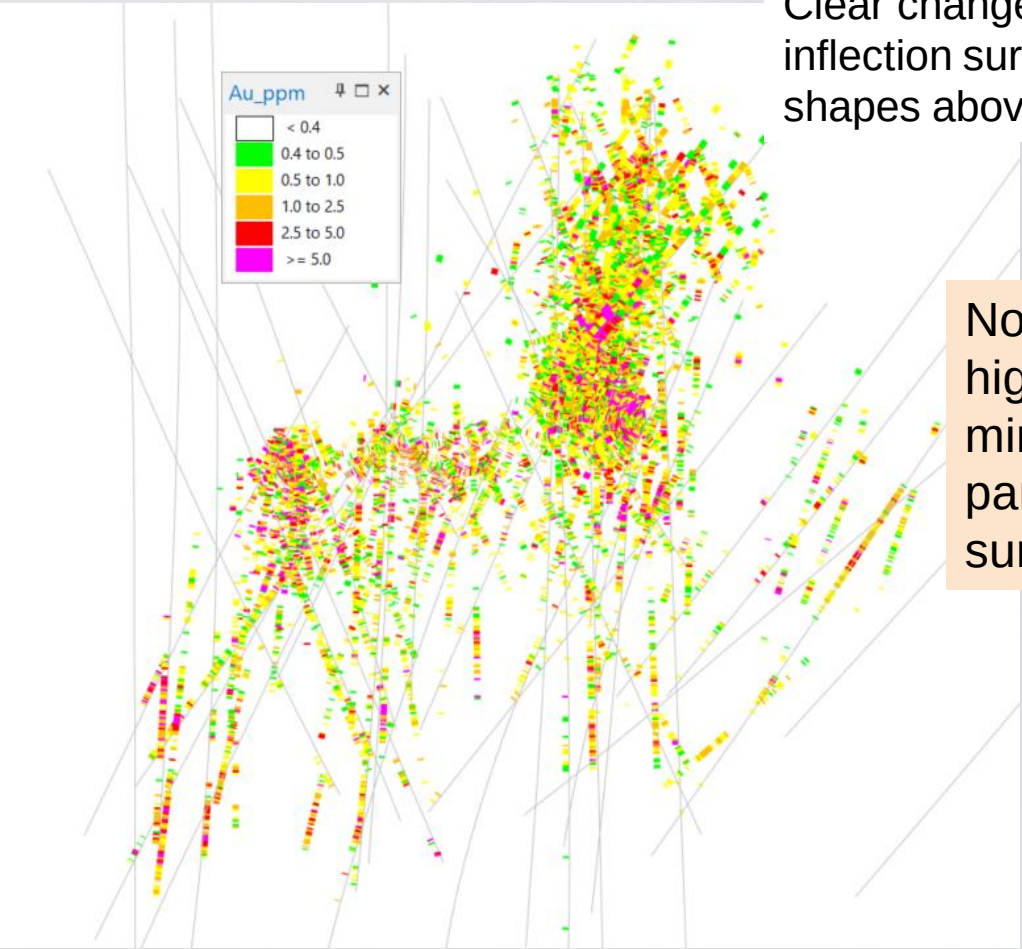
Mineralisation type and gold (g/t)



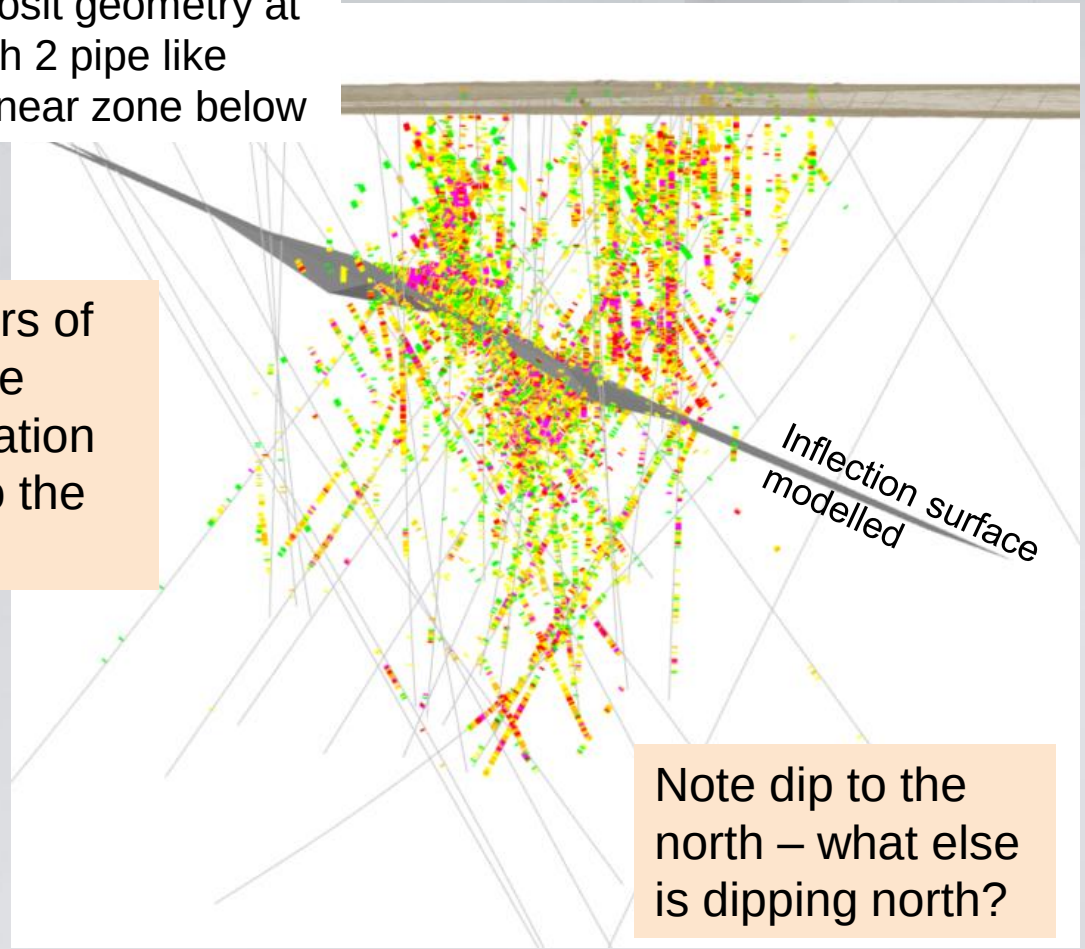
Section 757560 N looking NNE +/- 50m window

309 Deposit – Inflection surface

Clear change in deposit geometry at inflection surface with 2 pipe like shapes above and linear zone below



Note layers of high grade mineralisation parallel to the surface



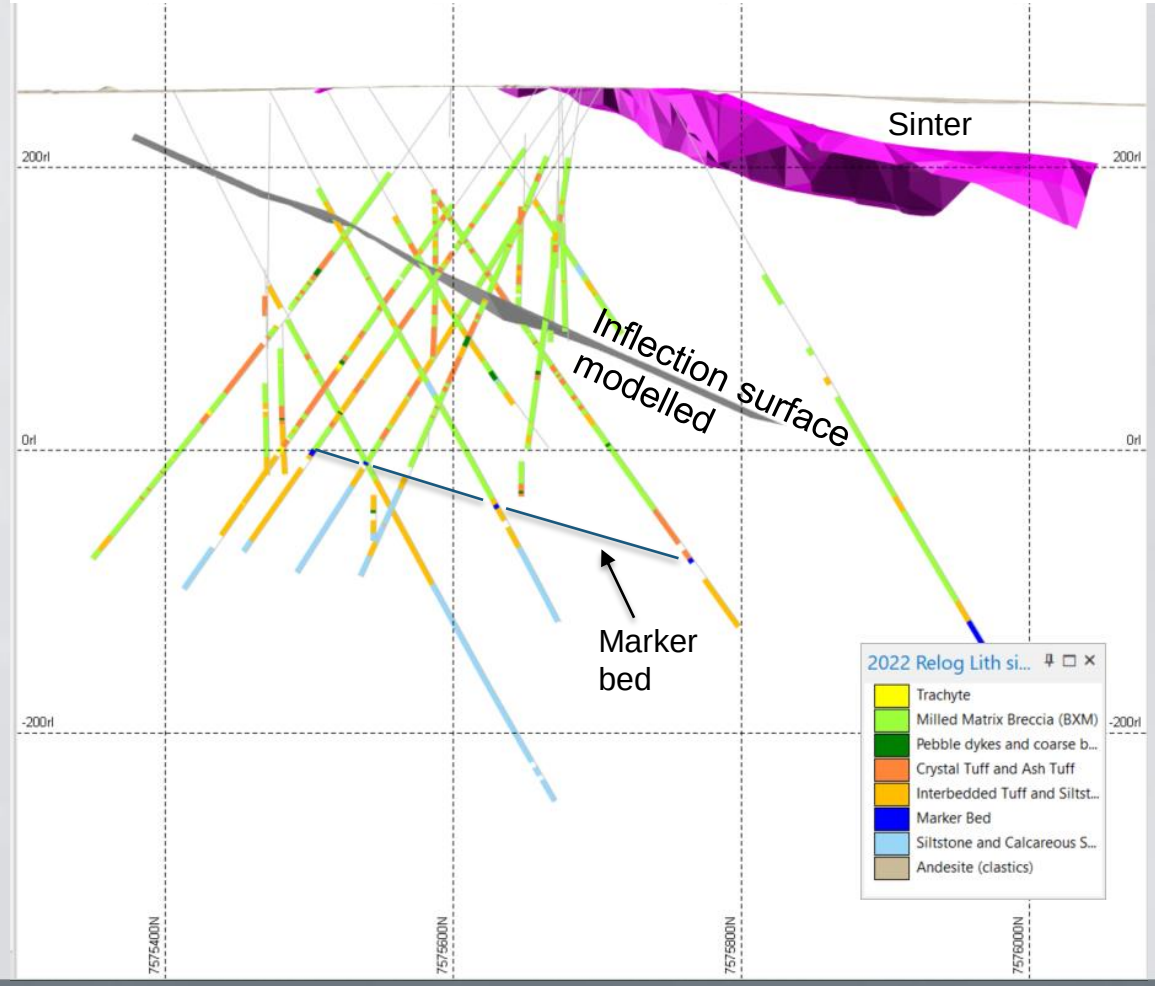
Note dip to the north – what else is dipping north?

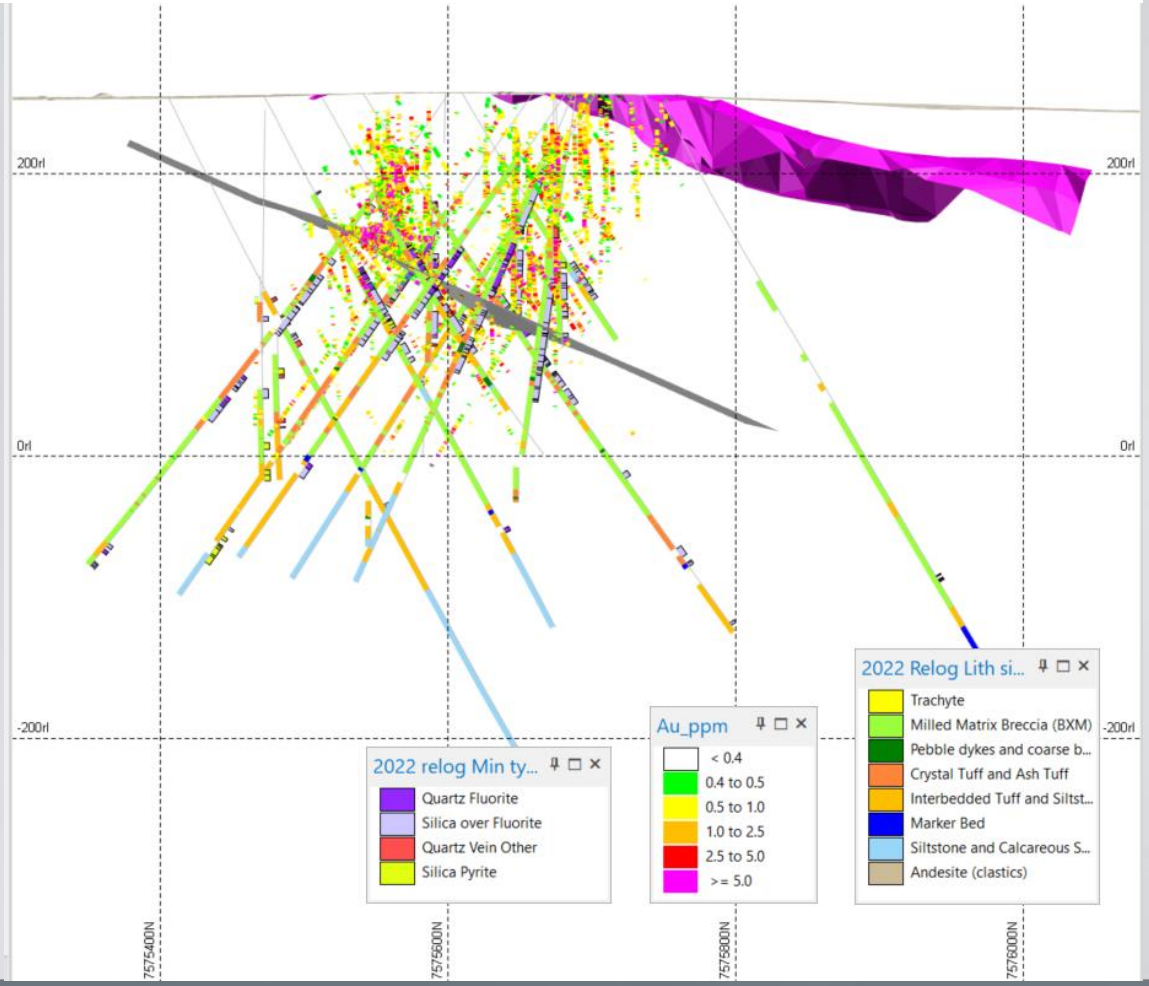
3D view of all assays rotated to look north along surface

3D view of all assays looking west. Modelled surface also shown.

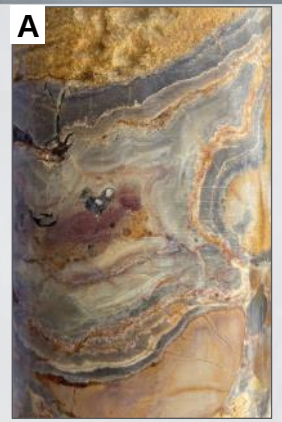
309 Deposit – Revelation

Inflection surface parallel to marker bed, sinter and likely the palaeo surface. Corresponds with abundance of bladed fluorite and change in deposit geometry. We interpret this to represent the top of a boiling zone.





309 Deposit – Mineralisation Model

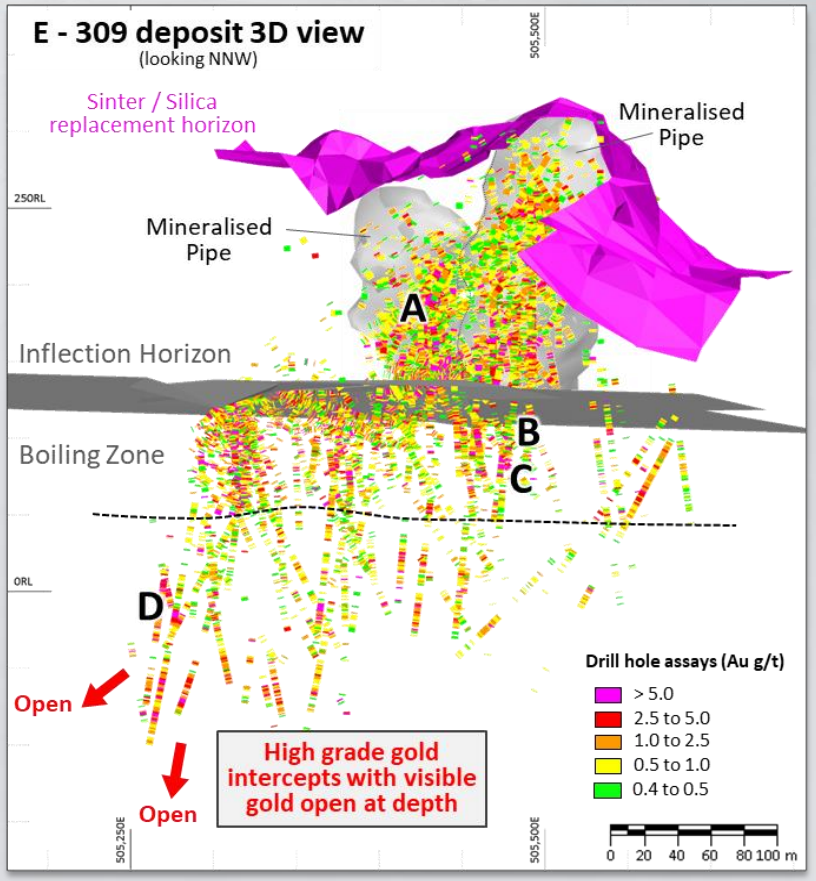


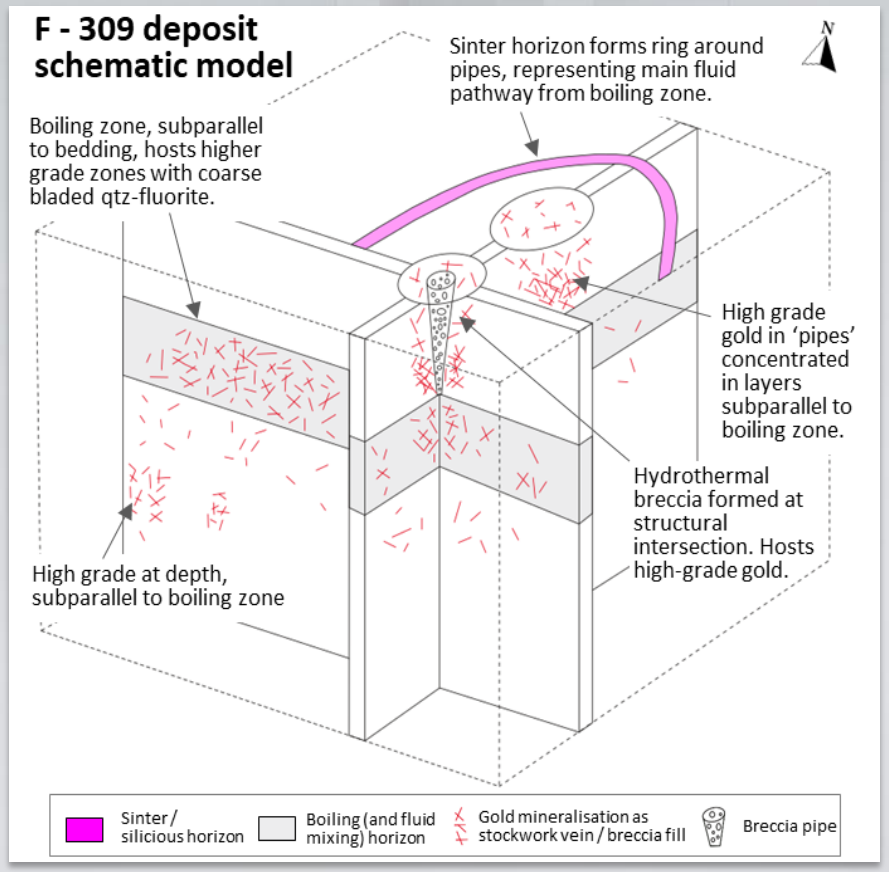
THRCD814, 1 m @ 449.0 g/t Au, 997.0 g/t Ag from 72 m. Ginguro banding with visible gold in breccia pipe.

309DD22003, 15 m @ 3.96 g/t Au from 118 m. Quartz-chalcedony-pyrite replacing bladed fluorite.

309DD22002, 79 m @ 1.09 g/t Au from 131 m. Coarse bladed fluorite.

309DD22005, 1 m @ 129.4 g/t Au from 327 m. Visible gold as electrum, hosted in late chalcedony veins.





309 Deposit mineralisation model. A – D show variation in mineralisation styles across the deposit with sample locations shown on E. Abundant bladed fluorite and fluorite replaced by silica forms in a distinct zone that we interpret to result from boiling. The fluorite-rich boiling zone marks an inflection point in deposit geometry above which mineralisation forms two pipe-like bodies along a NNE trend (E and F). Note that elevated gold grades form in layers sub-parallel to the inflection horizon / boiling zone. F schematic model displays the spatial relationships of key mineralisation features at 309.

309 Deposit – Mineral Resource Estimate

Deposit	MRE Category	Cutoff (Au g/t)	Tonnes	Au (g/t)	Ag (g/t)	Au oz	Ag oz
309 Deposit	**309 Open Pit (above 0 RL)**						
	Measured	0.4	830,000	2.8	5.3	73,900	141,900
	Indicated	0.4	5,480,000	1.3	2.4	235,200	421,100
	Inferred	0.4	3,650,000	1.1	1.7	129,800	198,000
	Total open pit	0.4	9,960,000	1.4	2.4	438,900	761,000
	309 Underground (below 0 RL)						
	Measured	2.0	-	-	-	-	-
	Indicated	2.0	190,000	4.0	2.2	24,500	13,400
	Inferred	2.0	480,000	3.9	1.8	59,900	28,600
	Total underground	2.0	670,000	3.9	1.9	84,400	42,000
	309 Total						
	Measured	0.4 / 2.0	830,000	2.8	5.3	73,900	141,900
	Indicated	0.4 / 2.0	5,670,000	1.4	2.4	259,700	434,500
	Inferred	0.4 / 2.0	4,130,000	1.4	1.7	189,700	226,600
	309 Total	**0.4 / 2.0**	**10,630,000**	**1.5**	**2.3**	**523,300**	**803,000**

- New 309 deposit resource of **10.63 Mt @ 1.5 g/t Au for 523,300 oz Au**[1]
- **64% of the resource now in Measured and Indicated categories**
- This resource **adds 22,700 oz Au** or 5% to the previous MRE of 500,600 oz Au[2]
- This resource also represents a 40% increase (150,400 oz Au) from resource estimate at acquisition of 372,900 oz Au[3]
- Open pit resources **9.96 Mt @ 1.4 g/t Au for 438,900 oz Au**
- Underground resources **0.67 Mt @ 3.9 g/t Au for 84,400 oz Au**

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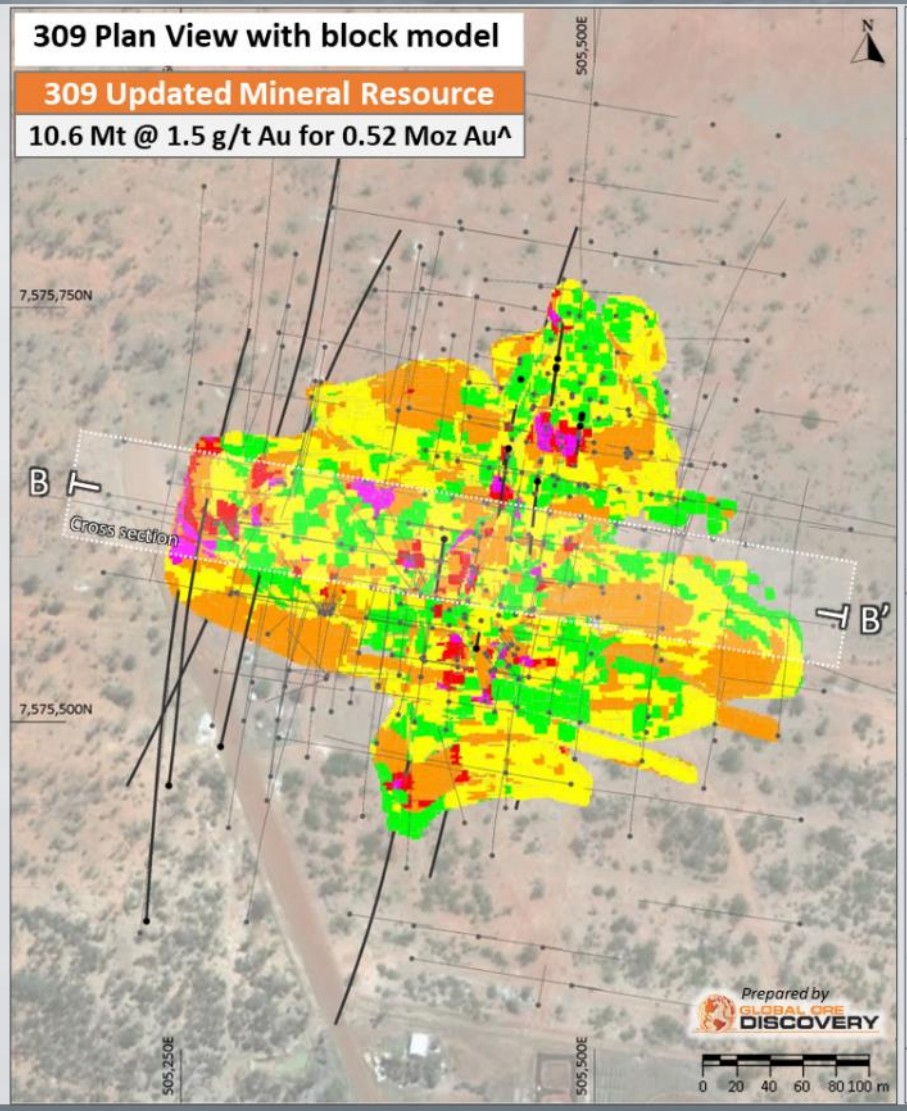
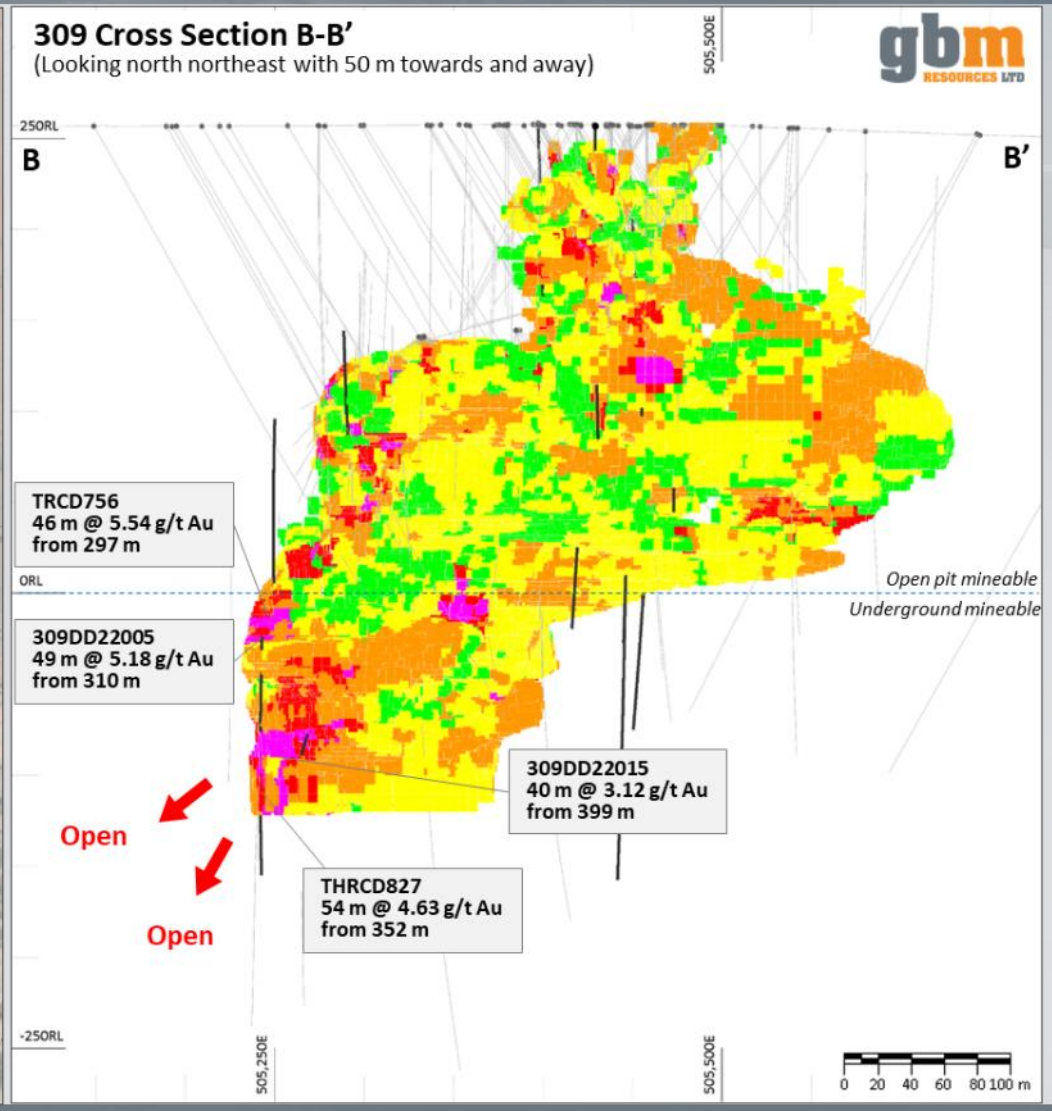
309 Deposit – Mineral Resource Estimate





Drill hole Collar and Trace

GBM 2022 Drilling Historic Drilling

2022 Resource Block Model Au g/t

> 5.0	1.0 to 2.5	0.4 to 0.5
2.5 to 5.0	0.5 to 1.0	

^ Total measured indicated and inferred resource from open pit above 0RL and underground below 0RL

Lone Sister Deposit

In contrast to 309 the geology at Lone Sister was well documented and reasonably well understood.

Lithology

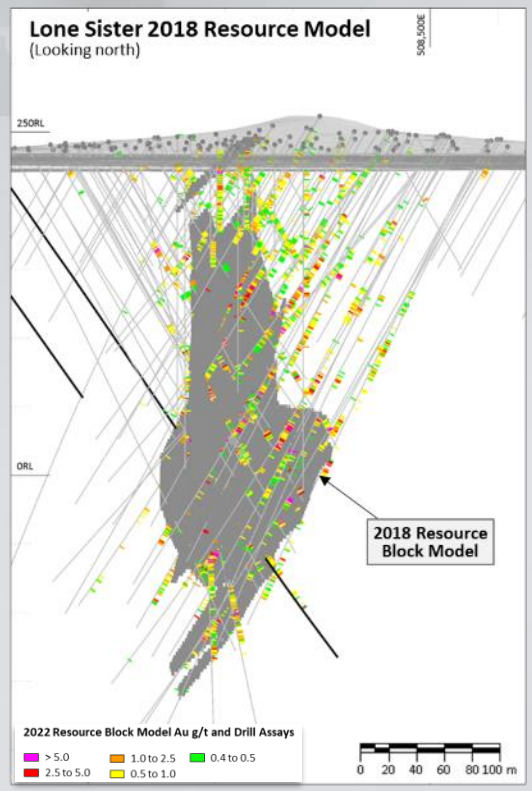
Youngest

- Rhyolite Dyke (subvertical) with abundant flow bands and well developed autobreccia
- Intrusive / hydrothermal breccia likely related to emplacement of the rhyolite
- Andesite Lava with abundant amygdales
- Well bedded andesite (?) tuff
- Interlayered tuff and lavas (possibly mixed chemistry)
- Phreatomagmatic breccia – graded, layers with abundant juvenile clasts
- Coarse volcanic breccia. May be related to unit above.
- Ignimbrite. not sure of the chemistry
- Andesite lava.

Oldest

Mineralisation

- Gold mineralisation manifests as quartz-pyrite veinlets and disseminated pyrite
- Higher grades associated with increased vein density and higher pyrite percentage.
- Rhyolite dyke is dominant host



However, inspection of previous resource estimates against drill hole assays showed A LOT of gold hadn't been included…… why?

Lone Sister Deposit – Lower Andesite

Palaeo surface unconformity?

Flow top autobreccia?

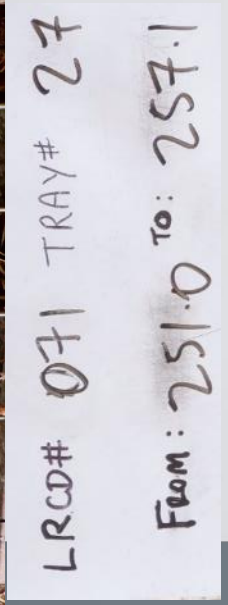
Lone Sister Deposit – Ignimbrite

LRCD009 – 189.7 m

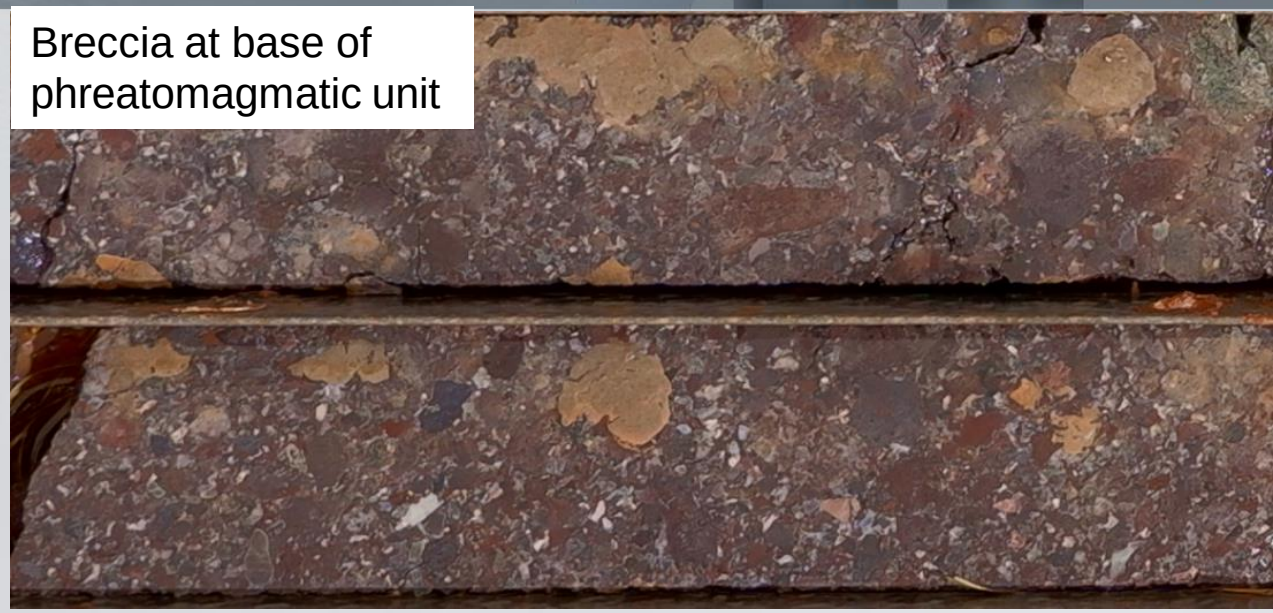
LRCD158 – 305 m

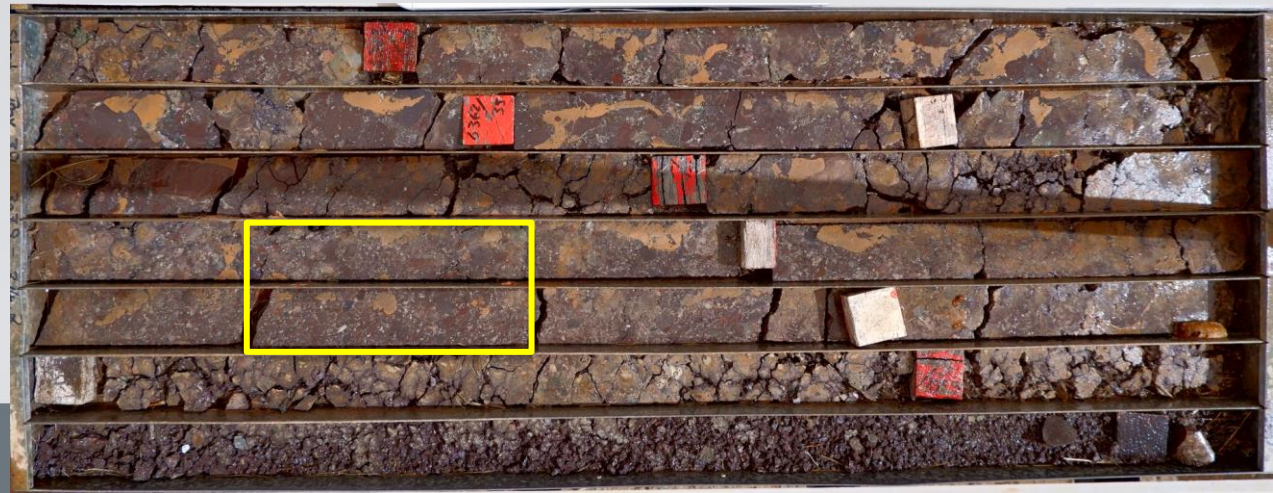
Lone Sister Deposit – Ignimbrite with ash top

Might contain accretionary lapilli?

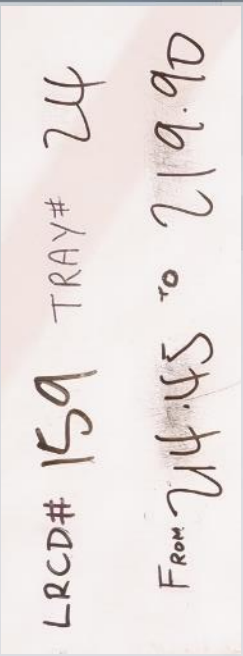


Lone Sister Deposit – Phreatomagmatic Breccia





Lone Sister Deposit – Phreatomagmatic Breccia



LRCD153 – 270.5 m

Lone Sister Deposit – Volcaniclastics and Upper Andesite

Volcaniclastics

Andesite lava showing chilled margin contact with underlying volcaniclastics

Andesite lava with abundant amygdales

LSDD22001, 176 m

LRCD158, 316 m

Lone Sister Deposit – Breccia adjacent to rhyolite

Lone Sister Deposit – Rhyolite with Auto-brecciated and Flow Banded Margin

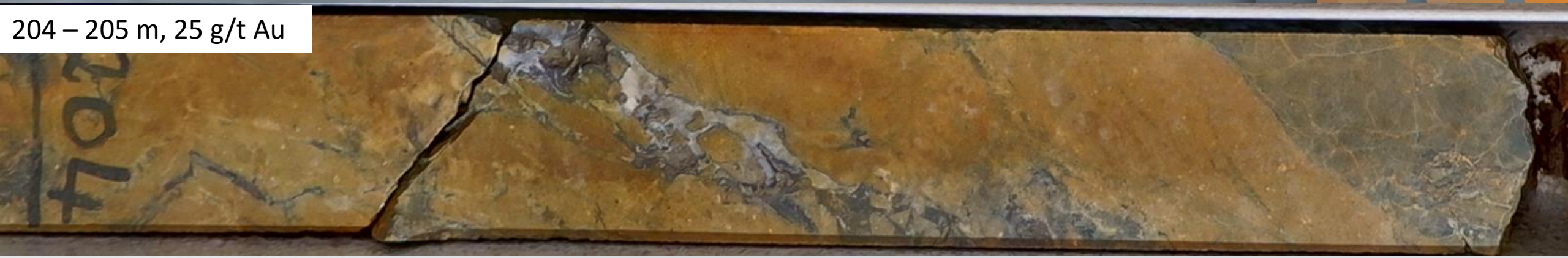
Lone Sister Deposit – Gold Mineralisation in Rhyolite

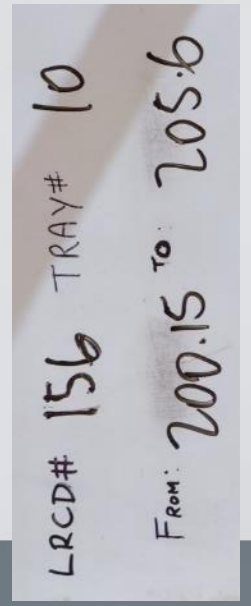
LSDD22001, 285.2 – 285.5 8.6 g/t Au

LRCD152, 272.7 – 273 25.3 g/t Au

Lone Sister Deposit – Gold Mineralisation in Rhyolite

204 – 205 m, 25 g/t Au





Lone Sister Deposit – Gold Mineralisation in Ignimbrite

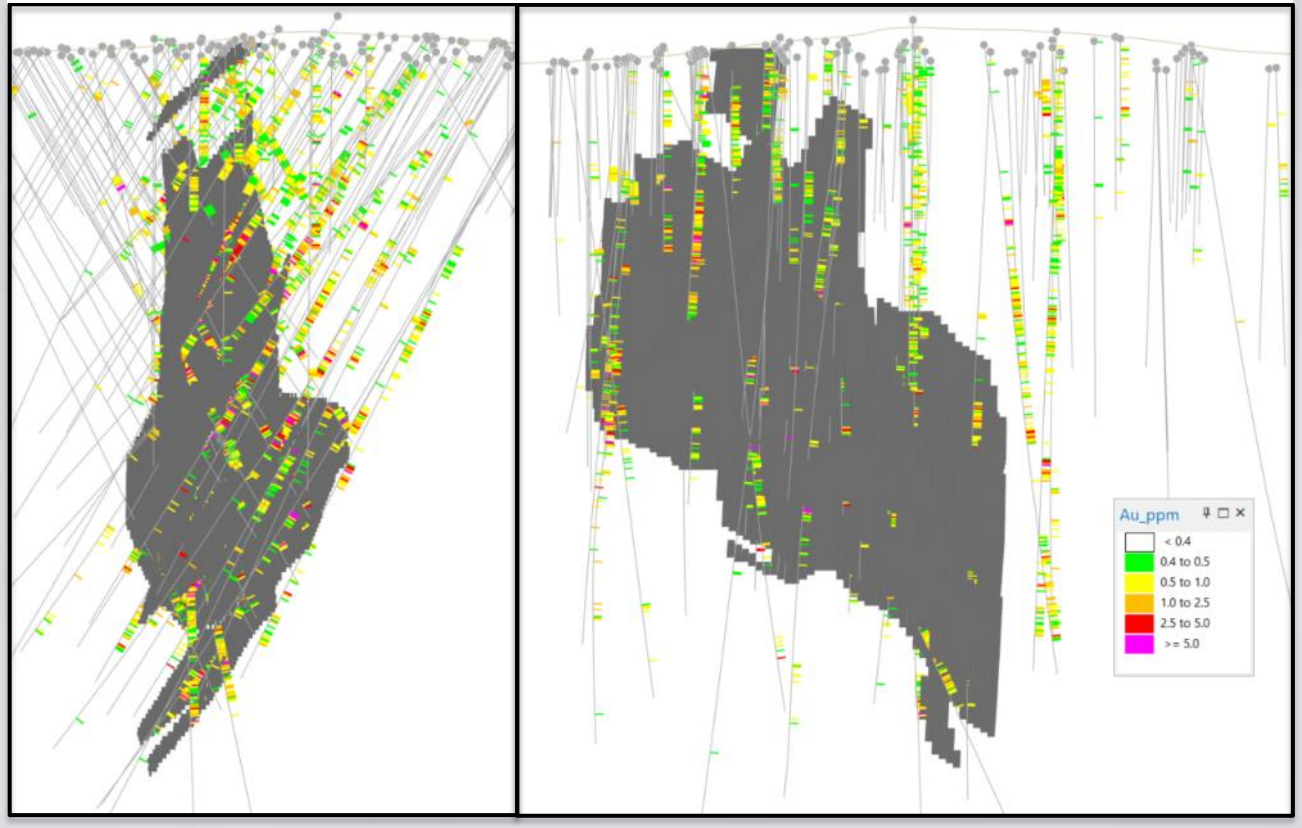
LRCD151, 242.75 – 243 M 12 g/t Au

Lone Sister Deposit – Why was mineralisation not modelled?

- Confirm geology interp
- Confirm mineralisation style
- Confirm mineralisation host
- Confirm plunge and dip of mineralisation
- Detailed validation of data against original plans, sections, reports, assay sheets.

- Preference for trucking ore to distant mine site meant that only high grade ore (2 g/t Au cut off) was modelled.
- The total resource was not reported.

2018 block model overlain by drilling and Au (g/t) assays



3D section looking North

3D section looking west

Lone Sister Deposit – Mineral Resource Estimate

Deposit	MRE Category	Cutoff (Au g/t)	Tonnes	Au (g/t)	Ag (g/t)	Au oz	Ag oz
Lone Sister Deposit	**Lone Sister Open Pit (above 0 RL)**						
	Measured	0.4	-	-	-	-	-
	Indicated	0.4	5,250,000	1.3	15.2	227,300	2,559,200
	Inferred	0.4	6,550,000	0.9	6.5	188,500	1,370,700
	Total open pit	0.4	11,800,000	1.1	10.4	415,800	3,929,900
	Lone Sister Underground (below 0 RL)						
	Measured	2.0	-	-	-	-	-
	Indicated	2.0	370,000	2.9	4.3	34,300	51,800
	Inferred	2.0	310,000	2.6	4.0	25,800	39,900
	Total underground	2.0	680,000	2.7	4.2	60,100	91,700
	Lone Sister Total						
	Measured	0.4 / 2.0	-	-	-	-	-
	Indicated	0.4 / 2.0	5,620,000	1.4	14.5	261,600	2,611,000
	Inferred	0.4 / 2.0	6,860,000	1.0	6.4	214,300	1,410,600
	Lone Sister Total	**0.4 / 2.0**	**12,480,000**	**1.2**	**10.0**	**475,900**	**4,021,600**

- New Lone Sister resource of **12.48 Mt @ 1.2 g/t Au for 475,900 oz Au**[1]
- **55% of the resource now in Measured and Indicated categories**
- **New** resource **adds 215,800 oz Au** or 83% to the previous estimate of 260,100 oz Au[2]
- Open pit resources of **11.8 Mt @ 1.1 g/t Au for 415,800 oz Au**
- underground resources **0.68 Mt @ 2.7 g/t Au for 60,100 oz Au**
- High grade mineralisation remains open down plunge

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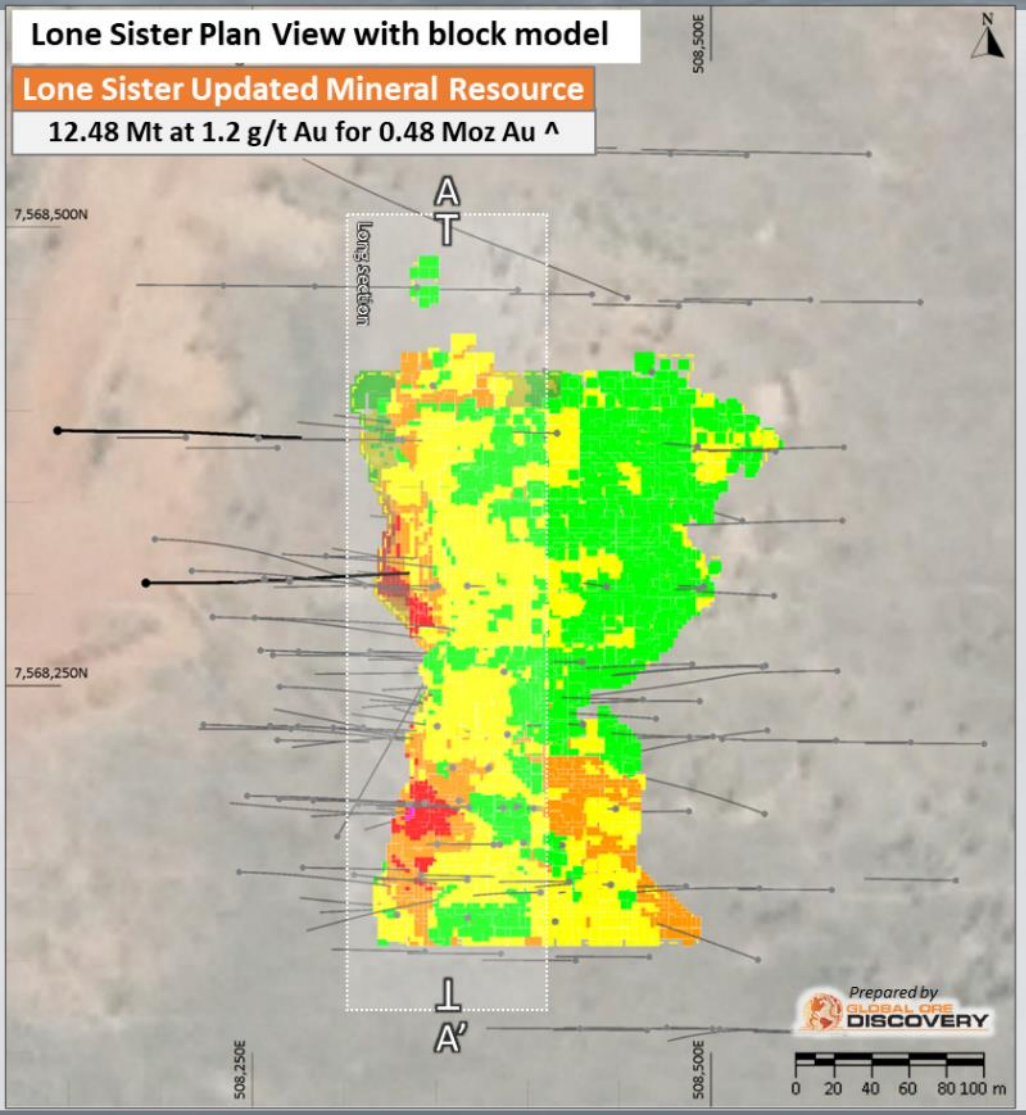
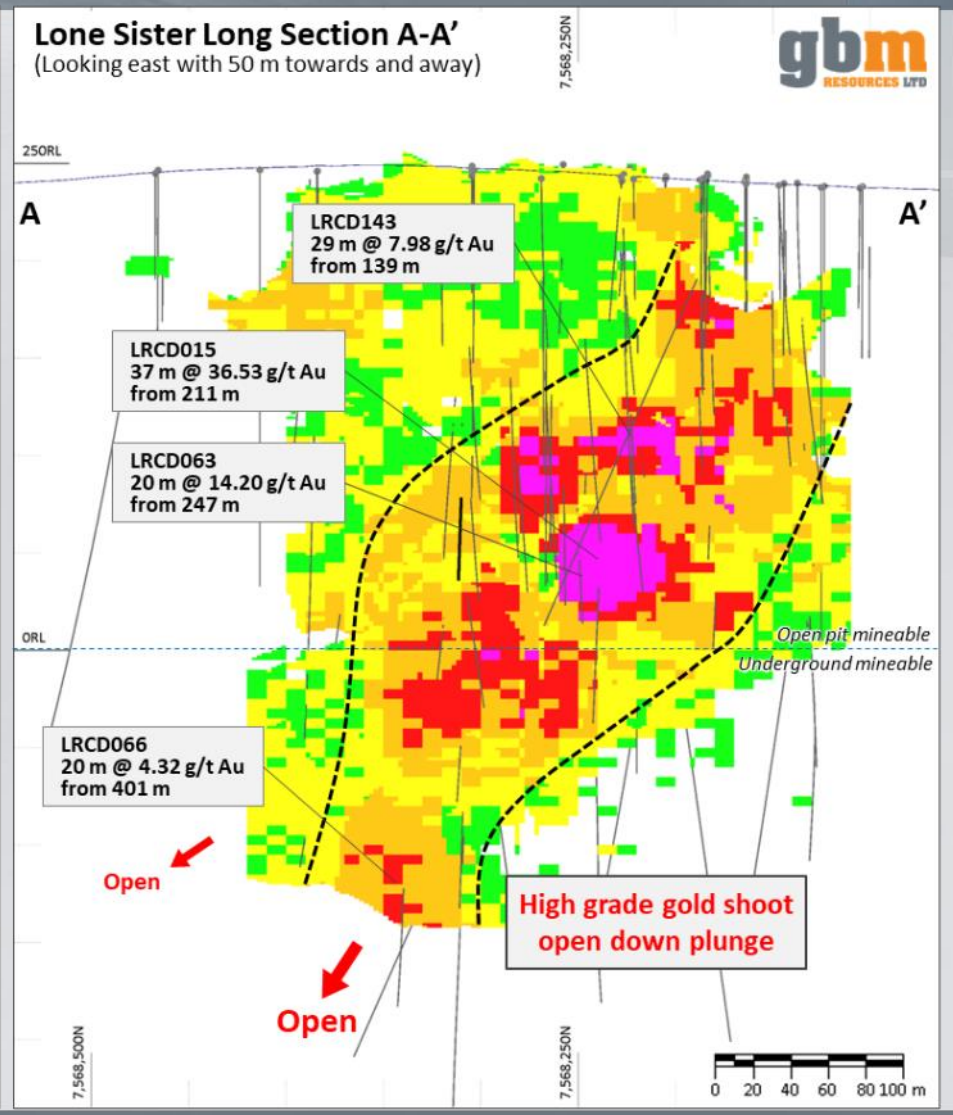
Lone Sister Deposit – Mineral Resource Estimate





Drill hole Collar and Trace

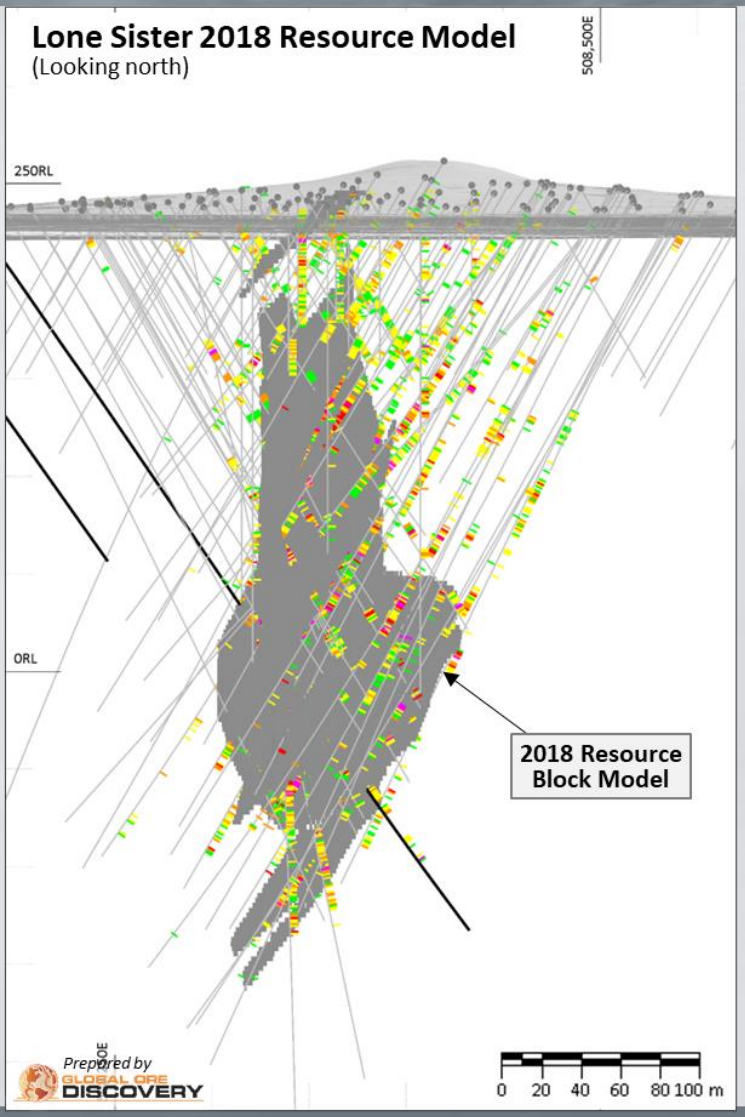
- GBM 2022 Drilling
- Historic Drilling

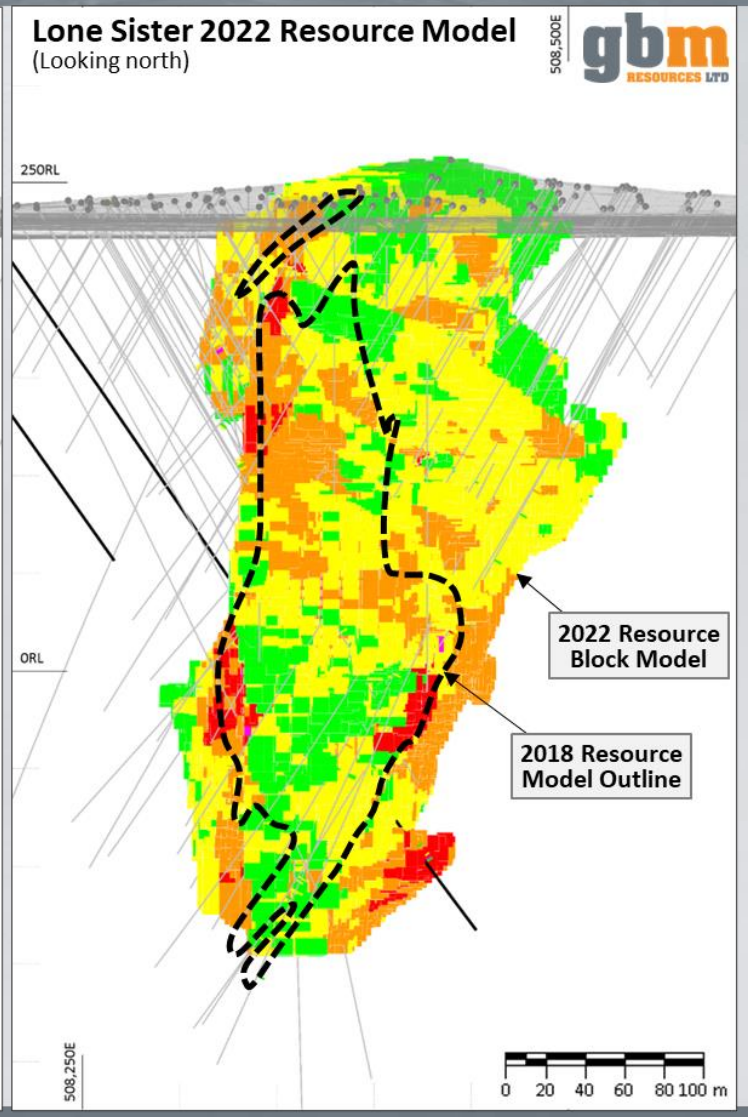
2022 Resource Block Model Au g/t and Drill Assays

- > 5.0
- 2.5 to 5.0
- 1.0 to 2.5
- 0.5 to 1.0
- 0.4 to 0.5

^ Total measured indicated and inferred resource from open pit above 0RL and underground below 0RL

Lone Sister Deposit – Mineral Resource Estimate





- 2022 Lone Sister Resource Model adds additional 215,800 oz Au, for 83% increase ^

Drill hole Collar and Trace

GBM 2022 Drilling

Historic Drilling

2022 Resource Block Model Au g/t and Drill Assays

> 5.0
2.5 to 5.0
1.0 to 2.5
0.5 to 1.0
0.4 to 0.5

^ Total measured indicated and inferred resource from open pit above 0RL and underground below 0RL

Twin Hills – Combined Resources

- New Twin Hills combined resource of **23.11 Mt @ 1.3 g/t Au and 6.5 g/t Ag for 999,200 oz Au and 4,824,600 oz Ag[1]**
- 60% of the resource now in Measured and Indicated categories.
- The new resource estimate **adds 238,500 oz Au** or 31% to the previous estimate of 760,700 oz Au[2]
- 58% increase (366,200 oz Au) in resources from the resource estimate at acquisition of 633,000 oz Au[3]
- Open pit resources of **21.76 Mt @ 1.2 g/t Au for 854,700 oz Au**
- Underground resources **1.35 Mt @ 3.3 g/t Au for 144,500 oz Au**
- **GBM's Drummond Basin resources now 1,850,700 oz Au[1]**

Deposit	MRE Category	Cutoff (Au g/t)	Tonnes	Au (g/t)	Ag (g/t)	Au oz	Ag oz
Twin Hills Total	**Twin Hills Open Pit (above 0 RL)**						
	Measured	0.4	830,000	2.8	5.3	73,900	141,900
	Indicated	0.4	10,730,000	1.3	8.6	462,500	2,980,300
	Inferred	0.4	10,200,000	1.0	4.8	318,300	1,568,700
	Total open pit	0.4	21,760,000	1.2	6.7	854,700	4,690,900
	Twin Hills Underground (below 0 RL)						
	Measured	2.0	-	-	-	-	-
	Indicated	2.0	560,000	3.3	3.6	58,800	65,200
	Inferred	2.0	790,000	3.4	2.7	85,700	68,500
	Total underground	2.0	1,350,000	3.3	3.1	144,500	133,700
	Twin Hills Total						
	Measured	0.4 / 2.0	830,000	2.8	5.3	73,900	141,900
	Indicated	0.4 / 2.0	11,290,000	1.4	8.4	521,300	3,045,500
	Inferred	0.4 / 2.0	10,990,000	1.1	4.6	404,000	1,637,200
	Twin Hills Total	**0.4 / 2.0**	**23,110,000**	**1.3**	**6.5**	**999,200**	**4,824,600**

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Twin Hills – In Summary

- To understand a deposit you must map out the hydrothermal system
- This can be achieved quickly through systematically recording key features of mineralisation
- Always consider what the distribution and style of the ore minerals is telling you.
- Understand your deposit before applying economic criteria