ARROWHEAD
BUSINESS AND INVESTMENT DECISIONS

Due Diligence and Valuation Report

Arrowhead Code:	19-20-01
Coverage initiated:	October 27, 2022
This document:	October 27, 2022
Fair share value bracket- Relative Valuation:	AUD 0.39 – AUD 0.66
Share price (October 27, 2022):	AUD 0.185[i]

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Market Data

52-Week Range:	AUD 0.165 – AUD 0.52[ii]
Average Daily Volume (3M Avg.):	87,881[iii]
Market Cap (October 27, 2022):	AUD 21.6 million (mn)[iv]

Company Overview: Siren Gold Limited (Siren Gold) is a gold exploration company listed in Australia (ASX: SNG) with the objective of exploring and developing gold projects in New Zealand. Siren Gold has c. 850 square kilometers (square km) of tenement package with numerous historic high-grade gold mines. It is focused on the high-grade Reefton Goldfield, which has produced over 2 million ounces (Moz) @ 16 grams/ton (g/t). Siren Gold, through Reefton Resources Pty Limited (RRL), operates in key projects such as Alexander River, Big River, Lyell, Golden Point (Auld Creek) and Sams Creek. The company recently acquired Sams Creek from Sandfire Resources Limited (ASX: SFR) for AUD 250k. The total historical production from the four gold projects of Siren Gold tenements is 268 kilo ounces (koz) @ 25.6g/t gold (Au).

The company's strategic tenement in Reefton Goldfield has geological similarities with the highly successful Victorian Goldfields. The high-grade intersection in Alexander River and Big River reveals epizonal and antimony characteristics similar to Fosterville. Siren Gold's most advanced project is the Alexander River project, which has an exploration target of 500-700koz @ 5-7g/t and includes a Mineral Resource Estimate (MRE) of 131koz at 4.1g/t Au, followed by Big River with an exploration target of 100-125koz @ 7-9g/t and an upside potential of 250-500koz. The recent acquisition of Sams Creek resulted in a total resource estimate of c. 588koz @ 2.43g/t with Siren Gold's share is 482koz @ 2.4g/t Au.

Siren Gold's current Exploration Target is 1.0-1.5Moz at a grade of 3-5g/t. However, the company is targeting to reach to 2.5-3.0Moz @ 4-6g/t in the next two years from its current MRE.

On October 07, 2020, the company was listed on the Australian Securities Exchange (ASX) through an Initial Public Offer (IPO) raising AUD 10.0 mn. Siren Gold is headquartered in Perth, Western Australia.

Key Highlights: (1) Siren Gold has a strategic tenement holding of c. 850 square km in Reefton Goldfield; **(2)** Reefton Goldfield, in the South Island of New Zealand, has produced over 2Moz @ 16g/t and has similar epizonal characteristics to Fosterville in the Victorian Goldfields; **(3)** The Siren Gold MRE is estimated at 613koz @ 2.6g/t from the Alexander River and Sams Creek projects; **(4)** Siren Gold Exploration Target is 1.0-1.5Moz at a grade of 3-5g/t, while, the company is targeting to reach to 2.5- 3.0Moz @ 4-6g/t in the next two years; **(5)** Siren Gold is expecting the maiden MRE of the Big River Project in early 2023; **(6)** Siren Gold has applied for two additional prospecting permits in Langdons and Grey River; **(7)** Siren Gold has also applied for the extension of existing permits in Alexander River, Big River and Waitahu; **(8)** Siren Gold recently acquired the Sams Creek Gold Project in New Zealand from SFR for AUD 250k, with an estimated resource (indicated and inferred) of 7.5Mt @ 2.43g/t for 588koz with a cut-off grade of 1.5g/t and 1Moz @ 1.54g/t at a 0.7g/t cut-off; **(9)** Siren Gold has conducted metallurgical test work on Alexander, Big River and Sams Creek which indicates impressive recovery grade of gold could be achieved; **(10)** Siren Gold is to strategically focus its drilling activities on the Alexander River, Big River, Sams Creek, Lyell and Auld Creek projects over the next 12 months.

Key Risks: (a) Delays in the granting of relevant regulatory approvals could slow down activities in the short term, impeding growth; **(b)** Inability to secure sufficient funds for financing operations would postpone/hamper the company's growth plans, leading to a delay or cancellation of certain activities or projects; **(c)** Several studies undertaken to determine the feasibility of projects might result in sunk cost if the projects were economically unviable.

Valuation and Assumptions: Given the due diligence and valuation estimates, Arrowhead believes that Siren Gold's fair enterprise value per share lies in the AUD 0.39 to AUD 0.66 range, derived using a relative valuation methodology (EV/Inferred Mineral Resources multiple).

See important disclosures on page 48 of this report

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1. Investment Thesis

Arrowhead is initiating coverage on Siren Gold Limited with a fair enterprise value of AUD 0.39 per share in the low-bracket scenario and AUD 0.66 per share in the high-bracket scenario, derived using a Relative Valuation methodology (EV/Inferred Mineral Resources multiple).

Siren Gold is a gold exploration company focused on the high-grade Reefton Goldfield located in the South Island of New Zealand. Currently, the competitive landscape of New Zealand is considered low with high entry barriers. The company has a large strategic holding in an underexplored, high-grade goldfield with a rich history of gold production. There are many similarities in the geology of gold mineralization in the Reefton Goldfield to those of the epizonal gold deposits of Victoria (Australia). Key projects of the company include Alexander River, Big River, Golden Point (Auld Creek) and Lyell. Also, the strategic acquisition of Sams Creek might lead Siren Gold to a multi-million-ounce of gold discovery, with significant potential upside for shareholders. The company is also backed by significant shareholdings by management and the board of directors.

Less competition and high entry barriers, due to tighter regulation and high capital intensiveness, may provide a significant opportunity

The New Zealand market is led by a single player named OceanaGold Limited (OGL), which has c. 80% market share in terms of gold mining volumes and revenue while the rest of the industry comprises small alluvial gold ore mining companies. Also, the entry barriers are high, for firms wanting to enter the industry, as gold ore mining companies require government permits to prospect, explore and develop mine sites which might lead to a long gestation period.

Under-explored, large holding in a high-grade goldfield with a history of producing more than 2Moz could provide significant tailwinds

Siren Gold has a strategic tenement holding of c. 850 square km with numerous historic high-grade gold mines in the Reefton Goldfield. The Reefton Goldfield in the South Island of New Zealand has produced over 2Moz of gold at an average recovered grade of 16g/t from 84 historical mines. Siren Gold's Reefton tenements are under-explored and have the potential to add significant additional new gold resources along a 35km structural corridor. The company has drill permits for the Big River, Alexander River, Golden Point and Sams Creek tenements and permits to conduct surface sampling at Reefton South and Lyell.

Maiden Mineral Resource Estimate for the Alexander River project might pave the way for significant opportunities

The Alexander River Project, which is located c. 26km southeast of Reefton, in the South Island of New Zealand. Historically, until the closure of the mine in 1943, it produced a total of 41,089 oz of gold from 48,492 tonnes of quartz lode, with an average recovered grade of approximately 26.4 g/t Au. Alexander River has an Exploration Target of 500-700koz @ 5-7g/t Au and includes an Inferred Mineral Resource Estimate of 1Mt @ 4.1g/t Au for 131koz.

Resemblance of the Alexander River and Big River projects with Fosterville might result in unlocking high-grade gold deposits

Both Alexander River (greater than 26g/t Au historical mine) and Big River (greater than 34g/t Au historical mine) share the same epizonal characteristics as Fosterville. The discovery of the Fosterville epizonal high-grade gold deposits in the Ordovician metasediments within the Victorian goldfields brought a lot of success by producing over 2Moz. Siren Gold expects that drilling at greater depth might provide further similarities and could be the source of high-grade gold.

Strategic acquisition of Sams Creek might pave the way for multi-million-ounce of gold discovery

Siren Gold strategically acquired Sams Creek, which is located 140km North-East of Reefton and 100km North-East of Lyell. Siren Gold has acquired Sams Creek from SFR for AUD 250k. The Sams Creek Gold Project has a significant Joint Ore Reserve Committee (JORC) (2012) Indicated and Inferred Mineral Resource of 7.5Mt @ 2.43g/t Au for 588koz, with significant potential for expansion. Extensive gold mineralization is hosted within a 40m thick porphyry dyke that extends for over 7km.

Favorable metallurgical test work shows possibility of high recovery of gold

Siren Gold has conducted metallurgical test work on Alexander, Big River and Sams Creek which indicates impressive recovery grade of gold could be achieved. Metallurgical test work indicates recoveries ranged from 79.5% to 87.5% and averaged 83.8% (gold recovery grade).

If the mineralization was floated and acid leached, then the total recoveries ranged from 83% to 91.3% for an average of 87.2%. The company has conducted metallurgical test work which suggests that gold recovery of c. 90-92% could be achieved on the Alexander and Big River projects, while the Sams Creek project indicates that a gold recovery of c. 87% is achievable.

Significant holdings by management and the board instills confidence among stakeholders

Management and the board hold a significant part of the company (c. 16.4%). They also have a track record of gold discovery in New Zealand and significant underground mining experience.

Significant high-grade Antimony reserves in Reefton Goldfield might provide opportunities for an additional revenue stream

Apart from numerous high-grade gold mines, Reefton Goldfield, where Siren Gold has a vast strategic tenement, potentially has significant high-grade antimony resources, particularly at Auld Creek and Langdons. The presence of additional antimony in the ore can increase the comparable gold grade by at least 3-5g/t. Because of its uniqueness in properties, antimony finds usage in a majority of the end-user industries. The supply has been majorly controlled by China and Russia (c. 90% of the global supply). The price of antimony has been increasing at a CAGR of 17% in the last 6 years and the global antimony market is projected to grow at a CAGR of c. 6% for the next 8 years. It might unlock significant additional revenue streams like in the case of Costerfield Mine in Victoria, which is a significant global producer of antimony (among the top 5 in the world). As a result, Siren Gold also has the potential to add this valuable by-product to any possible future gold production.

Historically, listings have unlocked significant shareholder value

Historically, listings of companies like Bellevue Gold, Spectrum Gold and Auteco Minerals have unlocked significant value for shareholders. The historical production of Bellevue Gold stood at 800koz @ 15g/t. The historical production of Spectrum Gold and Auteco Minerals stood at 85koz @ 21g/t and 1.5Moz @ 16g/t, respectively. Similarly, the historical production of Reefton Goldfield stood at over 2Moz @ 16g/t where Siren Gold has tenement c. 850 square km. So, Siren Gold might follow the similar trajectory as Bellevue Gold, Spectrum Gold and Auteco Minerals.

However, certain risks could impede growth plans

Delays in the granting of relevant regulatory approvals might impede growth

Discovery of an economically viable mineral deposit requires various approvals, consents, licenses and permits before mining can commence. Also, obtaining necessary resource consents can be subject to numerous conditions and is time-consuming in nature. Any delay in regulatory approvals or consents might impede the company's operational and financial performance and future growth plans. Amendments to laws by regulators may provide further headwinds. Mining and exploration permits are also subject to periodic renewal. There is no assurance that current or future permits or future applications for production permits will be approved in their entirety, and some of the permit areas applied for may be excluded.

With high spending comes financing risks

Siren Gold is in a capital-intensive industry. Hence, the company may need equity or debt financing to secure additional funds to meet forecast expenditure. Such financing would be required to support ongoing operations and implement planned strategies. The inability to secure sufficient funds would postpone/hamper the company's growth plans, leading to the delay or cancellation of certain activities or projects.

Investment thesis conclusion

We think Siren Gold has a huge opportunity to target the under-explored Reefton Lyell and Sams Creek projects , where it has large strategic tenements. The company expects to reach and Exploration Target of 2.5-3.0Moz @ 4-6g/t Au in the next 24 months from its current Exploration Target of 1.0-1.5Moz @ 3-5g/t Au, underpinned by the Alexander River, Big River and Sams Creek Gold projects. However, its ability to finance and obtain all relevant regulatory approvals in a timely manner could pose a threat.

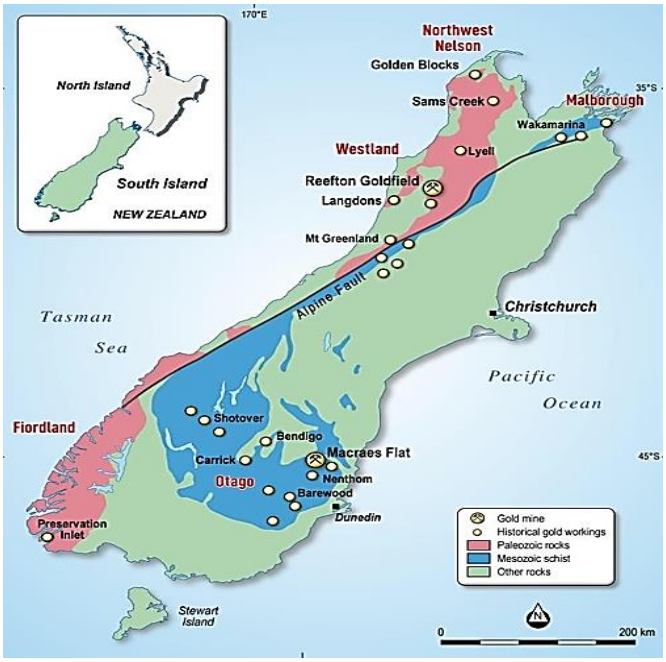
2. Business Overview

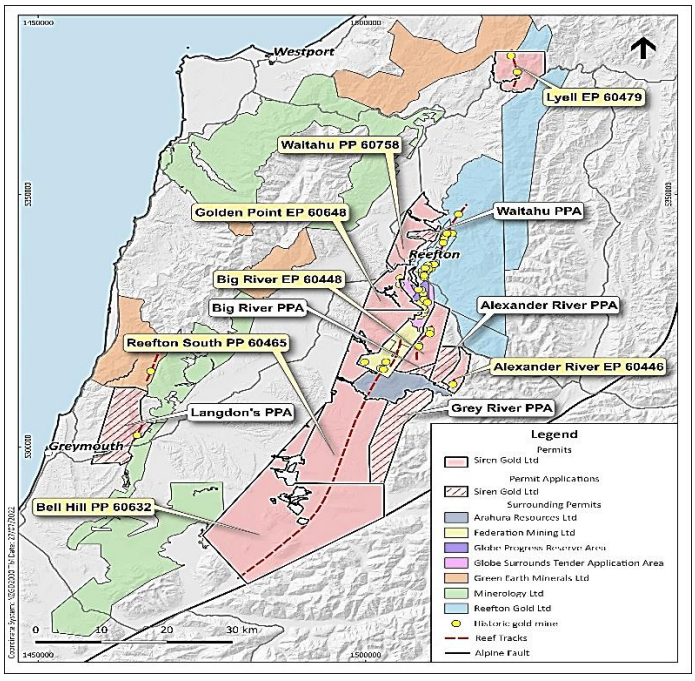
2.1 Background[v]

Incorporated in 2017, Siren Gold Limited is a gold exploration company listed in Australia. The objective of the company is to acquire, explore and develop gold projects in New Zealand. It is focused on the high-grade Reefton Goldfield. Siren Gold has a c. 850 square km tenement package, with numerous historic high-grade gold mines. In 2018, Reefton Resources Pty Limited (RRL) was incorporated in New Zealand as a wholly owned subsidiary. RRL is the holder of the company's Reefton, Lyell and Sams Creek projects. Siren Gold is headquartered in Perth, Western Australia.

On October 07, 2020, the company was listed on the Australian Securities Exchange (ASX) through an IPO raising AUD 10.0 mn. Most of the proceeds budgeted has been spent on exploration projects, strategic acquisitions and working capital requirements.

Exhibit 1: Geographical presence[vi]



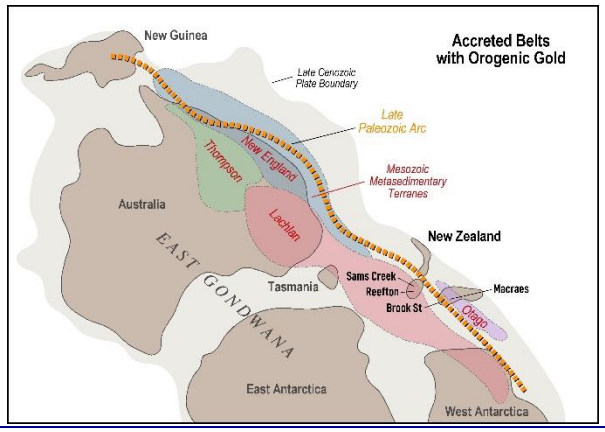


2.2 Reefton Goldfield

2.2.1 History[viii]

Western New Zealand was originally part of Gondwana and lay adjacent to eastern Australia until around 80 million years (Ma) ago. The northwest of the South Island of New Zealand comprises an area of predominantly early Paleozoic rocks in broad northerly trending belts that terminate at the Alpine Fault. These Paleozoic rocks are divided into the Buller Terrane, Takaka Central and Takaka Eastern belts. These belts correspond with the Lachlan Fold Belt's Western, Central and Eastern belts. The Buller and Western Lachlan belts contain orogenic gold deposits like Bendigo, Ballarat and Fosterville in Australia and the Reefton, Lyell and Golden Blocks Goldfields in New Zealand. The Sams Creek porphyry dyke (SCD) deposit is located in the Eastern Takaka Terrane, equivalent to the Eastern Lachlan belt that hosts porphyry copper and gold deposits.

Exhibit 2: Gondwana land showing the Lachlan Fold Belt and Reefton Goldfield[vii]



The Greenland Group Paleozoic rocks that host the gold mineralization extend intermittently over 200km from south of Reefton to northwest Nelson. The Greenland Group rocks were originally part of the Lachlan Fold Belt in Victoria, Australia, and were later separated. The gold mineralization has important similarities to the mineralization at Bendigo and Ballarat.

The Reefton Goldfield in the South Island of New Zealand was discovered in 1866 and produced over 2Moz of gold at an average recovered grade of 16g/t from 84 historic mines, where Siren Gold has a large strategic tenement holding.

2.2.2 Geological Position[ix]

Reefton Goldfield is situated in late Cambrian to early Ordovician Greenland Group sedimentary rocks. These rocks consist of interbedded, massive to thinly bedded, quartz-rich sediments comprising gradational psammitic (greywacke) and pelitic (argillite) rock types.

The Greenland Group sediments are moderately deformed and have undergone a late Silurian to mid-Devonian, low-grade metamorphic event. Metamorphism is to sub/low greenschist facies, with illite clay facies predominating. Widespread folding was synchronous with metamorphism, and this deformation predates granitoid emplacement. Deformation due to east-west compression resulted in the formation of close to tight, upright, north-south trending fold axes with a single pervasive and penetrative steeply dipping axial planar cleavage.

Exhibit 3: Reefton Goldfield geographical presence[x]

As deformation progressed, fold hinges were commonly sheared out by high-angle reverse faults and bedding concordant quartz veins formed between discrete bedding planes. These discordant shear zones now host the bulk of the gold mineralization in the Reefton Goldfield. They are thought to have formed as a late-stage, partially strike-slip event at the culmination of the deformation. The Lyell Goldfield can be thought of as a northern extension of the Reefton Goldfield (Blakemore 2016).

2.2.3 Structure[xi]

Gold mineralization in the Reefton Goldfield is structurally controlled, where the formation of the different deposit types is interpreted to be due to focusing of the same hydrothermal fluid into different structural settings during a single gold mineralization event. However, some of the deposits appear to have been re-worked, with gold and sulfide mineral remobilization having occurred during a later phase of brittle deformation.

In general, two mineralization styles are present:

- "Blackwater Style" comprises undeformed quartz lodes.
- "Globe-Progress Style" comprises highly deformed quartz – pug breccia material with a halo of disseminated mineralization.

The "Globe-Progress Style" in the eastern corridor includes the Capleston, Crushington, Globe Progress, Cumberland and Big River mines, while the "Blackwater Style" in the western corridor extends from Reefton south through the Golden Point, Morning Star, Blackwater and Homer mines.

The eastern corridor potentially contains the thicker, high-sulfur sheared deposits, while the western corridor contains low-sulfur, narrow high-grade quartz veins.

2.2.4 Mining and Exploration History[xii]

Historically, Reefton Goldfield has been explored and mined for hard rock, alluvial gold and coal.

Alluvial gold was first discovered in 1866 in Redmans Creek, followed by further discoveries throughout the area. There have been four cycles of alluvial gold mining in the region. The first discovery of auriferous quartz in the Reefton area was made in 1870 in the headwaters of Murray Creek. During 1874-75, several lodes were mined, with the highest being c. 30koz pa. In 1899, Consolidated Goldfields New Zealand (CGNZ) started to operate in the Reefton area. The last of CGNZ's operations, the Blackwater Mine, closed in 1954.

The Reefton corridor extends 35km in length and has produced over 2Moz Au @ 16g/t from 84 historic mines.

Exhibit 4: Total underground gold production of Reefton Goldfield[xiii]

Mine	Production Tonnes (t)	Production Ounces (oz)	Recovered Au Grade (g/t)	Percentage of Total Au (oz)
Blackwater	1,603,157	740,403	14.2	35.9
Globe-Progress	1,062,727	418,345	12.2	20.3
Wealth of Nations	458,038	208,980	14.2	10.1
Keep-It-Dark	333,780	182,616	17.0	8.8
Big River	124,060	135,965	34.1	6.6
Ajax/Golden Fleece	136,642	89,636	20.4	4.3
Welcome/Hopeful	44,867	88,607	61.4	4.3
Alpine United	146,640	80,510	15.6	3.9
Alexander River	48,492	41,089	26.4	2.0
Murray Creek Mines	52,943	33,887	19.9	1.6
Fiery Cross	24,956	27,843	34.8	1.3
Just-In-Time	13,755	17,168	38.8	0.8
Total Production	**4,050,053**	**2,065,149**		**100**

Siren Gold's Big River and Alexander River projects were the 5th and 8th largest mines by output.

Exhibit 5: Reefton Goldfield mine recovered gold production (koz) till 1954[xiv]

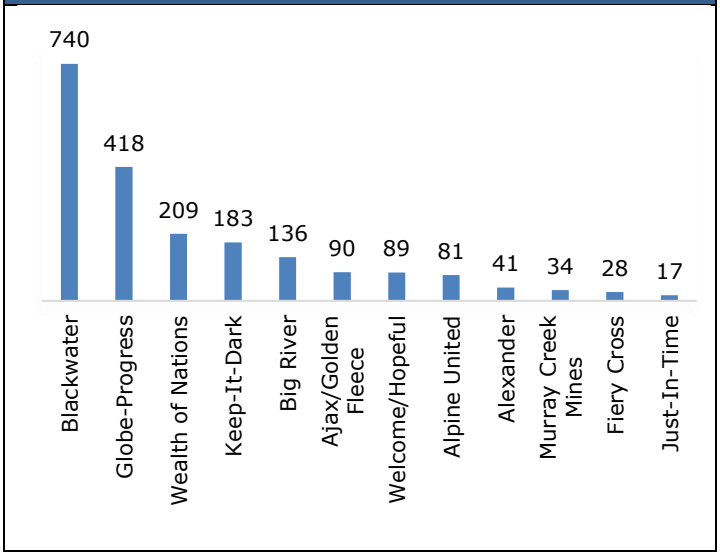
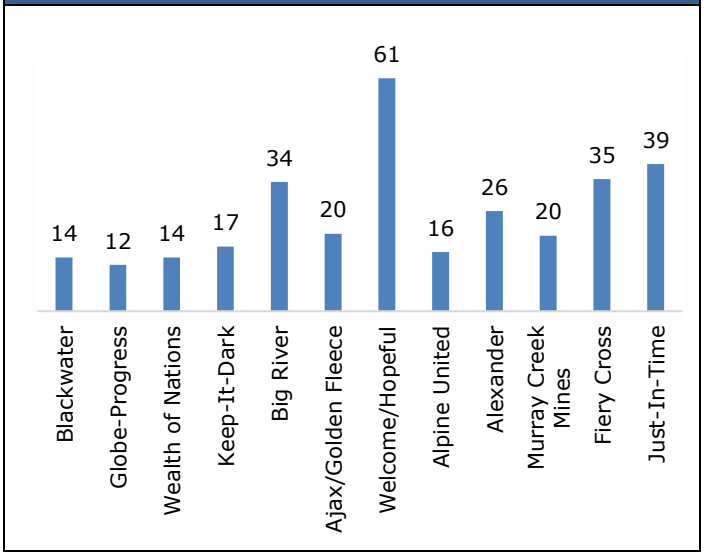


Exhibit 6: Reefton Goldfield mine recovered gold grades (g/t)[xv]



Historically, mining in Reefton was focused on free gold within the quartz lodes using stamper batteries.

Due to extractive technology limitations, the gold within the sulfides contained in the host rock and pug zones was often left behind as this material could not be processed. However, Reefton was the first mine in the world to use cyanide systems to extract gold from the sulfide material.

Recent mining and processing undertaken by OGL at the Globe-Progress Mine has demonstrated that the remaining gold is readily recoverable via modern processing techniques.

Exhibit 7: Lyell Goldfield Battery[xvi]

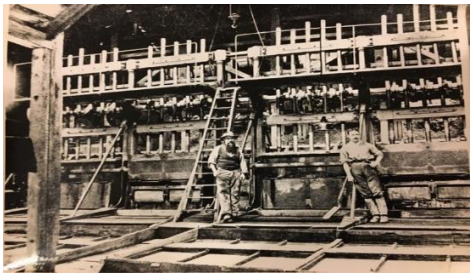
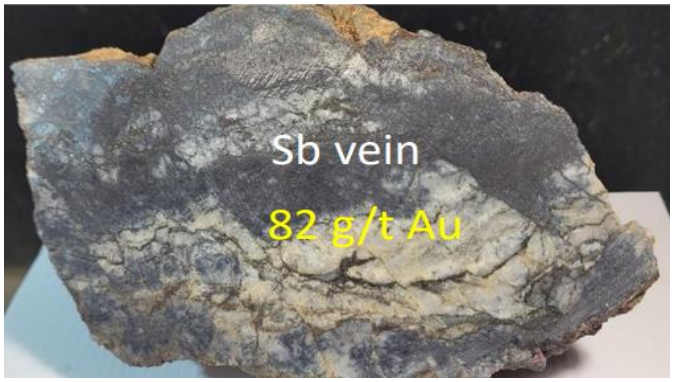
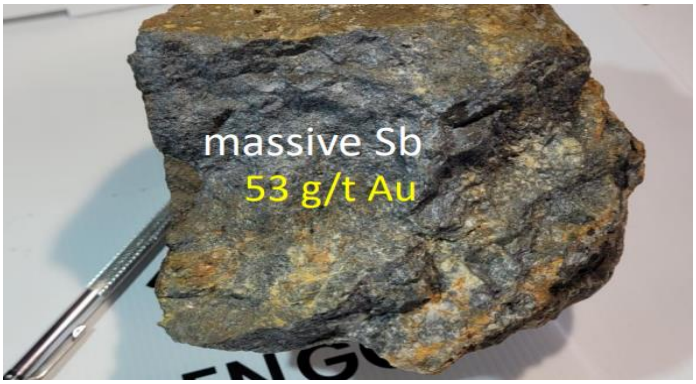


Exhibit 8: Historically Untreatable ore with high stibnite contents[xvii]

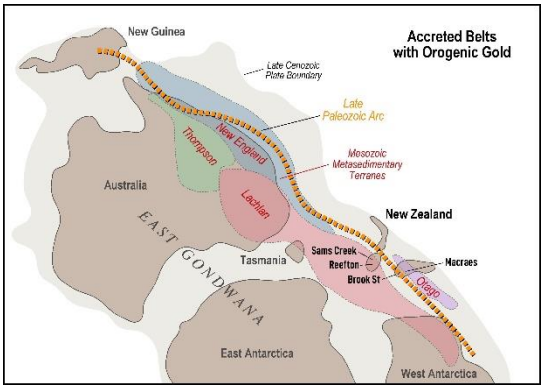




2.2.5 Correlation and similarities between Reefton Goldfield and Victorian Goldfields[xviii]

There are many similarities in the geology of gold mineralization in the Reefton Goldfield to those of the mesothermal gold deposits of Victoria (Australia).

Exhibit 9: Gondwana land showing the Lachlan Fold Belt and Reefton Goldfield[xix]



The Reefton Goldfield has been correlated to the Lachlan Fold Belt that contains the Victorian Goldfields. Gold mineralization in Victoria is associated with two main events at c. 445 Ma and c. 380-370 Ma. The c. 445 Ma event is thought to have involved crustal thickening and the circulation of metamorphic fluids through the crust and formed gold deposits at Bendigo, Castlemaine, Maldon and Daylesford. The c. 380-370 Ma event is restricted to the Melbourne and eastern Bendigo Zones and is responsible for the emplacement of gold at the Fosterville and Costerfield mines.

The orogenic gold mineralization in Victoria follows two distinctive sub-types:

- Mesothermal deposits
- Epizonal deposits

The deeper (6-12km) mesothermal deposits formed almost all the significant gold deposits in the Bendigo and Stawell zones. The shallower (<6km) epizonal gold deposits are in the Melbourne zone and eastern Bendigo zone, including Fosterville and Costerfield. The epizonal deposit is characterized by arsenopyrite-/pyrite-hosted refractory gold and stibnite-associated gold, which are indicative of shallower emplacement depth.

Gold mineralization at Reefton also occurred in two distinct stages:

- First stage comprising gold mineralized quartz veins.
- Second stage characterized by quartz, stibnite, arsenopyrite, pyrite and gold.

Stibnite was found in many quartz lodes at Reefton, making up 10-30% of some veins. Stibnite was reported from mines at Blackwater, Globe Progress, Crushington, Capleston – Specimen Hill, Big River, Ajax, Murray Creek, Blacks Point – Painkiller, Merrijigs and Alexander River.

At Fosterville two gold mineralization events that occurred. Initially gold-hosted arsenopyrite, which is present throughout the deposit, but a narrow vein hosting gold-stibnite mineralization exists from c. 800m to 1,350m depth, below which there is vein-hosted gold mineralization only. The acicular arsenopyrite mineralization in the Reefton Goldfield looks very similar to the Fosterville mineralization and may represent that same initial gold mineralization event. The acicular arsenopyrite and gold-stibnite at Reefton also confirmed their presence in the epizonal environment.

Exhibit 10: Superimposition of Fosterville and Alexander River Long Section showing shoot geometry and mineralization types[xx]

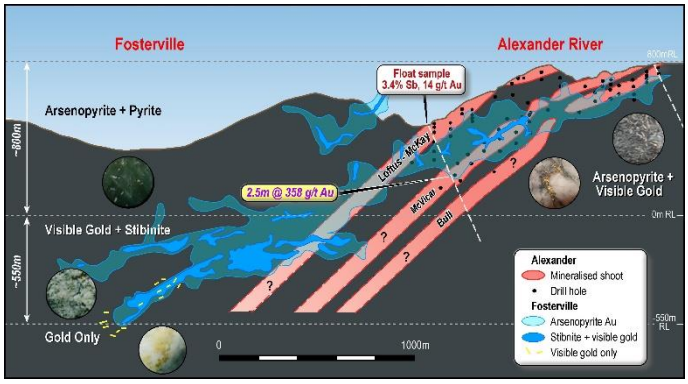


Exhibit 11: Comparison of Reefton and Victorian Goldfields[xxi]

Mineralisation Controls	Bendigo-Ballarat Zone		Reefton Zone
	Bendigo-Ballarat	Fosterville	
Age of Host Rocks	●	●	●
Host Rock Lithology	● ●	● ●	●
Deformation style during Mineralisation	●	●	●
Ore Types	●	●	●
Chemical Association	●	●	●
Mineralised shoots		●	●
Depth of Mineralisation	●	●	●
	Mesothermal	Epizonal	Epizonal

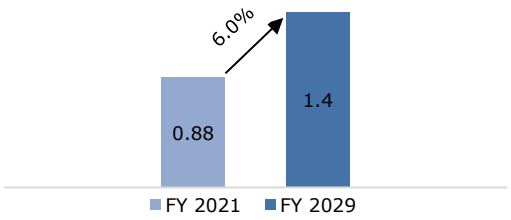
2.2.6 Antimony and its importance

Overview

The word Antimony (Sb) (a semi-metallic chemical element) is derived from the Greek words "anti" and "monos," which together mean "not found alone." The element's historical name, stibium, inspired the chemical symbol Sb. Antimony metal is extracted primarily from stibnite, which contains 72% of antimony and 28% sulfur.

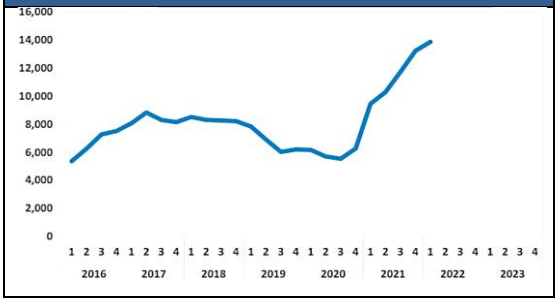
The global antimony market size in FY 2021 stood at USD 0.88 bn. It is projected to grow at a CAGR of 6.0% for the next 8 years to reach USD 1.4 bn by FY 2029.

Exhibit 12: Global Sb Market (USD bn.)[xxii]



Sb is mined in only a few countries, with China being its largest producer, accounting for c. 75-80% of worldwide production. It has been seen that China and Russia have been controlling c. 90% of cumulative world antimony production in the last 7 years (Exhibit 14). The top seven Sb producing countries, are China, Russia, Tajikistan, Burma, Bolivia, Turkey and Australia. The average price of Sb increased at a CAGR of 17% in the last 6 years, majorly driven by supply-side risk, as China imposed restrictions for several years on the export of antimony-based products, which led to reduced availability and increased prices (Exhibit 13).

Exhibit 13: Average Quarterly Sb Price (USD/tonne)[xxiii]



Sb is used for many technological and industrial purposes. Antimony is used as a hardening alloy for lead, especially in storage batteries and cable sheaths, and also used in solder, collapsible tubes and foil, sheet and pipes and semiconductor technology. Stibnite is used for making metal antifriction alloys, metal shot, batteries and in the manufacture of fireworks. Antimony salts are used in the rubber and textile industries, in medicine and glassmaking. This has led to the high economic importance of Sb (Exhibit 15).

Exhibit 14: Cumulative World Sb Production[xxiv]

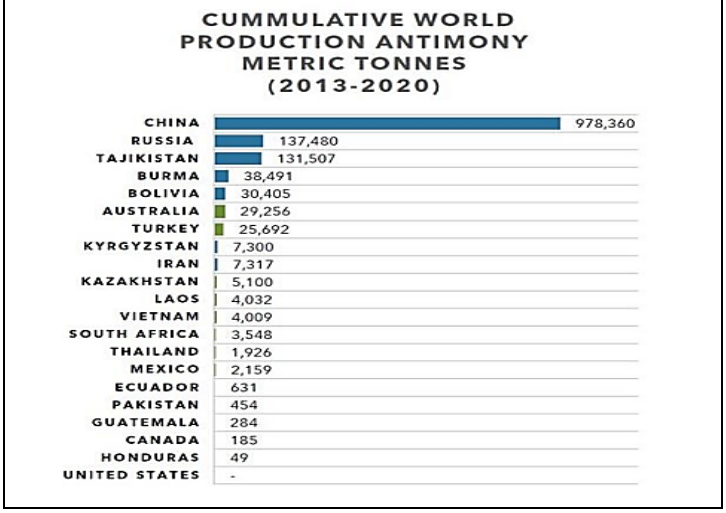
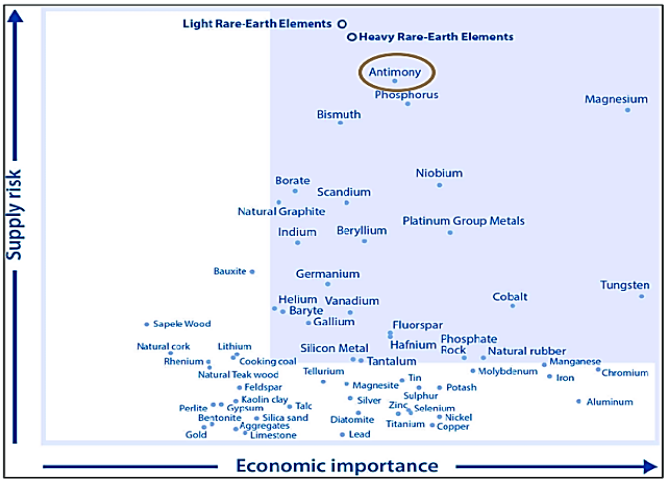


Exhibit 15: Illustration of critical metals based on economic importance[xxv]



Presence of Antimony in Reefton Goldfields

Reefton Goldfields are a significant source of antimony. The Goldfields share the epizonal characteristics of Fosterville epizonal deposit, which is characterized by arsenopyrite-/pyrite-hosted refractory gold and high stibnite-associated gold.

The gold mineralization at Reefton is characterized by quartz, stibnite, arsenopyrite, pyrite and gold. Stibnite has been found in many quartz lodes at Reefton, making up 10-30% of some veins. Stibnite has been reported from mines at Blackwater, Globe Progress, Crushington, Capleston – Specimen Hill, Big River, Ajax, Murray Creek, Blacks Point – Painkiller, Merrijigs and Alexander River.

The similarities between Alexander River and Fosterville mineralization shows that in Fosterville the mineralized shoots extend for at least 1,350m below the surface and 2,400m down the plunge. Disseminated acicular arsenopyrite gold dominates up to 800m below the surface. Between 800m and 1,350m, arsenopyrite gold continues, but stibnite-gold mineralization dominates. However, the Alexander River deposit has only been drilled to around 500m below the highest outcrop at Bull shoot which represents about 1,000m down the plunge, compared to 2,400m at Fosterville. This corresponds to the acicular arsenopyrite zone at Fosterville. Gold mineralization intersected at Alexander River is currently dominated by acicular arsenopyrite mineralization with some visible gold in quartz veins. Only limited stibnite mineralization has been observed at Alexander River, but may reflect the relatively shallow sampling compared with Fosterville.

Similarly, at Big River, a stockpile of stibnite ore was left at the historic battery. Later, the sample of Sb was assayed several times and returned assays ranging from of 62.8 to 82.3g/t Au with 20.5% stibnite.

In Auld Creek, trenching has encountered strong stibnite mineralization of 1.7% Sb across the Bonanza reef, and 2.3% Sb across the Fraternal reef. Rock chip sampling of the mullock dumps at Fraternal and Bonanza workings returned 29% Sb and 42% Sb, respectively. Exploration done by OGL between 1996-2013 shows that highest grades in the deposit are generally associated with strong stibnite mineralization. Historically, high-grade gold and stibnite has been mined near the surface from quartz reefs and mineralized breccias at the Bonanza and Fraternal claims.

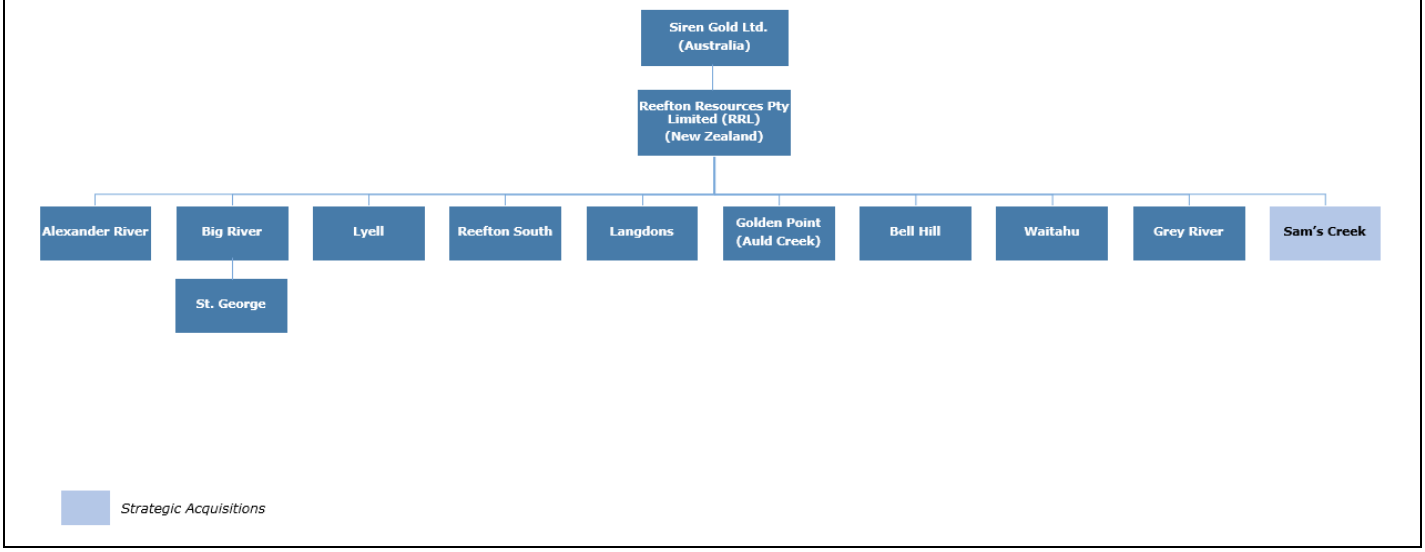
Similarly, the Langdons area contains numerous high-grade Sb reefs ranging from 0.6 to 2.7m wide and up to 0.6m thick massive stibnite mineralization that could exceed 20% Sb.

2.3 Project[xxvi]

The company, through RRL, has secured the following tenements:

- Alexander River
- Big River
- St. George
- Lyell
- Reefton South
- Golden Point
- Bell Hill
- Waitahu
- Langdons
- Sam's Creek

Exhibit 16: Siren Gold's tenement structure



Current Status of tenements

- **New prospecting permit status:** Siren Gold has applied for two additional prospecting permits:
  - Langdons
  - Grey River
- **Extensions of exploration permit status:** Siren Gold has applied for the extension of existing permits:
  - Alexander River
  - Big River
  - Waitahu
- **Disposal:** Siren Gold has not disposed of any of its tenements during the quarter.

2.3.1 Alexander River (EP 60446)[xxvii]

Overview and History

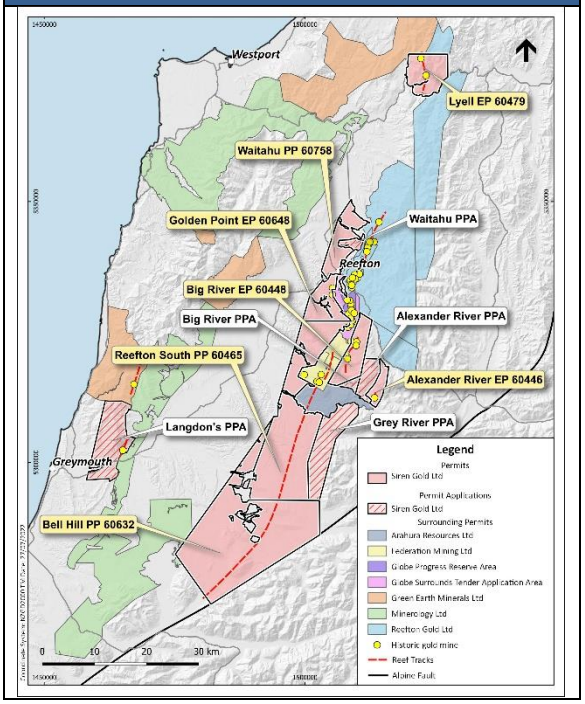
The Alexander River Project is located c. 26km southeast of Reefton, in the South Island of New Zealand.

The Alexander River Project overlays the Alexander River Mine, a group of mines along a series of ore shoots or lodes. The discovery of quartz float in the Alexander River in 1920 led to the development of the last quartz mining area in the Reefton Goldfield. Until the closure of the mine in 1943, it produced a total of c. 41koz of gold from 48,492 tonnes of quartz lode, with an average recovered grade of approximately 26.4g/t Au.

The field consists of a series of shallow plunging quartz shoots along a north-northeast trending reef-track or shear zone c. 1.2km in length. The shoots from southwest to the northeast were named:

- Bull
- Firmiston
- McVicar
- Bruno
- McKay
- Loftus and Mullocky

Exhibit 17: Geographical location of Alexander River[xxviii]



Due to the lack of outcrop and the shallow plunge of the ore shoots, rugged topography, and the site isolation at the time, it took time and significant underground development before sufficient ore was located to justify the construction of a stamper battery. The hardness of the lode material in the Loftus and Mullocky shoots prevented their full development, and most of the focus and development went into the McVicar shoot. As a result, most of the production came from McVicar, which was developed down to the No.6 adit level, 260m below the surface. The other shoots were only prospected or developed on one or two adit levels. The mine finally closed in late 1943 after all the ore on the No.6 level had been extracted, and no further portions of the lode had been developed.

Mapping and Geochemical Sampling

The Alexander River mineralization stretches for over 1.2km and comprises high-grade quartz reefs and disseminated mineralization. Surface trenching and channel sampling show that the mineralization ranges from 2-15m thick, with an average thickness and grade of 4m @ 8g/t Au. Major mineral shoots identified by surface sampling are as follows:

- Bull
- McVicar
- Bruno
- Loftus-McKay

Mapping has confirmed the identification of two separate reefs of the Alexander River mineralized zone:

- The Bull-McVicar-Bruno reef track (McVicar Reef)
- Loftus-McKay

McVicar Reef is East North-East striking, steeply South-East dipping, while the Loftus-McKay reef track extends from Bruno into Mullocky Creek and is North North-East striking and dips 50 degrees to the North-West. In both the reefs, the intersection between an anticline hinge and a mineralized fault likely controls the trend and plunge of gold-bearing shoots.

Drilling, Exploration Activities with Intersections and Target

Before Siren Gold, only limited drilling had been completed at Alexander River. Siren Gold drilled 106 diamond drillholes for 20,000m. The company believed that the shoots continue from surface for at least 1,350m down the plunge and are still open at depth. Siren Gold also discovered a new McVicar's West shoot, which extends for at least 600m from the bottom of McVicar Mine and is also open at depth.

Three companies have undertaken exploration data collection within the Alexander River Project area since the closure of the Alexander River Mine. The companies are as follows:

- CRAE
- OGL
- Kent Exploration NZ Ltd (Kent)

Several drilling and trenching activities have been carried out in the shoots, which produced the following impressive trenching and drillhole intersection grades:

Exhibit 18: Trenching and drillhole intersection grades[xxix]

Shoots	Grades	Types
Bull	4.5m @ 12.9g/t	Trenching
	7.9m @ 3.3g/t	Drillhole
McVicar (East and West)	8.0m @ 7.5g/t	Trenching
	2.2m @ 35.4g/t	Trenching
	4.1m @ 10.6 g/t	Drillhole
	9.9m @ 6.4 g/t	Drillhole
	2.5m @ 358 g/t	Drillhole
	2.1m @ 18 g/t	Drillhole
Bruno	9.3m @ 10.7g/t	Trenching
	4.2m @ 7.6g/t	Trenching
	3.0m @ 19.0g/t	Trenching
	3.0m @ 8.5g/t	Trenching
	2.7m @ 15.7g/t	Trenching
	2.4m @ 9.3g/t	Trenching
Loftus-McKay	15m @ 7.4g/t	Trenching
	21.8m @ 2.3g/t	Drillhole
	2m @ 26.3g/t	Drillhole
	5m @ 9.1g/t	Drillhole

An Exploration target of 500-700koz @ 5-7g/t Au has been estimated if the Loftus-McKay, McVicar West and Bull West if the shoots extend for 1,000m below surface. The exploration target reflects the potential of the deposit. The MRE shows that the grade of the McVicar West and Loftus-McKay shoots increases with depth.

MRE

The Maiden Alexander River Inferred MRE is 1Mt @ 4.1g/t Au for 131koz at a 1.5g/t cut-off and 35g/t top-cap.

Exhibit 19: Inferred resource summary at different cut-off grades[xxx]

Cut-off Grade	Tonnes (kt)	Grade (g/t Au)	Ounces (koz)
1.0	1,200	3.6	139
1.1	1,192	3.6	139
1.2	1,164	3.7	138
1.3	1,096	3.8	135
1.4	1,038	4.0	133
1.5	**1,000**	**4.1**	**131**
2.0	832	4.5	122

Exhibit 20: Inferred resource summary by material type – 1.5g/t Au cut-off[xxxi]				
Material Type	**Tonnes (kt)**	**Grade (g/t Au)**	**Ounces (koz)**	**% MRE**
Transition	302	2.9	28	21.4
Fresh	699	4.6	103	78.6
Total	**1,000**	**4.1**	**131**	

Exhibit 21: Inferred resource summary by shoot type – 1.5g/t Au cut-off[xxxii]				
Shoot	**Tonnes (kt)**	**Grade (g/t Au)**	**Ounces (koz)**	**% MRE**
McVicar East	14	6.5	3	2.2
Bull East	355	2.1	24	18.6
Bruno East	32	5.9	6	4.6
Loftus-McKay	218	4.6	32	24.7
McVicar West	382	5.3	65	49.7
Total	**1,000**	**4.1**	**131**	**100.0**

The McVicar West Shoot contains 50% of the MRE, with an average grade of 5.3g/t Au with a top-cap of 35g/t.

Deposit Geology

The Alexander River Project lies in a separate fault-bounded block of the Ordovician Greenland Group metasedimentary rocks c. 5km southeast of the main belt. These rocks are weakly metamorphosed, variably deformed and are the primary host rocks for gold mineralization.

The quartz lodes at the Alexander River Project are fissure reefs hosted by a northeast trending shear zone. The shear has been interpreted as near-vertical or dipping steeply east to west and disrupted by later faulting. The historically mined quartz lodes plunge shallowly to the northeast within the shear. Gold mineralization shows a close but not linear relationship with arsenopyrite and, to a lesser degree, pyrite.

Comparison

The Alexander River Project can be compared with the following:

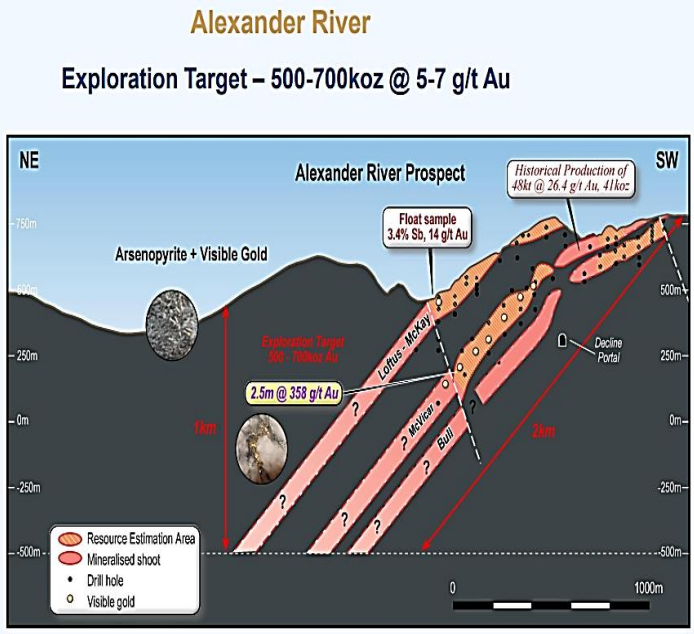
- Blackwater Mine
- Fosterville

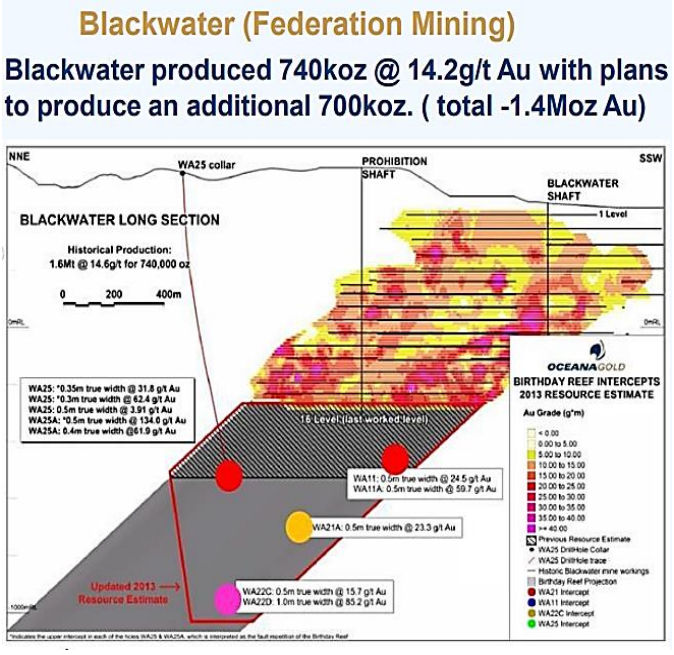
Alexander River Project vs Blackwater Mine

Historically, the Blackwater Mine project produced 740koz @14.2g/t, with plans to produce an additional 700koz of resources to a depth of 1,500m (0.9Mt @ 23g/t).

Exhibit 23: Comparison between Alexander River and Blackwater mine[xxxiii]		
Particulars	**Alexander River Project**	**Blackwater Mine**
Strike Length	1,200m	800m
Historical production	41koz @ 26.4g/t	1.58Mt @ 14.6g/t for 740koz
Depth	McVicar Lode mined up to 250m and current depth potential is unknown	Mined up to 700m and open at depth to 1,500m

Exhibit 24: Schematic comparison between Alexander River and Blackwater mine[xxxiv]



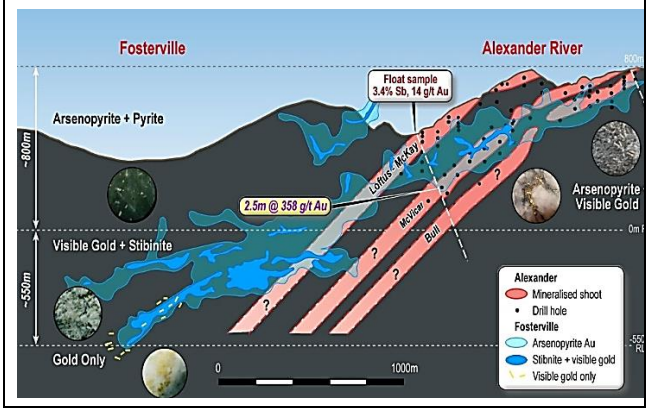


Alexander River Project vs Fosterville

The similarities between Alexander River and Fosterville in the early stages are particularly compelling, with the structural setting and age being very similar.

The Fosterville mineralized shoots extend for at least 1,350m below the surface and 2,400m down the plunge. Disseminated acicular arsenopyrite gold dominates to 800m below the surface. Between 800m and 1,350m, arsenopyrite gold continues, but stibnite-gold mineralization dominates. Below 1,350m, there is only free gold in quartz. Fosterville arsenopyrite mineralization initially resulted in the mill feed grade of 4-5g/t Au. The mill feed grade increased to 15.7g/t in 2017 when the stibnite–gold mineralization was being mined and increased to 33.9g/t in 2020 when the vein that hosted visible gold was intersected.

Exhibit 25: Alexander River schematic long section[xxxv]



The Alexander River deposit has only been drilled to around 500m below the highest outcrop at Bull shoot. This represents about 1,000m down the plunge, compared to 2,400m at Fosterville and 2,400m at the Blackwater mine. This corresponds to the acicular arsenopyrite zone at Fosterville. Gold mineralization intersected at Alexander River is currently dominated by acicular arsenopyrite mineralization with some visible gold in quartz veins. Only limited stibnite mineralization has been observed at Alexander River until now, reflecting the relatively shallow sampling compared with Fosterville.

Tenement Ownership Details

Exhibit 26: EP 60446 details[xxxvi]

Permit No.	Location	Grant Date	Expiry Date	Duration	Area (ha)	Minerals
60446	West Coast Region	10/05/2018	09/05/2023	5 Years	1675.459	Gold, Silver

2.3.2 Big River (EP 60448)[xxxvii]

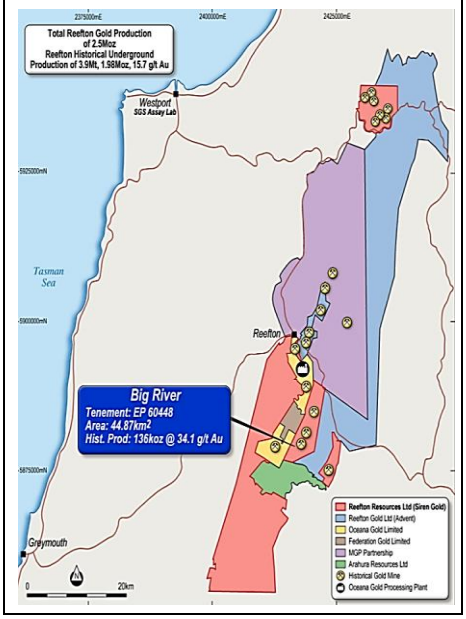
Overview and History

The Big River project is located c. 15km southeast of Reefton. The mineralization at Big River is associated with the Sunderland Anticline that extends for at least 5km through Big River North, the historic Big River mine and St George.

Gold mineralization is predominantly hosted in sheared anticline hinges with complex cross-cutting structures that create dilatational structures that have allowed mineralization to be hosted in the host rock, fault gouge and quartz reefs with an extension of at least 5km through Big River North, the Big River Mine and the Saint George areas.

The Big River Project overlays the area of the Big River Mine, which produced c. 136koz of gold at an average recovered grade of 34.1g/t and was mined down 12 levels to 560m below the surface between 1880 and 1942. The mineralized zone lies 4km east of the Blackwater mine, which produced 740koz at 14.2g/t Au. The Big River mine closed in 1942 due to a shortage of labor.

Exhibit 27: Geographical location of Big River[xxxviii]



Mapping and Sampling

The historic Big River mine workings coupled with historic mine reports show that major ore shoots mined around the main Sunderland Anticline are as follows:

- Shoot 1 (mined to level 4)
- Shoot 2 (mined to level 6)
- Shoot 3 (mined to level 12)
- Shoot 4 (mined to level 7)
- A2 Shoot
- Prima Donna

Drilling, Exploration Activities with Intersections and Target

Exploration data collection has been undertaken within the Big River Project area by two companies since the closure of the Big River Mine:

- CRAE
- OGL

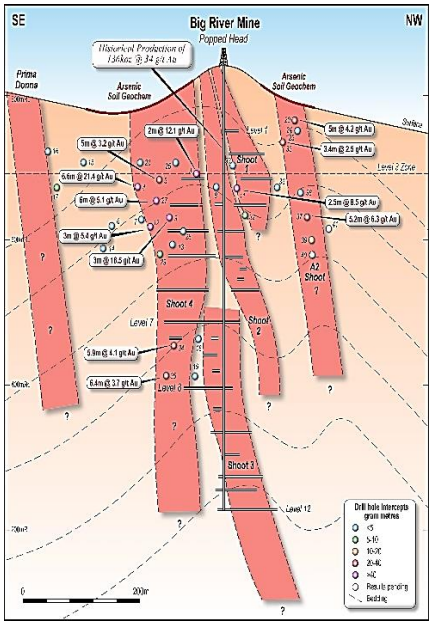
Diamond drilling undertaken by OGL resulted in high-grade intersections:

- 6.6 @ 21.4g/t from 127m incl. 0.8m @ 71.5g/t and 0.7m @ 54.5g/t (BR004)
- 3m @ 18.5g/t from 147m incl. 1m @ 45.2g/t (BR009)
- 2.0m @ 12.1g/t from 99m incl. 0.7m @ 26.6g/t (BR003)
- 2.5m @ 8.5g/t from 139m incl. 0.5m @ 22.7g/t (BR011)

Siren Gold has been exploring with a major focus on Shoot 4, which yielded impressive results. Siren Gold extended Shoot 4 to c. 400m below the surface. This hole intersected approximately 100m below mine Level 7, the deepest level Shoot 4 was mined to before the mine closed in 1942 during World War 2. Siren Gold's significant intersections are:

- 6m @ 21.4g/t (Shoot 4)
- 3m @ 18.5g/t (Shoot 4)
- 2m @ 12.1g/t (Shoot 4)
- 6m @ 5.1g/t (Shoot 4)

Exhibit 28: Big River schematic long section[xxxix]



- 3m @ 5.4g/t (Shoot 4)
- 5.9 @ 4.1g/t (Shoot 4)
- 6.4 @ 3.7g/t (Shoot 4)
- 2.5m @ 8.5g/t (Shoot 1)
- 5m @ 4.2g/t (A2 Shoot)
- 3.4m @ 2.5g/t (A2 Shoot)
- 5.2m @ 6.3g/t (A2 Shoot)

A total of 19 drillholes were drilled near the Big River Mine underground workings. Drilling defined a moderately northeast dipping structure of variable mineralization abundance with a strike length of c. 260m and up to 450m down dip. The two common styles of mineralization identified in the drilling process are:

- Free gold hosted in grey-white quartz.
- Gold associated with disseminated fine-grained sulfides.

Big River Mine is interpreted to be hosted in the sheared-out hinge of an anticline. A total of seven drillholes were completed at Big River South and St George for a total of 926 m, with the same styles of mineralization encountered at Big River being intersected.

Siren Gold has estimated an Exploration Target of between 100koz and 125koz at a gold grade between 7-9g/t Au for Shoot 4. The company considers that Big River has an initial potential of 250koz to 500koz.

MRE

Siren Gold expects a maiden MRE in early 2023.

Deposit Geology

The area is predominantly underlain by a basement sequence of monotonous, inter-bedded quartzose sandstone and shale of the Ordovician Greenland Group. These rocks are weakly metamorphosed and variably deformed and are the primary host rocks for gold mineralization. Two-fold hinges have been mapped with reasonable confidence throughout the project area. These folds are thought to have played a critical role in the distribution of mineralization.

Comparison

Big River has similar geology to the Bendigo fields with gold mineralization hosted in the anticline hinges, but also shows cross-cutting structures like Fosterville with high grades.

Tenement Ownership Details

Exhibit 30: EP 60448 details[xl]

Permit No.	Location	Grant Date	Expiry Date	Duration	Area (ha)	Minerals
60448	West Coast Region	20/06/2018	19/06/2023	5 Years	4847.114	Gold, Silver

2.3.3 St. George (EP 60448)[xli]

Overview and History

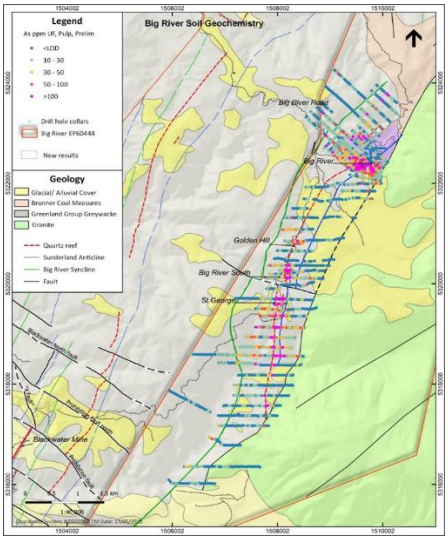
St George is in the southern half of the Big River area and lies 1.6km south of the Big River mine, and 4km east of the Blackwater mine. The St George area comprised the Golden Hill, Big River South and St George historical mine areas.

In Golden Hill, a 0.6m to 2m wide quartz reef was found in the late 1800s. The quartz reef was traced in a series of trenches over a strike length of 900m. A 55m-long drive was developed on the northern section of the reef that averaged 0.5m thick, and 39 tons were mined and crushed for an average grade of 7g/t.

Big River South was discovered in 1908. It was a 45m-long reef with a width of 1.5m. The visible gold was estimated to grade between 23-32g/t and had similarities with the nearby Blackwater Reef. In both the reefs, since then, no further mining activities have been conducted.

St George was found after several gold-bearing outcrops were found in the 1890s. Encouraging results emerged when a 30m drive was completed on a 1m reef containing quartz and a black pug. It resulted in 70oz being recovered from 30 tons of ore with an estimated grade of 72g/t. Subsequently, a further three reefs were discovered, from which 37oz were recovered from 16 tons of ore with an estimated grade of 72g/t. No further mining activities were continued in this area due to a lack of funding. In 1910, a 571m long tunnel was driven north from the Snowy River. Several small gold reefs or quartz boulders were intersected along the drive, but none were developed.

Exhibit 31: St. George arsenic soil geochemistry[xlii]



Drilling, Exploration Activities with Intersections and Target

OGL drilled seven diamond holes at Big River South and St George in 2011-12 for a total of 926m.

Intersection result and grade:

- 1m @ 5.5g/t in BRS006
- 4m @ 2.1g/t Au in BRS004

Initial drilling at St. George by Siren Gold is planned for the 2023

2.3.4 Lyell (EP 60479)[xliii]

Overview and History

The Lyell project area is the northern extension of the Reefton Goldfield. Lyell is located 40km north of Reefton. The gold-bearing quartz lodes were worked over a strike length of 5km.

The main gold deposits within the Lyell Project include the Alpine United, Tichborne and Break of Day mines. Within these mines, gold tends to occur primarily in narrow high-grade quartz veins controlled by fold-related high-angle shears and faults within the Greenland Group.

The initial discovery of rich alluvial ground in Lyell Creek was in 1862, when at least 10,000 oz of gold were mined during the first gold rush, with the biggest nugget weighing 90 oz reported from Irishman's Creek. Lyell Goldfield also produced gold nuggets up to 52oz. Two nuggets of 3.7oz and 1.2oz were recently recovered.

The Lyell Project and the surrounding Lyell District contain approximately 21 historic mines, with a total historic underground production of approximately 91koz gold at an average recovered grade of 18.4g/t from narrow high-grade quartz veins. The most significant and profitable of these mines was the Alpine United Mine, which operated between 1874 and 1912. Total production from the Alpine United Mine is estimated at c. 80koz gold at a grade of 16.8g/t gold. The key mine is Alpine United from steeply north-plunging ore shoots in an anticline hinge that were mined to 550m and are open at depth.

Exhibit32: Soil Geochemistry of Lyell[xliv]

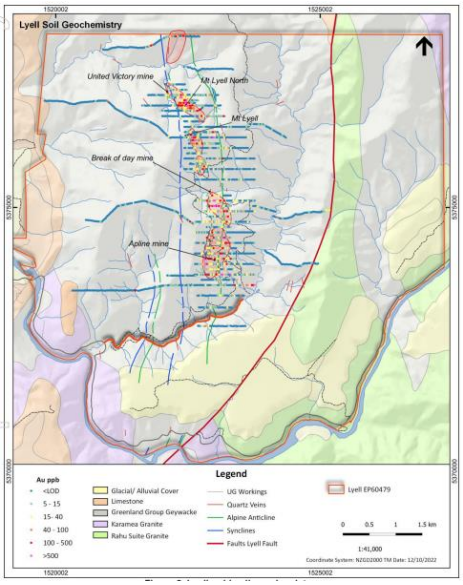


Exhibit 33: High grade (+10g/t) historical mines of Lyell Goldfield between 1874 and 1911[xlv]

Mine	Quartz crushed (t)	Production (oz)	Grade (g/t)	Percentage of total oz
Alpine United	149,024	80,514	17.0	88.1%
Lyell Creek	135	450	104.0	0.5%
Break of Day	2,180	4,598	66.0	5.0%
Croesus	2,773	1,897	21.0	2.1%
Tyrconnell	201	1,672	259.0	1.8%
United Italy	513	2,219	69.0	2.4%
Total	**154,826**	**91,350**	**18.4**	**100%**

Mapping and Sampling

Recent soil sampling at Lyell shows northwest trending gold anomaly that intersects the anticline around the Alpine United mine. The anomaly extends for over 3kms, as shown by the red dotted line (Exhibit 32), where it potentially intersects a syncline around the United Victory mine. The Break of Day mine is also located along this anomaly. The soil samples along the north-west gold trend identify several anomalous areas shown by the black circles (Exhibit 32) which may represent mineralized shoots similar to Alexander River. Outcrop of acicular arsenopyrite mineralization was found along this gold anomaly at Mt Lyell (Exhibit 32). The outcropping mineralized zone extends for around 50m along strike and up to 10m thick. This mineralization is similar to the disseminated acicular arsenopyrite mineralization found at Alexander River. Rock chip results ranging from 0.7 to 8.6g/t Au, along with visible gold, were found in quartz float at the Break of Day mine 1km to the south.

The gold soil anomaly at Mt Lyell North was mapped. Although outcrop is poor, but a 100m long mineralized zone was identified based on sub-crop and float samples. Samples with disseminated acicular arsenopyrite assayed up to 4.8g/t Au, while samples that also contained thin less than 4mm grey quartz veinlets, included assays of 37g/t Au, 22g/t Au and 6g/t Au. Recently, the company has been undertaking mapping and geochemical and geophysical surveys in the area to evaluate drill targets for a maiden drilling program.

Drilling, Exploration Activities with Intersections and Target

Exploration data collection has been undertaken by the following companies since the suspension of historic mining and prospecting in 1937:

- Otter Minerals (Otter)
- OGL
- Auzex Resources NZ Pty Ltd (Auzex)
- Kent
- Tectonex Ltd

Significant results were obtained by Auzex Resources Limited in 2011, when it drilled six diamond holes in two areas, 400m and 1km to the north of the Alpine United mine, resulting in 2m @ 4.6g/t Au from 62m near the Break of Day mine, which produced 4,600oz of gold at an average grade of 66g/t. Siren Gold plans to commence drilling at Lyell in Q4 2022.

Recently, the company announced the intersection of high-grade gold on 4km soil anomaly at Lyell Goldfield. The 4km long gold anomaly identified, extending north north-west from the historic Alpine United mine, which produced 80koz @ 17g/t Au down to 500m below surface where two trenches 100m apart were excavated. Both trenches intersected disseminated arsenopyrite with thin grey quartz veins, and samples of these veins were found to contain fine visible gold. Trench 1 (LYTR001) intersection stood at 7m @ 13.8g/t with 1m grade as high as 25 g/t and Trench 2 (LYTR002) intersection stood at 8m @ 6.3g/t with 1m grade as high as 29.7 g/t. True thickness of both the tranches are interpreted to be around 5m. Recently, two additional trenches (LYTR003 and LYTR004) were excavated c. 100 and 200m north of LYTR001 across a high-grade soil anomaly, and an outcropping quartz reef with significant visible gold was found in a creek close to the United Victory mine. This reef and the adjacent country rock was channel sampled and called LYTR005. Results for the three new trenches are awaited. Field exploration will continue over the next quarter with additional mapping soil sampling to cover the gap between Mt Lyell North and the top of the permit boundary and trenching with additional trenches at Mt Lyell North and commencement of trenching at Mt Lyell, followed by diamond drilling where the company has applied for 19 drill pads, with drilling planned in Q1 2023.

The company believed that the core of the gold and arsenic soil anomaly at Mt Lyell North appeared to be at least 300m long, which the company believed could represent another north-plunging shoot similar to the Alpine United mine. Since no historic mining or previous exploration activities has been undertaken at Mt Lyell North highlighted the significant potential of the project.

MRE

Siren Gold has not yet published any MRE for its Lyell Goldfield.

Geology

The Lyell Goldfield is a northern extension of the Reefton Goldfield, which is situated in late Cambrian to early Ordovician Greenland Group sedimentary rocks. These rocks consist of interbedded, quartz-rich sediments.

Tenement Ownership Details

Exhibit 34: EP 60479 details[xlvi]

Permit No.	Location	Grant Date	Expiry Date	Duration	Area (ha)	Minerals
60479	West Coast Region	13/12/2018	12/12/2023	5 Years	5,424.592	Aluminum, Antimony, Bismuth, Copper, Gold, Ilmenite, Iron, Iron sand, Lead, Magnesium, Magnetite, Manganese, Molybdenum, Nickel, Platinum group metals, rare earth elements, Rutile, Silver, Tantalum, Tin, Titanium, Tungsten, Vanadium and Zinc

2.3.5 Reefton South (PP 60465)[xlvii]

Overview and History

Reefton South Permit covers early Ordovician Greenland Group rocks to the west of the Cumberland and Blackwater mines and buried Greenland Group rocks south of Blackwater. The Greenland Group rocks are interpreted to extend south of Blackwater, beneath a veneer of glacial moraine, and have not been explored for hard rock gold deposits.

The largest gold mine in the Reefton Goldfield, Blackwater (740koz, inferred resource of 700koz), lies close to the cover boundary. The Reefton South area also possesses a significant history of alluvial gold mining with an estimated 8Moz of gold recovered along the West Coast south of Reefton.

The Reefton South PP expired on 7 August 2022 was replaced with an exploration permit application.

Tenement Ownership Details

Exhibit 35: PP 60465 details[xlviii]

Permit No.	Location	Grant Date	Expiry Date	Duration	Area (Ha)	Minerals
60465	West Coast Region	Application Stage		5 Years	25519	Aluminum, Antimony, Bismuth, Copper, Gold, Ilmenite, Iron, Iron sand, Lead, Magnesium, Magnetite, Manganese, Molybdenum, Nickel, Platinum group metals, rare earth elements, Rutile, Silver, Tantalum, Tin, Titanium, Tungsten, Vanadium and Zinc

2.3.6 Golden Point (EP 60648)[xlix]

Overview and History

The Golden Point exploration permit was previously part of the Reefton South prospecting permit. It is located 3km west of the Globe Progress mine, producing 420koz of gold from a historic underground mine and 700koz from a recent open pit mined by OGL. The Golden Point Reef was mined between 1884-1908 and 1,357 tons of quartz were mined from a 1.1m thick reef to recover 410koz for an average grade of 9.4g/t.

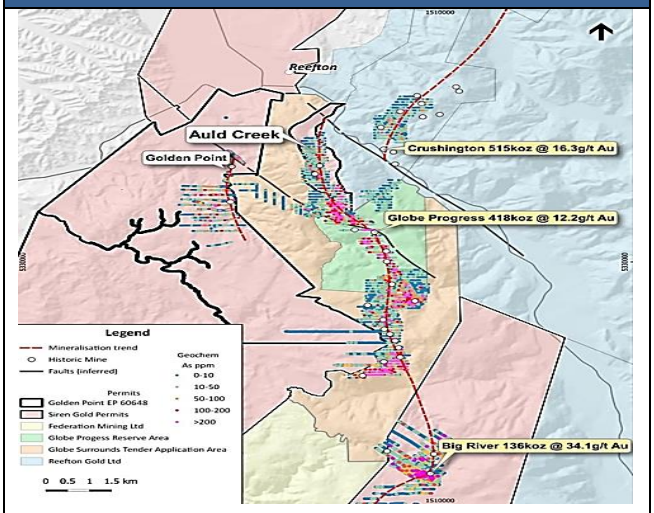
Two historical mines (the Golden Point and Morning Star mines) are situated northwest of the Globe Progress Mine.

Exhibit 36: Historical production and grade between 1884 and 1908[l]

Year	Quartz crushed (t)	Production (oz)	Grade (g/t)
1884	2	25	357
1884	1,000	307	9.5
1894	155	44	9.1
1907	100	18	5.6
1908	100	16	5.1
Total	**1,357**	**410**	**9.4**

The Auld Creek Prospect is contained within the Golden Point exploration permit. It is situated between the highly productive Globe Progress mine, which historically produced 418koz @ 12.2g/t and the Crushington group of mines that produced 515koz @ 16.3g/t. The Auld Creek prospect lies within this permit and sits on a continuation of the Reefton Line of Lode along the strike from Globe Progress and only 2km from the Crushington mines.

Exhibit 37: Geographic location of Golden Point[li]



Mapping and Sampling

Mapping and soil sampling indicated that the reef extends for at least 2kms along the strike.

Drilling and Exploration Activities

Siren Gold has completed infill soil sampling to better define the soil anomalies. The arsenic soil anomaly now extends for over 700m along strike and clearly defines the Fraternal and Bonanza mineralization. The Fraternal zone has been subdivided into the Fraternal and Fraternal North zones.

Siren Gold has excavated five trenches across the Fraternal mineralized zone (FTTR001, FTTT002, FTTR003, FTTR005 and

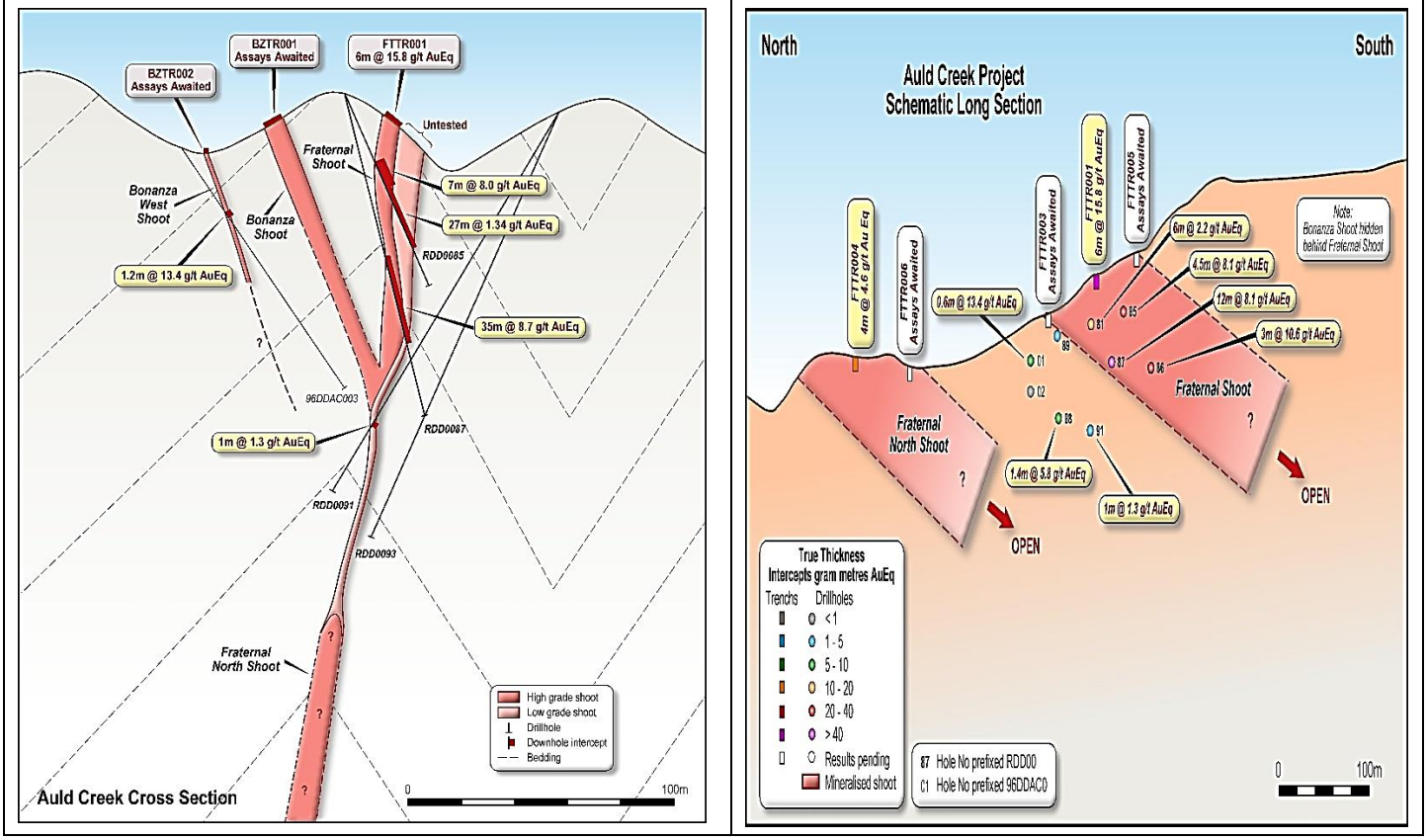
FTTR006) and 2 trenches across two Bonanza mineralization zones (BZTR001 and BZTR002). All trenches intersected silicified sandstone with disseminated arsenopyrite, with up to 20cm thick massive stibnite veins. Until the present, results have been received from the Fraternal trenches FTTR001, FTTR002 and FTTR004.

FTTR001 exposed an 8m thick mineralized zone. The average intersection stood at 8.9g/t Au with 4.4% Sb for gold equivalent (AuEq) of 15.8g/t over 8m. FTTT002 was a resampled small historic trench perpendicular to the south-west end of FTTR001 which intersected 1.5m @ 17.1g/t Au with 9% Sb for 31.3g/t AuEq. FTTR004 sampled the Fraternal North mineralized zone and intersected at least a 4m wide zone, with the strongest mineralization at the western end by the bank and the mineralization potentially extends further west. The trench intersected 4m @ 4.0g/t Au with 0.36% Sb for 4.6g/t AuEq.

The trenches indicate that the Fraternal and Fraternal North mineralized zones dip to the west and the Bonanza and Bonanza West mineralized zones dip to the east (Exhibit 38). The Fraternal zone has been intersected several diamond drillholes with one hole interpreted to have intersected the Bonanza West zone (Exhibit 38). Significant drillholes include RDD087, which intersected a true width1 of approximately 12m @ 4.1g/t Au with 2.9% Sb for 8.7g/t AuEq and RDD085, which intersected a true width of 18m @ 2.7g/t AuEq including 4.5 @ 3.0 g/t Au with 3.2% Sb for 8.1g/t AuEq. RDD087 and RDD081 were not assayed for Sb. Siren Gold quarter cut and assayed RDD087 with an average intersection of 2.9% Sb, with the highest 1m interval returning 23.9% Sb (37.8 g/t AuEq). RDD081 core or pulps could not be found at this stage.

The Bonanza zone is interpreted to be an east dipping splay from the Fraternal zone (Exhibit 38). The hanging wall of the Fraternal zone has higher grade gold and stibnite mineralization as shown by the darker red zone. Trench FTTR001 sampled the high-grade zone ending in 25 g/t AuEq and needs to be extended to find the hanging wall and footwall contacts.

Exhibit 38: Auld Creek east-west schematic cross section (LHS) and north-south schematic long section[lii]



MRE

Siren Gold has not yet published any MRE for its Golden Point Project.

Tenement Ownership Details

Exhibit 39: EP 60648 details[liii]						
Permit No.	**Location**	**Grant Date**	**Expiry Date**	**Duration**	**Area (Ha)**	**Minerals**
60648	West Coast Region	19/03/2021	18/03/2026	5 Years	4,622.7	Gold, Silver

2.3.7 Bell Hill (PP 60632)[liv]

Overview and History

The Bell Hill Prospecting Permit was granted in December 2021. The permit is located approximately 40km south of Reefton and abuts the southern boundary of the Reefton South permit. The project contains a continuation of the buried Greenland Group rocks found in the Reefton South permit. There has been no historical hard rock mining, but alluvial gold is mined from the overlying gravels sourced from Greenland Group. There has been historical alluvial mining in creek beds of gold shedding from the Greenland Group. However, there has been no known history of hard rock mining in the immediate permit area.

Tenement Ownership Details

Exhibit 40: PP 60632 details[lv]						
Permit No.	**Location**	**Grant Date**	**Expiry Date**	**Duration**	**Area (Ha)**	**Minerals**
60632	West Coast Region	15/12/2021	14/12/2023	2 Years	36,487.0	Gold, Silver

2.3.8 Waitahu (PP 60759)

Tenement Ownership Details

The Waitahu Prospecting Permit was granted in December 2021 and covered the northern extension of the Golden Point reef under the cover.

Exhibit 41: PP 60759 details[lvi]						
Permit No.	**Location**	**Grant Date**	**Expiry Date**	**Duration**	**Area (Ha)**	**Minerals**
60759	North Extension of Golden Point Reef	17/12/2021	16/12/2023	2 Years	4,999.1	NA

2.3.9 Langdons (PPA 60893)[lvii]

Overview and History

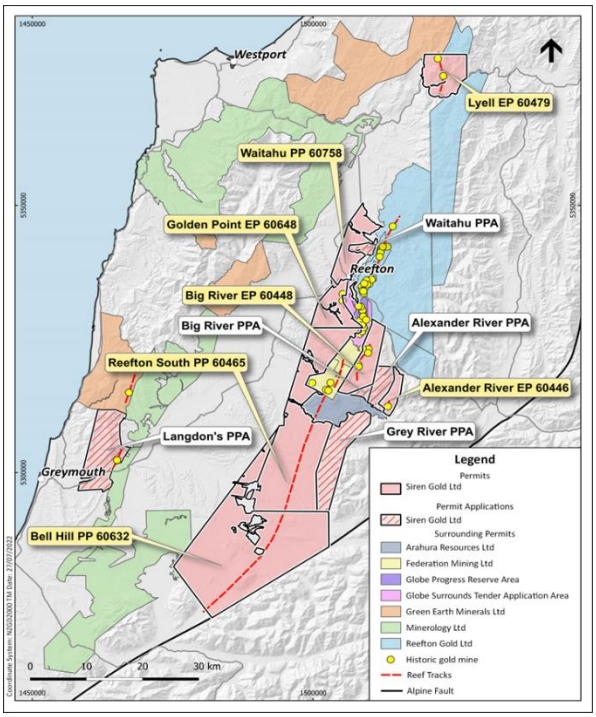
Siren Gold has applied for a new prospecting permit over Langdons Reef near Reefton. The Langdons area contains several high-grade Au-Sb reefs ranging from 0.6 to 2.7m wide, which were mined with a recovered grade of 60g/t Au and an early reported grade up to 2,610g/t Au and 1,120g/t Ag.

The Langdon and Victory reefs were mined for five years with reported production of 1,586oz of gold from 809 tons of ore for an average grade of 60g/t Au. After the second world war, the Langdons and Victory mines were revitalized, but working ceased in 1952 due to a lack of ore.

A description of the nearby Victory Reef suggests that gold can be observed in white quartz, stibnite and pyrite. Thin quartz veinlets with stringers of stibnite were also found at Langdons Reef. Gold and arsenopyrite traces were also found in the wall rock, suggesting similar characteristics to the Reefton Goldfield. Some unnamed reefs mined around Langdons Reef also contained copper sulfides. Early descriptions described a 0.6m - 2.7m thick quartz vein intruding Greenland Group metasedimentary rocks. This included up to 0.6m thick massive stibnite mineralization that could exceed 20%.

Until the present, only one hole has been drilled in the area which intersected the Victory Reef (1m @ 30g/t).

Exhibit 42: Geographical location of Langdons[lviii]



Drilling and Exploration activities

Once the permit is granted, Siren Gold intends to conduct mapping, rock chip sampling over the exposed reefs and conduct a soil sample program over the 5km x 1km area of exposed prospective Greenland Group rocks.

MRE

Siren Gold has not yet published any MRE for its Langdons Project.

Tenement Ownership Details

Siren Gold has applied for the permit.

Exhibit 43: PPA 60893 details[lix]

Permit No.	Location	Grant Date	Expiry Date	Duration	Area (Ha)	Minerals
60893.01	West Coast Region	Application Stage			8,159.0	

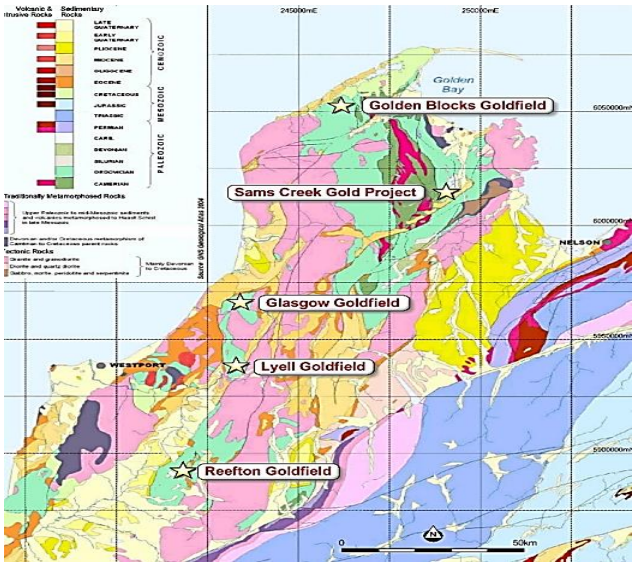
2.3.10 Sam's Creek[lx]

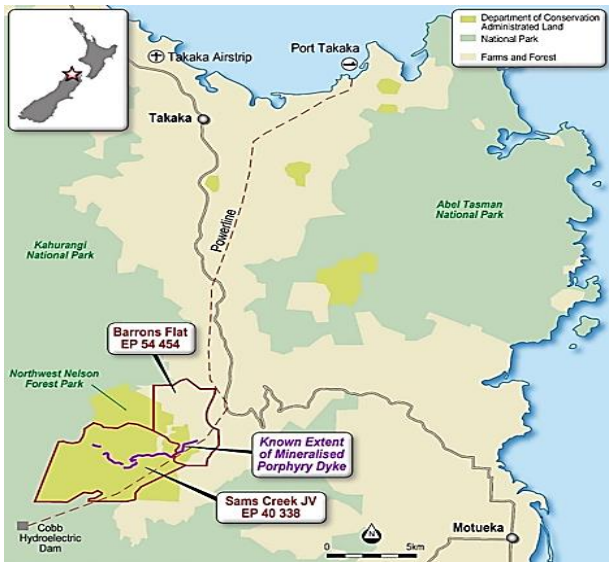
Overview and History

Siren Gold acquired the Sams Creek Gold Project in New Zealand from Sandfire Resources Limited (ASX: SFR) for AUD 250k.

The Sams Creek Gold Project is located 140km northeast of Reefton and 100km northeast of Lyell. The Sams Creek Project is in Golden Bay, approximately 20km south of Takaka and 20km northwest of Motuaka, at the northern end of the South Island of New Zealand. The project is well-connected and is close to a main road and the power line from the Cobb hydroelectric dam.

Exhibit 44: Geology showing Paleozioc rocks in green (LHS) and Geographic location of Sams Creek (RHS)[lxi]



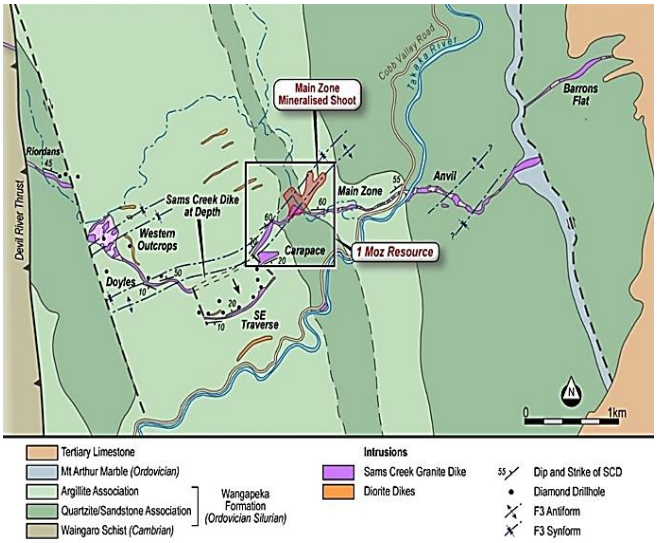


The Project comprises two exploration tenements:

- Barrons Flat EP 54454, which is 100% held by Sams Creek Gold Limited (SCGL), a wholly owned subsidiary of Sandfire.
- EP40338, which is 81.9% held by SCGL under a joint-venture agreement with New Zealand's largest gold miner, OGL, who own the remaining 18.1% interest.

The Sams Creek Gold Project is divided into several exploration prospects along the strike of the Sams Creek Dyke (SCD). It includes Riordans, Western Outcrops, Doyles, SE Traverse, Carapace, Main Zone, Anvil and Barrons Flat. The dyke is up to 60m thick and can be traced east-west over 7km along the strike. The dyke dips steeply to the north, where it intrudes quartzite- and sandstone-dominated lithologies, but dips more shallowly to the North-West and South-East between the Carapace and Western Outcrops, where it intrudes argillite. The SCD has been folded into gentle North-East plunging folds, with the gold veins preferentially forming in the fold hinges, resulting in North-East plunging mineralized shoots.

Exhibit 45: Geology of the Sams Creek deposit (LHS) and cross section through the Main Zone (RHS)[lxii]



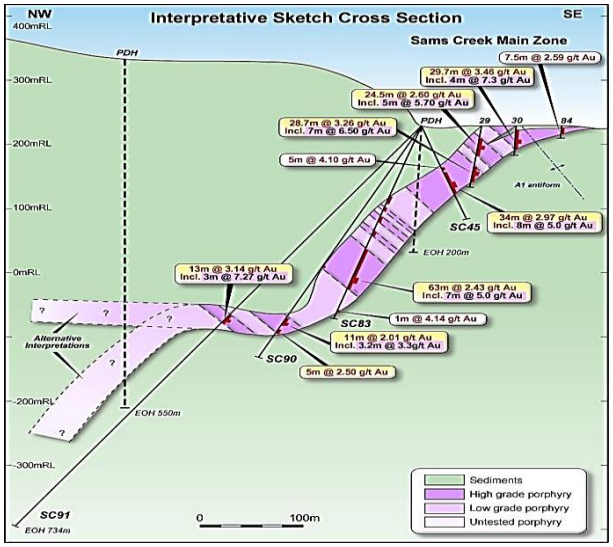
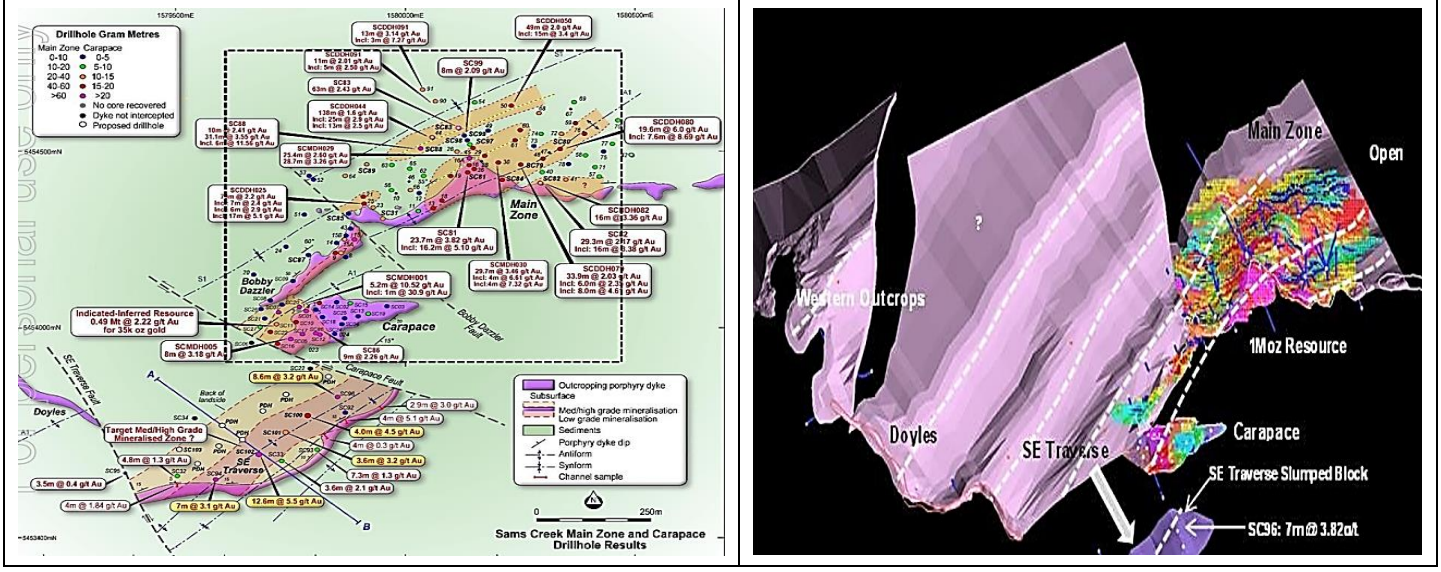


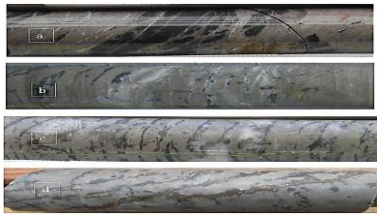
Exhibit 46: Plan view from Doyles to Main Zone showing A1 anticline and drillhole results (mineralized shoots shown orange) (LHS) and Sams Creek Dyke plan view (RHS)[lxiii]



The porphyry dyke is variably mineralized and has been modified by at least four mineralization stages, which are as follows:

- Stage I: Magnetite-ankerite and biotite alteration (Fig. a)
- Stage II: Quartz and pyrite (Fig. b)
- Stage III: Arsenopyrite and pyrite veins (Fig. c)
- Stage IV: Base metal veins. (Fig. d)

Exhibit 47: Four stages of alteration[lxiv]



Sams Creek Mineral Resource Estimate

The 2013 resource estimate of Sams Creek estimated 7.5Mt @ 2.43g/t for 588koz, with a cut-off grade of 1.5g/t and 1Moz @ 1.54g/t at a 0.7g/t cut-off.

Exhibit 48: Resource estimate at a 1.5g/t cut-off[lxv]

2013 Sams Creek Mineral Resource Estimate			
Category	**Tonnes (Mt)**	**Grade (g/t Au)**	**Contained Gold (koz)**
Indicated	5.0	2.48	402
Inferred	2.5	2.33	187
Total	**7.5**	**2.43**	**588**

The 2013 resource estimate does not include the SE Traverse prospect. The SE Traverse is an isolated section of dyke c. 600m long and 200m wide that is interpreted to be a continuation of the A1 anticline hinge that extends from the Main Zone for over 1.5km and is open at depth. Drillhole intersections in the SE Traverse confirmed the presence of higher-grade mineralization in the A1 anticline hinge.

Siren Gold considers that Sams Creek is a potential underground mine and believes an underground mining scenario could be improved by trimming some of the low-grade dyke and using separate domains for the high-grade mineralization along the fold hinges and lower-grade fold limbs. Siren Gold has engaged Measured Group to update the MRE for an underground mining scenario including the Main Zone, Carapace and SE Traverse which will be completed in November 2022.

Drilling, Exploration Activities and Target

Drilling has been focused along the A1 anticline that extends from the SE Traverse through the Carapace into the Main Zone. The fold hinge extends for over 1.5km and is open at depth, which contains the vast majority of the existing 588koz MRE (excluding SE Traverse). Over the next 12 months, Siren Gold will drill test some of these additional fold hinge zones with targeted diamond drilling. This is likely to include Doyles, Anvil East, Anvil West and Barrons Flat. Previous test results show that Riordans, Western Outcrops, Doyles, Anvil West and Anvil East all have high-grade rock chips interpreted to be associated with North-East trending anticline hinges that have the potential to contain additional mineralization.

Recent drilling in SE Traverse resulted in an intersection of:

- 12.5m @ 5.5g/t
- 8.6m @ 3.2g/t
- 7.4m @ 3.1g/t

Siren Gold's Exploration Target in SE Traverse is 100-125koz @ 3-4g/t.

Siren Gold recently commenced drilling at the Barrons Flat, where the drilling will be focused on a section of the dyke that has anomalous in gold and arsenic soil geochemistry, with rock chips grading up to 120g/t.

Results

Metallurgical test work was completed by OGL through four samples that were collected from the drill core. Direct leach recoveries ranged from 79.5% to 87.5% and averaged 83.8% (gold recovery grade). If the mineralization was floated and acid leached, then the total recoveries ranged from 83% to 91.3% for an average of 87.2%.

2.4 Business Strategy[lxvi]

The Company's current business strategy is as follows:

- Further explore and expand the resources to over 3Moz
- Develop Sams Creek gold project
- Further explore and develop the Reefton Gold Project

It aims to produce a total of over 225,000 oz per annum from 3-5 underground regional mines and recover and produce a significant additional quantity of Antimony.

The main objectives of the company are as follows:

- Explore and develop the significant high-grade gold and antimony potential of Siren Gold's large tenement holdings in the historic Reefton and Lyell Creek Goldfields.
- Evaluate initial gold production opportunities by completing a feasibility study for developing the Sams Creek gold project to establish c. 1mtpa @ 3g/t producing over 85,000 oz per annum within 5 years.
- Identify priority high-grade drilling targets by surface exploration activities at the Big River, Alexander River, Sams Creek Auld Creek and Lyell projects.
- Target extensions to known gold opportunities identified by previous drilling and surface trenching along mineralized rock outcrops at the Big River, Alexander River, Auld Creek, Golden Point, Sams Creek and Lyell Projects.
- Implement an exploration strategy aimed at the discovery of new high-grade gold and antimony resources at the Reefton Gold Project.
- Undertake high-level exploration activities to identify drill targets on Reefton South and Bell Hill.
- Seek further exploration, acquisition and joint venture opportunities in New Zealand and elsewhere.

Siren Gold has further potential along the entire Reefton Goldfield with significant resources and the production of exceptionally large high-grade Antimony resources like Costerfield in Victoria and Hillgrove mines in Australia.

2.5 Outlook[lxvii]

Siren Gold holds a large, strategic package of tenements along the vastly under-explored Reefton region. Significantly, Siren Gold's Reefton South and Bell Hill tenements cover a further 40km of buried Greenland Group rocks that host the gold mineralization at Reefton and have the potential to host significant gold mineralization.

With impressive intersection grades found in all Siren Gold's projects, drilling over the next 12 months will focus on:

- Alexander River
- Big River
- Sams Creek

Siren Gold will also focus on reconnaissance exploration for initial drilling in 2023 at:

- Auld Creek - Reefton
- Lyell
- St George – Reefton
- Doyles / Anvil – Sams Creek

Metallurgical test work on Alexander River, Big River and Sams Creek indicates that a gold recovery of c. 90-92% may be achieved. The company is investigating the use of advanced ore sorting beneficiation technologies to upgrade the Reefton and Sams Creek ores prior to trucking.

Siren Gold's MRE in Alexander River estimated c. 1,000kt of ore with 131koz @ 4.1g/t grade and in Sams Creek the estimated resource is c. 6,142kt of ore with 482koz @ 2.4g/t grade.

Exhibit 49: Siren Gold's MRE[lxviii]			
Project	**Tonnes (kt)**	**Grade (g/t Au)**	**Ounces (koz)**
Alexander River	1,000	4.1	131
Sams Creek	6,142	2.4	482*
Total	**7,142**	**2.6**	**613**

**Siren Gold's 81.9% of the Sams Creek Resource of 7.5Mt @ 2.4g/t for 588koz*

Siren Gold's current Exploration Target is 1.0-1.5Moz at a grade of 3-5g/t. However, the company is targeting to reach to 2.5- 3.0Moz @ 4-6g/t Exploration Target in the next two years.

Exhibit 50: Exploration Target Pathway to multi-million ounces[lxix]

Note: The potential quantity and grade of this Exploration Target is conceptual in nature as there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource

Exhibit 51: Siren Gold Exploration Targets[lxx]

Project	Current	Exploration Targets		
		Au (g/t)	koz	Explanations
Sams Creek	Main Zone	2.4	588	
	SE Traverse	3.0	125	Based on existing drillholes average of 7m @ 4.1g/t over 600m strike and 100m dip. At a density of 2.6m^3 = 1.1Mt @ 4.1g/t = 145koz. Rounded to 3g/t and 125koz.
	Total	**2.5**	**713**	
Reefton	Alexander	5.5	500	Exploration Target of 500-700koz @ 5-7g/t. 500koz @ 5.5g/t used.
	Big River	7.0	100	Exploration Target of 100-125koz @ 7-9g/t. 100koz @ 7g/t used.
	Total	**5.8**	**600**	
Total		**4.0**	**1,313**	

Exhibit 52: Siren Gold Exploration Targets[lxxi]

Project	12 Months	Exploration Targets		
		Au (g/t)	koz	Explanations
Sams Creek	Main Zone	2.4	588	Based on new Main Zone model with tighter search to increase grade but reduced ounces.
	SE Traverse	3.0	125	Based on existing drill holes average of 7m @ 4.1g/t over 600m strike and 100m dip. At a density of 2.6m^3 = 1.1Mt @ 4.1g/t = 145koz. Rounded to 3g/t and 125koz.
	Doyles	3.0	200	Exploration Target based on 1km-long fold hinge down to the Main Zone with similar grade to SE Traverse fold hinge. Based on a 1km strike @ 4.1g/t = 240koz. Rounded down to 3g/t and 200koz.
	Total	**3.0**	**800**	
Reefton	Alexander	5.5	700	Exploration Target 500-700koz @ 5-7g/t. 700koz @ 5.5g/t used with additional deeper drilling.
	Big River	6.0	400	Exploration Target based on all 6 shoots drilled down to 500m below surface.
	Total	**5.7**	**1,100**	
Total		**4.6**	**1,900**	

Exhibit 53: Siren Gold Exploration Targets[lxxii]				
Project	**24 Months**	**Exploration Targets**		
		Au (g/t)	**koz**	**Explanations**
Sams Creek	Main Zone	3.0	600	Main Zone extends down plunge with ET increased from 500koz to 600koz.
	SE Traverse	3.0	100	Based on existing drillholes average of 7m @ 4.1g/t over 600m strike and 100m dip. At a density of 2.6m^3 = 1.1Mt @ 4.1g/t = 145koz. Rounded to 3g/t and 125koz.
	Based	3.0	400	Based on drilling a second interpreted fold hinge at Doyles. Exploration Target based on 1km-long fold hinge with similar grade to SE Traverse fold hinge. Based on a 1km strike 240koz @ 4.1g/t. Rounded down to 3g/t and 200koz for a total of 400koz.
	Total	**3.0**	**1,100**	
Reefton	Alexander	6.0	900	Based on extending the Alexander shoots a further 200m down plunge to -700mRL. This is a similar depth to the Blackwater shoot drilled until the present.
	Big River	6.0	500	Big River shoots extended to 700m below surface.
	Lyell	5.0	200	Lyell Exploration Target is based on its similarities with Alexander River, i.e., 3km-long gold and arsenic soil anomaly with disseminated acicular arsenopyrite mineralization and rock chip samples up to 9g/t. The Alpine United mine with historical production of 80koz @ 16g/t was located on the soil anamallly.
	Total	**5.9**	**1,600**	
Total		**4.7**	**2,700**	

2.6 Company Milestones

Exhibit 54: Siren Gold Milestone Timelines[lxxiii]	
Year/ Period	**Event**
2017	• The company was incorporated
2020	• Listed on ASX • Raised AUD 10.0 mn through IPO • Initial maiden drilling in Alexander River and Big River resulted in high-grade intersection • Brian Rodan assumed the position of interim chairman following the resignation of Mr. David Filov • Intercepted quartz reef with visible gold at Big River
2021	• Department of Conservation (DoC) approved additional 34 exploration drill pads at Alexander River • Discovered new mineralized shoots at Alexander River • Extended mineralization at Big River by 3km towards south • High-grade intersection led Siren Gold extended mineralized shoots at Alexander River • Intersected significant visible gold at Alexander River • Intersected 50g/t gold at Alexander River (Loftus McKay Shoot) • Numerous high-grade intersections occurred at Alexander River across different shoots • Maiden Exploration target of Big River of 100-125koz @7-9g/t Au • New 3km target discovered at Lyell • Undertook scoping study for a processing plant at Reefton Goldfield for which GR Engineering Services was engaged to complete the scoping study • High-grade drillhole intersections occurred at Alexander River • Raised AUD 4.0 mn to fund the drilling activities at Alexander River and Big River • Discovered new mineralized shoots at Alexander River (McVicar West Shoot)
2022	• Undertook scoping study for an underground development at Alexander River and Big River. Siren Gold engaged Entech Pty Ltd to complete the scoping study • Discovered new 3km mineralized zone at St George • Intersected significant visible gold at Alexander River (McVicar West Shoot) • Intersected grade of 2.5m @ 358g/t Au at Alexander River • Discovered new 3km gold zone at Lyell • Applied for prospecting permit over Langdons Reef • Acquired Sams Creek gold project from Sandfire Resources Ltd for AUD 250k • Extended Big River A2 Shoot to 200m • Released maiden MRE of 1Mt @ 4.1g/t Au for 131koz at a cut-off grade of 1.5g/t and top cap of 35g/t • Raised AUD 4.4 mn • Applied for extension of area for exploration permit of Alexander River, Waitahu and Big River • Applied for prospecting permit over Grey River • Discovery of high-grade gold and massive stibnite veins in Auld Creek • Appointment of mining service consultant for Sams Creek Mineral Resource Update • Intersected high-grade gold at Lyell Goldfields • Completed the acquisition of Sams Creek

2.7 Company Premiums[lxxiv]

- **Dominant position in a proven high-grade goldfield:** Siren Gold has a c. 850 square km tenement package with numerous historic high-grade gold mines. The Reefton Goldfield in the South Island of New Zealand has produced over 2Moz of gold at an average recovered grade of 16g/t from 84 historic mines where Siren Gold has a large strategic tenement holding.
- **Alexander River and Big River projects exhibit the potential to be the next Fosterville:** The discovery of the Fosterville epizonal high-grade gold deposits in the Ordovician metasediments within the Victorian goldfields brought a lot of success by producing over 2Moz. Both Alexander River (greater than 26g/t Au historical mine) and Big River (greater than 34g/t Au historical mine) share the same epizonal and antimony characteristics with Fosterville. Siren Gold expects that deeper drilling might provide more similarities and can be a source of high-grade gold.
- **Strategic acquisition of Sams Creek might pave the way for multi-million ounces of gold discovery:** Siren Gold acquired Sams Creek from SFR for AUD 250k. The 2013 resource estimate of Sams Creek estimated 7.5Mt @ 2.43g/t for 588koz with a cut-off grade of 1.5g/t. Recent drilling in the SE Traverse resulted in several high intersections. Siren Gold's Exploration Target in the SE Traverse is of 100-125koz @ 3-4g/t.
- **Favorable Metallurgical Test work:** Siren Gold has conducted metallurgical test work which suggests that gold recovery of c. 90-92% could be achieved on the Alexander and Big River projects, while the Sams Creek project indicates that a gold recovery of c. 87% is achievable.
- **Significant government assistance:** There is a significant increase in investment in Reefton Goldfields because of a supportive government and regulatory framework. Recently, the NZ Government granted a loan of NZD 15.0 mn to Federation Mining to help develop the Blackwater mine at Reefton.
- **Low competition and high entry barriers:** The New Zealand market is led by a single player named OceanaGold Limited (OGL), which has c. 80% market share in terms of gold mining volumes and revenue while the rest of the industry comprises small alluvial gold ore mining companies. Also, entry barriers are high, for firms wanting to enter the industry, as gold ore mining companies require government permits to prospect, explore and develop mine sites which might lead to a long gestation period.

2.8 Company Risks[lxxv]

- **Capital intensiveness leading to future funding:** The Company may need equity or debt financing to secure additional funds in case the costs exceed estimates or revenues do not meet estimates, to support its ongoing operations and implement its strategies. Inability to secure sufficient funds would postpone/hamper the company's growth plans leading to a delay or cancellation of certain activities or projects. Moreover, any additional equity financing may be dilutive to shareholders, and may involve restrictive covenants that limit the company's operations or business strategy.
- **Feasibility of the project:** The Company may progressively undertake several studies to determine the feasibility of a project. However, there can be no guarantee that any of the studies will confirm the economic viability of a project and may result in sunk cost.
- **Future exploration and permits:** The permits are for projects that are at various stages of exploration conducted to discover an economic resource. Even if an apparently viable resource is identified, there is no certainty that it can be economically exploited.
- **Delays in granting of relevant regulatory approvals and access arrangements to explore and mine might impede growth:** Discovery of an economically viable mineral deposit requires various approvals, consents, licenses and permits before mining can commence. There is no guarantee that the company will be able to obtain all required approvals, consents, licenses and permits. Also, all permits are limited to exploration activity only, without extending to full-scale mining and extraction (beyond exploration). There can be no certainty that a mining permit will be granted in the future by New Zealand Petroleum and Minerals, the relevant local authority, and the relevant landowner. Obtaining necessary resource consents can be subject to numerous conditions and is time consuming in nature, which might impede the company's operational and financial performance. Also, amendments to laws by regulators may lead to further headwinds.
- **Renewal:** Mining and exploration permits are subject to periodic renewal. There is no assurance that current or future permits or future applications for production permits will be approved in their entirety, and some of the permit areas applied for may be excluded.

- **Amendment of royalties:** Gold ore mining companies pay royalties to the government. Royalties are either 1.0% or 2.0% of the gold's value and depend on the type of mining permit obtained, as well as the gold's net sales value. Royalty regulations are detailed under the Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013. Any upward revision in the royalties may pose a risk to the company.
- **Fluctuations in the gold price:** The company revenue is directly linked to the price of gold, which may vary with market conditions. When gold prices decline, gold mining firms may reduce production until pricing is more favorable. Declines in world gold prices can therefore negatively affect the company and threaten growth. Also, favorable gold pricing can increase competition, as new companies are more likely to enter. High gold prices can turn low-grade ore deposits into viable mining sites, even if they were previously uneconomic to mine. Low gold prices often result in mines being abandoned until prices rise to a suitable level.

2.9 Shareholding Pattern[lxxvi]

The company had 116,925,475 shares of common stock issued and outstanding on October 27, 2022. The shareholding pattern is as follows:

Exhibit 55: Top shareholding pattern (October 27, 2022)

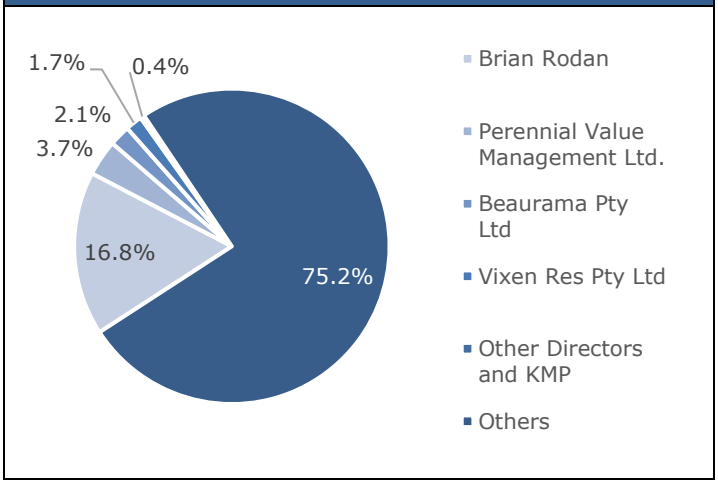


Exhibit 56: Top shareholding pattern (October 27, 2022)

Shareholders	Shares outstanding
Brian Rodan	19,664,385
Perennial Value Management Ltd.	4,300,000
Beaurama Pty Ltd	2,500,000
Vixen Res Pty Ltd	2,000,001
Other Directors and Key Management Personnel	482,857
Others	87,978,232
Total	**116,925,475**

2.10 Listing and Contact Details

Siren Gold Limited is publicly listed on the ASX and is traded under the symbol 'SNG.'

Company Contacts

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Contact No: +61 8 6458 4200

Website: www.sirengold.com.au

Email Id: admin@sirengold.com.au

3. News[lxxvii]

- **Siren Gold announced the completion of Sams Creek acquisition:** On October 26, 2022, the company announced successful completion of Sams Creek acquisition where the company now controls 100% of the project.

- **Announcement of high-grade gold intersection at Lyell:** On October 21, 2022, the company announced 1km long north-west trending gold anomaly identified at Mt Lyell North which is 3kms north of the Alpine United mine. The Mt Lyell North 1km long gold zone has been identified as a significant new discovery. The company announced that two additional trenches (LYTR003 and LYTR004) were excavated approximately 100 and 200m north of LYTR001 across a high-grade soil anomaly, and an outcropping quartz reef with significant visible gold was found in a creek close to the United Victory mine. This reef and the adjacent country rock was channel sampled and called LYTR005. The results for the three new trenches are awaited.

- **Announcement of high-grade gold intersection at Lyell:** On October 14, 2022, the company announced the intersection of high-grade gold on 4km soil anomaly at Lyell Goldfield. The 4km long gold anomaly identified, extending north north-west from the historic Alpine United mine, which produced 80koz @ 17g/t Au down to 500m below surface where two trenches 100m apart were excavated. Trench 1 intersection stood at 7m @ 13.8g/t and Trench 2 intersection stood at 8m @ 6.3g/t. The company has applied for 19 drill pads, with drilling planned in Q1 2023.

- **Appointment of mining service consultant for Sams Creek Mineral Resource Update:** On October 05, 2022, the company announced the appointment of Measured Group (Measured) to provide a Mineral Resource Estimate (MRE) for the Sams Creek underground gold project in the South Island of New Zealand. The MRE will include the Main Zone, Carapace and SE Traverse based on an underground mining scenario. The company believes that there is significant potential at Sams Creek for a large underground mining operation. Golder completed a JORC Main Zone Resource estimate in 2013 (exclusive of SE Traverse prospect) for an open pit mining scenario and included large areas of low-grade mineralization. An Indicated and Inferred Resource of 1Moz @ 1.54g/t at a 0.7g/t cut-off was estimated and at 1.5g/t cut-off the estimate is 588koz @ 2.43g/t. Siren Gold considers that Sams Creek is a potential underground mine and believes the model could be improved for an underground mining scenario, by trimming some of the low-grade dyke, and using separate domains for the high-grade mineralization along the fold hinges and lower grade fold limbs. The MRE is expected to be completed in November 2022.

- **Announcement of exceptional high-grade gold and stibnite intersection at Auld Creek:** On October 04, 2022, the company announced the intersection of high-grade gold and massive stibnite veins similar to Costerfield and Fosterville mines in Victoria, Eastern Australia. High-grade gold-antimony mineralization has been intersected in trenches and historical drillholes in the Fraternal zone at Auld Creek.

- **Siren Gold commenced drilling at Sams Creek:** On September 09, 2022, the company announced that it had commenced drilling at the Barrons Flat prospect within Sams Creek. Drilling was focused on a 1km section of the dyke.

- **Announcement on updated tenement status:** On July 29, 2022, the company announced that it had applied for two prospecting permit applications on Langdons and Grey River and extensions to the Alexander River, Big River and Waitahu permits. The extension permit application had been made as these areas had been vacated. The company further confirmed that the beneficial interest it held in the various tenements had not changed.

- **Received commitments to raise AUD 4.4 mn through placements**: On July 29, 2022, the company announced that it had received commitments from institutional, professional and sophisticated investors to raise AUD 4.4 mn, for which Siren Gold would issue 21,000,000 fully paid ordinary shares at an issue price of AUD 0.21 per share. The funds raised would be used for updating the resource estimate at the Alexander River and Sams Creek projects, completing a Maiden Resource estimate at Big River and continuing exploration at the high-grade Reefton Goldfields, etc.

- **Update on expanding exploration strategy:** On July 20, 2022, the company announced its expanded exploration strategy. It had combined mineral resources of 613koz @ 2.6g/t Au. The company was targeting to expand its key projects with a potential for multi-million-ounce gold discovery. Over the next 12 months, the company would focus on the Alexander River, Big River and Sams Creek Gold Projects. Also, reconnaissance exploration work would continue at Auld Creek, St George, Lyell and Doyles, with initial drilling planned for 2023. Initial metallurgical test work suggested that a gold recovery of c. 90-92% could be achieved on the Alexander River and Big River projects. In comparison, work at the Sams Creek project indicated that a gold recovery of c. 87% was achievable. The

company appointed GR Engineering Services (GRES) to conduct a Scoping Study for a processing plant and associated infrastructure to treat mineralization derived from the exploration properties.

- **Alexander River Maiden Mineral Resource Estimate:** On July 20, 2022, the company announced the Maiden Mineral resource estimate for the Alexander River project. The inferred mineral resource estimate (MRE) of 1Mt @ 4.1g/t Au for 131koz at a 1.5g/t cut-off and 35g/t top-cap. The McVicar West shoot contained 50% of the MRE, with an average grade of 5.3g/t Au when a top-cap of 35g/t Au was used. If the Loftus-McKay, McVicar West and Bull West shoots were extended for 1,500m and were similar to the McVicar West Shoot, then Siren Gold's exploration Target including the MRE is estimated at 500-700koz @ 5-7g/t Au.

- **Announcement of a high-grade intersection at Alexander River:** On July 06, 2022, the company announced a high-grade intersection at the Alexander River Project of 2.2m @ 10.2g/t Au.

- **Announcement on potential at Siren's Auld Creek Prospect:** On June 09, 2022, the company announced the untapped potential of Auld Creek (within Golden Point permit), which lay between the Crushington (515koz @ 16.3g/t Au) and Globe Progress (418koz @ 12.2g/t Au). Historically, the two reefs of Auld Creek, i.e., Bonanza and Fraternal reefs, had resulted in several high-grade intersections of 2m @ 8.6g/t Au and 2m @ 5.6g/t Au, respectively.

- **Announcement on Acquisition of Sams Creek Project:** On June 03, 2022, the company announced the acquisition of Sams Creek Gold Project in New Zealand from Sandfire Resources Limited for a consideration of AUD 250k. The Sams Creek Gold Project had a Mineral Resource Estimate of 7.5Mt @ 2.43g/t Au for 599koz on contained gold with potential for expansion.

- **Announcement on New 3km Gold zone at Lyell:** On April 28, 2022, Siren Gold announced the extension of the Lyell project for over 3km, which lay along Alpine United Break of Day and United Victory. Samples from the region had a grade of 6.2-8.6g/t Au.

- **Siren Gold Accelerated drilling at Reefton:** On March 29, 2022, the company announced the acceleration of drilling at its Reefton gold project, with two rigs drilling at Alexander River and one at Big River.
- **Siren Gold continued to intercept High-Grade Mineralization:** On March 17, 2022, the company updated that it was intercepting high-quality gold from its exploration activities, and significant gold could be found in a float sample in Bull Creek.

- **Siren Gold intercepted significant visible gold:** On March 11, 2022, Siren Gold updated that it had intersected significant visible gold at its Alexander River project in McVicar West Shoot, which historically produced 41koz @ 26g/t Au.

- **Announcement on New +3km Mineralized zone at St George:** On February 16, 2022, the company announced a new 3km-Long arsenic anomaly which extended from Golden Hill to 1.5km south of the St George mine and was open to the south, which had produced at an average grade of 72g/t Au.

- **Announcement regarding recommencement of drilling at Reefton for a significant 2022:** On January 11, 2022, Siren Gold announced the acceleration of its exploration activities in 2022, with a total of 20,000m of diamond drilling budgeted, being an 80% increase on the 11,000m drilled in 2021. Drilling would focus on the Alexander River and Big River projects, with smaller-scale programs at Golden point and Lyell.

- **Received Commitments to raise AUD 4.0 mn:** On November 3, 2021, Siren Gold announced that it had received firm commitments from institutional, professional and sophisticated investors to raise AUD 4 mn, for which Siren Gold would issue 11,428,572 fully paid ordinary shares at an issue price of AUD 0.35 per share. The funds raised would be used for drilling activities at the Alexander River and Big River projects and several other operational activities.

- **Announcement of 3km-long target discovered at Lyell:** On October 14, 2021, the company announced a discovery of an area of 3km in Lyell Goldfield. This new 3km structural and geochemical target represented the Lyell Shear Zone, located east of the historic Alpine United mine, which historically produced 90koz @ 18g/t Au.

- **Announcement of Maiden Exploration Target at Big River:** On September 23, 2021, based on an intersection, the company announced a maiden exploration target at Big River of 100-125koz @ 7-9g/t Au.

- **Siren Gold high-grade hits continued at Alexander River:** On August 19, 2021, the company announced that it had increased its exploration target for Alexander River from 250koz-500koz at 5-6g/t Au to 500-700koz at 5-7g/t Au due to some of the recent high-grade intersections.
- **Announced that it had hit 50g/t Gold at Alexander River:** On July 06, 2021, the company announced that at Loftus McKay, it had intersected a 0.9m quartz reef with abundant free gold with a grade of 50.6g/t Au within a 2.0m thick mineralized zone (30.0m to 32.0m) that produced an average grade of 26.8g/t Au.

- **Announcement on the discovery of new Mineralized shoots at Alexander River:** On April 14, 2021, the company announced that the unmined Loftus McKay shoot had been identified by surface sampling and recent drilling. The shoot was around 200m high, extended for 300m down plunge and was open at depth. The shoot width pinched and swelled but ranged from about 2-15m thick.

- **Announcement on drilling success at Reefton:** On February 12, 2021, Siren Gold intercepted 6m quartz reef grading 5.1g/t Au with visible gold at Big River. The Department of Conservation had approved an additional 34 exploration drill pads at Alexander River. This would allow the 1.2km strike length of the Alexander River reef to be drilled on nominal 50m centers down to 500m vertically when required.

- **Announcement on visible gold at Big River:** On December 23, 2020, Siren Gold struck a 6m quartz reef with visible gold at Big River. Siren Gold's first holes, drilled in the second anticline 150m to the west of the historic Big River mine, intersected a thick 5m mineralized zone containing quartz, which resulted in a grade of 4.15g/t Au.

- **Announcement upon striking significant gold mineralization at Reefton:** On November 11, 2020, Siren Gold announced its initial maiden drilling campaign at Alexander River. It intersected the historical high-grade quartz reef and thick sulfide mineralization in the footwall of the reef from the first shallow diamond drill holes.

- **Siren Gold was listed following successful fundraising:** On October 7, 2020, gold explorer Siren Gold Limited was listed on the ASX after raising AUD 10.0 mn through an IPO offering of 40 mn shares at AUD 0.25 per share.

4. Management and Governance[lxxviii]

Exhibit 57: Management and governance

Name	Position	Experience
Brian Rodan	Managing Director (MD), Executive Chairman	• A director of Iceni Gold Limited. • MD and owner of Australian Contract Mining Pty Ltd. • Founding Director of Dacian Gold Limited. • Executive Director of Eltin Limited with a 15-year tenure at Australia's largest full-service ASX-listed contract mining company. • Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM).
Paul Angus	Technical Director	• Over 30 years of experience in mining and exploration in New Zealand. • Consulting for the last 13 years on various exploration and mining projects, including as a Project Manager for MOD Resources Limited at the Sams Creek Project since 2011. • Joined OGL in 1990, where he performed numerous management roles and was a part of the team which discovered more than 2Moz of gold at Macraes and Reefton and was responsible for the planning of mining at Macraes and the Frasers Underground and Reefton Goldfield feasibility studies. • Graduate of Otago University.
Keith Murray	Non-Executive Director	• Director of Iceni Gold Limited for 2 years and Desert Metals Limited for one year. • Currently General Manager Corporate and Company Secretary for the Heytesbury Group. • Served as Group Accounting Manager, Corporate and Taxation, and joint Company Secretary of Eltin Limited, an Australia-based international mining services company. • Chartered Accountant with over 40 years of experience at general manager level in audit, accounting, tax, finance, treasury and corporate governance. • B Acc degree and a Chartered Accountant (CAANZ).
Sebastian Andre	Company Secretary	• Chartered Secretary with more than 10 years of experience in corporate advisory, governance and risk services. • Previously acted as an adviser at the ASX. Well-versed with the ASX Listing Rules, specializing in providing advice to companies and their boards regarding capital raisings, IPOs, backdoor listings, corporate compliance and governance matters. • Qualifications include B Acc/BA, Graduate Diploma in Finance, FGIA. • Member of the Governance Institute of Australia.

5. Industry Overview[lxxix]

5.1 Industry Definition

Gold mining is extracting gold from mines using opencast and underground mining techniques. There are many primary activities involved in the mining of gold that are performed by different industry participants.

Examples of primary activities and the major products of the industry are as follows:

Primary activities:

- Gold ore mining
- Gold ore dredging
- Gold ore beneficiation
- Gold dore bar production
- Roasting and floatation extraction of gold ore
- Reworking of tailings for gold

Major products:

- Gold dore bars
- Alluvial gold
- Gold concentrate

5.2 Key industry drivers

Global factors affecting the gold mining industry in New Zealand are the global price of gold, USD per NZD, capital expenditure on mining and World GDP growth. Activities such as gold exploration, refining and opening of new mines are directly dependent on these factors. Gold ore mining is a long-term, capital-intensive business that generates a return over a long period and requires major planning and investment.

Some of the key drivers and how they affect the gold mining industry are as follows:

- **World price of gold:** The price of gold, denominated in USD, is impacted by various demand and supply factors. Demand is affected by the jewelry market, manufacturing concerns and speculative activity. Production of gold mining companies depends on the price of gold; production declines as demand for gold goes down. Declines in world gold prices can negatively affect the industry and impact growth.
- **USD per NZD:** The exchange rate between the USD and NZD directly affects the returns received by domestic gold ore mining companies. An appreciating NZD against the USD means lower returns for domestic gold ore mining companies and vice versa. A weaker New Zealand dollar increases domestic gold prices and provides better returns to the industry players, also providing better opportunities for expansion and capital investment if the trend persists.
- **Capital expenditure:** Capital expenditure on mining reflects the value of companies' investment in developing mines and purchasing mining plants, equipment and vehicles. Greater capital investment in mining can, therefore, positively affect the gold ore mining industry.
- **World GDP:** Gold has various uses such as the manufacture of jewelry and components for smartphones and automobiles. It also acts as a store of value and provides a hedge against inflation and economic uncertainty, including wars, pandemic outbreaks and political turbulence. As a result, worldwide demand for gold is often inversely related to global economic performance. Strong growth in global GDP can reduce demand for gold, negatively affecting the industry.

5.3 Current Performance and Trends

- **Mixed operating environment over the past five years, with the industry performing poorly:** Although the worldwide price of gold has risen strongly over the period to 2021-22, gold ore mining volumes have fallen substantially. Gold ore mining was temporarily shut down in late 2019-20 and part of 2020-21 due to the COVID-19 pandemic. This closure and market uncertainty hindered the industry. The NZD has weakened over this period, increasing prices in domestic currency terms and contributing to export growth.

- **Gold price has strengthened due to uncertain times with a favorable exchange rate:** Gold prices have been high by historical standards due to global inflation fears stemming from quantitative easing policies implemented in the US. Despite higher gold prices, gold ore mining volumes have been declining over the past five years. The NZD has also depreciated against the USD over the past five years. As gold prices are denominated in US dollars, the weaker NZD has resulted in more competitive pricing for New Zealand exports. This has increased the price of gold in local currency terms, helping to limit industry declines. Further, greater demand for gold in other countries has boosted export volumes.
- **Gold ore mining volumes have declined at an annualized 9.4% over the five years to 2021-22:** Low growth in the worldwide price of gold in 2017-18 discouraged mining companies from exploring for and mining gold. As a result, capital expenditure on mining has decreased over the past five years, led by a decline in China's demand for a range of metals and minerals. Due to the long gestation period associated with prospecting, exploring and developing gold ore mines, lower capital expenditure on mining has negatively affected the industry over the past five years. Furthermore, the industry's output fell significantly in 2019-20 and 2020-21 due to lower production by OGL, the industry's only major player with more than 80% market share. The performance of OGL significantly affects the industry's revenue and output.
- **Industry revenue declined at an annualized 4.7% over the five years to 2021-22:** In FY 2022, the industry's revenue decreased by 5.4% year-on-year (YoY), but industry profit margins have increased over the past five years. Strong growth in local gold prices has been offset by lower output, resulting in a profit margin of c. 5.5%. However, increased mining costs because of low-grade ores have brought significant headwinds to profitability. Fewer known higher-grade gold ore sites are available to mine as these have been previously accessed, and the remaining lower-grade sites are becoming increasingly costly to mine. As the output declines, firms without significant economies of scale often find it uneconomical to invest large amounts of capital in the industry.
- **Gold industry and its stringent regulations:** Stringent regulations, pertaining to prospecting, exploring and developing gold mines, have led to a decline in the number of industry firms over the past five years. As a result, overall employment has decreased.

Exhibit 58: Historical performance data[lxxx]

Year	Revenue (USD mn)	Employment (Units)	Exports (USD mn)	Imports (USD mn)	Domestic Demand (USD mn)	Gold Production (Tonnes)
2017-18	709	1,100	548	20.8	182	10.2
2018-19	682	1,100	612	14.6	85.5	9.6
2019-20	636	1,150	579	43.1	99.8	7.7
2020-21	590	980	434	74.2	230	6
2021-22	558	960	415	43.9	187	6.1

5.4 Future Outlook

- **Global Pricing:** Following large revenue and output declines over the past five years, and as the effects of the COVID-19 pandemic dissipate, the worldwide price of gold is projected to decrease over the next five years as strong global trade growth continues and the global economy recovers. Although gold prices are anticipated to decline, prices are projected to remain high by historical standards. Overall, industry output is projected to increase at an annualized 7.4% over the five years to 2026-27.
- **Revenue and Exports:** Industry revenue is forecasted to increase at an annualized growth rate of 3.9% over the five years to 2026-27, primarily led by higher industry production. Industry profit margins are also projected to increase over the next five years. However, higher costs associated with retrieving gold ore from deeper and more difficult areas, combined with a declining grade of gold ore, will add to industry costs, thereby limiting the increase in profit margins. Industry exports are anticipated to increase over the next five years due to foreign demand growth for gold, and a lower proportion of industry output being consumed domestically over the period. Exports are projected to increase at an annualized growth rate of 3.2% over the five years to 2026-27.
- **Employment:** As the revenue and profit margin of the industry are forecast to grow over the next five years supported by favorable volume, there will be a rise in industry employment. Gold ore mining companies are anticipated to continue investing in technology and equipment, which will require greater numbers of

experienced and knowledgeable staff. Industry wages are projected to remain high to attract new employees to the industry and to compensate for the industry's demanding working conditions. Furthermore, wages are anticipated to increase as a share of industry revenue over the next five years due to higher industry employment and output volumes.

Exhibit 59: Performance outlook data[lxxxi]

Year	Revenue (USD mn)	Employment (units)	Exports (USD mn)	Imports (USD mn)	Domestic Demand (USD mn)	Gold Production (Tonne)
2021-22	558	960	415	43.9	187	6.10
2022-23	587	1,080	433	45	200	7.30
2023-24	643	1,210	466	47.1	225	8.30
2024-25	695	1,300	496	49	249	8.80
2025-26	702	1,310	500	49.2	252	8.70

5.5 Industry Life Cycle

The Gold Ore Mining industry is in the mature phase of its economic life cycle. Its contribution to GDP is projected to increase at an annualized rate of 0.3% over the 10 years to 2026-27, which is much lower than the projected growth of GDP of 2.2%. As a result, the industry is projected to account for a smaller proportion of the national economy in 2026-27 than in 2016-17. With gold prices anticipated to decline over the next five years, while volumes grow strongly, the industry will likely remain in a mature life cycle stage. Earlier, strong growth in global gold prices has offset falling gold ore mining volumes. Furthermore, a weaker NZD has increased prices further in local currency terms and has assisted export markets by making prices more competitive in foreign markets.

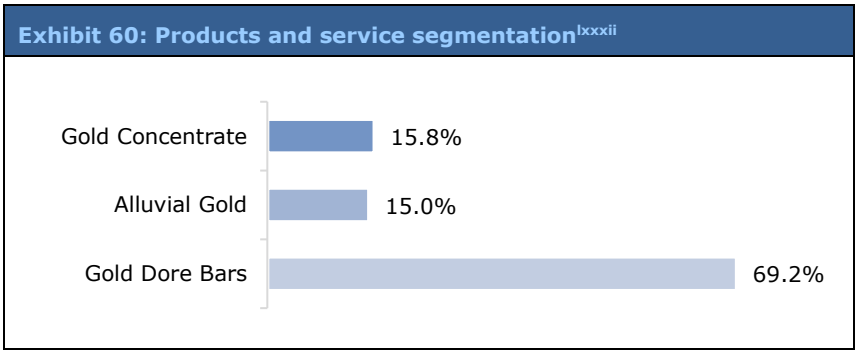
5.6 Buyers and Suppliers

- **Key Buying Industries:** Mainly Non-ferrous metal product manufacturing companies and Metal and mineral wholesaling businesses in New Zealand.
- **Key Selling Industries:** Support services for mining companies in New Zealand for regular maintenance and Industrial and Mining machinery wholesaling in New Zealand.

5.7 Products and Services

The industry's main product is gold, which is sold in three major forms. The main product segment is gold dore bars, accounting for more than 2/3 of industry revenue in 2021-22. The remaining portion is made up of Alluvial gold and gold concentrate. The products are explained in more detail below:

Exhibit 60: Products and service segmentation[lxxxii]



- **Gold Dore Bars:** These bars are produced from gold concentrate and contain a mixture of silver and gold. The proportion of gold is 10% to 25%. The silver is removed from the mixture using further processing. Gold dore bars produced in New Zealand are processed by Perth Mint in Western Australia. This product segment accounts for almost 70% of New Zealand's gold market.
- **Gold Concentrate:** This contains silver and other metals, which are removed through further processing. Industry firms produce gold concentrate, and it is then smelted by other downstream companies to produce gold dore bars.
- **Alluvial Gold:** This type of gold is retrieved from rivers or through the process of dredging, depending on the extraction method. It typically requires less processing to separate alluvial gold from unwanted materials than gold contained in hard rock.

5.8 Factors of demand for gold

- **Gold prices are directly proportional to demand:** Historically, as the price of gold increases, its demand also increases as speculative demand anticipates higher prices. Conversely, gold may become less attractive when prices go down. Furthermore, gold is considered a luxury item; its demand increases as prices increase.
- **Store of value:** For millennia, gold has been considered a hedge against market turmoil, inflation and political turbulence and a safe asset, as it is a rare non-perishable metal. People consider it a safe asset that holds its value for a longer period.
- **Used for manufacturing purposes:** Gold is a particularly good conductor of electricity, and it is used in many electronic products. Mainly, it is used in components for smartphones, computers, automobiles and other such products.
- **Global factors:** Factors such as rising inflation, pandemic outbreaks, government disruption and economic slowdown impact gold prices. Gold prices are likely to go up in these scenarios, and gold therefore provides a hedge against these situations.

5.9 Major market for New Zealand's gold

The industry sells gold products to two main downstream markets:

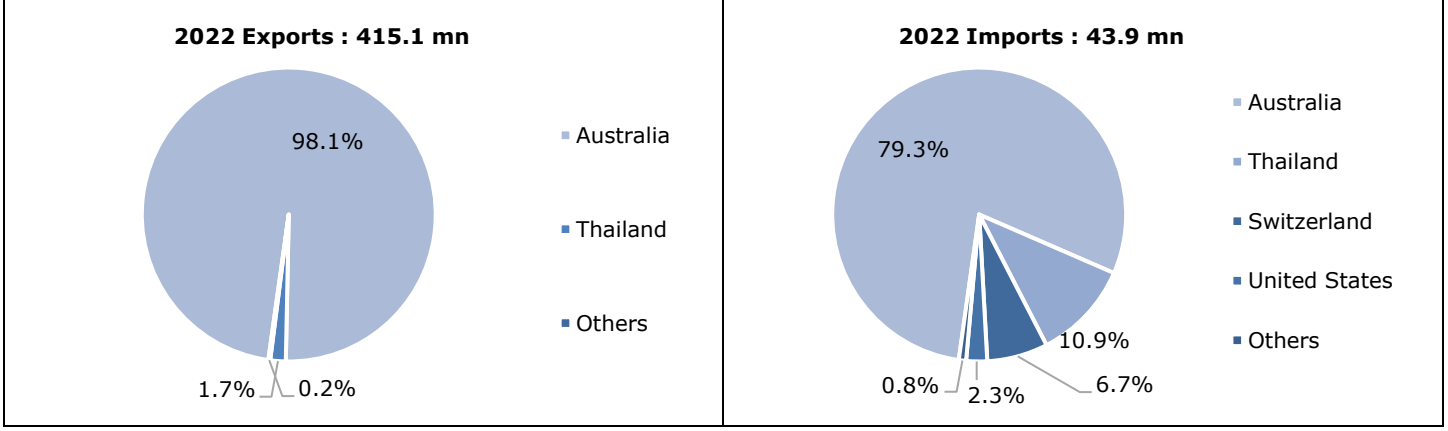
- **Exports:** These are the markets which purchase gold dore bars from gold mining firms. Australia is the biggest market for New Zealand's gold dore bars. Gold dore bars undergo a refining process at the Perth mint in Western Australia. The silver is extracted from gold dore bars and refined pure gold bullion is produced. Exports accounted for c. 74.4% of industry revenue in 2021-22, mainly due to greater global demand for gold bullion, higher global gold prices and limited price growth in the local currency.
- **Domestic Gold smelters and refineries:** Domestic smelters and refineries purify gold dore bars into gold bullion for downstream jewelry and other manufacturers. This market accounts for c. 25.6% of industry revenue. The decline as a proportion of industry revenue over the past five years was mainly due to increases in gold dore bar exports, resulting from higher gold prices.

5.10 Import Export Imbalance

International trade is high across the industry due to the large proportion of gold dore bar exports and the moderate value of competing imports. Exports, which accounted for 74.4% of industry revenue in 2021-22, are expected to increase at an annualized rate of 1.1% over the next five years. This is due to stronger global prices affecting export volumes.

Gold ore imports, which mainly include alluvial gold, are expected to increase over the five years to 2021-22. More volumes of secondary gold are coming into New Zealand for further processing and refining. Gold imports account for 23.5% of domestic demand in the current year. Furthermore, competing gold imports have increased as a proportion of domestic demand over the past five years due to lower local gold ore output volumes remaining in New Zealand.

Exhibit 61: New Zealand export and import[lxxxiii]



5.11 Regulatory Framework

In New Zealand, the Crown owns gold, silver, coal, uranium, petroleum and other essential minerals under the Crown Minerals Act 1991. Firms wishing to explore for minerals and metals are required to obtain permits from the designated authority for that purpose. The act is administered by NZP&M, an agency designed to regulate petroleum and mineral assets owned by the New Zealand Government.

Gold ore mining companies pay royalties to the government for the permit, which depend on the type of mining permit obtained and the gold's net sales value. Royalties are either 1% or 2% of the gold's value. Other laws that govern these mining companies are related to noise, dust and water and are included in the Resource Management Act 1991. Under the Act, local authorities are required to issue consent on processes and issue environmental approvals.

5.12 Major Players

- Based in Vancouver, Canada, and headquartered in Melbourne, Australia, OceanaGold Corporation is the largest gold mining company operating in New Zealand. OceanaGold Corporation operates domestically as Oceana Gold Holdings (New Zealand) Limited (OGL). These mining operations comprise the Macraes open pit gold mine and the Frasers underground gold mine in Otago, in addition to the Waihi mine in Waikato. In October 2015, OGL acquired Waihi Gold Company Limited from Newmont Mining for USD 101.9 mn. The Waihi mine site comprises the Martha open pit gold mine and the Correnso underground gold mine. OGL has been a major player in the Reefton Goldfield (the mining of Globe Progress from 2006-2017), and ownership of the Blackwater mine, together with extensive exploration interests. It has carried out significant exploration programs over the past two decades.
- Federation Mining Pty Ltd offers gold and copper mining services. Federation Mining Pty Ltd was formerly known as Federation Gold Pty Ltd. The company was founded in 2019 and is based in Sydney, Australia. Federation Mining was established by experienced Australian underground mining engineer Mark Le Messurier with the purpose of building a new mining company and developing the Snowy River Gold Mine project (formerly known as Blackwater) at Reefton on the West Coast on the South Island in New Zealand. The history of the Snowy River Project dates back to 1905 when the main "Birthday Reef" was discovered by a small prospecting group. Mining is said to have commenced shortly afterwards in 1906 and the operation continued for 45 years until 1951. During this period, the mine produced c. 1.6Mt @14.6g/t for 740koz. It was worked from two shafts – the Blackwater Shaft and Prohibition Shaft – and mined to a depth of 800 m across 16 levels. The mine was still operating profitably and producing ore when the collapse of the Blackwater Shaft resulted in the closure of the operation. It is still considered one of the richest and most consistent gold reefs discovered anywhere in the world. NZP&M has already granted Federation Mining a Mining Permit for the Snowy River Mine near Reefton on the West Coast of New Zealand's South Island. The approval grants the right to mine gold and silver from the site for a 20-year period. Subject to regulatory approvals and the results of the Feasibility Study, the first gold production from the Snowy River Mine could commence by 2024. OGL's 2014 preliminary economic assessment (PEA) MRE stated the inferred resource of 0.9 Mt @ 23 g/t for 700koz. An additional exploration target of 0.2-0.3 Mt @ 20-23g/t for 130-220koz has been identified. Funding sources include an NZD 15.0 mn loan from the New Zealand Provincial Growth Fund (PGF), which shows strong support from both long-term strategic investors and also from local communities.
- Another major player, Reefton Goldfields Inc, with investment by Eric Sprott and others, has a tenement package of 820 square km with c. 50% and is a historic district with historical production of 700koz @ 20g/t Au from 26 mines. Total production of the district was c. 3Moz @ 26g/t. The Historic mines of Reefton Goldfields Inc. tenements contain high-grade gold and antimony. Reefton Goldfield Inc. has two major areas mainly, the Capleston area comprising Pactolus and Welcome East and the Murray Creek area comprising Victoria Inglewood and Golden Treasure. The geology of gold mineralization in the Reefton Goldfield is similar to Fosterville (part of the Lachlan Fold Belt), where early-stage is associated with gold, arsenopyrite and pyrite-bearing quartz veins while late, brittle-stage brecciation is associated with stibnite and gold-bearing veins. Recent drilling activities in Pactolus resulted in the discovery of a new strike of over 2km in length. There the grades are 16.4 g/t in surface channel sampling and 8.3m @ 7.7 g/t Au (including 4m @ 12.3 g/t) in diamond drilling. In Welcome East, there is a presence of strong gold and antimony which intersects Welcome Hopeful at depth. The grades of gold antimony are found @ 9g/t with 30% Sb. A geological survey in the Murray creek area confirmed the potential production of c. 563koz of Au with abundant targets and a strong gold-arsenic-antimony geochemical signature. The Golden Treasure project in the Murray Creek area confirmed the presence of high-grade Au-Sb veins. Historical mine from the 1890s indicates 2m-wide gold-stibnite veins remain on the floor of workings while historic bulk sample tested in German metallurgical facility returned 5oz gold/tonne with 30-40% Sb. The deposit remains underdeveloped at depth and along the strike in both directions.

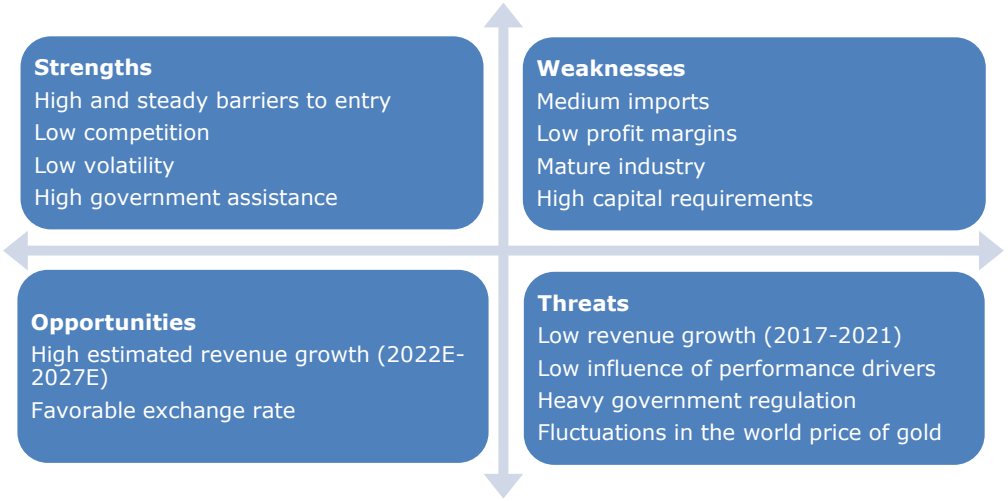
- Siren Gold Limited is also a major player in West Coast New Zealand along the extended Reefton line of lode that runs over 80km to Reefton in the south and to the Sams Creek Porphyry Project in the North.

5.13 Key Success Factors for Gold Mining Companies

- Gold ore mining companies must comply with environmental regulations related to noise, dust and water and mine rehabilitation. Failure to comply with government regulations can result in licensing approvals being revoked.
- Gold mining firms require access to large reserves of high-grade gold ore. Mining companies that have approval to mine areas with large proven reserves can benefit from economies of scale and potentially substantial revenue flows.
- Firms that focus on large sites with substantial gold reserves can boost their economies of scale, increasing their gold output and revenue and boosting profit margins.
- As mines grow older, it often becomes more difficult and more expensive to access gold ore. Companies with access to newer mines and higher grades of ore can generate greater revenue and profit.

5.14 SWOT Analysis of the Industry

Exhibit 62: SWOT analysis of the industry[lxxxiv]



6. Valuation[lxxxv]

The fair enterprise value for the company stood between AUD 46.1 mn and AUD 77.6 mn on October 27, 2022. The fair enterprise value per publicly traded share stood between AUD 0.39 and AUD 0.66 on October 27, 2022. The valuation approach followed is the Relative Valuation Method (EV/Inferred Mineral Resources multiple).

6.1 Relative Valuation Method

Exhibit 63: Relative Valuation Table[lxxxvi]

Company Name	Ticker	Market Capitalization	Enterprise Value	Inferred Mineral Resources (in Mt)	Measured and Indicated Mineral Resources (in Mt)	Inferred Resources Grade (g/T)	EV/Inferred Mineral Resources (EV/Mt)
Aurumin Limited	ASX:AUN	12.7	14.2	0.8	-	2.5	17.7
Auteco Minerals Limited	ASX:AUT	95.1	99.1	6.6	-	8.1	15.0
Bellevue Gold Limited	ASX:BGL	785.6	669.2	5.6	3.9	8.9	119.5
Labyrinth Resources Limited	ASX:LRL	16.6	14.2	0.4	0.6	9.0	36.5
Tietto Minerals Limited	ASX:TIE	782.7	699.2	44.2	43.4	1.1	15.8

Min	15.0
Max	119.5
Median	17.7

Sensitivity Analysis of Enterprise Value and Enterprise Value per Share

Sensitivity Table – Enterprise Value		**Gold - Inferred Mineral Resources (in Mt)**				
		2.5	**3.0**	**3.5**	**4.0**	**4.5**
Median EV/ Inferred Mineral Resource Multiple of Comparable's	**13.2**	32.9	39.5	46.1	52.7	59.2
	14.7	36.7	44.0	51.3	58.7	66.0
	16.2	40.4	48.5	56.6	64.7	72.7
	17.7	44.2	53.0	**61.8**	70.7	79.5
	19.2	47.9	57.5	67.1	76.7	86.2
	20.7	51.7	62.0	72.3	82.7	93.0
	22.2	55.4	66.5	77.6	88.7	99.7

Sensitivity Table – Enterprise Value/Share		Gold - Inferred Mineral Resources (in Mt)				
		2.5	**3.0**	**3.5**	**4.0**	**4.5**
Median EV/ Inferred Mineral Resource Multiple of Comparable's	**13.2**	0.28	0.34	0.39	0.45	0.51
	14.7	0.31	0.38	0.44	0.50	0.56
	16.2	0.35	0.41	0.48	0.55	0.62
	17.7	0.38	0.45	**0.53**	0.60	0.68
	19.2	0.41	0.49	0.57	0.66	0.74
	20.7	0.44	0.53	0.62	0.71	0.80
	22.2	0.47	0.57	0.66	0.76	0.85

Approach for Relative Valuation

Initial research has been conducted to find a set of comparables for Siren Gold Limited. Given below is the approach followed to conduct initial research:

- S&P Capital IQ, a globally accepted database, has been used to perform the screening for companies comparable to Siren Gold.
- We have applied the following criteria while screening to arrive at a set of companies that may be comparable to Siren Gold:
  - Geographic Locations: Australia or New Zealand
  - Company Status: Operating
  - Equity Security Features: Listed
  - Industry Classification: Gold
  - Business Description: Keywords – Gold exploration (mainly)
- The output of the above steps has been filtered first to exclude companies which do not have any market capitalization, enterprise value and tickers.
- Secondly, companies engaged in mining operations, other mineral exploration (to focus on companies engaged in gold exploration only) have been excluded. Companies that are engaged in gold exploration in different geographic locations have also been considered.
- Accordingly, the above companies (mentioned in Exhibit: 63) have been finalized as close comparables to Siren Gold Limited.

Important information on Arrowhead methodology

The principles of the valuation methodology employed by Arrowhead BID are variable to a certain extent depending on the subsectors in which the research is conducted, but all Arrowhead valuation research possesses an underlying set of common principles and a generally common quantitative process.

With Arrowhead Commercial and Technical Due Diligence, Arrowhead extensively researches the fundamentals, assets, and liabilities of a company, and builds solid estimates for revenue and expenditure over a coherently determined forecast period.

Elements of past performance, such as price/earnings ratios, indicated as applicable, are present mainly for reference purposes. Still, elements of real-world past performance enter the valuation through their impact on the commercial and technical due diligence.

Elements of comparison, such as multiple analyses, may be to some limited extent integrated in the valuation on a project-by-project or asset-by-asset basis. In the case of this Siren Gold Limited report, there are no multiple analyses integrated in the valuation.

Arrowhead BID Fair Market Value Bracket

The Arrowhead Fair Market Value is given as a bracket. This is based on quantitative key variable analysis, such as key price analysis for revenue and cost drivers or analysis and discounts on revenue estimates for projects and is especially relevant to those projects estimated to provide revenue near the end of the chosen forecast period. Low and high estimates for key variables are produced as a tool for valuation. The high bracket valuation is derived from the high bracket key variables, while the low bracket valuation is based on the low bracket key variables.

In principle, an investor who is comfortable with the high brackets of our key variable analysis will align with the high bracket in the Arrowhead Fair Value Bracket, and likewise in terms of low estimates. The investor will also take into account the company intangibles, as presented in the first few pages of this document in the analysis on strengths and weaknesses and other essential company information. These intangibles serve as supplementary decision factors for adding or subtracting a premium in the investor's own analysis.

The bracket should be understood as a tool provided by Arrowhead BID for the reader of this report, and the reader should not solely rely on this information to make a decision on any particular security. The reader must also understand that, on the one hand, global capital markets contain inefficiencies, especially in terms of information, and that on the other hand, corporations and their commercial and technical positions evolve rapidly: this present edition of the Arrowhead valuation is for a short- to medium-term alignment analysis (1-12 months). The reader should refer to important disclosures on page 48 of this report.

7. Analyst Certifications

I, Ayushi Saraswat, certify that all the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

I, Sumit Wadhwa, certify that all the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

Important disclosures

Arrowhead Business and Investment Decisions, LLC has received fees in 2022 and will receive fees in 2022 from Siren Gold Limited for researching and drafting this report and for a series of other services to Siren Gold Limited, including distribution of this report and networking services. Neither Arrowhead BID nor any of its principals or employees own any long or short positions in Siren Gold Limited. Arrowhead BID's principals have received a mandate for investment banking services from Siren Gold Limited in 2022 and expect to receive compensation for investment banking activities from Siren Gold Limited in 2022 or beyond.

Aside from certain reports published on a periodic basis, the large majority of reports are published by Arrowhead BID at irregular intervals as appropriate in the analyst's judgment.

Any opinions expressed in this report are statements of Arrowhead BID's judgment to this date and are subject to change without notice.

This report was prepared for general circulation and does not provide investment recommendations specific to individual investors. As such, any of the financial or other money-management instruments linked to the company and company valuation described in this report, hereafter referred to as "the securities," may not be suitable for all investors.

Investors must make their own investment decisions based upon their specific investment objectives and financial situation utilizing their own financial advisors as they deem necessary.

Investors are advised to gather and consult multiple sources of information while preparing their investment decisions. Recipients of this report are strongly advised to read the Information on Arrowhead Methodology section of this report to understand if and how the Arrowhead Due Diligence and Arrowhead Fair Value Bracket integrate alongside the rest of their stream of information and within their decision-making process.

Past performance of securities described directly or indirectly in this report should not be taken as an indication or guarantee of future results. The price, value of, and income from any of the financial securities described in this report may rise as well as fall and may be affected by simple and complex changes in economic, financial and political factors.

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Arrowhead Business and Investment Decisions, LLC is not responsible for any loss, financial or other, directly or indirectly linked to any price movement or absence of price movement of the securities described in this report.

8. Notes and References

[i] Source: Bloomberg as on October 27, 2022
[ii] Source: Bloomberg as on October 27, 2022
[iii] Source: Bloomberg as on October 27, 2022
[iv] Source: Bloomberg as on October 27, 2022
[v] Source: Prospectus, Company website (Siren Gold)
[vi] Source: Investor Presentation 2021, Investor Presentation 2022, Company website
[vii] Source: Press Release, Prospectus, Company website, Investor Presentation 2021
[viii] Source: Press Release, Prospectus, Company website, Investor Presentation 2021 and 2022
[ix] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2021 and 2022
[x] Source: Company website
[xi] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2021 and 2022
[xii] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2021 and 2022
[xiii]Source: Prospectus
[xiv] Source: Prospectus
[xv] Source: Prospectus
[xvi] Source: Investor Presentation 2020
[xvii] Source: Investor Presentation 2020
[xviii] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
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[xxii] Source: Antimony Market Size, Growth | COVID-19 Impact Analysis, 2029 (fortunebusinessinsights.com)
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[xxiv] Source: Southern Cross Gold Investor Presentation June 2022
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[xxviii] Source: Company website
[xxix] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
[xxx] Source: Quarterly Activities Report for quarter ended June 30, 2022
[xxxi] Source: Quarterly Activities Report for quarter ended June 30, 2022
[xxxii] Source: Quarterly Activities Report for quarter ended June 30, 2022
[xxxiii] Source: Company website
[xxxiv] Source: Investor Presentation 2020, 2021 and 2022
[xxxv] Source: Press Release
[xxxvi] Source: Prospectus
[xxxvii] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
[xxxviii] Source: Company website
[xxxix] Source: Press Release
[xl] Source: Prospectus
[xli] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
[xlii] Source: Press Release
[xliii] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
[xliv] Source: Company website

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[xlvi] Source: Prospectus
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[xlix] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
[l] Source: Investor Presentation 2020, 2021 and 2022
[li] Source: Press Release
[lii] Source: Press Release dated October 04, 2022
[liii] Source: Prospectus
[liv] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
[lv] Source: Prospectus
[lvi] Source: Prospectus
[lvii] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
[lviii] Source: Press Release
[lix] Source: Prospectus
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[lxi]Source: Press Release
[lxii] Source: Press Release
[lxiii] Source: Press Release
[lxiv] Source: Press Release
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[lxviii] Source: Investor Presentation 2020, 2021 and 2022
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[lxx] Source: Investor Presentation 2020, 2021 and 2022
[lxxi] Source: Investor Presentation 2020, 2021 and 2022
[lxxii] Source: Investor Presentation 2020, 2021 and 2022
[lxxiii] Source: Historical announcements (asx.com.au)
[lxxiv] Source: Annual Report 2021, Press Release, Prospectus, Company website, Investor Presentation 2020, 2021 and 2022
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[lxxxiii] Source: Gold Ore Mining in New Zealand Industry Report (IBIS)
[lxxxiv] Source: Gold Ore Mining in New Zealand Industry Report (IBIS)
[lxxxv] Source: S&P Capital IQ as on October 27, 2022
[lxxxvi] Source: S&P Capital IQ as on October 27, 2022