Sunshine Metals Limited
ABN 12 063 388 821
U26,31-45 Eyre St
North Ward, Qld 4810

ASX: SHN
+61 8 6245 9828
info@shnmetals.com.au
shnmetals.com.au

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ASX Release

27 May 2025

Sunshine to Acquire High-Grade Epithermal Gold Project

Highlights (All amounts are in A$ unless otherwise stated)

- Sunshine has entered into a binding agreement to acquire the high-grade Sybil Epithermal Au Project ("Sybil") from an unrelated, private party. The consideration totals $1.225M of which $125,000 is cash with a further $1.1M of fully paid ordinary shares on Resource and production milestones. Further details are shown later in this announcement. The acquisition is subject to Completion which is expected in July 2025.
- Sybil contains known, high-grade gold (Tables 1 & 2) and serves Sunshine's strategy to identify shallow (<50m) oxide gold Resources for potential processing while further consolidating our district presence around Charters Towers.
- Sybil's most advanced prospect, Francis Creek, contains 108 drill holes (6,107m, average hole depth 57m). Best results include:
    - **7m @ 10.6g/t Au** from 7m (FCP05)
    - **3m @ 23.2g/t Au** from 6m (open at end of hole, FCP04)
    - **6m @ 10.5g/t Au** from 7m (open at end of hole, FCP46)
    - **6m @ 8.4g/t Au** from 5m (FCP17)
    - **4m @ 11.6g/t Au** from 4m (FCP30)
- In addition, rock chips of **907g/t Au** and **262g/t Au** have been returned (Figure 5, Table 2). A bulk sample also produced **961t @ 7.6g/t Au (235oz Au)** (Figure 2).
- Sybil is analogous to the nearby Pajingo epithermal system (~4Moz Au produced[1]) and has seen little exploration for the last 20 years.

Sunshine Metals Limited (ASX:SHN, "Sunshine") has entered into a binding agreement to acquire the high-grade, Sybil epithermal gold project, subject to Completion.

Sunshine Managing Director, Dr Damien Keys, commented *"Sybil represents an under-explored gold project with exceptional, near-surface gold drilling and rock chip sample results which serves our strategy of achieving near-term production while expanding our district presence around Charters Towers.*

Sybil shares many commonalities with the 4Moz Au Pajingo Mine near Charters Towers in that both are epithermal gold systems of the same age, hosted in similar rocks and sharing the same geochemical signatures. There is a fantastic opportunity to apply recent learnings on epithermal systems to a well mapped region that has not been extensively explored.

[1] Minjar Gold 2022 website & Portergeo Database (https://portergeo.com.au/database/mineinfo-mb.asp?mineid=mn227)

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This acquisition, subject to Completion, ties in with our strategy of targeting near surface gold. With assays pending from our recent Liontown drilling program, drilling soon at Salla and Plateau and our CEI funded work programs commencing soon, it shapes as an exciting time ahead."

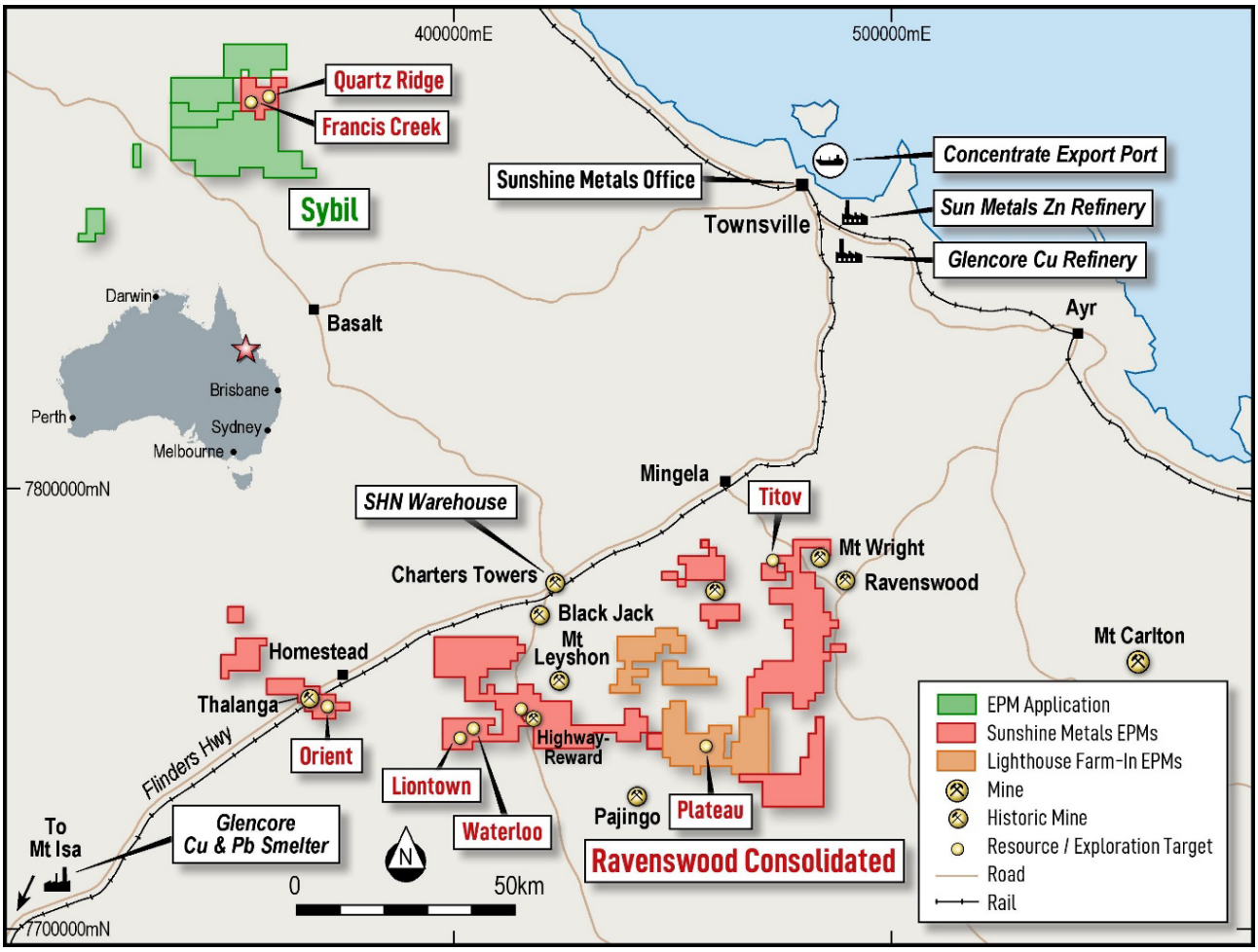


Figure 1: *Sybil is located ~135km west of Townsville and ~140km north of Charters Towers.*

Sybil High-Grade, Epithermal Project

Sybil is an epithermal gold system, located 135km west of Townsville (Sunshine head office) and ~140km north of Charters Towers (**Figure 1**). Gold was first identified at the project in 1986. The project was explored under joint venture between 1986-1996. Sybil attracted the attention of large companies including Homestake Gold, Battle Mountain and Cyprus Gold.

Sybil is a situated on a large (>40km) long extensional structure infilled with Permian-Carboniferous volcanics (**Figure 3**). The Sunshine tenure, when completed, covers the northern portion of the structure, encompassing the shallowest portion of the low-sulphidation, high-grade gold system.

Initial rock chip sampling, stream sediment sampling and detailed mapping have been completed at several prospects. However, drilling has largely focussed on Francis Creek and Quartz Ridge. Given known, high-grade gold, Sybil remains highly underexplored.

Epithermal mineralisation was first identified at Francis Creek in 1986. Mapping identified several veins displaying classic colloform, crustiform and cockade epithermal textures. Rock chip sampling

and costeaning followed on the A Vein and Main Vein returning a maximum rock chip sample grades of **907g/t Au** and **262g/t Au (Figure 4, Table 1)**. A bulk sample collected (1991) from the A Vein was processed through the Ravenswood Gold Mine and produced **961t @ 7.6g/t Au (235oz Au)** (**Figure 2**). No further mining or bulk sampling has occurred.

Numerous small drilling campaigns have been completed at Francis Creek with best intersections to date occurring at shallow depths (**Figure 4**) (see Table 1). Little exploration has been completed since 1996.

HOLE ID	From (m)	To (m)	Interval (m)	Au (g/t)	Au g/t * m
FCP05	7	14	**7**	**10.6**	74.2
FCP04	6	9	**3**	**23.2**	69.6
FCP46	7	13	**6**	**10.5**	63.0
FCP17	5	11	**6**	**8.4**	50.4
FCP30	4	8	**4**	**11.6**	46.4
FCP07	17	21	**4**	**11.2**	44.8
FCP44	5	15	**10**	**3.9**	39.0
FCP03	9	15	**6**	**6.1**	36.6
FCP40	5	12	**7**	**4.7**	32.9
FCP01	6	11	**5**	**5.9**	29.5
FCP45	0	3	**3**	**9.4**	28.2
FCP09	13	17	**4**	**6.8**	27.2
FSR010	23	26	**3**	**6.6**	19.8
FCP42	5	11	**6**	**3.0**	18.0
FCP28	4	8	**4**	**3.8**	15.2
FSR020	66	69	**3**	**4.2**	12.6
FCP14	6	10	**4**	**3.0**	12.0
FSR029	64	67	**3**	**3.5**	10.5
FSRD095	28.25	29.25	**1**	**9.8**	9.8
FSR108	84	85	**1**	**9.8**	9.8

Table 1: *Best 20 drill intersections from Francis Creek.*

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Prospect	Au (g/t)	Sample ID	EAST_MGA	NORTH_MGA	Year	Company
Francis Creek	**907**	Q30151	353411.4	7887268.0	1988	Battle Mountain
Francis Creek	**262**	Q30152	353412.3	7887267.4	1988	Battle Mountain
Francis Creek	**200**	Q28797	353410.6	7887269.0	1988	Battle Mountain
Francis Creek	**58.5**	Q30153	353412.9	7887267.1	1988	Battle Mountain
Francis Creek	**43.6**	Q29803	353414.7	7887266.7	1988	Battle Mountain
Francis Creek	**22.4**	Q34371	353263.3	7887431.1	1988	Battle Mountain
Francis Creek	**21.8**	Q28731	353339.0	7887360.5	1988	Battle Mountain
Francis Creek	**19.9**	F66854	353207.6	7887494.5	1988	Battle Mountain
Francis Creek	**19.8**	Q34371	353265.8	7887429.0	1988	Battle Mountain
Francis Creek	**19.5**	Q28744	353420.2	7887260.7	1988	Battle Mountain
Francis Creek	**19.4**	Q34368	353217.0	7887484.0	1988	Battle Mountain
Francis Creek	**19.2**	Q34367	353194.8	7887496.3	1988	Battle Mountain
Francis Creek	**18.3**	Q34370	353256.2	7887437.2	1988	Battle Mountain
Francis Creek	**17.8**	Q34368	353211.4	7887485.4	1988	Battle Mountain
Francis Creek	**17.4**	Q34370	353259.7	7887434.4	1988	Battle Mountain
Francis Creek	**13.6**	F66404	353791.9	7887120.1	1986	Homestake
Francis Creek	**13.4**	F66129	353427.5	7887249.3	1988	Battle Mountain
Francis Creek	**12.1**	Q34372	353270.3	7887425.8	1988	Battle Mountain
Francis Creek	**11.7**	Q28743	353409.7	7887270.3	1988	Battle Mountain
Francis Creek	**11.2**	Q34363	353138.6	7887570.5	1988	Battle Mountain

Table 2: *Best 20 rock chip samples collected from Francis Creek.*



Figure 2: *Shallow airtrack drilling beneath the 1991 trial pit at Francis Creek (from CR40465, 2005).*

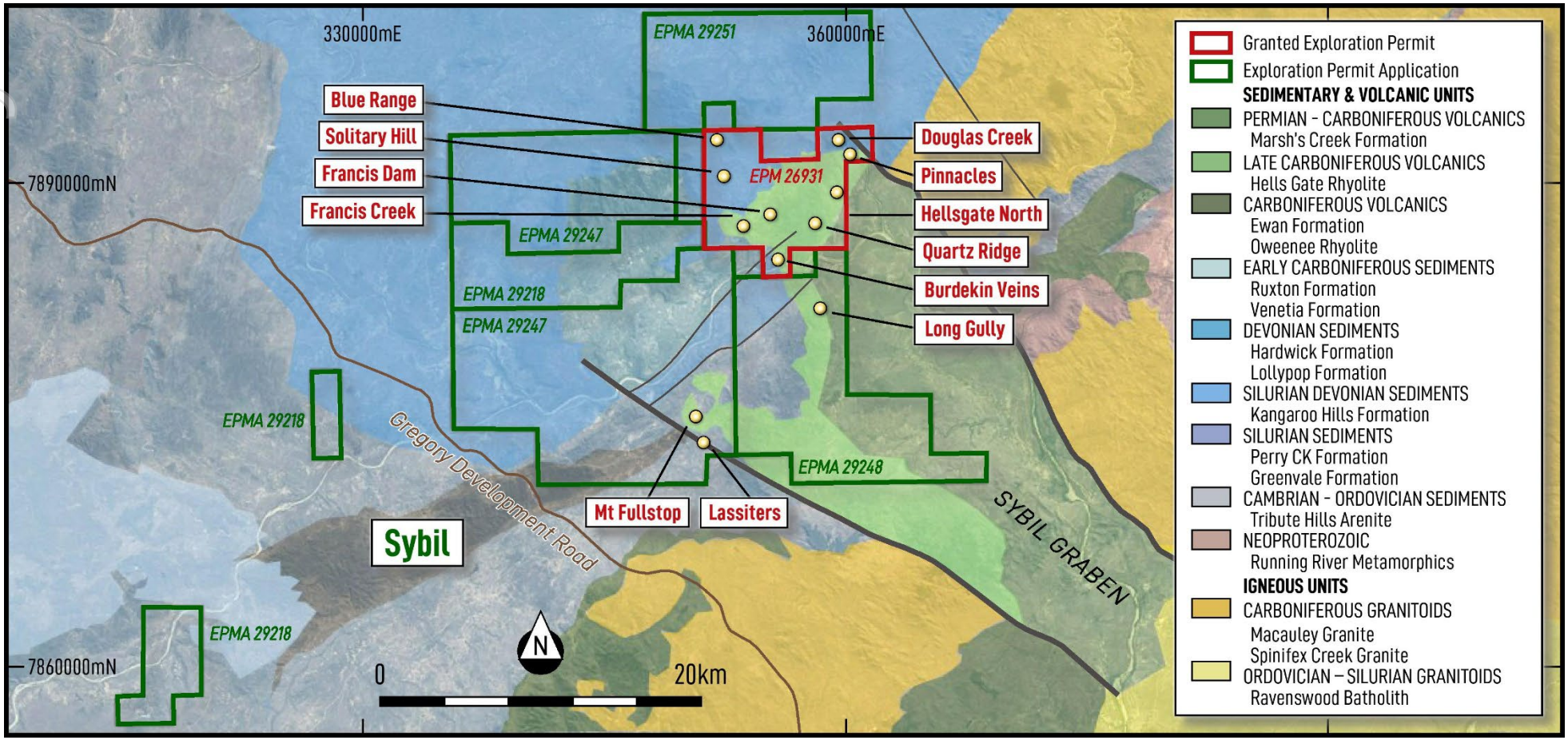


Figure 3: *Sybil tenure, regional geology and prospects*

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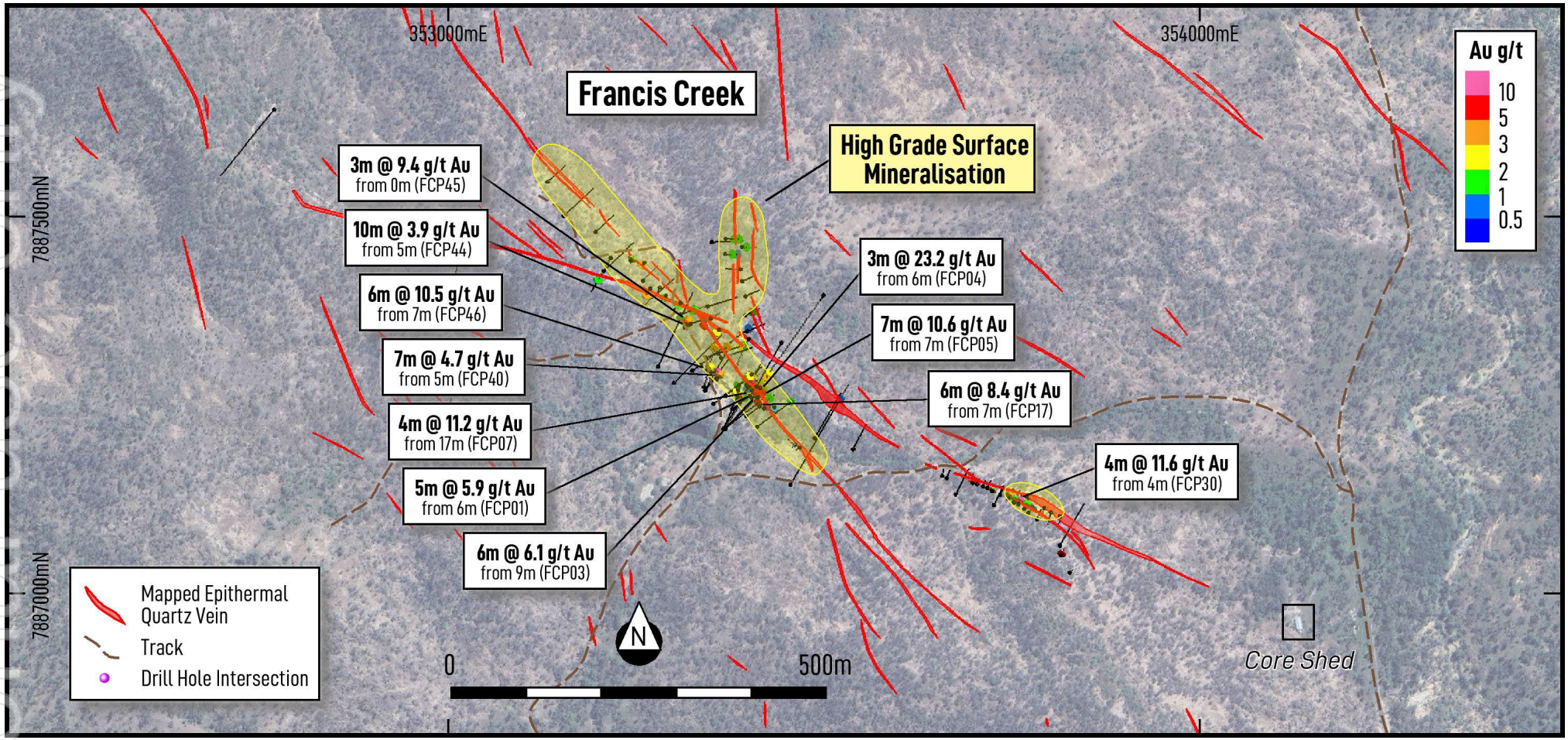


Figure 4: Historic, high-grade drilling at Francis Creek

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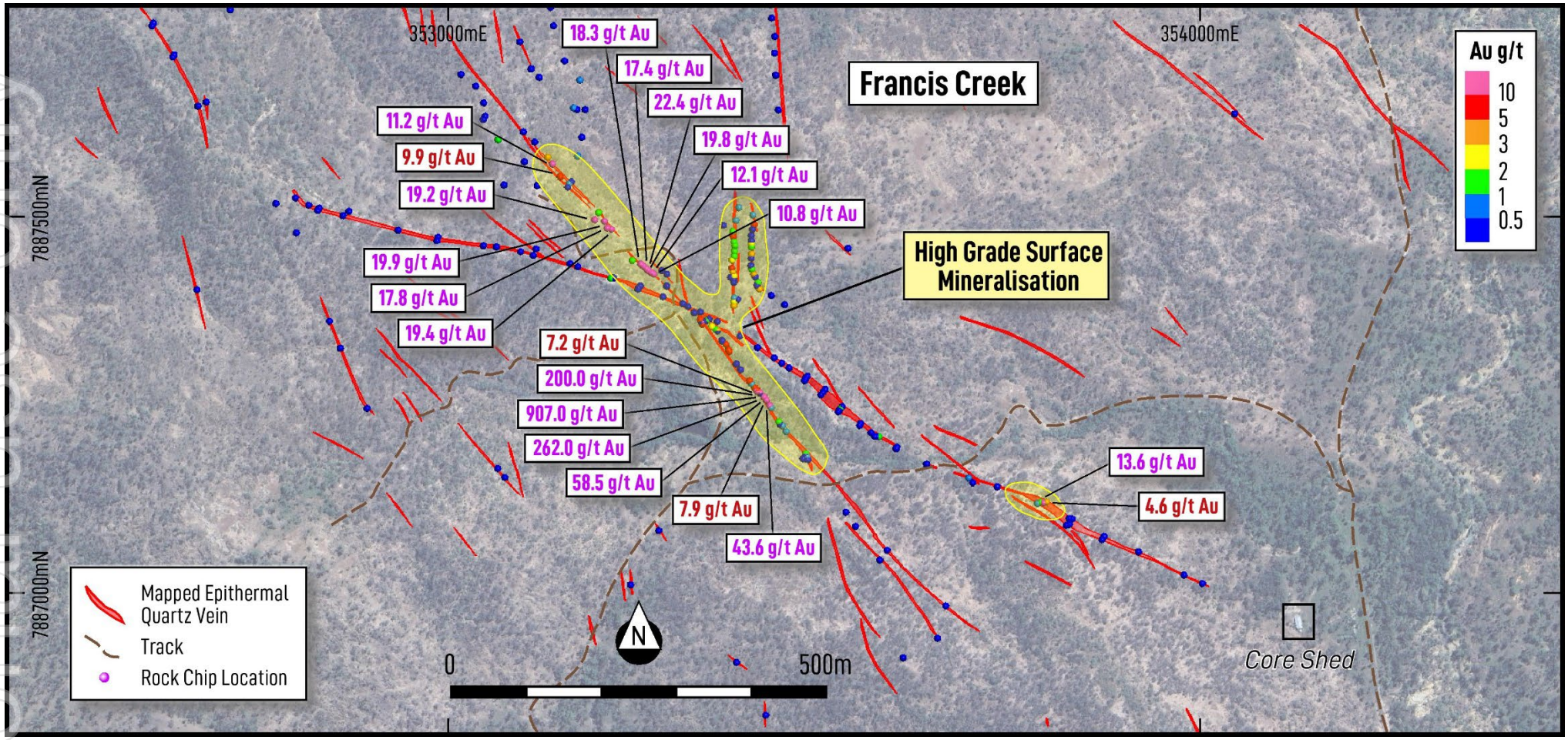


Figure 5: High-grade historic rock chip sample locations at Francis Creek

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Sybil Prospects Summary

Quartz Ridge

At Quartz Ridge disseminated gold mineralisation occurs within a major zone of hydrothermal alteration and brecciation that covers an area of 3km^2 and is characterised by pervasive silica flooding and broad zones of disseminated pyrite. Intersections to date include FSR070; 68m @ 0.38g/t Au (from 36m), FSR035; 22m @ 0.55g/t Au (from surface) and FSR070; 2m @ 3.9g/t Au, including 1m @ 6.9g/t Au (from 102m). The encouraging intersections typically occur within epiclastic sequences above the interpreted target boiling zone which remains untested. Battle Mountain and QLD Epithermal Minerals completed 4,750m of drilling (36 holes) at Quartz Ridge.

Francis Creek East

The Francis Creek East prospect, ~300m east of Francis Creek. is a north-west trending sheeted stockwork of epithermal quartz veins that is up to 100m wide. Historic rock chips of up to 28.1g/t Au are reported from Francis Creek East and remain un-tested by drilling.

Burdekin Veins

The Burdekin Veins prospect comprises two zones of epithermal quartz veining that occur within the Hells Gate Rhyolite near the Sybil Graben Fault. The Burdekin Veins prospect reports rock chip values to 3.02g/t Au and elevated Sb levels suggesting Au mineralization may improve at depth. The Burdekin veins were first explored by Battle Mountain in 1988 who completed three shallow RC holes for a total of 172m.

Blue Range

The Blue Range prospect is zone of epithermal quartz veining located 6km north-west of Francis Creek reporting rock chip values up to 20.4g/t Au. City Resources drilled 11 shallow percussion holes for a total of 64m.

Pinnacles

The Pinnacles prospect is situated approximately 5km to the north-east of Quartz Ridge and occurs towards the eastern end of a prominent east-west topographic high. The prospect was discovered as a result of follow-up investigation of regional stream sediment gold and arsenic anomalies by Battle Mountain in 1989. Detailed geological mapping, rock chip and grid-based soil sampling defined coincident Au and As anomalies that were associated with zones of intense silicification and quartz vein stockworks. Battle Mountain tested these anomalies with a program of 15 RC percussion holes for a total of 1,552 metres. Broad zones of gold mineralization were intersected in holes FSR055 (48m @ 0.22 g/t Au from 16m) and FSR056 (26m @ 0.21 g/t Au from 6m & 27m @ 0.35 g/t Au from 72m).

Lassiters

The Lassiters prospect is situated in the southern part of EPM26931. The main area of interest is a 3km long zone of alteration that is up to 500m wide and coincides with a reverse polarised aeromagnetic feature similar to those associated with the large mineralizing systems at Mt Leyshon and Red Dome. Alteration comprises strong silicification of the host pelitic sediments and is accompanied by widespread iron and manganese oxides. Pervasive and multi-phased quartz vein stockworks are present and commonly have an orientation that is parallel to the north-west trend of the Sybil Graben boundary faults. Lassiters remains untested by drilling.

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Low-Sulphidation, Epithermal Gold Systems

Low-sulphidation epithermal gold systems play a significant role in global gold production, due to their large size and high grades. These systems are widely distributed in volcanic belts around the world.

The term Epi refers to “near” or “at the surface” and thermal referring to “heat” as epithermal deposits form at depths typically less than 1.5km at relatively low temperatures (100°-300°C).

The Pajingo low-sulphidation epithermal deposit is located nearby and shares many geological similarities. Both Sybil and Pajingo:

- Are of Carboniferous age, hosted in competent volcanic units overlaying Devonian aged sedimentary sequences.
- Are capped by hydrothermally altered volcaniclastic units derived from syn-mineralisation volcanism.
- Strike NNE, an orientation sub-parallel to the graben margin at Sybil and interpreted orientation of the Pajingo graben and both likely formed during similar extensional events.
- Exhibit zones of outcropping gold bearing quartz veins of >10km^2.
- Are hosted in shallowly dipping Volcano-sedimentary sequences and partially blanketed by younger cover sequences.
- Show similar vein textures and compositions. Crustiform and colloform quartz-adularia veins host high-grade gold at both Sybil & Pajingo with the Pajingo deposit producing ~4Moz gold since 1986[1] (**Figure 6**)

Accordingly, Sybil is highly prospective for Pajingo style gold mineralisation and remains underexplored. Minimal modern exploration has occurred at Sybil despite significant advances in knowledge and understanding of low-sulphidation epithermal systems.

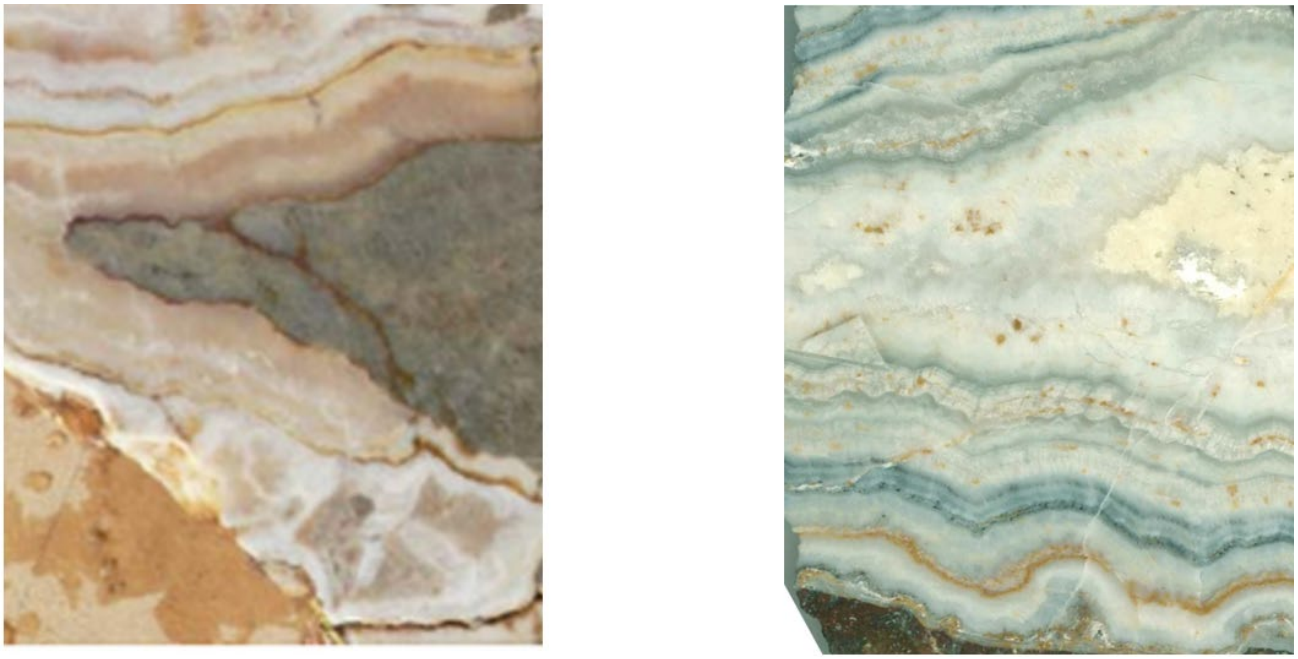


Figure 6: left: Crustiform, colloform quartz-adularia veining (Francis Creek, Sybil), right: Crustiform, colloform quartz-adularia veining (Sonia, Pajingo).

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Pathfinder Geochemistry

Geochemical zonation in low-sulphidation, epithermal systems refers to the systematic variation in mineralogy and metal content with depth, primarily controlled by temperature, pressure, and fluid-rock interaction during ore formation (**Figure 7**). Three main zones can be differentiated:

Upper (Volatile Element) Zone: Shallow levels are typically dominated by silica-rich caps and exhibit enrichment in volatile elements such as Sb, As and Hg, with the upper zones typically hosting only low-grade Au & Ag. Vein textures from the upper zones of the system include agate and bladed carbonate

Boiling (Precious Metal) Zone: Boiling of hydrothermal fluids is one of the main drivers of metal deposition and zonation, especially for Au and Ag. High-grade zones are typically located near the boiling level. Other metals enriched within this zone generally include As & Mo. Associated minerals include adularia and commonly strong sericite-pyrite alteration assemblages. Vein textures displayed within this zone are crustiform & colloform-banded quartz veins (**Figure 8**).

Lower (Base Metal) Zone: The lower zone is typically enriched in base metals Cu, Pb & Zn with decreasing Au & Ag grades. Vein textures seen in the lower zone include crustiform quartz and quartz pseudomorphs after carbonate. This zonation reflects the evolution of hydrothermal fluids as they ascend and cool. This is a crucial guide for epithermal exploration targeting.

Sybil Pathfinder Geochemistry

Historic rock chips and drilling support the geochemical zonation discussed above and importantly, suggest that the known mineralisation at Francis Creek is situated at a relatively deep position within the boiling zone. The Quartz Ridge prospect appears to be situated above the boiling zone.

The pathfinder geochemistry at Sybil suggests that the best zone (being the boiling zone) remains largely unexplored. This highlights the prospectivity for further high-grade mineralisation to the east of Francis Creek (**Figure 9**).

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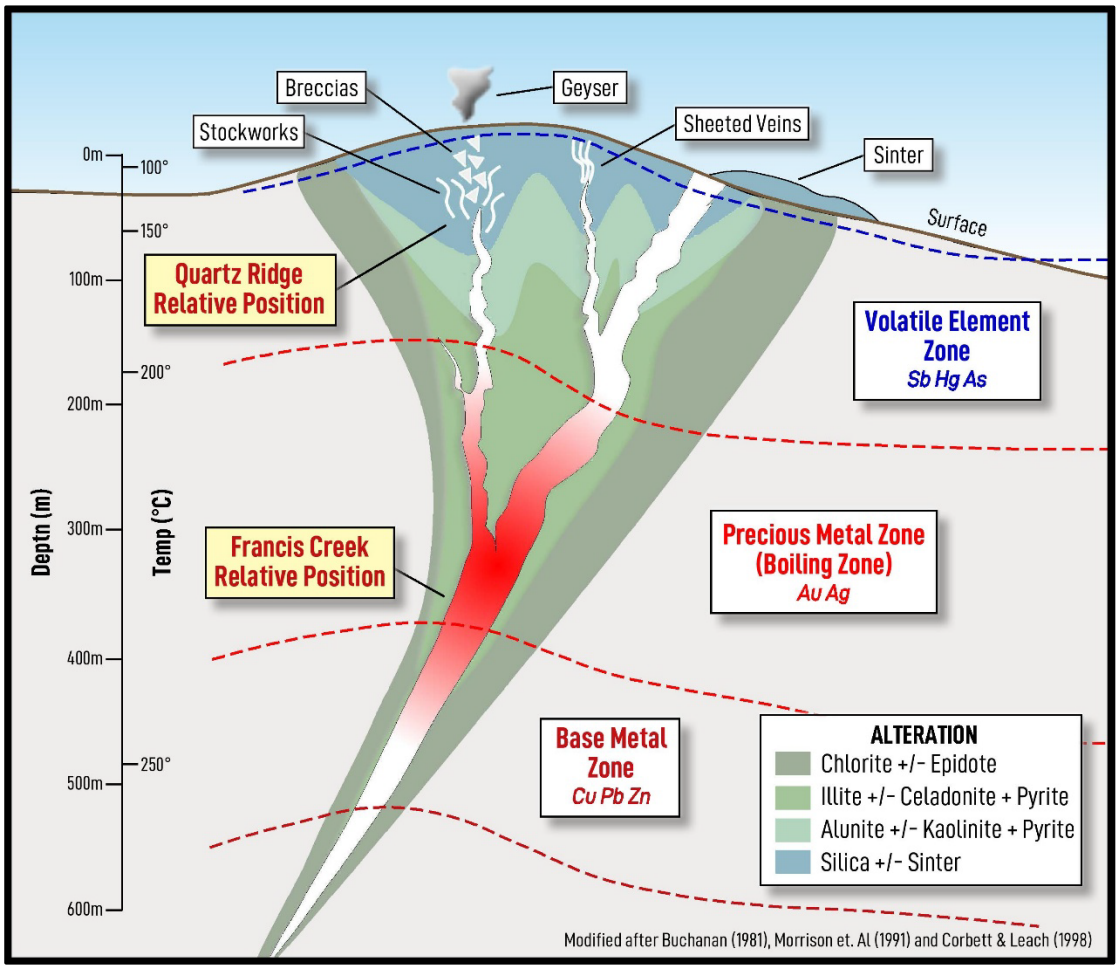


Figure 7: *Geochemical zonation in low-sulphidation, epithermal deposits.*



Figure 8: *Boiling textures evident in outcropping epithermal quartz veins at Francis Creek.*

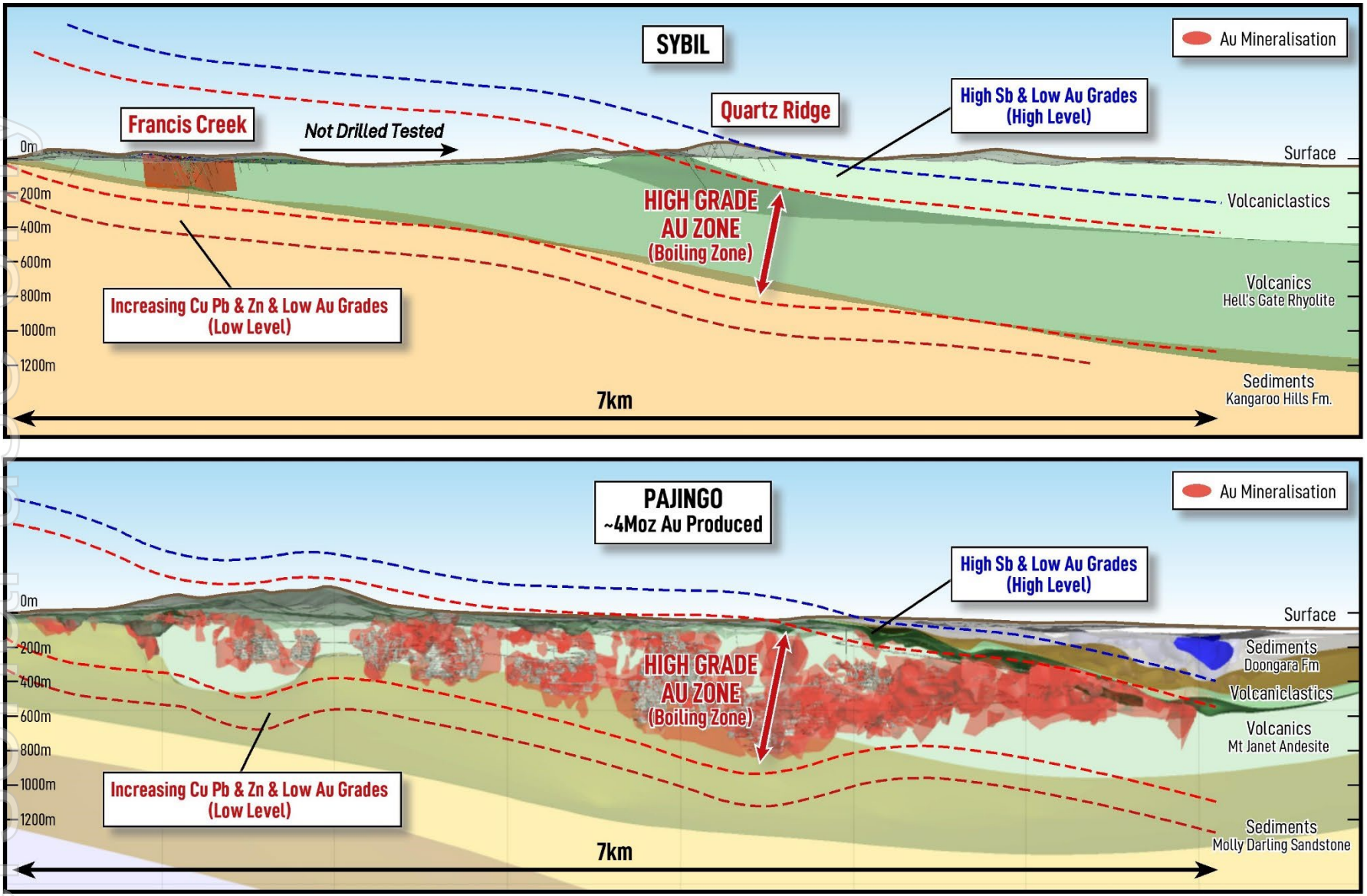


Figure 9: *Schematic comparison of the Sybil and Pajingo epithermal systems (both long sections are looking north). Figure modified from AIG NEQ Minerals Workshop Presentation, "Pajingo – exploring undercover", March 2022.*

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Terms of the Binding Agreement

Subject to Completion, the total consideration for the acquisition of Sybil (EPM26931 and EPMA29218, upon grant) is:

- $25,000 non-refundable deposit (paid);
- $100,000 payable on Completion;
- $300,000 in Sunshine fully paid ordinary shares payable on announcement of a maiden JORC Resource of 100,000 oz Au (or equivalent) from Sybil;
- A further $300,000 in Sunshine fully paid ordinary shares payable on announcement of a maiden JORC Resource of 200,000 oz Au (or equivalent) from Sybil;
- $500,000 in Sunshine fully paid ordinary shares payable within 14 days of commencement of mining;
- 1% Net Smelter Royalty on gold production after the first 300,000oz Au are produced. Sunshine retains a pre-emptive right to acquire the royalty.

Completion is subject to:

- 30 day due diligence period,
- Regulatory approval for the transfer of EPM26931.

Completion is expected in June 2025.

Planned activities

The Company has a busy period ahead including the following key activities and milestones:

- May 2025: Drilling results from Liontown oxide
- May 2025: RC drilling commencing Plateau oxide
- June 2025: Liontown metallurgy and Resource upgrade
- June 2025: Mining study commences at Liontown
- June 2025: RC drilling results from Plateau
- July 2025: Sybil Completion
- July 2025: RC drilling commencing Salla Au-Cu-Zn
- August 2025: Field work to commence at Sybil Au

Sunshine's Board has authorised the release of this announcement to the market.

For more information, please contact:

Dr Damien Keys
Managing Director
Phone: +61 428 717 466
dkeys@shnmetals.com.au

Mr Shaun Menezes
Company Secretary
Phone +61 8 6245 9828
smenezes@shnmetals.com.au

Competent Person's Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Tav Bates, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG). Mr Bates has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Bates consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Liontown is based on information compiled and reviewed by Mr Chris Grove who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM) and is a Principal Geologist employed by Measured Group Pty Ltd. Mr Grove has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Mineral Resources. Mr Grove consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled and reviewed by Dr Damien Keys, who is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists (AIG). Dr Keys has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources. Dr Keys consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Waterloo and Orient is based on information compiled and reviewed by Mr Stuart Hutchin, who is a Member of the Australian Institute of Geoscientists (AIG) and is a Principal Geologist employed by Mining One Pty Ltd. Mr Stuart Hutchin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Mineral Resources. Mr Stuart Hutchin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Liontown East is based on information compiled and reviewed by Mr Peter Carolan, who is a Member of the Australasian Institute of Mining and Metallurgy and was a Principal Geologist employed by Red River Resources Ltd. Mr Peter Carolan has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Mineral Resources. Mr Peter Carolan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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About Sunshine Metals

Big System Potential.

Ravenswood Consolidated Project (Zn-Cu-Pb-Au-Ag-Mo): Located in the Charters Towers-Ravenswood district which has produced over 20Moz Au and 14mt of VMS Zn-Cu-Pb-Au ore. The project comprises:

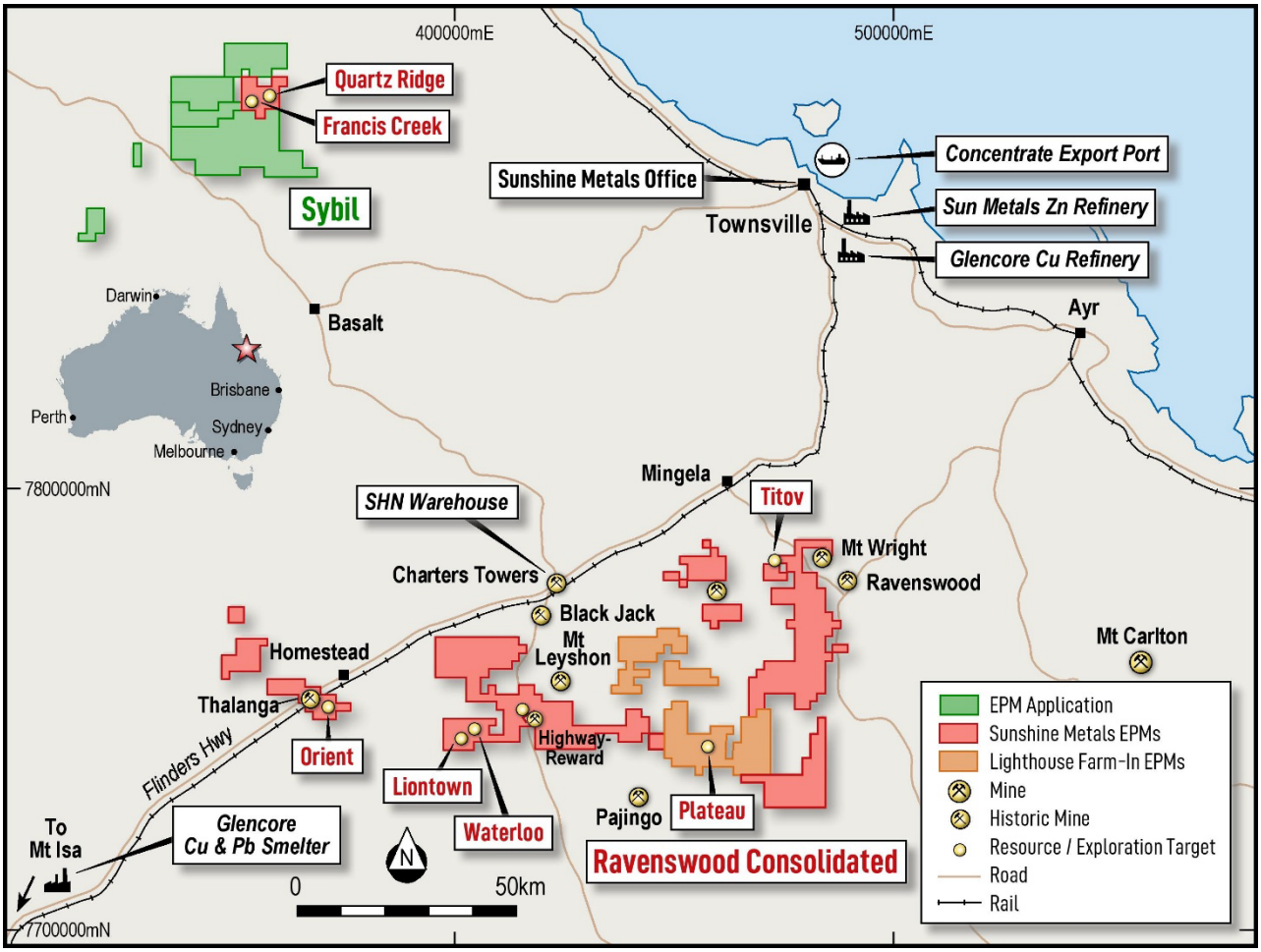
- The newly interpreted Liontown Dome, hosting multiple gold and base metal prospects;
- a Zn-Cu-Pb-Au VMS Resource of 7.0mt @ 4.0g/t Au (904koz AuEq) or 11.1% ZnEq (42% Indicated, 58% Inferred[2]);
- the under-drilled Liontown Au-rich footwall with significant intersections including:
  - **20.0m @ 18.2g/t Au** (109m, 24LTRC005)
  - **17.0m @ 22.1g/t Au** (67m, 23LTRC002)
  - **8.0m @ 11.7g/t Au & 0.9% Cu** (115m, LLRC184)
  - **8.1m @ 10.7g/t Au** (154m, LTDD22055)
  - **16.2m @ 4.54g/t Au, 1.11% Cu** (from 319m, 24LTDD024)
  - **5.0m @ 27.9g/t Au, 1.7% Cu** (20m, LRC018)
  - **2.0m @ 68.6g/t Au** (24m, LRC0043)
- advanced Au-Cu VMS targets at Coronation and Highway East, analogous to the nearby Highway-Reward Mine (3.9mt @ 5.3% Cu & 1.1g/t Au mined);
- overlooked orogenic, epithermal and intrusion related Au potential with numerous historic gold workings and drill ready targets; and

**Investigator Project (Cu):* Located 100km north of the Mt Isa, home to rich copper-lead-zinc mines that have been worked for almost a century. Investigator is hosted in the same stratigraphy and similar fault architecture as the Capricorn Copper Mine, located 12km north.

**Hodgkinson Project (Au-W):* Located between the Palmer River alluvial gold field (1.35 Moz Au) and the historic Hodgkinson gold field (0.3 Moz Au) and incorporates the Elephant Creek Gold, Peninsula Gold-Copper and Campbell Creek Gold prospects.

**A number of parties have expressed interest in our other quality projects (Investigator Cu and Hodgkinson Au-W). These projects will be divested in an orderly manner in due course.*

[2] This announcement contains references to exploration results and estimates of mineral resources that were first reported in Sunshine's ASX announcement dated 11 December 2024. Sunshine confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement. In relation to estimates of mineral resources, Sunshine confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metal equivalent calculation on next page.



Recoverable Gold & Zinc Equivalent calculations

The gold and zinc equivalent grades for Greater Liontown (g/t AuEq, % ZnEq) are based on the following prices: US$2,900t Zn, US$9,500t Cu, US$2,000t Pb, US$2,500oz Au, US$30oz Ag.
Metallurgical metal recoveries are broken into two domains: copper-gold dominant and zinc dominant. Each domain and associated recoveries are supported by metallurgical test work and are: Copper-gold dominant – 92.3% Cu, 86.0% Au, Zinc dominant 88.8% Zn, 80% Cu, 70% Pb, 65% Au, 65% Ag.

*The AuEq calculation is as follows: AuEq = (Zn grade% * Zn recovery * (Zn price $/t * 0.01/ (Au price $/oz / 31.103))) + (Cu grade % * Cu recovery % * (Cu price $/t/ (Au price $/oz / 31.103))) + (Pb grade % * Pb recovery % * (Pb price $/t/ (Au price $/oz / 31.103))) + (Au grade g/t / 31.103 * Au recovery %) + (Ag grade g/t / 31.103 * Ag recovery % * ((Ag price $/oz / 31.103 / (Au price $/oz / 31.103)))*

*The ZnEq calculation is as follows: ZnEq = (Zn grade% * Zn recovery) + (Cu grade % * Cu recovery % * (Cu price $/t/ Zn price $/t * 0.01))) + (Pb grade % * Pb recovery % * (Pb price $/t/ Zn price $/t * 0.01)) + (Au grade g/t / 31.103 * Au recovery % * ((Au price $/oz / 31.103) / Zn price $/t * 0.01))) + (Ag grade g/t /31.103 * Ag recovery % * ((Ag price $/oz / 31.103) / Zn price $/t * 0.01)).*

For Waterloo transition material, recoveries of 76% Zn, 58% Cu and 0% Pb have been substituted into the ZnEq formula. For Liontown oxide material, recoveries of 44% Zn, 40% Cu and 35% Pb have been substituted into the ZnEq formula. Further metallurgical test work is required on the Liontown oxide domain. It is the opinion of Sunshine and the Competent Person that the metals included in the ZnEq formula have reasonable potential to be recovered and sold.

The Ravenswood Consolidated VMS Resource is comprised of 7.0mt @ 1.3g/t Au, 0.9% Cu, 5.5% Zn, 1.7% Pb and 31g/t Ag (11.1% ZnEq). For further details refer to SHN ASX Release, 11 December 2024, "904koz AuEq Resource at Ravenswood Consolidated".

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Appendix A: References

Buchanan, L.J. (1981) *Precious Metal Deposits Associated with Volcanic Environments in the Southwest.* In: *Relations of Tectonics to Ore Deposits in the Southern Cordillera*, Arizona Geological Society Digest, Volume 14, pp. 237–262

Corbett, G.J., & Leach, T.M. (1998). *Epithermal Gold for Explorationists.* Australian Institute of Geoscientists, AIG Journal, 7, 1–27.

Minjar Gold 2022 website

Morrison, G.W. (1990). *Textural Zoning in Epithermal Quartz Veins.* **Klondike Exploration Services, Townsville**

Morrison, G.W. (1991). *Geological and geochemical controls on the silver content (fineness) of gold in gold-silver deposits.*

Portergeo Database (https://portergeo.com.au/database/mineinfo-mb.asp?mineid=mn227)

White, N.C., & Hedenquist, J.W. (1990). *Epithermal environments and styles of mineralization: variations and their causes.* Economic Geology, 85(8), 1520–1538

Appendix B: Rock chip data – Francis Creek

Prospect	Sample ID	EAST (MGA)	NORTH (MGA)	Year	Company	Au (g/t)
Francis Creek	Q30151	353411.4	7887268.0	1988	Battle Mountain	**907**
Francis Creek	Q30152	353412.3	7887267.4	1988	Battle Mountain	**262**
Francis Creek	Q28797	353410.6	7887269.0	1988	Battle Mountain	**200**
Francis Creek	Q30153	353412.9	7887267.1	1988	Battle Mountain	**58.5**
Francis Creek	Q29803	353414.7	7887266.7	1988	Battle Mountain	**43.6**
Francis Creek	Q34371	353263.3	7887431.1	1988	Battle Mountain	**22.4**
Francis Creek	Q28731	353339.0	7887360.5	1988	Battle Mountain	**21.8**
Francis Creek	F66854	353207.6	7887494.5	1988	Battle Mountain	**19.9**
Francis Creek	Q34371	353265.8	7887429.0	1988	Battle Mountain	**19.8**
Francis Creek	Q28744	353420.2	7887260.7	1988	Battle Mountain	**19.5**
Francis Creek	Q34368	353217.0	7887484.0	1988	Battle Mountain	**19.4**
Francis Creek	Q34367	353194.8	7887496.3	1988	Battle Mountain	**19.2**
Francis Creek	Q34370	353256.2	7887437.2	1988	Battle Mountain	**18.3**
Francis Creek	Q34368	353211.4	7887485.4	1988	Battle Mountain	**17.8**
Francis Creek	Q34370	353259.7	7887434.4	1988	Battle Mountain	**17.4**
Francis Creek	F66404	353791.9	7887120.1	1986	Homestake	**13.6**
Francis Creek	F66129	353427.5	7887249.3	1988	Battle Mountain	**13.4**
Francis Creek	Q34372	353270.3	7887425.8	1988	Battle Mountain	**12.1**
Francis Creek	Q28743	353409.7	7887270.3	1988	Battle Mountain	**11.7**
Francis Creek	Q34363	353138.6	7887570.5	1988	Battle Mountain	**11.2**
Francis Creek	Q34372	353273.2	7887424.0	1988	Battle Mountain	**10.8**
Francis Creek	Q29804	353423.3	7887256.6	1988	Battle Mountain	**10.4**
Francis Creek	Q28799	353407.4	7887273.3	1988	Battle Mountain	**9.96**
Francis Creek	Q34362	353148.9	7887553.9	1988	Battle Mountain	**9.94**
Francis Creek	Q30154	353413.5	7887266.9	1988	Battle Mountain	**7.90**
Francis Creek	F66831	353373.0	7887323.1	1988	Battle Mountain	**7.87**

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Prospect	Sample ID	EAST (MGA)	NORTH (MGA)	Year	Company	Au (g/t)
Francis Creek	Q29839	353379.0	7887474.2	1988	Battle Mountain	**7.55**
Francis Creek	Q28798	353410.6	7887270.0	1988	Battle Mountain	**7.15**
Francis Creek	Q28740	353373.9	7887321.0	1988	Battle Mountain	**6.69**
Francis Creek	Q34390	353338.1	7887357.6	1988	Battle Mountain	**5.96**
Francis Creek	Q34390	353335.5	7887363.8	1988	Battle Mountain	**5.96**
Francis Creek	Q29801	353369.4	7887330.7	1988	Battle Mountain	**5.12**
Francis Creek	Q28800	353401.0	7887282.1	1988	Battle Mountain	**5.01**
Francis Creek	Q29854	353377.3	7887431.8	1988	Battle Mountain	**5.01**
Francis Creek	Q28736	353358.1	7887349.2	1988	Battle Mountain	**4.60**
Francis Creek	F66403	353796.0	7887121.0	1986	Homestake	**4.26**
Francis Creek	Q29709	353379.8	7887382.0	1988	Battle Mountain	**4.09**
Francis Creek	Q28707	353378.3	7887427.1	1988	Battle Mountain	**3.75**
Francis Creek	Q34364	353132.1	7887579.5	1988	Battle Mountain	**3.08**
Francis Creek	Q29853	353379.9	7887421.0	1988	Battle Mountain	**2.59**
Francis Creek	Q29855	353377.6	7887442.7	1988	Battle Mountain	**2.42**
Francis Creek	F66837	353350.4	7887354.3	1988	Battle Mountain	**2.37**
Francis Creek	Q29851	353380.0	7887387.5	1988	Battle Mountain	**2.10**
Francis Creek	Q28710	353380.2	7887467.1	1988	Battle Mountain	**1.95**
Francis Creek	Q34394	353066.0	7887602.8	1988	Battle Mountain	**1.60**
Francis Creek	Q34369	353244.8	7887442.2	1988	Battle Mountain	**1.55**
Francis Creek	Q28745	353439.8	7887227.6	1988	Battle Mountain	**1.50**
Francis Creek	Q22709	353380.8	7887454.5	1988	Battle Mountain	**1.48**
Francis Creek	Q29838	353381.3	7887462.1	1988	Battle Mountain	**1.45**
Francis Creek	Q28708	353380.4	7887447.7	1988	Battle Mountain	**1.33**
Francis Creek	Q28711	353378.5	7887481.0	1988	Battle Mountain	**1.32**
Francis Creek	F66159	353475.4	7887185.0	1988	Battle Mountain	**1.27**
Francis Creek	Q28787	353355.6	7887350.7	1988	Battle Mountain	**1.26**
Francis Creek	F66673	353216.1	7887418.2	1988	Battle Mountain	**1.26**
Francis Creek	Q28728	353345.3	7887363.1	1988	Battle Mountain	**1.20**
Francis Creek	Q31500	353200.0	7887506.0	1988	Battle Mountain	**1.15**
Francis Creek	F66685	353572.9	7887207.7	1988	Battle Mountain	**1.15**
Francis Creek	F66405	353788.5	7887120.9	1986	Homestake	**1.14**
Francis Creek	F66654	353522.5	7887246.2	1988	Battle Mountain	**1.09**
Francis Creek	Q28748	353477.2	7887181.1	1988	Battle Mountain	**0.99**
Francis Creek	Q34361	353172.0	7887581.0	1988	Battle Mountain	**0.96**
Francis Creek	Q29841	353382.8	7887495.6	1988	Battle Mountain	**0.94**
Francis Creek	Q28746	353444.5	7887222.3	1988	Battle Mountain	**0.91**
Francis Creek	Q28742	353403.9	7887278.0	1988	Battle Mountain	**0.80**
Francis Creek	Q28701	353380.3	7887392.7	1988	Battle Mountain	**0.78**
Francis Creek	F66818	353161.0	7887544.8	1986	Homestake	**0.77**
Francis Creek	Q29805	353429.6	7887246.2	1988	Battle Mountain	**0.76**
Francis Creek	F66825	353692.2	7887152.5	1986	Homestake	**0.75**
Francis Creek	Q28747	353449.6	7887214.6	1988	Battle Mountain	**0.72**

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Prospect	Sample ID	EAST (MGA)	NORTH (MGA)	Year	Company	Au (g/t)
Francis Creek	Q29842	353386.7	7887512.9	1988	Battle Mountain	**0.71**
Francis Creek	F66406	353784.0	7887119.0	1986	Homestake	**0.62**
Francis Creek	Q34353	353174.7	7887682.4	1988	Battle Mountain	**0.54**
Francis Creek	Q34355	353166.5	7887645.3	1988	Battle Mountain	**0.53**
Francis Creek	F66661	353473.8	7887282.5	1988	Battle Mountain	**0.48**
Francis Creek	F66660	353441.6	7887224.0	1988	Battle Mountain	**0.44**
Francis Creek	Q28735	353358.1	7887348.2	1988	Battle Mountain	**0.44**
Francis Creek	Q29802	353414.7	7887265.7	1988	Battle Mountain	**0.37**
Francis Creek	Q29840	353366.0	7887489.0	1988	Battle Mountain	**0.37**
Francis Creek	Q28732	353336.8	7887359.9	1988	Battle Mountain	**0.34**
Francis Creek	Q34415	352929.8	7887908.9	1988	Battle Mountain	**0.32**
Francis Creek	F66696	353830.3	7887098.3	1986	Homestake	**0.28**
Francis Creek	Q33318	353411.3	7887326.1	1988	Battle Mountain	**0.27**
Francis Creek	Q28734	353327.2	7887372.6	1988	Battle Mountain	**0.23**
Francis Creek	Q34360	353177.3	7887606.1	1988	Battle Mountain	**0.22**
Francis Creek	F66817	353163.9	7887547.3	1986	Homestake	**0.22**
Francis Creek	Q28751	353528.6	7887107.3	1988	Battle Mountain	**0.21**
Francis Creek	Q34365	353114.7	7887599.7	1988	Battle Mountain	**0.20**
Francis Creek	F66808	353730.1	7887141.0	1986	Homestake	**0.20**
Francis Creek	Q34373	353290.7	7887408.1	1988	Battle Mountain	**0.19**
Francis Creek	Q28733	353335.5	7887373.5	1988	Battle Mountain	**0.19**
Francis Creek	F66402	353869.6	7887070.4	1986	Homestake	**0.19**
Francis Creek	F66842	353161.8	7887437.9	1988	Battle Mountain	**0.18**
Francis Creek	F66840	353541.7	7887088.3	1988	Battle Mountain	**0.17**
Francis Creek	Q28741	353383.3	7887304.2	1988	Battle Mountain	**0.17**
Francis Creek	Q28729	353342.9	7887361.9	1988	Battle Mountain	**0.17**
Francis Creek	F66413	353115.2	7888073.7	1986	Homestake	**0.17**
Francis Creek	Q28749	353478.8	7887176.8	1988	Battle Mountain	**0.16**
Francis Creek	Q28730	353341.1	7887361.2	1988	Battle Mountain	**0.16**
Francis Creek	Q28727	353346.9	7887364.1	1988	Battle Mountain	**0.15**
Francis Creek	Q34366	353099.5	7887613.3	1988	Battle Mountain	**0.14**
Francis Creek	Q34391	353073.8	7887542.9	1988	Battle Mountain	**0.14**
Francis Creek	F66651	353518.6	7887241.1	1988	Battle Mountain	**0.14**
Francis Creek	Q29852	353379.6	7887412.9	1988	Battle Mountain	**0.14**
Francis Creek	F66414	353105.2	7888033.9	1986	Homestake	**0.14**
Francis Creek	Q34359	353182.0	7887642.8	1988	Battle Mountain	**0.13**
Francis Creek	Q28705	353375.8	7887419.6	1988	Battle Mountain	**0.11**
Francis Creek	Q34389	353319.0	7887381.0	1988	Battle Mountain	**0.10**
Francis Creek	Q34398	353016.7	7887690.2	1988	Battle Mountain	**0.10**
Francis Creek	Q34402	353023.3	7888290.6	1988	Battle Mountain	**0.10**
Francis Creek	Q34407	352357.2	7887280.4	1988	Battle Mountain	**0.10**
Francis Creek	Q28739	353364.4	7887335.7	1988	Battle Mountain	**0.10**
Francis Creek	F66835	353358.0	7887360.9	1988	Battle Mountain	**0.10**

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Prospect	Sample ID	EAST (MGA)	NORTH (MGA)	Year	Company	Au (g/t)
Francis Creek	F66666	353433.1	7887312.4	1988	Battle Mountain	**0.10**
Francis Creek	Q33014	353495.6	7887263.6	1988	Battle Mountain	**0.10**
Francis Creek	F66652	353520.0	7887242.9	1988	Battle Mountain	**0.10**
Francis Creek	F66688	353583.5	7887056.6	1986	Homestake	**0.10**
Francis Creek	Q34344	353439.0	7887642.5	1988	Battle Mountain	**0.09**
Francis Creek	Q34389	353312.0	7887384.7	1988	Battle Mountain	**0.09**
Francis Creek	F66669	353252.5	7887403.8	1988	Battle Mountain	**0.09**
Francis Creek	F66663	353475.6	7887286.7	1988	Battle Mountain	**0.09**
Francis Creek	Q28738	353364.4	7887334.7	1988	Battle Mountain	**0.08**
Francis Creek	F66674	353219.9	7887418.6	1988	Battle Mountain	**0.08**
Francis Creek	F66655	353523.9	7887247.8	1988	Battle Mountain	**0.08**
Francis Creek	F66844	353046.6	7887461.9	1986	Homestake	**0.08**
Francis Creek	F66678	353116.5	7887457.4	1986	Homestake	**0.08**
Francis Creek	F66411	353128.4	7888097.9	1986	Homestake	**0.08**
Francis Creek	Q34352	353154.4	7887707.6	1988	Battle Mountain	**0.07**
Francis Creek	Q34356	353120.7	7887686.0	1988	Battle Mountain	**0.07**
Francis Creek	Q34357	353109.9	7887697.3	1988	Battle Mountain	**0.07**
Francis Creek	Q28702	353385.2	7887390.6	1988	Battle Mountain	**0.07**
Francis Creek	F66820	352735.2	7887817.2	1986	Homestake	**0.07**
Francis Creek	F66409	353144.0	7888148.1	1986	Homestake	**0.07**
Francis Creek	F53561	353477.0	7887177.4	1988	Battle Mountain	**0.06**
Francis Creek	F66662	353474.8	7887284.6	1988	Battle Mountain	**0.06**
Francis Creek	F66826	353697.4	7887146.2	1986	Homestake	**0.06**
Francis Creek	Q34342	353433.8	7887718.0	1988	Battle Mountain	**0.05**
Francis Creek	Q34350	353135.7	7887778.8	1988	Battle Mountain	**0.05**
Francis Creek	Q34403	353021.4	7888308.3	1988	Battle Mountain	**0.05**
Francis Creek	F66841	353172.2	7887433.6	1988	Battle Mountain	**0.05**
Francis Creek	F66672	353285.5	7887393.8	1988	Battle Mountain	**0.05**
Francis Creek	Q33016	353453.0	7887299.1	1988	Battle Mountain	**0.05**
Francis Creek	Q28706	353379.6	7887416.4	1988	Battle Mountain	**0.05**
Francis Creek	F66697	353826.4	7887091.0	1986	Homestake	**0.05**
Francis Creek	F66607	353661.6	7886982.5	1986	Homestake	**0.05**
Francis Creek	F66412	353126.1	7888099.4	1986	Homestake	**0.05**
Francis Creek	Q34341	353434.2	7887740.1	1988	Battle Mountain	**0.04**
Francis Creek	Q34395	353048.9	7887634.2	1988	Battle Mountain	**0.04**
Francis Creek	Q34416	352948.9	7887859.8	1988	Battle Mountain	**0.04**
Francis Creek	Q34420	352834.1	7887886.3	1988	Battle Mountain	**0.04**
Francis Creek	Q34422	352703.3	7887999.5	1988	Battle Mountain	**0.04**
Francis Creek	F66830	353388.8	7887296.7	1988	Battle Mountain	**0.04**
Francis Creek	Q33017	353443.3	7887305.3	1988	Battle Mountain	**0.04**
Francis Creek	Q33013	353498.2	7887266.8	1988	Battle Mountain	**0.04**
Francis Creek	F66653	353521.4	7887244.8	1988	Battle Mountain	**0.04**
Francis Creek	F66401	353872.4	7887074.8	1986	Homestake	**0.04**

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Prospect	Sample ID	EAST (MGA)	NORTH (MGA)	Year	Company	Au (g/t)
Francis Creek	F66424	352933.1	7887482.6	1986	Homestake	**0.04**
Francis Creek	F66677	353112.7	7887448.9	1986	Homestake	**0.04**
Francis Creek	Q34339	353428.3	7887782.3	1988	Battle Mountain	**0.03**
Francis Creek	Q34358	353095.0	7887733.1	1988	Battle Mountain	**0.03**
Francis Creek	Q34392	353118.1	7887542.1	1988	Battle Mountain	**0.03**
Francis Creek	Q34397	353036.3	7887674.3	1988	Battle Mountain	**0.03**
Francis Creek	Q34414	365776.2	7881545.4	1988	Battle Mountain	**0.03**
Francis Creek	Q34421	352812.9	7887914.2	1988	Battle Mountain	**0.03**
Francis Creek	F66671	353255.4	7887408.2	1988	Battle Mountain	**0.03**
Francis Creek	Q33012	353501.1	7887270.6	1988	Battle Mountain	**0.03**
Francis Creek	F66606	353650.5	7886939.3	1986	Homestake	**0.03**
Francis Creek	F66407	354046.1	7887637.6	1986	Homestake	**0.03**
Francis Creek	F66422	352867.8	7887507.7	1986	Homestake	**0.03**
Francis Creek	Q34340	353430.2	7887764.6	1988	Battle Mountain	**0.02**
Francis Creek	Q34343	353435.5	7887689.1	1988	Battle Mountain	**0.02**
Francis Creek	Q34388	353291.0	7887423.6	1988	Battle Mountain	**0.02**
Francis Creek	Q34393	353100.9	7887573.4	1988	Battle Mountain	**0.02**
Francis Creek	Q34396	353046.6	7887629.8	1988	Battle Mountain	**0.02**
Francis Creek	Q34417	352910.2	7887807.4	1988	Battle Mountain	**0.02**
Francis Creek	Q34419	352851.5	7887866.1	1988	Battle Mountain	**0.02**
Francis Creek	F66856	353471.7	7887178.2	1988	Battle Mountain	**0.02**
Francis Creek	F66670	353253.0	7887405.7	1988	Battle Mountain	**0.02**
Francis Creek	Q34381	353283.9	7887428.5	1988	Battle Mountain	**0.02**
Francis Creek	F66617	353388.0	7887341.5	1988	Battle Mountain	**0.02**
Francis Creek	Q33011	353547.0	7887222.6	1988	Battle Mountain	**0.02**
Francis Creek	F66827	353595.6	7887191.6	1988	Battle Mountain	**0.02**
Francis Creek	F66687	353636.1	7887171.1	1986	Homestake	**0.02**
Francis Creek	F66416	353242.2	7887010.6	1986	Homestake	**0.02**
Francis Creek	F66679	353096.1	7887453.9	1986	Homestake	**0.02**
Francis Creek	F66821	352803.8	7887944.3	1986	Homestake	**0.02**
Francis Creek	Q34345	353492.7	7888151.2	1988	Battle Mountain	**0.01**
Francis Creek	Q34346	353450.6	7888173.2	1988	Battle Mountain	**0.01**
Francis Creek	Q34347	353433.6	7888187.7	1988	Battle Mountain	**0.01**
Francis Creek	Q34348	353380.5	7888193.2	1988	Battle Mountain	**0.01**
Francis Creek	Q34351	353139.7	7887754.4	1988	Battle Mountain	**0.01**
Francis Creek	Q34354	353170.9	7887643.0	1988	Battle Mountain	**0.01**
Francis Creek	Q34399	353047.0	7887651.9	1988	Battle Mountain	**0.01**
Francis Creek	Q34410	352863.5	7888038.7	1988	Battle Mountain	**0.01**
Francis Creek	Q34412	352889.3	7887991.7	1988	Battle Mountain	**0.01**
Francis Creek	Q34560	353548.3	7887225.4	1988	Battle Mountain	**0.01**
Francis Creek	Q34349	353402.0	7888159.5	1988	Battle Mountain	**-0.01**
Francis Creek	Q34400	353046.3	7888217.0	1988	Battle Mountain	**-0.01**
Francis Creek	Q34401	353038.1	7888254.9	1988	Battle Mountain	**-0.01**

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Prospect	Sample ID	EAST (MGA)	NORTH (MGA)	Year	Company	Au (g/t)
Francis Creek	Q34404	353012.7	7888340.9	1988	Battle Mountain	**-0.01**
Francis Creek	Q34405	353004.5	7888233.3	1988	Battle Mountain	**-0.01**
Francis Creek	Q34406	352370.3	7887245.6	1988	Battle Mountain	**-0.01**
Francis Creek	Q34408	352386.7	7887223.6	1988	Battle Mountain	**-0.01**
Francis Creek	Q34409	352855.4	7888076.5	1988	Battle Mountain	**-0.01**
Francis Creek	Q34411	352874.2	7888016.3	1988	Battle Mountain	**-0.01**
Francis Creek	Q34413	352906.4	7887960.3	1988	Battle Mountain	**-0.01**
Francis Creek	Q34418	352871.1	7887850.2	1988	Battle Mountain	**-0.01**
Francis Creek	Q34423	352775.0	7887997.8	1988	Battle Mountain	**-0.01**
Francis Creek	F66157	353475.4	7887183.0	1988	Battle Mountain	**-0.01**
Francis Creek	F66158	353475.4	7887184.0	1988	Battle Mountain	**-0.01**
Francis Creek	F66664	353477.5	7887288.4	1988	Battle Mountain	**-0.01**
Francis Creek	F66686	353562.4	7887212.8	1988	Battle Mountain	**-0.01**
Francis Creek	F66683	353567.3	7887208.1	1988	Battle Mountain	**-0.01**
Francis Creek	F66684	353570.1	7887207.9	1988	Battle Mountain	**-0.01**
Francis Creek	F66828	353596.6	7887193.8	1988	Battle Mountain	**-0.01**
Francis Creek	F66698	353822.1	7887089.8	1986	Homestake	**-0.01**
Francis Creek	F66694	353825.9	7887098.7	1986	Homestake	**-0.01**
Francis Creek	F66699	353917.9	7887054.1	1986	Homestake	**-0.01**
Francis Creek	F66839	353978.7	7887023.3	1986	Homestake	**-0.01**
Francis Creek	F66700	354003.0	7887012.4	1986	Homestake	**-0.01**
Francis Creek	F66689	353573.8	7887043.2	1986	Homestake	**-0.01**
Francis Creek	F66605	353604.9	7886913.4	1986	Homestake	**-0.01**
Francis Creek	F66417	353279.8	7887082.6	1986	Homestake	**-0.01**
Francis Creek	F66418	353383.2	7886906.9	1986	Homestake	**-0.01**
Francis Creek	F66813	353531.6	7887458.1	1986	Homestake	**-0.01**
Francis Creek	F66802	353729.2	7887915.1	1986	Homestake	**-0.01**
Francis Creek	F66801	353748.4	7887938.2	1986	Homestake	**-0.01**
Francis Creek	F66419	353422.0	7886837.0	1986	Homestake	**-0.01**
Francis Creek	F66432	352477.6	7887949.4	1986	Homestake	**-0.01**
Francis Creek	F66431	352512.7	7887894.5	1986	Homestake	**-0.01**
Francis Creek	F66430	352542.6	7887847.3	1986	Homestake	**-0.01**
Francis Creek	F66429	352573.1	7887806.0	1986	Homestake	**-0.01**
Francis Creek	F66428	352605.6	7887754.2	1986	Homestake	**-0.01**
Francis Creek	F66427	352607.4	7887758.2	1986	Homestake	**-0.01**
Francis Creek	F66425	352633.2	7887712.5	1986	Homestake	**-0.01**
Francis Creek	F66426	352634.9	7887715.7	1986	Homestake	**-0.01**
Francis Creek	F66693	352667.0	7887647.8	1986	Homestake	**-0.01**
Francis Creek	F66692	352678.0	7887653.0	1986	Homestake	**-0.01**
Francis Creek	F66847	352665.3	7887403.3	1986	Homestake	**-0.01**
Francis Creek	F66848	352770.5	7887518.0	1986	Homestake	**-0.01**
Francis Creek	F66850	352796.5	7887525.6	1986	Homestake	**-0.01**
Francis Creek	F66421	352797.6	7887478.9	1986	Homestake	**-0.01**

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Prospect	Sample ID	EAST (MGA)	NORTH (MGA)	Year	Company	Au (g/t)
Francis Creek	F66849	352813.9	7887515.8	1986	Homestake	**-0.01**
Francis Creek	F66690	352825.9	7887508.8	1986	Homestake	**-0.01**
Francis Creek	F66691	352828.0	7887512.0	1986	Homestake	**-0.01**
Francis Creek	F66423	352859.6	7887502.0	1986	Homestake	**-0.01**
Francis Creek	F66680	352984.7	7887468.3	1986	Homestake	**-0.01**
Francis Creek	F66681	352986.1	7887473.2	1986	Homestake	**-0.01**
Francis Creek	F66843	353063.8	7887460.1	1986	Homestake	**-0.01**
Francis Creek	F66816	353158.9	7887539.9	1986	Homestake	**-0.01**
Francis Creek	F66846	352841.5	7887361.2	1986	Homestake	**-0.01**
Francis Creek	F66682	352856.2	7887325.4	1986	Homestake	**-0.01**
Francis Creek	F66845	352891.6	7887245.4	1986	Homestake	**-0.01**
Francis Creek	F66676	353065.5	7887165.1	1986	Homestake	**-0.01**
Francis Creek	F66420	353074.9	7887153.1	1986	Homestake	**-0.01**
Francis Creek	F66819	352709.4	7887775.8	1986	Homestake	**-0.01**
Francis Creek	F66822	352726.9	7887917.9	1986	Homestake	**-0.01**
Francis Creek	F66410	353112.8	7888122.9	1986	Homestake	**-0.01**
Francis Creek	F66408	353158.7	7888183.6	1986	Homestake	**-0.01**
Francis Creek	F66811	353069.3	7888323.7	1986	Homestake	**-0.01**
Francis Creek	F66810	353198.0	7888316.3	1986	Homestake	**-0.01**
Francis Creek	F66809	353184.3	7888273.1	1986	Homestake	**-0.01**
Francis Creek	F66806	353196.5	7888270.0	1986	Homestake	**-0.01**
Francis Creek	F66805	353201.9	7888268.8	1986	Homestake	**-0.01**
Francis Creek	F66808	353206.9	7888290.5	1986	Homestake	**-0.01**
Francis Creek	F66807	353215.9	7888284.9	1986	Homestake	**-0.01**
Francis Creek	F66823	352706.7	7887921.7	1986	Homestake	**-0.01**
Francis Creek	F66824	352667.4	7887882.4	1986	Homestake	**-0.01**

**Coords in GDA94, Zone 55.*

Appendix C: Francis Creek, Quartz Ridge & Burdekin Vein Drilling Details

PROSPECT	HOLE ID	Depth	EAST_MGA	NORTH_MGA	mRL	Year	Source	DIP	Azimuth
Francis Creek	FCP01	21.0	353399.0	7887274.0	396.6	2005	CR40465_9	36	50
Francis Creek	FCP02	17.0	353403.6	7887269.9	396.4	2005	CR40465_9	62	25
Francis Creek	FCP03	15.0	353411.4	7887260.3	395.4	2005	CR40465_9	44	32
Francis Creek	FCP04	9.0	353419.6	7887246.0	393.7	2005	CR40465_9	50	60
Francis Creek	FCP05	23.0	353396.6	7887277.0	396.9	2005	CR40465_9	35	35
Francis Creek	FCP06	15.0	353403.1	7887290.7	400.6	2005	CR40465_9	51	230
Francis Creek	FCP07	21.0	353414.3	7887273.0	398.3	2005	CR40465_9	65	210
Francis Creek	FCP08	15.0	353433.5	7887247.6	394.5	2005	CR40465_9	65	225
Francis Creek	FCP09	18.0	353349.0	7887365.0	408.8	2005	CR40465_9	30	225
Francis Creek	FCP10	18.0	353308.8	7887386.4	413.0	2005	CR40465_9	36	223
Francis Creek	FCP11	18.0	353289.5	7887396.0	415.2	2005	CR40465_9	50	220

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PROSPECT	HOLE ID	Depth	EAST_MGA	NORTH_MGA	mRL	Year	Source	DIP	Azimuth
Francis Creek	FCP12	23.0	353281.3	7887406.5	416.7	2005	CR40465_9	48	207
Francis Creek	FCP13	18.0	353268.7	7887405.3	418.1	2005	CR40465_9	48	211
Francis Creek	FCP14	14.0	353360.6	7887350.0	406.4	2005	CR40465_9	50	235
Francis Creek	FCP15	9.0	353260.6	7887439.8	421.2	2005	CR40465_9	35	224
Francis Creek	FCP15A	6.0	353260.6	7887439.8	421.2	2005	CR40465_9	50	220
Francis Creek	FCP16	9.0	353242.7	7887442.3	423.6	2005	CR40465_9	30	48
Francis Creek	FCP16A	6.0	353242.7	7887442.3	423.6	2005	CR40465_9	25	30
Francis Creek	FCP17	15.0	353409.5	7887275.0	398.0	2005	CR40465_9	39	192
Francis Creek	FCP18	13.0	353460.8	7887197.0	384.8	2005	CR40465_9	5	308
Francis Creek	FCP19	7.0	353467.0	7887193.7	384.1	2005	CR40465_9	18	236
Francis Creek	FCP20	12.0	353657.1	7887155.7	378.2	2010	CR65617_1	30	10
Francis Creek	FCP21	14.0	353663.1	7887152.7	378.7	2010	CR65617_1	30	20
Francis Creek	FCP22	15.0	353697.1	7887146.7	380.5	2010	CR65617_1	30	10
Francis Creek	FCP23	10.0	353703.1	7887144.7	381.3	2010	CR65617_1	30	25
Francis Creek	FCP24	10.0	353711.1	7887141.7	382.5	2010	CR65617_1	30	20
Francis Creek	FCP25	14.0	353717.1	7887139.7	383.3	2010	CR65617_1	30	25
Francis Creek	FCP26	9.0	353723.1	7887135.7	384.6	2010	CR65617_1	30	35
Francis Creek	FCP27	11.0	353734.1	7887130.7	385.6	2010	CR65617_1	30	25
Francis Creek	FCP28	18.0	353745.1	7887125.7	386.5	2010	CR65617_1	30	30
Francis Creek	FCP29	22.0	353753.1	7887120.7	387.7	2010	CR65617_1	35	25
Francis Creek	FCP30	18.0	353759.1	7887118.7	388.8	2010	CR65617_1	30	20
Francis Creek	FCP31	18.0	353767.1	7887112.7	390.5	2010	CR65617_1	27	25
Francis Creek	FCP32	15.0	353772.1	7887106.7	391.6	2010	CR65617_1	30	40
Francis Creek	FCP33	17.0	353783.1	7887098.7	394.3	2010	CR65617_1	25	25
Francis Creek	FCP34	15.0	353815.1	7887050.7	401.6	2010	CR65617_1	42	25
Francis Creek	FCP35	12.0	353827.1	7887027.7	402.8	2010	CR65617_1	55	50
Francis Creek	FCP36	17.0	353814.1	7887102.7	398.3	2010	CR65617_1	30	190
Francis Creek	FCP37	20.0	353802.1	7887107.7	396.9	2010	CR65617_1	32	195
Francis Creek	FCP38	14.0	353793.1	7887113.7	394.4	2010	CR65617_1	33	200
Francis Creek	FCP39	14.0	353770.1	7887127.7	389.0	2010	CR65617_1	45	180
Francis Creek	FCP40	18.0	353357.1	7887284.7	394.4	2010	CR65617_1	27	25
Francis Creek	FCP41	11.0	353385.1	7887270.7	394.2	2010	CR65617_1	58	210
Francis Creek	FCP42	14.0	353343.1	7887295.7	396.1	2010	CR65617_1	30	45
Francis Creek	FCP43	10.0	353336.1	7887303.7	397.5	2010	CR65617_1	45	45
Francis Creek	FCP44	15.0	353314.1	7887353.7	408.2	2010	CR65617_1	30	30
Francis Creek	FCP45	13.0	353315.1	7887357.7	409.0	2010	CR65617_1	29	20
Francis Creek	FCP46	13.0	353349.1	7887293.7	395.8	2010	CR65617_1	30	90
Francis Creek	FCP47	12.0	353384.1	7887260.7	392.4	2010	CR65617_1	23	46
Francis Creek	FSD0088	218.8	353499.2	7887396.3	401.6	1990	CR21669_1	45	215
Quartz Ridge	FSD0089	412.0	356229.6	7887528.9		1990	CR21669_1	48	51
Quartz Ridge	FSD0090	417.0	356389.7	7887914.8		1990	CR21669_1	44	51
Quartz Ridge	FSD068	190.0	356755.2	7888203.5		1989	CR20976_1	45	231
Quartz Ridge	FSD087	229.8	356832.8	7888266.7		1989	CR20976_1	45	231
Quartz Ridge	FSD096	284.1	356834.0	7887974.0		2008	CR54421	60	67
Quartz Ridge	FSD097	246.5	356832.0	7887973.0		2008	CR54421	70	77
Quartz Ridge	FSD098	147.3	356818.0	7888121.0	460.0	2008	CR54421	60	287

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PROSPECT	HOLE ID	Depth	EAST_MGA	NORTH_MGA	mRL	Year	Source	DIP	Azimuth
Quartz Ridge	FSD099	501.3	356808.0	7888117.0		2008	CR54421	60	287
Quartz Ridge	FSD100	219.8	357064.0	7888293.0	402.0	2008	CR54421	90	7
Francis Creek	FSD113	192.4	353366.0	7887218.0	385.5	2007	CR54421_1	58	30
Francis Creek	FSD114	108.3	353341.0	7887270.0	391.9	2007	CR54421_1	50	30
Francis Creek	FSD115	267.4	353399.0	7887338.0	406.9	2007	CR54421_1	80	203
Francis Creek	FSD116	171.2	353279.0	7887301.0	397.3	2007	CR54421_1	50	25
Francis Creek	FSD117	183.3	353300.0	7887280.0	394.7	2007	CR54421_1	60	45
Francis Creek	FSD118	175.0	352768.0	7887643.0	428.8	2007	CR54421_1	50	219
Francis Creek	FSD95	48.0	353403.2	7887259.8		1998	CR31492_1	60	65
Francis Creek	FSPDH1	110.0	353487.0	7887206.0	384.5	1986	CR16495	50	30
Francis Creek	FSPDH2	100.0	353813.6	7887063.8	401.3	1986	CR16495	50	30
Francis Creek	FSPDH3	104.0	353443.0	7887333.0	404.5	1986	CR16495	50	210
Francis Creek	FSPDH4	81.0	353216.0	7887446.0	426.8	1986	CR16495	50	210
Francis Creek	FSPDH5	120.0	353007.8	7887414.0	422.0	1986	CR16495	50	10
Francis Creek	FSPDH6	64.0	353322.0	7887358.0	408.9	1986	CR16495	50	70
Francis Creek	FSPDH7	240.0	353455.0	7887144.0	385.0	1986	CR16495	50	30
Francis Creek	FSR008	48.0	353413.3	7887248.2	393.5	1988	CR19592	56	52
Francis Creek	FSR009	50.0	353386.3	7887276.7	395.5	1988	CR19592	55	52
Francis Creek	FSR010	42.0	353400.3	7887262.7	394.8	1988	CR19592	55	52
Francis Creek	FSR011	40.0	353368.8	7887471.2	421.6	1988	CR19592	55	92
Francis Creek	FSR012	35.0	353368.3	7887451.2	419.6	1988	CR19592	55	92
Francis Creek	FSR013	35.0	353388.3	7887431.2	415.9	1988	CR19592	55	272
Francis Creek	FSR014	34.0	353390.8	7887460.2	420.0	1988	CR19592	55	92
Francis Creek	FSR015	40.0	353390.8	7887415.2	413.5	1988	CR19592	60	67
Francis Creek	FSR016	36.0	353395.3	7887395.2	410.5	1988	CR19592	55	67
Francis Creek	FSR017	35.0	353395.3	7887369.7	408.5	1988	CR19592	53	67
Francis Creek	FSR018	42.0	353397.3	7887348.2	407.4	1988	CR19592	53	67
Francis Creek	FSR019	40.0	353359.3	7887318.2	400.7	1988	CR19592	55	52
Francis Creek	FSR020	74.0	353396.3	7887235.7	390.2	1988	CR19592	53	53.5
Francis Creek	FSR021	42.0	354250.3	7885953.2	369.4	1988	CR19592	53	224
Francis Creek	FSR022	42.0	354234.3	7885937.7	371.0	1988	CR19592	60	222
Francis Creek	FSR023	35.0	354216.8	7885919.2	372.2	1988	CR19592	65	222
Francis Creek	FSR024	40.0	353986.8	7886144.2	376.5	1988	CR19592	53	233
Burdekin North	FSR025	57.0	355774.5	7885488.5	370.0	1988	CR19592	53	187
Burdekin North	FSR026	58.0	355754.0	7885490.5	368.0	1988	CR19592	58	185
Burdekin North	FSR027	57.0	355730.0	7885490.5	366.0	1988	CR19592	50	175.5
Francis Creek	FSR028	93.0	353377.8	7887245.2	389.3	1988	CR19592	50	52
Francis Creek	FSR029	97.5	353368.8	7887263.2	391.0	1988	CR19592	50	52
Francis Creek	FSR030	105.0	353410.7	7887221.6	389.2	1988	CR19592	54	53.5
Quartz Ridge	FSR031	100.0	356294.3	7887258.9		1989	CR20976_1	60	51
Quartz Ridge	FSR032	93.0	356742.6	7887210.5		1989	CR20976_1	55	51
Quartz Ridge	FSR033	87.0	356682.5	7887166.4		1989	CR20976_1	58	51
Quartz Ridge	FSR034	50.0	356716.1	7888173.9		1989	CR20976_1	55	231
Quartz Ridge	FSR035	50.0	356697.5	7888154.0		1989	CR20976_1	50	229
Quartz Ridge	FSR036	56.0	356864.4	7888006.8		1989	CR20976_1	55	231
Quartz Ridge	FSR037	50.0	356843.6	7887994.2		1989	CR20976_1	55	231

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PROSPECT	HOLE ID	Depth	EAST_MGA	NORTH_MGA	mRL	Year	Source	DIP	Azimuth
Quartz Ridge	FSR038	76.0	356803.6	7887916.2		1989	CR20976_1	60	231
Quartz Ridge	FSR039	120.0	356739.9	7887859.4		1989	CR20976_1	60	233
Quartz Ridge	FSR040	94.0	356669.5	7887805.3		1989	CR20976_1	61	244
Quartz Ridge	FSR041	63.0	356602.6	7887779.2		1989	CR20976_1	58	234
Quartz Ridge	FSR042	130.0	356566.1	7887688.6		1989	CR20976_1	60	231
Quartz Ridge	FSR043	120.0	356457.5	7887637.3		1989	CR20976_1	60	51
Quartz Ridge	FSR044	117.0	356447.6	7887630.5		1989	CR20976_1	58	321
Quartz Ridge	FSR045	105.0	356417.1	7887604.9		1989	CR20976_1	63	51
Quartz Ridge	FSR046	99.0	356411.3	7887680.5		1989	CR20976_1	60	321
Quartz Ridge	FSR047	110.0	356356.7	7887558.7		1989	CR20976_1	59	51
Quartz Ridge	FSR048	75.0	356269.7	7887492.6		1989	CR20976_1	57	51
Quartz Ridge	FSR049	92.0	356895.6	7888038.4		1989	CR20976_1	53	236
Quartz Ridge	FSR050	80.0	356635.3	7888329.6		1989	CR20976_1	57	231
Quartz Ridge	FSR051	95.0	356665.0	7888349.2		1989	CR20976_1	55	231
Quartz Ridge	FSR052	50.0	356899.1	7888605.5		1989	CR20976_1	55	231
Quartz Ridge	FSR053	11.0	356903.7	7887702.5		1989	CR20976_1	56	231
Quartz Ridge	FSR069	68.0	356662.2	7888130.0		1989	CR20976_1	55	225
Quartz Ridge	FSR070	104.0	356823.6	7887979.5		1989	CR20976_1	55	45
Quartz Ridge	FSR071	7.0	356925.1	7887720.1		1989	CR20976_1	57	225
Francis Creek	FSR076	111.0	353342.8	7887313.2		1989	CR20976_1	60	135
Francis Creek	FSR077	68.0	353131.9	7887547.1		1989	CR20976_1	61	111
Francis Creek	FSR078	110.0	353153.2	7887501.3		1989	CR20976_1	60	110
Francis Creek	FSR079	69.0	353195.8	7887480.1		1989	CR20976_1	60	110
Francis Creek	FSR080	113.0	353206.4	7887428.7		1989	CR20976_1	60	110
Francis Creek	FSR081	49.0	353258.9	7887415.8		1989	CR20976_1	55	108.5
Francis Creek	FSR082	80.0	353350.3	7887466.4		1989	CR20976_1	58	150.5
Francis Creek	FSR083	93.0	353259.2	7887382.1		1989	CR20976_1	53	111.5
Francis Creek	FSR084	75.0	353309.3	7887371.0		1989	CR20976_1	59	135
Francis Creek	FSR085	80.0	353345.4	7887381.2		1989	CR20976_1	59	135
Francis Creek	FSR086	75.0	353362.7	7887312.9		1989	CR20976_1	54	135
Francis Creek	FSR105	80.0	353342.0	7887270.0	391.9	2007	CR54421_1	50	37
Francis Creek	FSR106	88.0	353340.0	7887274.0	392.6	2007	CR54421_1	50	15
Francis Creek	FSR107	100.0	353368.0	7887220.0	385.6	2007	CR54421_1	50	32
Francis Creek	FSR108	99.0	353369.0	7887220.0	385.6	2007	CR54421_1	50	52
Francis Creek	FSR109	80.0	353367.0	7887220.0	385.6	2007	CR54421_1	50	22
Francis Creek	FSR110	158.0	353368.0	7887218.0	385.5	2007	CR54421_1	60	45
Francis Creek	FSR111	99.0	353353.0	7887252.0	389.0	2007	CR54421_1	50	52
Francis Creek	FSR112	176.0	353367.0	7887218.0	385.5	2007	CR54421_1	60	32
Francis Creek	FSR91	60.0	353725.9	7887117.8		1998	CR31492_1	60	27
Francis Creek	FSR92	78.0	353674.7	7887131.2		1998	CR31492_1	60	27
Francis Creek	FSR93	78.0	353538.4	7887191.3		1998	CR31492_1	60	27
Francis Creek	FSRD94	189.0	353324.5	7887295.4		1998	CR31492_1	56	53

**Coords in GDA94, Zone 55.*

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Appendix D: Francis Creek, Quartz Ridge & Burdekin Vein Drilling Results

HOLE ID	From	To	Int	Au_ppm	Au gt*m
FCP01	6	11	5	5.9	29.5
FCP02	8	9	1	1.8	1.8
FCP03	9	15	6	6.1	36.6
FCP04	6	9	3	23.2	69.6
FCP05	7	14	7	10.6	74.2
FCP06	4	7	3	2.2	6.6
FCP07	17	21	4	11.2	44.8
FCP08	0	4	4	0.6	2.4
FCP09	13	17	4	6.8	27.2
FCP10	6	7	1	1.8	1.8
FCP11	5	6	1	1.7	1.7
FCP12	20	24	4	0.2	0.8
FCP13	15	17	2	4.4	8.8
FCP14	6	10	4	3.0	12.0
FCP15	5	7	2	3.0	6.0
FCP15A	4	6	2	4.5	9.0
FCP16	4	5	1	1.9	1.9
FCP16A	3	4	1	2.2	2.2
FCP17	5	11	6	8.4	50.4
FCP18	0	1	1	0.7	0.7
FCP19	0	1	1	0.2	0.2
FCP20	5	6	1	0.2	0.2
FCP21	8	10	2	0.3	0.6
FCP22	1	2	1	0.1	0.1
FCP23	4	5	1	0.3	0.3
FCP24	1	3	2	0.3	0.6
FCP25	2	3	1	0.2	0.2
FCP26	1	2	1	2.3	2.3
FCP27	3	4	1	0.4	0.4
FCP28	4	8	4	3.8	15.2
FCP29	4	7	3	2.0	6.0
FCP30	4	8	4	11.6	46.4
FCP31	6	10	4	1.1	4.4
FCP32	11	12	1	0.5	0.5
FCP33	6	12	6	0.2	1.2
FCP34	2	3	1	7.2	7.2
FCP35	8	9	1	0.1	0.1
FCP36	10	11	1	0.2	0.2
FCP37	13	14	1	0.1	0.1
FCP38	9	10	1	0.2	0.2
FCP39	12	14	2	3.9	7.8
FCP40	5	12	7	4.7	32.9
FCP41	5	6	1	2.5	2.5
FCP42	5	11	6	3.0	18.0

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HOLE ID	From	To	Int	Au_ppm	Au gt*m
FCP43	8	10	2	0.1	0.2
FCP44	5	15	10	3.9	39.0
FCP45	0	3	3	9.4	28.2
FCP46	7	13	6	10.5	63.0
FCP47	4	7	3	3.1	9.3
FSD0088	177	178	1	2.0	2.0
FSD0088	188.8	189.5	0.7	4.2	2.9
FSD0090	386	387	1	2.5	2.5
FSD0090	391	392	1	1.3	1.3
FSD068	0	21	21	0.3	6.1
FSD068	29	30	1	0.1	0.1
FSD068	53	55	2	0.2	0.3
FSD068	59	71	12	0.3	3.2
FSD068	74	79	5	0.2	0.8
FSD068	112	113	1	0.1	0.1
FSD068	131	132	1	0.1	0.1
FSD096	48	50	2	0.5	1.0
FSD097	53.7	54.6	0.9	2.1	1.9
FSD097	98.4	99	0.6	0.6	0.3
FSD097	121	123	2	0.7	1.3
FSD098	4.7	5.1	0.4	0.5	0.2
FSD098	8	9	1	0.7	0.7
FSD098	21.1	22	0.9	0.5	0.5
FSD098	98	99	1	0.6	0.6
FSD098	130.6	131.5	0.9	0.6	0.5
FSD113	115	116	1	0.4	0.4
FSD113	116	117	1	0.1	0.1
FSD113	117	118	1	0.7	0.7
FSD113	126.65	127.6	0.95	3.0	2.9
FSD113	127.6	128.5	0.9	0.5	0.4
FSD113	179.5	180.4	0.9	7.0	6.3
FSD113	179.5	180.4	0.9	7.0	6.3
FSD115	137	139	2	0.3	0.7
FSD115	173.4	174.5	1.1	0.5	0.5
FSD116	110	111	1	1.6	1.6
FSD116	129	130	1	0.3	0.3
FSD117	125.6	126	0.4	0.5	0.2
FSD95	28.28	29.25	0.97	10.0	9.7
FSD95	38.15	38.3	0.15	1.2	0.2
FSP003	94	96	2	1.0	2.0
FSP004	52	54	2	1.3	2.5
FSP006	34	38	4	1.4	5.7
FSPDH2	76	78	2	0.5	0.9
FSPDH3	48	56	8	0.1	1.0
FSPDH3	94	100	6	0.5	2.8
FSPDH3	94	96	2	1.0	2.0

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HOLE ID	From	To	Int	Au_ppm	Au gt*m
FSPDH4	52	54	2	1.3	2.5
FSPDH6	28	30	2	0.6	1.1
FSPDH6	34	36	2	1.9	3.9
FSPDH7	206	208	2	0.5	1.1
FSR008	27	28	1	0.1	0.1
FSR008	32	33	1	1.8	1.8
FSR008	35	41	6	1.6	9.7
FSR008	36	39	3	3.0	9.1
FSR009	19	20	1	1.8	1.8
FSR010	23	28	5	6.1	30.4
FSR011	19	20	1	1.9	1.9
FSR011	31	32	1	2.0	2.0
FSR012	16	17	1	1.7	1.7
FSR012	29	30	1	0.6	0.6
FSR013	18	20	2	0.4	0.7
FSR014	10	11	1	1.7	1.7
FSR015	9	10	1	0.1	0.1
FSR016	0	36	36	0.0	-0.4
FSR017	16	17	1	1.6	1.6
FSR018	0	42	42	0.0	-0.1
FSR019	25	28	3	3.2	9.6
FSR020	65	74	9	2.4	21.2
FSR020	66	69	3	4.2	12.7
FSR021	15	19	4	0.5	1.8
FSR022	15	16	1	0.1	0.1
FSR023	0	35	35	0.0	-0.1
FSR024	29	30	1	0.1	0.1
FSR025	17	22	5	0.3	1.7
FSR026	32	34	2	0.4	0.9
FSR027	41	49	8	0.4	3.0
FSR028	79	81	2	2.8	5.6
FSR029	64	67	3	3.5	10.5
FSR030	94	96	2	1.6	3.3
FSR031	6	12	6	0.2	1.1
FSR031	30	34	4	0.1	0.4
FSR031	52	54	2	0.1	0.2
FSR031	88	90	2	0.1	0.3
FSR032	20	24	4	0.2	1.0
FSR032	26	38	12	0.2	2.5
FSR033	56	60	4	0.2	0.7
FSR034	0	28	28	0.2	6.7
FSR034	34	38	4	0.3	1.0
FSR034	46	50	4	0.3	1.0
FSR035	0	22	22	0.6	12.1
FSR036	16	50	34	0.4	13.6
FSR037	8	36	28	0.2	4.2

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HOLE ID	From	To	Int	Au_ppm	Au gt*m
FSR038	34	48	14	0.1	1.7
FSR038	56	60	4	0.2	1.0
FSR039	20	30	10	0.1	1.3
FSR040	0	91	91	-0.1	-0.1
FSR041	0	63	63	-0.1	-0.1
FSR042	0	130	130	-0.1	-0.1
FSR043	0	120	120	-0.1	-0.1
FSR044	96	102	6	0.2	0.9
FSR045	20	30	10	0.1	0.7
FSR046	4	6	2	0.1	0.2
FSR046	12	14	2	0.1	0.3
FSR046	22	42	20	0.2	3.2
FSR046	72	76	4	0.2	0.6
FSR047	62	106	44	0.2	7.5
FSR048	60	72	12	0.1	1.4
FSR049	20	28	8	0.2	1.2
FSR049	44	56	12	0.1	1.4
FSR049	68	92	24	0.1	3.1
FSR050	10	16	6	0.1	0.7
FSR050	42	68	26	0.4	10.4
FSR051	12	16	4	0.2	0.6
FSR051	26	30	4	0.2	0.6
FSR051	84	88	4	0.4	1.5
FSR052	0	50	50	-0.1	-0.1
FSR053	0	6	6	0.5	2.8
FSR053	56	62	6	0.3	1.5
FSR069	0	10	10	0.2	2.3
FSR069	32	34	2	0.1	0.2
FSR069	64	66	2	0.1	0.2
FSR070	4	8	4	0.1	0.4
FSR070	14	24	10	0.2	1.7
FSR070	44	48	4	1.1	4.2
FSR070	88	100	12	0.2	2.9
FSR070	102	103	1	6.9	6.9
FSR071	38	62	24	0.2	4.1
FSR076	96	98	2	2.2	4.3
FSR076	104	107	3	1.6	4.9
FSR077	0	68	68	-0.1	-6.8
FSR078	0	110	110	-0.1	-0.1
FSR079	0	69	69	-0.1	-0.1
FSR080	0	113	113	-0.1	-0.1
FSR081	20	22	2	0.2	0.4
FSR082	56	60	4	0.5	1.8
FSR083	44	47	3	0.5	1.4
FSR084	31	38	7	1.1	7.4
FSR085	0	80	80	-0.1	-0.1

HOLE ID	From	To	Int	Au_ppm	Au gt*m
FSR086	29	33	4	0.4	1.8
FSR106	82	83	1	3.9	3.9
FSR106	83	84	1	4.0	4.0
FSR106	84	85	1	2.6	2.6
FSR106	85	86	1	0.4	0.4
FSR106	86	87	1	3.1	3.1
FSR107	72	73	1	2.0	2.0
FSR107	73	74	1	1.3	1.3
FSR108	84	85	1	9.8	9.8
FSR108	85	86	1	4.6	4.6
FSR111	61	62	1	1.1	1.1
FSR112	131	132	1	0.5	0.5
FSR112	135	136	1	1.1	1.1
FSR112	148	149	1	1.1	1.1
FSR112	149	150	1	2.2	2.2
FSR112	150	151	1	2.8	2.8
FSR112	151	152	1	2.2	2.2
FSR91	37	40	3	0.3	0.8
FSR94	155	155.95	0.95	0.6	0.6
FSR94	167	168	1	0.3	0.3
FSRD095	28.25	29.25	1	9.8	9.8
FSRD94	168	169	1	0.7	0.7

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Sunshine Metals Mineral Resources

Prospect	Lease Status	Resource Class	Tonnage (kt)	Gold (g/t)	Copper (%)	Zinc (%)	Silver (g/t)	Lead (%)	Zinc Eq. (%)	Gold Eq (g/t)	Gold Eq (oz)	Contained Gold (oz)	Contained Copper (t)	Contained Zinc (t)	Contained Silver (oz)	Contained Lead (t)
Liontown Oxide	ML/MLA	Inferred	133	1.9	0.7	0.7	24	2.3	*5.7*	2.1	8,742	8,017	902	981	100,595	3,011
Liontown Transitional	ML/MLA	Inferred	228	1.8	0.9	2.7	28	2.7	6.9	2.5	18,071	13,096	2,048	6,076	206,096	6,076
	ML/MLA	**Total**	**360**	**1.8**	**0.8**	**2.0**	**26**	**2.5**	***6.4***	**2.3**	**26,813**	**21,113**	**2,950**	**7,057**	**306,691**	**9,087**
Liontown Fresh	ML/MLA	Indicated	2,191	1.5	0.6	5.0	37	1.8	10.5	3.8	266,288	102,148	13,366	108,680	2,581,165	38,564
	ML/MLA	Inferred	1,929	1.9	1.2	2.3	15	0.7	9.8	3.5	218,304	117,835	22,762	44,752	940,196	12,924
		Total	**4,120**	**1.7**	**0.9**	**3.7**	**27**	**1.2**	**10.1**	**3.7**	**484,592**	**219,982**	**36,128**	**153,433**	**3,521,361**	**51,488**
Liontown East	ML/MLA	Inferred	1,462	0.7	0.5	7.4	29	2.5	11.1	4.0	188,266	34,162	7,136	108,936	1,375,350	37,081
		Total	**1,462**	**0.7**	**0.5**	**7.4**	**29**	**2.5**	**11.1**	**4.0**	**188,266**	**34,162**	**7,136**	**108,936**	**1,375,350**	**37,081**
Waterloo	ML/MLA	Indicated	406	1.4	2.6	13.2	67	2.1	23.2	8.4	109,379	17,883	10,612	53,633	876,881	8,503
	ML/MLA	Inferred	284	0.4	0.7	6.6	33	0.7	9.0	3.3	29,747	3,642	2,095	18,651	301,215	2,109
		Total	**690**	**1.0**	**1.8**	**10.5**	**53**	**1.5**	**17.4**	**6.3**	**139,127**	**21,525**	**12,707**	**72,284**	**1,178,095**	**10,613**
Orient	EPM	Indicated	331	0.2	1.1	10.9	55	2.5	15.2	5.5	58,191	2,152	3,537	36,030	584,686	8,271
	EPM	Inferred	33	0.2	0.9	14.2	50	2.2	17.5	6.3	6,582	234	298	4,642	52,779	717
		Total	**363**	**0.2**	**1.1**	**11.2**	**55**	**2.5**	**15.4**	**5.5**	**64,773**	**2,386**	**3,836**	**40,672**	**637,464**	**8,988**
Total VMS Resource			**6,996**	**1.3**	**0.9**	**5.5**	**31**	**1.7**	**11.1**	**4.0**	**903,571**	**299,168**	**62,756**	**382,382**	**7,018,963**	**117,256**
Plateau[#]	EPM	Inferred	961	1.7	-	-	10.7	-				**49,960**	-	-	**329,435**	-
Global Resource			**7,957**							**3.7**		**349,128**	**62,756**	**382,382**	**7,348,398**	**117,256**

SHN earning 75% equity in Lighthouse Farm-In tenements. **Refer to SHN ASX release, 20 January 2023 "Consolidation of High-Grade Advanced Au Prospects, RW"**
The gold and zinc equivalent grades for Greater Liontown (g/t AuEq, % ZnEq) are based on the following prices:
US$2,900t Zn, US$9,500t Cu, US$2,000t Pb, US$2,500oz Au, US$30oz Ag. Metallurgical metal recoveries are broken into two domains: copper-gold dominant and zinc dominant. Each domain and associated recoveries are supported by metallurgical test work and are: Copper-gold dominant – 92.3% Cu, 86.0% Au, Zinc dominant 88.8% Zn, 80% Cu, 70% Pb, 65% Au, 65% Ag.
The AuEq calculation is as follows: AuEq = (Zn grade% * Zn recovery * (Zn price $/t * 0.01/ (Au price $/oz / 31.103))) + (Cu grade % * Cu recovery % * (Cu price $/t/ (Au price $/oz / 31.103))) + (Pb grade % * Pb recovery % * (Pb price $/t/ (Au price $/oz / 31.103))) + (Au grade g/t / 31.103 * Au recovery %) + (Ag grade g/t / 31.103 * Ag recovery % * ((Ag price $/oz / 31.103 / (Au price $/oz / 31.103)))
The ZnEq calculation is as follows: ZnEq = (Zn grade% * Zn recovery) + (Cu grade % * Cu recovery % * (Cu price $/t/ Zn price $/t * 0.01))) + (Pb grade % * Pb recovery % * (Pb price $/t/ Zn price $/t * 0.01)) + (Au grade g/t / 31.103 * Au recovery % * ((Au price $/oz / 31.103) / Zn price $/t * 0.01))) + (Ag grade g/t /31.103 * Ag recovery % * ((Ag price $/oz / 31.103) / Zn price $/t * 0.01)).
For Waterloo transition material, recoveries of 76% Zn, 58% Cu and 0% Pb have been substituted into the ZnEq formula. For Liontown oxide material, recoveries of 44% Zn, 40% Cu and 35% Pb have been substituted into the ZnEq formula. Further metallurgical test work is required on the Liontown oxide domain. It is the opinion of Sunshine and the Competent Person that the metals included in the ZnEq formula have reasonable potential to be recovered and sold.
The Ravenswood Consolidated VMS Resource is comprised of 7.0mt @ 1.3g/t Au, 0.9% Cu, 5.5% Zn, 1.7% Pb and 31g/t Ag (11.1% ZnEq). **For further details refer to SHN ASX Release, 11 December 2024, "904koz AuEq Resource at Ravenswood Consolidated".**

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Table 1, Section 1 - Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'in dustry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	**GEOCHEMICAL SAMPLING** Rocks were selected by the field geologist and location recorded. A standard geopick hammer is utilised to collect a sample typically of 1 – 2kg size along the required outcrop ensuring care is taken to only sample the required unit. Samples collected were dispatched to ALS Townsville for 50g fire assay for gold, and silver, arsenic, copper, lead, zinc, antimony by Atomic Absorption Spectroscopy (AAS). **DRILLING** Historic drilling campaigns completed between 1986 and 1998 used reverse circulation drilling (5.5 inch hammer) to obtain 1 m samples. Limited information is presented on sampling techniques on the RC rigs during this period. Small diamond programs were also completed, with core sampled selectively, cut (half core) on site and dispatched to laboratories in Townsville. Shallow airtrack drilling (3 inch hammer) was completed in 2005. Holes were abandoned when water was intersected or sample return decreased. The maximum hole depth was 23m. Metre interval samples were bagged from the cyclone and spear sampled on 1m intervals. Samples from all historic drill programs pre 2005 were submitted to ALS Townsville for assay. Historical sample weights were not recorded. Samples were fire assayed for gold (50 g charge) and analysed for Ag, As, Sb (on occasion) using AAS. Samples post 2005 were submitted to SGS Analabs in Townsville. Samples from RC drilling were split with a cyclone on rig on 1m intervals. Samples were fire assayed for gold (50 g charge) and analysed for Ag, As using AAS. **BULK SAMPLE – FRANCIS CREEK** Ministerial approval was sought and received for the removal of a bulk sample to test the metallurgical characteristics of the vein system in 1991. The locality for this sample was governed by ease of extraction which was governed by locating the area of minimal overburden/waste removal and impact. It was decided that a 30 by 7 metre slot would be cut into the A vein system where three previous drill holes FSR008, FSR009 & FSR010 where collared. The drill pads had removed a significant portion of the footwall which would minimize footwall removal, limit impact on the area and allow sampling of a typical part of the vein system. The sampling method chosen was to remove a portion of the footwall using a Bulldozer. An excavator with a rockbreaker loosened the vein material which was transferred by bucket to a 10 Metre truck which carted it 200 metres to a naturally clear and flat area for stockpiling. A series of trucks were used to haul the material to Ravenswood where it was similarly stockpiled for toll treatment.

Criteria	Explanation	Commentary
		A toll treatment agreement was achieved with Mt. Isa Mines for utilization of their Ravenswood Gold Treatment Facilities at Ravenswood. A mass balance and gold accounting procedure and formula was established due to the novelty of the exercise to both parties. The results of the bulk sample exercise indicated that good recovery can be achieved from ore containing underground grades. Vein material can be extracted efficiently with minimal dilution from low grade envelope material using selective mining techniques. Wall rocks were found to be relatively competent with minor open spaces and clay gouge material. Some sub horizontal veining was observed to extend into the wall rocks but it is not know how far it extends away from the lode itself. Costeaning located additional near surface vein material adding to the tonnage and continuity of the system. The limit of oxidation or water table was not reached to 7 metres below the natural surface. It was logistically impossible to break down the 961 tonne sample into smaller samples and control these through the plant enough to be able to determine grade variation or nugget affect within the vein system. One 153 tonne parcel however assayed at 10.7 g/t Au. The overall batch of 961 tonnes assayed 7.6 g/t Au.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Historic drilling campaigns completed between 1986 and 1998 used reverse circulation drilling (5.5 inch hammer) to obtain 1m samples. Limited diamond holes were also drilled, cored with HQ and reduced to NQ2. Two diamond holes drilled in 1998 were precollared using RC and cored to end of hole with NQ. Shallow airtrack drilling (3 inch hammer) was completed in 2005. Holes were abandoned when water was intersected or sample return decreased. The maximum hole depth was 23m. A RC/DD capable rig was employed in 2007-8. The RC drilling (5.5 inch hammer) and diamond (NQ2) were typically sampled at 1m intervals.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	No information is available on historical drilling recoveries.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.*	Rock descriptions have been located for most historical samples referenced in this report. Qualitative logging included lithology, alteration and textures; and Quantitative logging includes sulphide and gangue mineral percentages. Summaries of historic holes provided within this report are based on previously scanned copies of hand-written drill logs.

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Criteria	Explanation	Commentary
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Sample weights are unknown for both rock chip samples and RC/DD drilled samples. Rock chip samples are representative as a "point sample" within a referenced outcrop or location. They are not deemed representative of the entire outcrop or prospect as a whole. No QAQC protocols are available. Diamond core was half core sampled, with core being cut at the project on a brick saw.
Quality of assay data and Laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Historical assays have not been validated through re-assay. Assay methods are considered appropriate for exploration drilling. Repeat samples have been analysed routinely throughout assay batches from historic drilling and rock chip sampling. Given that reputable licensed laboratories were utilised it is considered that acceptable levels of accuracy and precision were established.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	Documentation and information regarding data entry procedures, data verification, and data storage (physical and electronic) protocols is unknown.

Criteria	Explanation	Commentary
	Discuss any adjustment to assay data	
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Accuracy of early drill collars and rock chip samples is poorly documented and expected to be relatively poor. Field validation of remaining collar positions (using DGPS) will be completed to improve confidence in drill location. In several instances, rock chip locations have been digitised from georeferenced maps (source of rock chips shown in Appendix B). In many cases easting and northing information has been converted from local Francis Creek grid, AGD66 & AGD84 to GDA94, Zone 55.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	No data spacing has been applied to the rock chip samples due to the nature of the technique. Drill spacing, distribution and the current uncertainty on collar position means that drill spacing is insufficient for Mineral Resource estimation.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Rock samples are collected as "point" samples with no bearing on overall orientation of the possible structure. Interpretation from the historic trial pit, drilling intersections anomalous Au in rock chip suggests a north-northwest trend of mineralisation at Francis Creek. Drilling on other vein systems is sporadic and orientations of mineralisation have yet to be confirmed
Sample security	The measures taken to ensure sample security.	Sample security for historic programmes cannot be validated.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits have been carried out on the reported drill or geochemistry results herein.

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Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	NQ Ex Pty Ltd are the current authorised holders of the Sybil Exploration Permit (EPM26931) and an adjacent EPM in application (EPMA29218). The tenements are in good standing and no known impediments exist. Sunshine (Ravenswood) Pty Ltd, a 100% owned subsidiary of Sunshine Metals Ltd, has applied for three further EPMs that remain in application (EPMA29247, EPMA29248 and EPMA29251). A Constrained Land - Miscellaneous Noting has been placed over two sub blocks, (1 subblock on the SE corner of EPM26931) by Townsville Enterprise Limited for the Hells Gate Dam Site. The tenure reported within exists on the recognised native land of the Gugu Badhun People #2 claim. No third-party royalties exist over the project.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Prior to the mid 1980's gold exploration was not conducted in the area. Exploration in the district in the 1970's and early 1980's consisted of uranium exploration by larger companies (Urangasellschaft and Minatome) and tin exploration by smaller companies (Metals Exploration). The discovery of several epithermal style quartz veining zones in Carboniferous felsic volcanics in the Mount Fullstop region by Arany Holdings Pty Ltd in the mid 1980's highlighted the areas' potential to host economic gold deposits.

Criteria	Explanation	Commentary
		The exploration Permit for Minerals 4133 for the Sybil Graben area was initially granted to Arshay (a precursor company to Queensland Epithermal, "QEP") in 1985. Since the Mount Fullstop discovery in the mid 1980's multiple episodes of exploration have been conducted in the Sybil Graben region through several joint ventures between Australian mining companies and QEP. Exploration programs have been conducted with joint venture partners Newmont Holdings Pty Ltd (1986), Homestake Gold Limited (1986), Battle Mountain Australia (1988-1990), Aberfoyle Resources Limited (1988), Normandy Exploration Pty Ltd (1992), Sons of Gwalia (1994), and Cyprus Gold Australia Corporation (1996). The exploration programs utilised a variety of exploration techniques; geological mapping and gridding, BLEG, stream sediment, and soil sampling, rock chip sampling, air and ground magnetic surveys, air radiometric surveys, IP surveys; and percussion, air track, reverse circulation, and diamond drilling programs. More than a dozen prospects, notably the Francis Creek and Quartz Ridge Prospects, were explored, and a total of 168 holes were drilled throughout the project between 1986 and 2005. The most extensive joint venture was entered into in mid 1988 with Battle Mountain Australia (BMA) who were interested in the project due to the similarities with the Pajingo Vera-Nancy gold mine located 150km southeast of the Sybil Graben. A detailed exploration program was conducted over a two year period throughout several prospects within the Project. Work consisted of; a regional BLC drainage survey, mapping and sampling programs of selective areas, magnetic, IP, radiometric surveys, and several drilling programs comprising 23 percussion drill holes, 55 RCP holes, and four diamond holes throughout several prospects. BMA withdrew from the JV in 1990. During 2007, Canadian public company Queensland Minerals Ltd (QML) carried out drill testing at the Quartz Ridge and Francis Creek Prospects to test for high grade epithermal mineralisation. Seven drill holes were completed at Quartz Ridge, with a total of 1713m being drilled (487.9m of RC and 1225.1m of diamond drilling). Eighteen drill holes were completed at Francis Creek, with a total of 2157.6m being drilled (1498.2m of RC and 659.4m of diamond drilling). Although the results at Francis Creek were considered to be favourable enough to continue, the global financial situation changed and the company ran out of exploration funding, and subsequently withdrew from the project. NQ Ex Pty Ltd pegged the available ground and EPM26931 was granted in 2021.
Geology	*Deposit type, geological setting and style of mineralisation.*	Sybil Project area comprises the Sybil Group of volcanic and sedimentary rocks hosted within the Sybil Graben. The graben is constrained to the north by the Kangaroo Hills Formation phyllites and to the east and south by the Oweenee Granites (Draper and Withnall 1997). The Ordovician to Early Devonian Camel Creek Sub-province and Carboniferous Ruxton Formation flysch-type sequences occur within the graben. These are overlain by the late Carboniferous Hells Gate Rhyolite to the south and west of the graben which is in turn disconformably overlain by the Marshs Creek Formation (Draper and Withnall 1997). The northern end of the graben is characterised by widespread epithermal veining within a gently dipping felsic volcanic and volcaniclastic sequence of rhyolite, rhyolite breccia and quartz phyric tuff (Cumming, 2007). The geology of the Quartz Ridge Prospect comprises largely rhyolite and monomictic rhyolite breccias with associated rhyolite fiamme breccia, amygdaloidal/lithophysae facies and polymictic rhyolite breccia with underlying quartz phyric tuffs and conglomerates (Cumming, 2007). Brecciation is well developed proximal to intrusion margins. Breccias associated with rhyolite domes grade into the crystal tuff units (Corbett, 2007) and a polymictic clay-rich milled breccia has been observed to occur along the contact between the rhyolite and the Marshs Creek Formation to the east. Alteration in the Quartz Ridge area is dominated by silica-pyrite and illite-sericite with associated assemblages including jarosite-limonite-hematite, kaolinite and minor biotite with hydrothermal brecciation and silicification commonly observed within drill core (Cummings, 2007).

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Criteria	Explanation	Commentary
		The geology of the Francis Creek Prospect is dominated by crystal tuff overlying the Kangaroo Hills basement metasediments. Strong epithermal style veining (the Francis Creek Vein system) has formed within the crystal tuff and basement units associated with strongly silicified wall rock, illite-sericite alteration and kaolinite. A flat lying conglomerate outcrops to the NW of the Francis Creek Vein system (Corbett, 2007).
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case*	Rock chip locations are listed in Appendices A. Drill collar and survey details can be found in Appendix B. Some collar RLs are not available in the historic reports. Where possible survey pickups of historic collar positions will be conducted in upcoming site visits. A detailed topographic mapping survey will be completed by drone in upcoming visits and used to validate historic collar RLs. Drill intersections can be found in Appendix C.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	All grades and intercepts referred to in this document are as reported in their associated historical documents. No further adjustments or assumptions have been made.

Criteria	Explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept length	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Rock samples are collected as "point" samples with no bearing on overall endowment of the possible structure. Veins mapped in field vary between <1cm to 1m. More data will be required to accurate assess the true nature of the mineralisation. All drilling intercept widths reported herein are downhole width only, with no true widths reported.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	All relevant diagrams are located within the body of this report
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All rock chips referred to in this report are listed in Appendices B. All drilling intercepts for the Francis Creek and Quartz Ridge drilling can be found in Appendix D.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics;*	All meaningful and material data is reported within the body of the report. Historical, open-file reports referred to in this report are: • CR_16494, CR_16495, CR_18763, CR_19592, CR_20976, CR_21669, CR_23632, CR_23815, CR_24574, CR_25289, CR_27000, CR_27654, CR_29609, CR_31492, CR_31939, CR_32333, CR_33009, CR_36582, CR_37885, CR_38543, CR_38779, CR_40465, CR_44596, CR_53351, CR_54421, CR_60938, CR_65617 & CR68846.

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Criteria	Explanation	Commentary
	potential deleterious or contaminating substances.	
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Future work programs may include soil sample gridding, detailed magnetics, induced polarisation surveys and follow-up shallow drilling of oxide gold positions.

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