



tivan
a critical minerals company

ASX Announcement

Speewah Fluorite Project **Pre-Feasibility Study**

30 July 2024

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Cautionary Statement

The Pre-Feasibility Study ("PFS") referred to in this announcement has been undertaken for the purpose of evaluating the technical and financial viability of the proposed development and operation of the Speewah Fluorite Project in Western Australia. The PFS outcomes, forecast financial data and production target disclosed are based on assumptions that have a level of accuracy of +30 / -20% for capital costs and +30 / -20% to + / - 50% for operating costs.

At this stage of the Project's planning, information is insufficient to support estimation of Ore Reserves. The Company has analysed and considered each of the modifying factors contained in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (referred as the "JORC Code (2012)"). The Company notes that there is no certainty of eventual conversion to Ore Reserves, and no certainty that the production target disclosed in the PFS will be realised by the Company. The Company notes that further work is required to be progressed, including but not limited to development planning, studies and exploration, to support the Company estimating Ore Reserves and providing assurances with respect to a positive technical and economic case supporting full development of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS.

The Mineral Resources underpinning the production target in the PFS have been prepared in accordance with the requirements of the JORC Code (2012) by a Competent Person. The Company has concluded that it has reasonable grounds for disclosing a production target which includes an amount of Inferred Mineral Resources. The Company notes there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The Competent Person's Statement with respect to the Mineral Resource estimate for the Speewah Fluorite Project is set out in the section below.

The Company notes that for the base case life-of-mine model, a total of 8.4 million tonnes is assumed for the production schedule, comprising 8.0 million tonnes classified as Indicated Resources (95%), and 0.4 million tonnes classified as Inferred Resources (5%). Inferred Resources do not represent a significant proportion of the production target over the life-of-mine. Production scheduling assumes plant feed from Inferred Resources primarily during production years 2 to 4, and the later in the schedule in years 8 to 10. The Company is therefore of the view that there is a reasonable basis to conclude that the financial viability of the base case for development of the Speewah Fluorite Project is not dependent on the inclusion of Inferred Resources in the production schedule.

This announcement has been prepared in compliance with the JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC Code (2012) modifying factors on which the production target and forecast financial information are based have been disclosed in this announcement.

This announcement contains certain "forward-looking statements" and comments about future matters. Forward-looking statements can generally be identified by the use of forward-looking words such as, "expect", "anticipate", "likely", "intend", "should", "estimate", "target", "outlook", and other similar expressions and include, but are not limited to, the timing, outcome and effects of the future studies, project development and other work. Indications of, and guidance or outlook on, future earnings or financial position or performance are also forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements. Any such statements, opinions and estimates in this report speak only as of the date hereof, are preliminary views and are based on assumptions and contingencies subject to change without notice. Forward-looking statements are provided as a general guide only. There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. Any such forward looking statement also inherently involves known and unknown risks, uncertainties and other factors and may involve significant elements of subjective judgement and assumptions that may cause actual results, performance and achievements to differ. Except as required by law the Company undertakes no obligation to finalise, check, supplement, revise or update forward-looking statements in the future, regardless of whether new information, future events or results or other factors affect the information contained in this report.

The Company has concluded that it has a reasonable basis for disclosing forward-looking statements and the forecast financial information in this announcement, including the statement that Tivan has a reasonable basis to believe the Speewah Fluorite Project can attract the required level of funding to progress into construction and operations upon positive completion all of necessary project milestones in a timely manner. The PFS for the Speewah Fluorite Project has delivered estimated pre-production capital costs of \$236.3 million (excluding financing costs and working capital).

Whilst the Project is forecast to deliver positive financial and technical outcomes, and the current project financing outlook is considered positive, there is no guarantee that the Company will be able to secure the required level of funding to construct the Project or be able to secure funding on terms favourable to the Company. Any additional equity financing may dilute existing shareholders, and debt financing, if available, may involve restrictions on financing and operating activities. The Company may be required to consider and pursue alternative financing or value realisation strategies, which may include a joint venture for the Project, or partial or full sale of the Project, which may materially lower the Company's economic interest in the Project.

Further details of the key assumptions, outcomes and risks are set out in this announcement and the PFS report.

Competent Person's Statement

Exploration Results

Tivan's exploration activities are being overseen by Mr Stephen Walsh (BSc). The information that relates to exploration results in this announcement is based on and fairly represents information and supporting documentation prepared and compiled by Mr Walsh, a Competent Person, who is the Chief Geologist and an employee of Tivan, and a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Walsh has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results. Mr Walsh consents to the inclusion in this announcement of the matters based on information compiled by him in the form and context which it appears.

Speewah Fluorite Mineral Resource

The information in this announcement related to the Speewah Fluorite Mineral Resource estimate is extracted from an ASX announcement entitled "Tivan Upgrades Resource Estimate - Speewah Fluorite Project" and is dated 22 April 2024, and is available to view at www.tivan.com.au/investors/asx-announcements and www.asx.com.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the the Mineral Resource estimates in the relevant announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Speewah Fluorite Exploration Target

The information in this announcement related to the Speewah Fluorite Exploration Target estimate is extracted from an ASX announcement entitled "Tivan Announces Exploration Target for Speewah Fluorite Project" and is dated 7 May 2024, and is available to view at www.tivan.com.au/investors/asx-announcements and www.asx.com.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement, and, in the case of the estimate of the Exploration Target, that all material assumptions and technical parameters underpinning the Exploration Target estimate in the relevant announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

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Executive Summary

Speewah Fluorite Project: Pre-Feasibility Study

An Australian first Fluorite project to supply important supply chains in Asia

- Geo-strategically significant project, with high criticality for important supply chains in Asia and strong alignment with the Critical Minerals Strategy
- Strategic Alliance with Sumitomo Corporation to develop the Project as a joint venture, supporting international partnerships in critical minerals
- World class resource in size, grade and location, with multi-year expansion pathway
- Outcropping deposit with favourable mineralogy, including near zero arsenic content, supporting open pit mine design
- Onsite processing of critical minerals, capturing value-add onshore, furthering sovereign capabilities
- Rapid project delivery schedule, with advanced environmental workflows and Traditional Owners' portfolios
- Positive economic and social impacts in the East Kimberley, including plans for renewable power supply from Ord River Hydro
- Optimal market entry point, amid demand from new technologies, rapid global reserve depletion, evolving trade dynamics in Asia and sustained uptrend in fluorspar prices
- Low capital intensity and technical risk, supporting pathway to project finance and maximising value creation for shareholders
- Low C1 costs, providing strong operating margins, exceeding 50% based on current commodity prices
- Strong economic fundamentals, with upside potential through resource expansion, co-product opportunities and use of lower grade material to extend life of mine.

Comment from the Board of Tivan

The Board of Tivan is pleased to deliver the Pre-Feasibility Study for the Speewah Fluorite Project. The Board views the Project as ideally placed to make an important contribution to the emerging critical minerals sector in Australia and to communities in the East Kimberley region.

The PFS highlights the high criticality of offtake from the Project and the unique opportunity afforded to strengthen the resilience of important supply chains in Asia. In Strategic Alliance with Sumitomo Corporation, and with the support of Traditional Owners and Native Title Holders, Tivan is strongly positioned to deliver the Project on schedule for the benefit of shareholders and stakeholders.

The Board extends its thanks to the extensive group of Study Partners that have contributed their expertise and capabilities over the past six months.

Mr Grant Wilson
Executive Chairman

Dr Anthony Robinson
Non Executive Director

Ms Christine Charles
Non Executive Director

Dr Guy Debelle
Non Executive Director

Highlights

Robust Pre-Feasibility Study delivered for the Speewah Fluorite Project

Tivan has successfully completed an intensive work program since announcing the progression of the Speewah Fluorite Project in January,¹ including a Mineral Resource estimate reported in accordance with JORC in April.² As part of its commitment to deliver a robust Study, Tivan engaged Tier 1 partners in lead roles: Lycopodium and SRK Consulting.

Project ownership & location

The Project is 100% owned by Tivan and located principally on Mining Leases at the Speewah site. Speewah is approximately 100 kilometres south of Wyndham in the East Kimberley. The Project involves mining and processing operations onsite. Export will occur from Port of Wyndham, one of Australia's most northern ports, offering stevedoring logistics and proximity to markets in Asia. The Project aims to establish a new export commodity for Australia.

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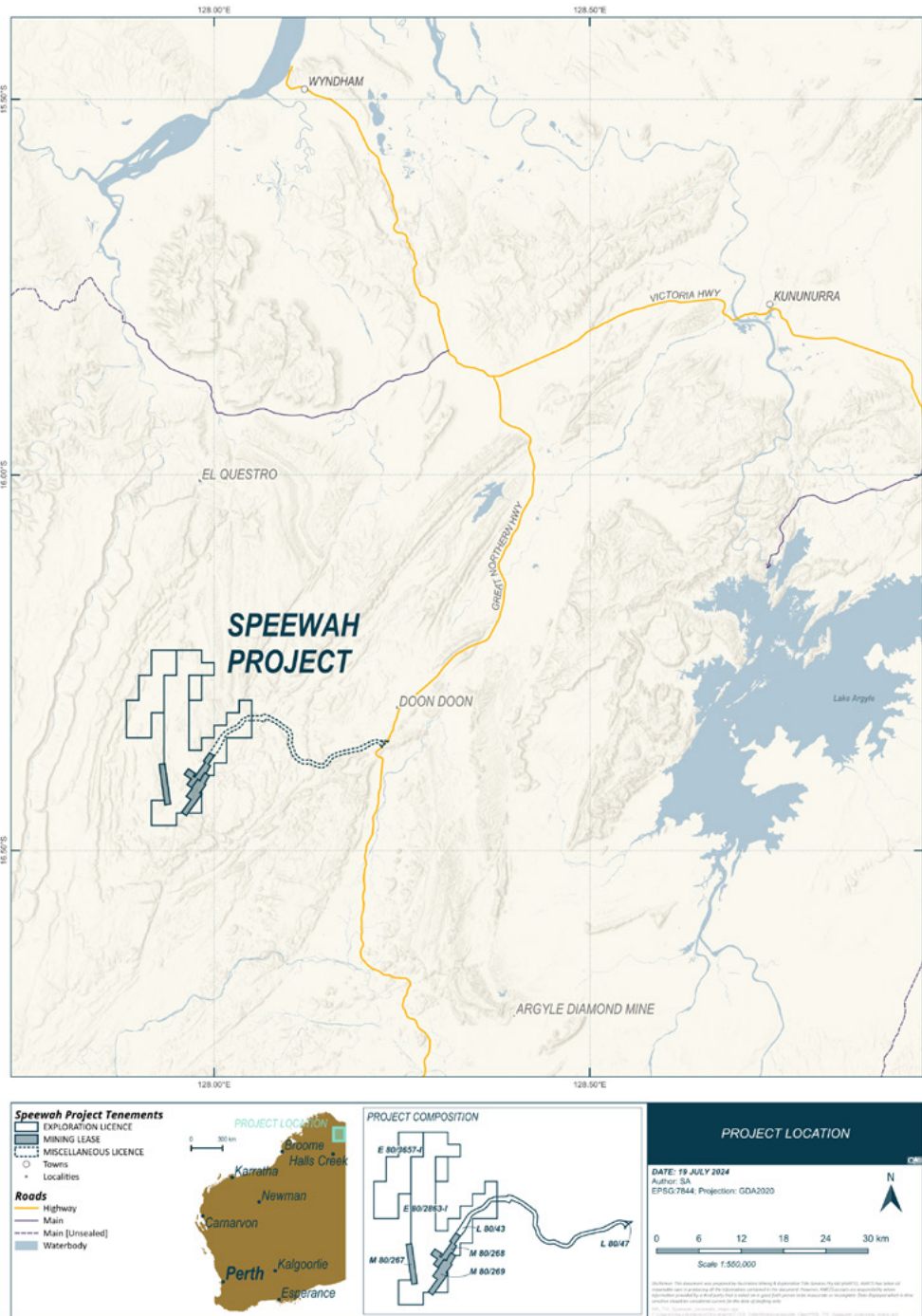


Figure 1: Speewah Fluorite Project within the East Kimberley region

1. <https://tivan.com.au/wp-content/uploads/2024/01/61191276.pdf>

2. <https://tivan.com.au/wp-content/uploads/2024/04/61203568.pdf>

Strong economic fundamentals, with low breakeven costs

Project economics are based on a preliminary 10.6 year life of mine. NPV and IRR are reported on a post-tax basis, using discount rate of 8.0%, with post-tax payback period from production start of 2.8 years. C1 Cost of US\$303/tonne provides robust profitability, with effective C1 Cost of US\$288/tonne reflecting the Critical Minerals Production Tax Incentive. Low breakeven costs are consistent with Speewah's attributes as a world class Fluorite resource. Resource expansion is the principal pathway to capture the full potential of the Project.

Table 1: Speewah Fluorite Project – Key Metrics

Metric	Unit	PFS
Life of Mine	Years	10.6
Tonnes mined (ore)	Mt	8.4
Processing rate (LOM average annual)	Mtpa	0.79
Fluorspar production (LOM)	Mt	1.48
Fluorspar production (LOM average annual)	Ktpa	139.7
Pre-production capital (including contingency)	A\$M	236.3
Revenue (LOM)	A\$M	1,952
Revenue (LOM average annual)	A\$M	184
EBITDA (LOM)	A\$M	1,203
EBITDA (LOM average annual)	A\$M	114
Total C1 costs (LOM)	A\$M	690
C1 costs (LOM per tonne fluorspar shipped)	A\$	467
C1 costs (LOM per tonne fluorspar shipped)	US\$	303
Effective C1 costs (LOM per tonne fluorspar shipped)	US\$	288
NPV (8.0%, pre-tax)	A\$M	480.1
NPV (8.0%, post-tax)	A\$M	354.7
IRR (pre-tax)	%	37.9
IRR (post-tax)	%	33.2
Pre-tax payback period (start of operations)	Years	2.6
Post-tax payback period (start of operations)	Years	2.8

10.6 year life of mine, with five phase approach to resource expansion

The Study is based on a 10.6 year life of mine, determined to be the most efficient basis of design for the Mineral Resource estimate. Further to the Exploration Target announced in May,³ the Study provides a five phase approach to resource expansion, supported by detailed drilling plans. Resource expansion provides opportunities to extend the life of mine and throughput, enhancing project economics, on an all else equal basis.

Further opportunities to enhance project economics

Tivan is also evaluating metallurgical grade fluorspar (metspar) (CaF₂ content between 85-97%) as a by-product opportunity, noting that metspar is currently commanding high prices in Asia. The use of mineralised tailings and lower grade ore may also present long-term opportunities to extend the life of mine, depending upon the price of acidgrade fluorspar in the future.

Speewah as a world class Fluorite resource, with durable competitive advantages

The Study presents the Speewah Mineral Resource estimate in the context of peer resources and the competitive landscape in the global fluorspar market. Amid extensive global reserve depletion, Speewah is a world-class fluorite resource and of strategic importance to Asian markets. The size, grade, depth, mineralogy, location and jurisdiction of Speewah provide durable competitive advantages, in support of project development.

3. <https://tivan.com.au/wp-content/uploads/2024/05/61206419.pdf>

Strategic Alliance with Sumitomo Corporation

Tivan has entered into a Strategic Alliance Agreement with Sumitomo Corporation to develop and finance the Project as a joint venture.⁴ Both parties are using all reasonable endeavours to conclude negotiations promptly, and not later than end 2024. Sumitomo Corporation is a Fortune Global 500 company and one of Japan’s leading trading houses. Upon forming the joint venture, Sumitomo Corporation will be appointed as the sole distributor and agent for the Project. The Strategic Alliance establishes a clear pathway for the progression of the Project to Final Investment Decision, further strengthening the bilateral relationship between Australia and Japan.

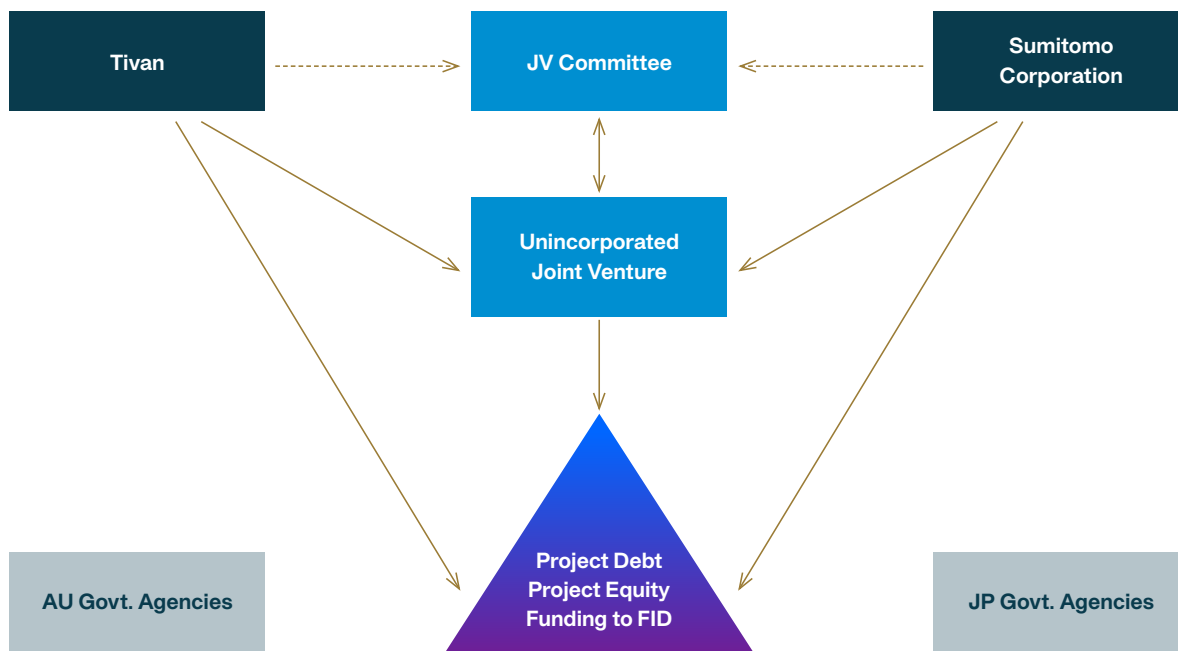


Figure 2: Tivan and Sumitomo Corporation: basic proposed Joint Venture structure. Subject to entry into binding agreements.

Low capital intensity, in support of project finance & shareholder value retention

The Project has low capital expenditure requirements. The Study presents a conventional flowsheet, based on physical separation processes, with low technical risk. Within the context of Australia’s critical mineral sector, the Project has high criticality and low capital intensity. These characteristics are supportive of project finance and government facilitation. By utilising a joint venture structure, Tivan aims to minimise the equity funding gap, enhancing value retention for shareholders.

Production target & product specification

The Study targets first commercial production in Q1 2027, with average production of 140,000 tpa of acidgrade fluorspar. The ongoing testwork program supports the achievement of the standard industry specification of 97% CaF₂ minimum. Tivan is working in collaboration with Sumitomo Corporation to meet product specifications of customers in Asia. As testwork proceeds, Tivan will provide product samples to advance offtake negotiations, whilst reserving prescribed tonnage of customers of Japan.

Rapid project delivery timeframe

Tivan is targeting first commercial production in Q1 2027, three years after announcing progression of the Project. The project delivery timeframe reflects:

- i) Works conducted by previous owners, including drilling, testwork and the Scoping Study delivered in 2018
- ii) The progress Tivan made on long-lead items in 2023 when advancing the Speewah Vanadium Titanomagnetite Project, most notably environmental approvals and Traditional Owners’ workflows
- iii) The support Tivan from community stakeholders in the East Kimberley and from project facilitation partners.

4. <https://tivan.com.au/wp-content/uploads/2024/06/61210785.pdf>

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Sustained uptrend in global fluorspar prices, driven by new technologies

As part of the Study, Tivan has evaluated different price sources, industry trends and independent forecasts for supply and demand of fluorspar. For historical prices, the Study uses FastMarkets (fluorspar, acidspar, 97% CaF₂, wet filtercake, FOB China, \$/tonne) as the primary price source. Fluorspar prices have exhibited a sustained long-term uptrend, most recently reflecting demand from the electric vehicle battery sector and semiconductor manufacturing.

Acidgrade Fluorspar Prices: Medium Term

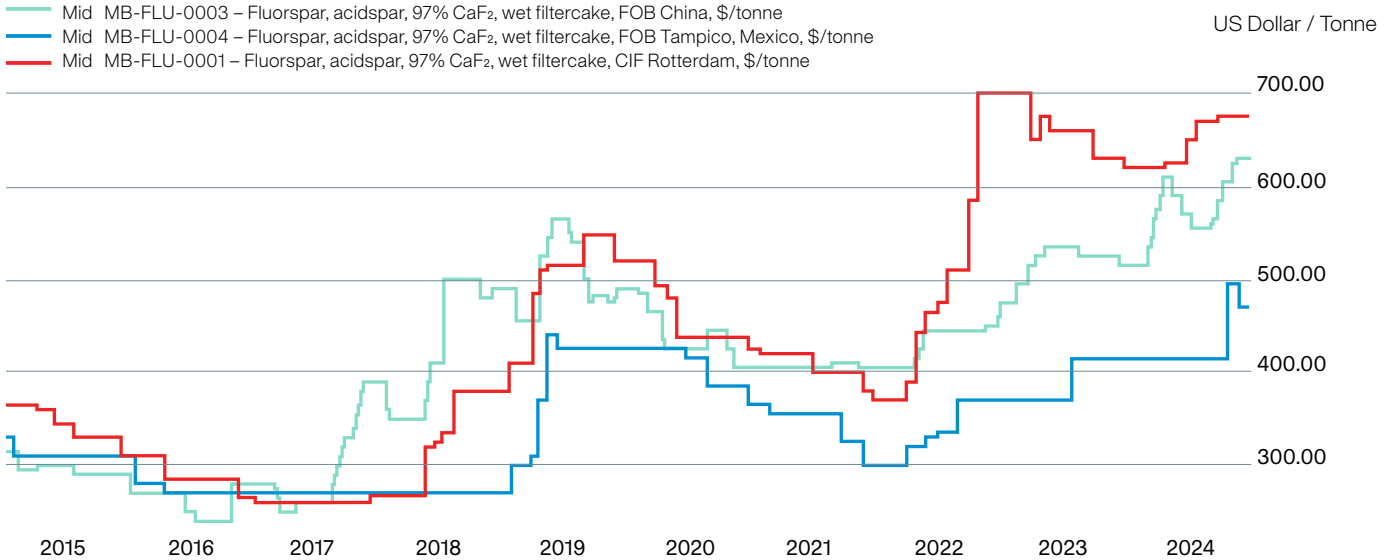


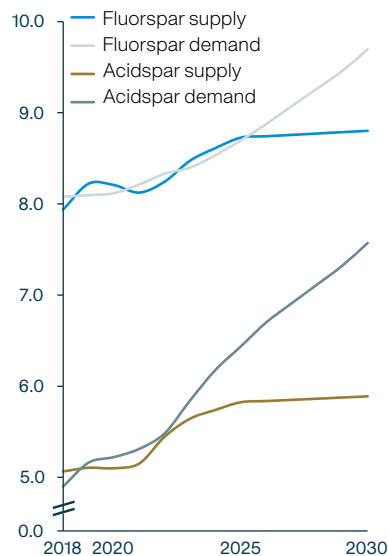
Figure 3: Acidgrade fluorspar prices have exhibited a sustained uptrend over the past decade. Prices declined during COVID-19.

Source: Fastmarkets

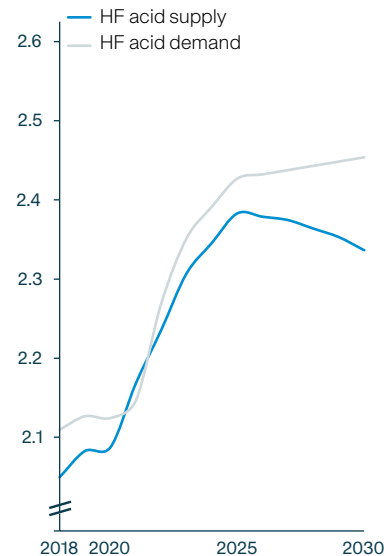
Resource depletion is leading to structural shortages

Fluorspar resources are being depleted on a global basis, most rapidly in China. Owing to its elemental properties, fluorine cannot be substituted for effectively in important supply chains. Primary production is expected to remain the dominant source of supply. As a result, structural shortage of fluorspar is forecast to emerge from 2026. Benchmark Minerals Intelligence forecasts a supply deficit of 900kt in 2030, representing ~10% of expected global demand, principally in the acidgrade fluorspar segment.

Upstream: global fluorspar supply and demand, million tonnes fluorspar[†]



Midstream: global HF supply and demand*, million tonnes



Source: Benchmark

[†]CaF₂ at fluorspar/acidspar product (assorted) grades

*demand = if all produced acidspar were converted

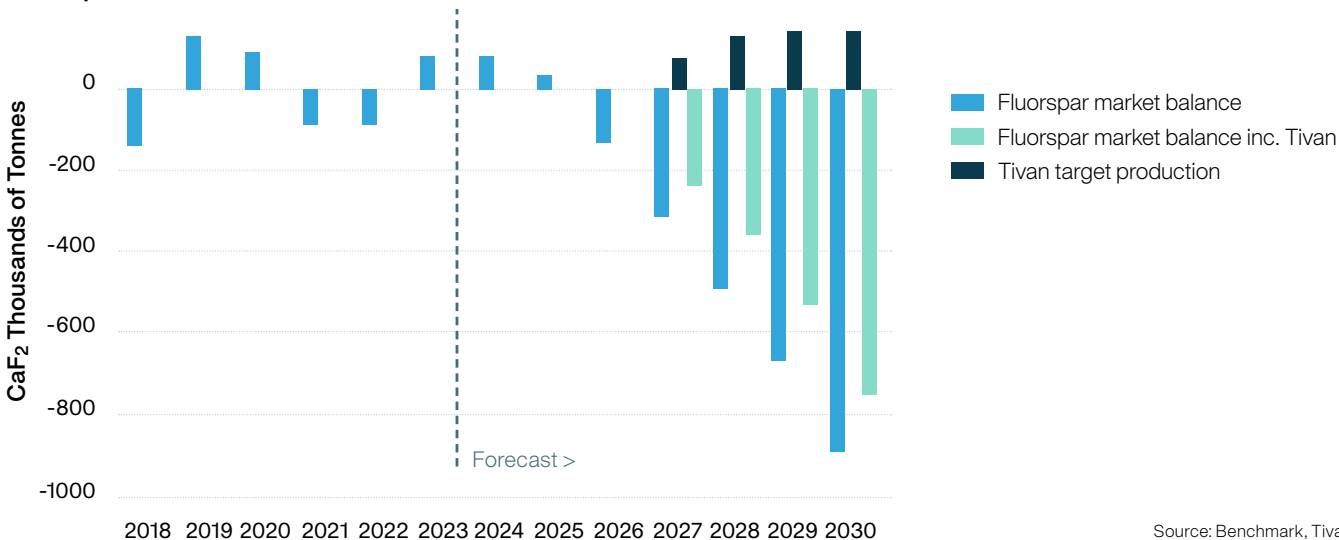
Figure 4: Fluorspar Supply and demand; upstream and midstream; actual and forecast. HF = Hydrofluoric Acid

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Lack of greenfield development provides an optimal market entry point

In contrast to the Lithium sector, the forecast supply deficit in fluorspar has not generated a significant supply-side response. The Speewah Fluorite Project is the only major greenfield project expected to be delivered in the west this decade. The principal competitive constraints faced by owners of known fluorspar resources include insufficient size and/or grade, resource depletion, challenging mineralogy (particularly the presence of arsenic), resource location, resource depth (necessitating underground mining), environmental and/or land access restrictions and lack of access to capital. These constraints provide Tivan with an optimal entry point into the fluorspar market.

Fluorspar Market Balance



Source: Benchmark, Tivan

Figure 5: The global fluorspar market is forecast to move into pronounced deficit from 2025; inclusive of the Speewah Fluorite Project

Shifting trade dynamics underscore the vulnerability of important supply chains

Over the past five years China’s mercantile balance in fluorspar has shifted significantly into trade deficit. In 2023 China imported 1Mn tonnes of fluorspar, representing ~12% of total global production. Monthly tracking of China’s imports suggests this volume will be exceeded in 2024. China reduced import tariffs for low arsenic fluorspar from 3% to zero in early 2024.⁵ China’s emergence as the world’s largest importer of fluorspar underscores the vulnerability of important supply chains in Asia and reinforces the sustained uptrend in global fluorspar prices.

China: Net Trade Balance in Fluorspar

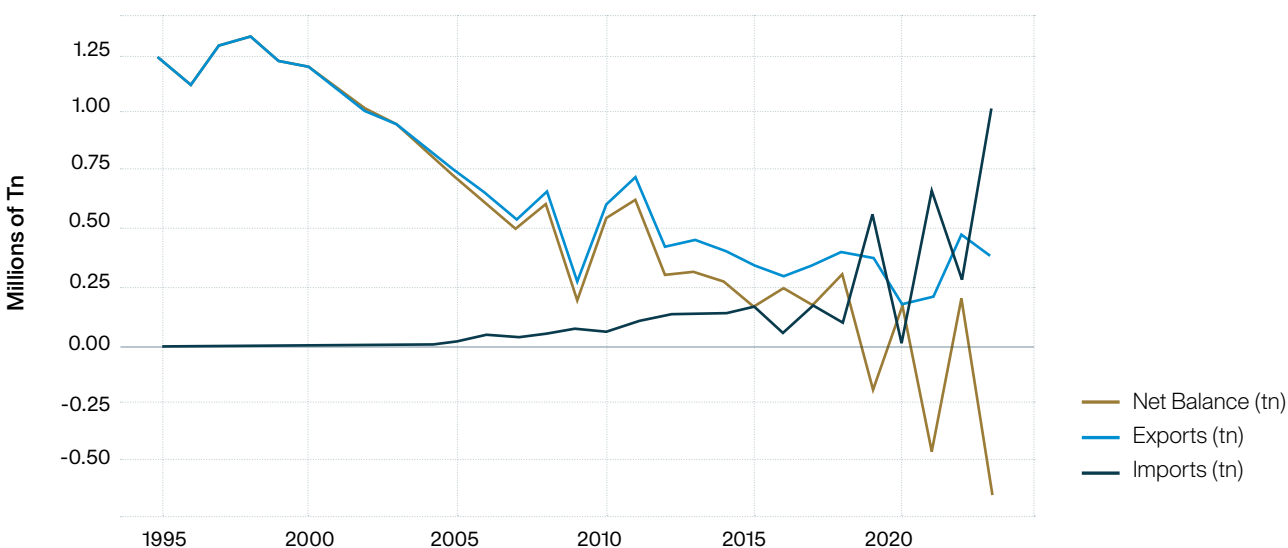


Figure 6: China net trade balance in fluorspar has shifted from pronounced surplus to pronounced deficit

Source: Exante Data, UN ComTrade

5. https://www.mof.gov.cn/zhengwuxinxi/caijingshidian/zgcjb/202312/t20231227_3924241.htm

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Positive economic and social impacts across the East Kimberley

Tivan has been working in the East Kimberley region since early 2023, building a deep network of community and stakeholder relationships. The scale, duration and criticality of the Project are unique propositions for the region. The Project is well placed to succeed the recently decommissioned Arygle Diamond Mine (ADM), situated 75 kilometres from Speewah. Tivan is actively engaged with local enterprises and is prioritising the build out of a local workforce.

Tivan is working with Pacific Hydro, part of the Pacific Blue group (Pacific Hydro) and Horizon Power to evaluate the viability using the excess hydro capacity from the Ord River Hydro Power Plant for the Project, inclusive of the existing transmission corridor to ADM. These plans have transformative potential for communities across the East Kimberley region and are being advanced in collaboration with relevant Traditional Owners groups.

Genuine inclusion and gainful participation of Traditional Owners

Consistent with firmwide policies, Tivan has been engaged with Traditional Owners and Native Title Holders in the East Kimberley and the peak Indigenous body, the Kimberley Land Council (KLC), since the acquisition of Speewah in February 2023. Tivan has finalised two Heritage Protection Agreements with KLC and a Heads of Agreement with Glen Hill Aboriginal Pastoral Corporation, holder of the pastoral leases at Speewah. Tivan is progressing toward Indigenous Land Use Agreements, in support of the Project. Tivan is committed to achieving outcomes that promote alignment and risk-sharing with the Traditional Owners of Speewah, based on shared trust and deep respect of culture and country.

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Aerial view of Speewah Valley. Photo Credit: Ben Broady

Alignment with the Critical Minerals Strategy

The Board of Tivan supports the Critical Minerals Strategy 2023-30, including its stated objectives, to:

- create diverse, resilient and sustainable supply chains through strong and secure international partnerships
- build sovereign capability in critical minerals processing
- use our critical minerals to help Australia become a renewable energy superpower
- extract more value from our resources onshore, which creates jobs and economic opportunities, including for regional and First Nations communities

Tivan’s commitment to these objectives was framed in the Company’s submission to the Strategy in February 2023:

Tivan is fully supportive of the Federal government’s heightened engagement with industry to develop the Strategy. Only through the consolidated efforts of government, industry and research will Australia’s critical mineral sector succeed in developing new sovereign capabilities and downstream processes, thereby reducing the inherent vulnerability of concentrated supply chains and supporting the climate transition.⁶

Tivan has advanced its project development planning in the East Kimberley in alignment with the Strategy. The Speewah Fluorite Project will:

a) support diverse, resilient, and sustainable supply chains

The Project will produce acidgrade fluorspar, a critical feedstock to electric vehicle batteries and semiconductor manufacturing. China is the dominant producer and consumer of fluorspar. Owing to rapid reserve depletion, China has emerged the world’s largest importer of fluorspar since 2023, with significant reliance on Mongolia. India has also become a major importer of fluorspar and will soon move into second place worldwide, surpassing the US.

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India: Net Trade Balance in Fluorspar

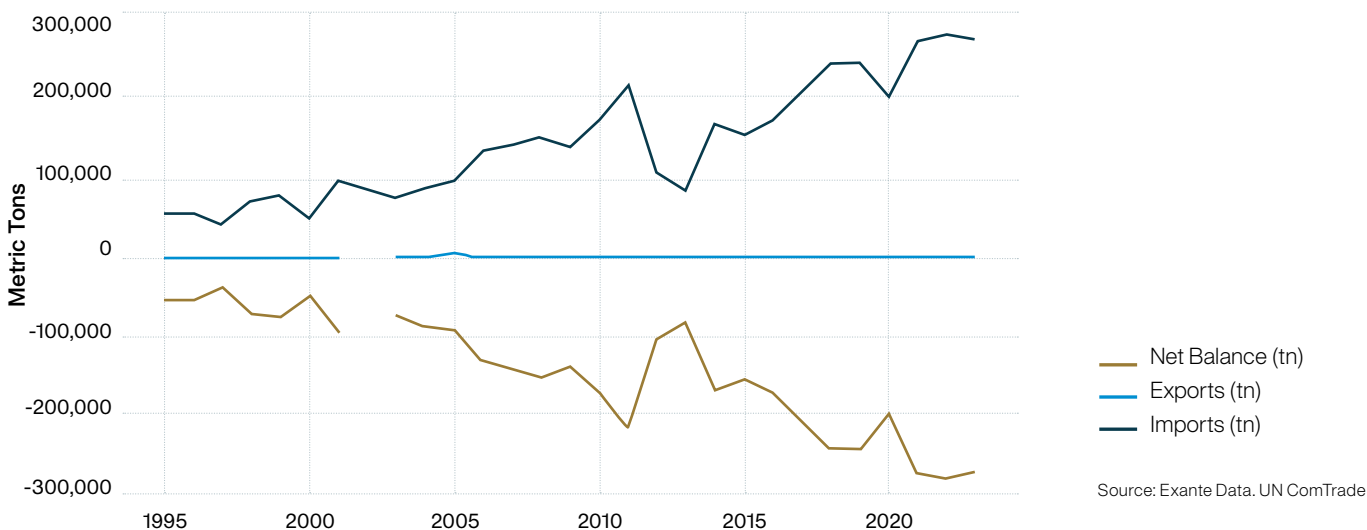


Figure 7: India is emerging as the world’s second largest importer of fluorspar

Fluorspar is a vital input to semiconductor manufacturing, where hydrofluoric acid is used in the wet etching process and in cleaning chemical vapor disposition (CVD). For this high precision use case, fluorspar with near zero arsenic content is required. Semiconductors are a critical technology, with demand underpinned by the widespread adoption of artificial intelligence (AI). South Korea reports imports of hydrofluoric acid for the purpose of semiconductor manufacturing.

6. <https://tivan.com.au/wp-content/uploads/2023/06/Submission-Document-5-FA-2.pdf>

South Korea: Net Imports of Hydrofluoric Acid for Semiconductors

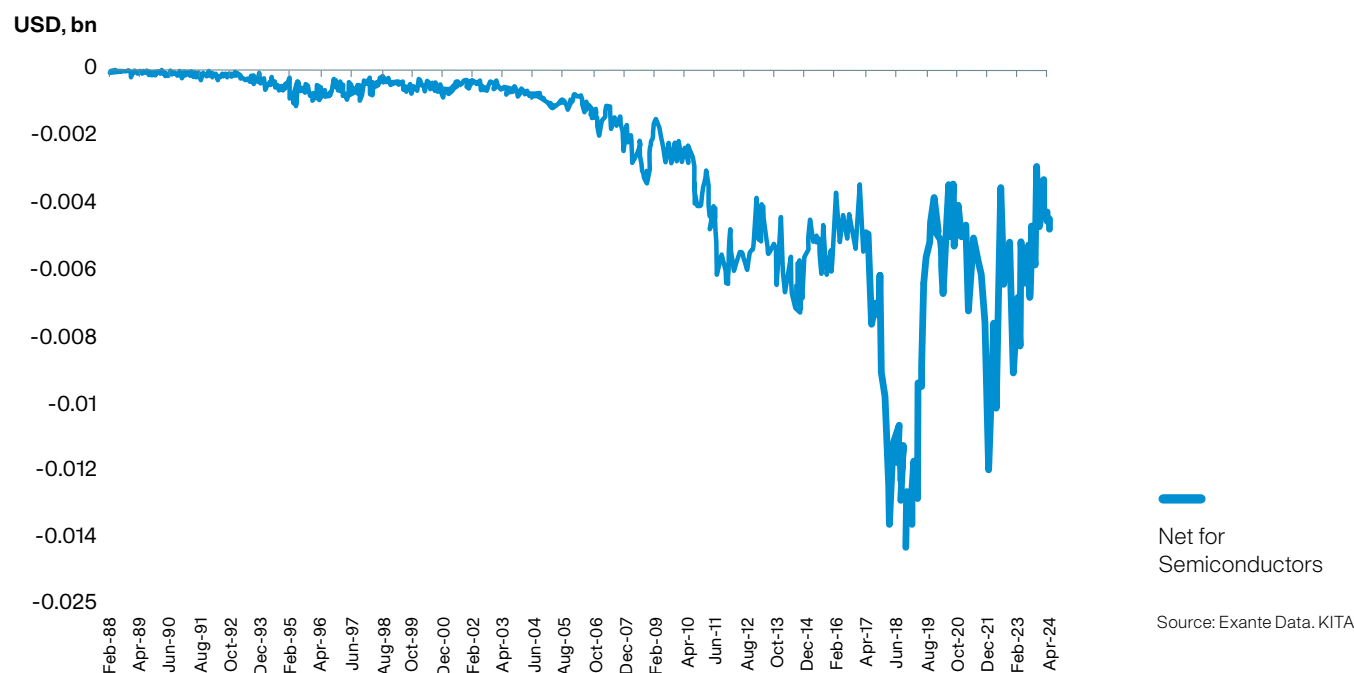


Figure 8: South Korea is the only major semiconductor manufacturing country that reports imports of hydrofluoric acid for this purpose

In Strategic Alliance with Sumitomo Corporation, Tivan is advancing offtake negotiations in Asia, with prescribed tonnage reserved for customers of Japan. The Project will provide a secure, long-term source of supply of a critical feedstock in the region, supporting diverse, resilient and sustainable supply chains. This lends geostrategic importance to the Project, enhancing the economic and strategic benefits flowing to Australia.

b) promote strong and secure international partnerships

Tivan and Sumitomo Corporation have agreed a Strategic Alliance to develop the Project as a joint venture. The Australian government recognises Japan as a “priority partner country” in critical minerals. In 2022 the Australia-Japan Critical Minerals Partnership was agreed, supporting by a Critical Minerals Working Group.⁷

Reflecting the criticality of the Project, the Strategic Alliance refers to participation of the Japan Organization of Metals and Energy Security (JOGMEC). JOGMEC is an incorporated administrative agency of Japan’s government, whose mission is to secure reliable and affordable supplies of resources and energy for Japan.

In developing the Project as a joint venture, Tivan and Sumitomo Corporation bring shared values. The long-standing business philosophy of Sumitomo Group, of which Sumitomo Corporation is a member, highlight “the benefit for self and others, private and public interests are one in the same”.⁸ This accords with Tivan’s emphasis on creating alignment between the interests of shareholders and stakeholders.

The Strategic Alliance represents Sumitomo Corporation’s first engagement in the critical minerals sector in Australia. The Project will promote strong and secure international partnerships and further strengthen the important bilateral relationship between Australia and Japan.

7. <https://www.minister.industry.gov.au/ministers/king/media-releases/australia-japan-strengthen-critical-minerals-cooperation>

8. <https://www.sumitomocorp.com/en/global/about/principles/statement>

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c) build sovereign capabilities in critical minerals processing

Fluorine was added to the Critical Minerals List in Australia in December 2023.⁹ This decision acted as a catalyst for Tivan to progress the Project. Speewah is Australia’s only Fluorite resource that has been estimated and reported in accordance with the JORC code.

Tivan is committed to supporting the growth of the critical minerals sector in Australia, including in remote regions. Tivan has progressively advanced its portfolio of projects in the East Kimberley and the Northern Territory over the past eighteen months. Tivan is working in strategic partnership with CSIRO on the TIVAN+ critical minerals processing technology, a sovereign capability for Vanadium Titanomagnetite.¹⁰

Tivan engaged local Tier 1 firms for the development of the Study and is actively engaged with local contractors in developing the Project, including in the East Kimberley region. The Project will build new sovereign capabilities for Australia, both in realising a new commodity export and through onshore critical minerals processing.

d) support the energy transition, including through use of renewable energy

The Project will advance the energy transition by supplying Asian markets with a feedstock that is vital to the electric vehicle battery chain. Consensus estimates are that ~20kg of acidgrade fluorspar is required for an average 40kWh battery pack. The displacement of internal combustion engines in the global vehicle fleet requires the stable and secure supply of fluorspar.

Further development phases at Speewah include Tivan’s plans to integrate hydro power from the Ord River Hydro Power Plant, accessing available generation capacity and reusing the existing transmission corridor from ADM. These plans further Tivan’s aim of producing ‘green critical minerals’ at Speewah.

Tivan’s long run plan is to develop the vanadium titanomagnetite resource at Speewah to support a full cycle, long-duration energy storage value chain in Australia. This would extend the planned project life of Speewah into the hundreds of years. Speewah can be viewed as a generational opportunity for the East Kimberley region, in support of the energy transition in Australia and globally.

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Fluorspar Demand from EV Batteries

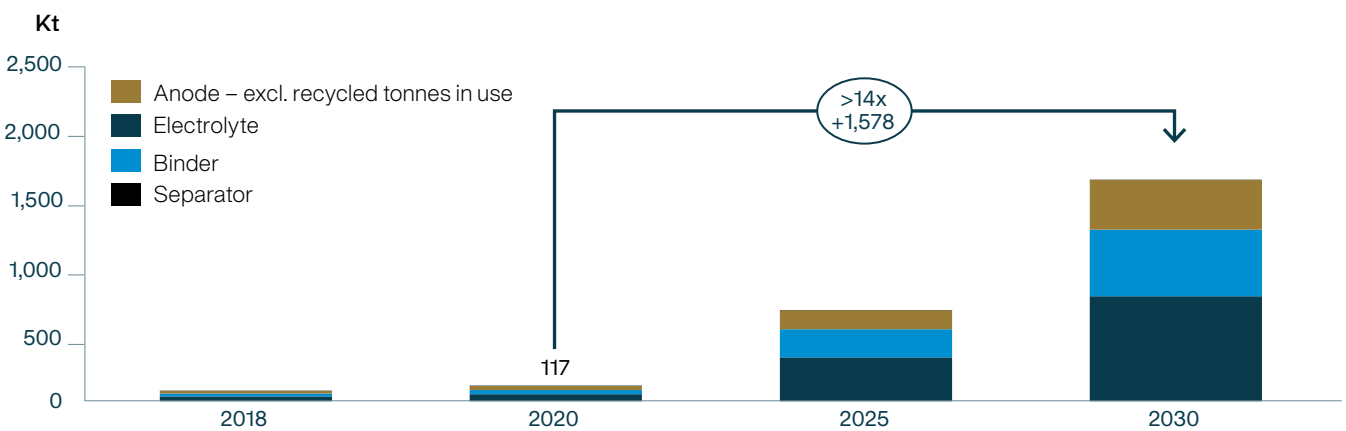


Figure 9: Acid grade fluorspar demand from electric vehicle batteries; actual and forecast

Source: Benchmark

e) maximise onshore value addition by refining ore to high grade product

The Project involves value-adding in resources in a regional location that will support sustainable economic development. Rather than direct shipping ore (DSO), the Project deploys a critical minerals processing flowsheet that upgrades the final product to 97% CaF₂ minimum acidgrade fluorspar.

The Project is expected to qualify for the Critical Minerals Production Tax Incentive (CMPTI) that was announced in the 2024-25 Federal Budget. Tivan is supportive of the policy aims of CMPTI and provided a submission to Treasury during the consultation process in July 2024.¹¹

9. <https://www.industry.gov.au/news/updates-australias-critical-minerals-list>

10. <https://tivan.com.au/wp-content/uploads/2024/05/61208849-1.pdf>

11. <https://treasury.gov.au/consultation/c2024-541266>

f) create jobs and economic opportunities in a remote region, inclusive of First Nations communities

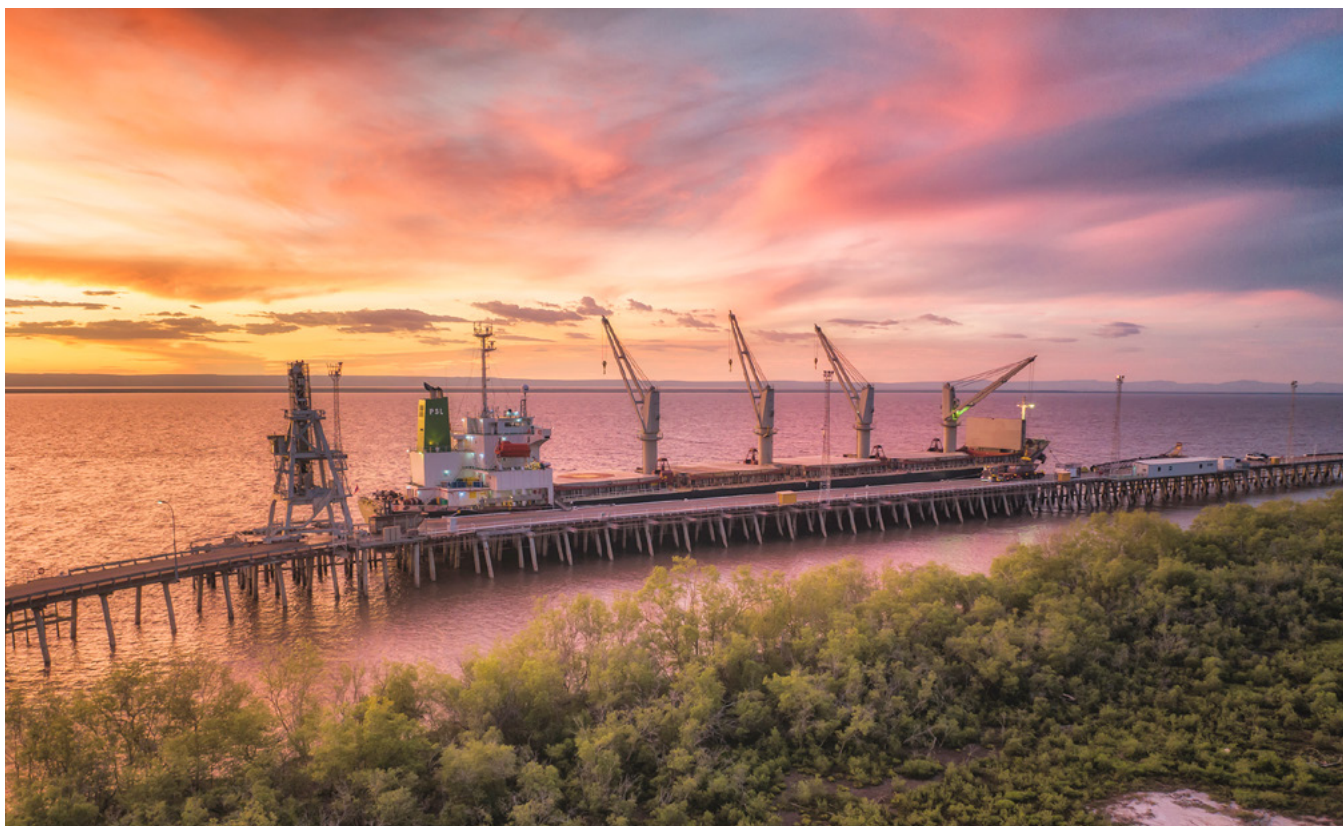
The Project is ideally situated to provide sustainable development opportunities and positive community-wide impacts across the East Kimberley region. The location is proximate to the towns of Kununurra and Wyndham, that experienced economic downturns due to the de-commissioning of the ADM.

Tivan has been working in the region since Q2 2023, prioritising engagement with local stakeholders and enterprises. This includes peak bodies such as the Shire of Wyndham-East Kimberley (SWEK) and East Kimberley Chamber of Commerce & Industry (EKCCI) and local commercial enterprises, as described further in the *Stakeholder Engagement* section.

The workforce requirements for the Project are well suited to regional townships. The Study estimates a workforce of 300 at peak in construction, and 125–150 long term employment opportunities. The Board of Tivan supports a local workforce buildup, as distinct from fly-in fly-out (FIFO) arrangements, retaining long term economic benefits in the region.

Tivan has been working closely with the KLC and Traditional Owners since early 2023. Tivan has forged close and constructive relationships and has been welcomed on country throughout this period. Tivan's engagement with regional contractors includes Indigenous owned businesses, supporting the participation of Indigenous Australians throughout the project life-cycle.

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Port of Wyndham. Photo Credit: Ben Broady

Criticality of Fluorspar

The criticality of a mineral (a metallic or non metallic element) reflects:

- economic importance, specifically the degree to which the mineral is essential to the functioning of modern technologies and economies
- scarcity, in terms of economic recoverability of mineral, and the risks posed by disruption to its supply chain

Fluorspar is recognised as a critical mineral in the US,¹² Japan¹³ and Europe.¹⁴ Fluorine, the elemental form of fluorspar, was added to Australia’s Critical Minerals List in December 2023.

Over the past five years the criticality of fluorspar has increased significantly, reflecting both changes to demand and supply.

Demand

The traditional industrial use cases of fluorspar have been augmented by its use in the electric vehicle battery sector and in semiconductor manufacturing. These important sectors are driving incremental demand for fluorspar through mid-stream products, notably LiPF6 (Lithium Hexafluorophosphate) and PVDF (Polyvinylidene fluoride), and hydrofluoric acid (used in semiconductor etching).

Reflecting the geostrategic concerns around the concentration of supply chains, the US,¹⁵ Japan¹⁶ and Europe¹⁷ are investing significantly in mid-stream capacity for these chemicals. Fluorinated products also featured prominently in the trade dispute between Japan and South Korea between 2019-2023.¹⁸

To bolster upstream supply of fluorspar, India and China have lowered tariffs on imports. Announced as part of the 2023/24 Union Budget, India reduced the Basic Custom Duty on acidgrade fluorspar from 5% to 2.5%.¹⁹ In December 2023, the Ministry of Finance in China reduced import tariffs on low arsenic fluorspar from 3% to zero.

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Global Imports of Fluorspar

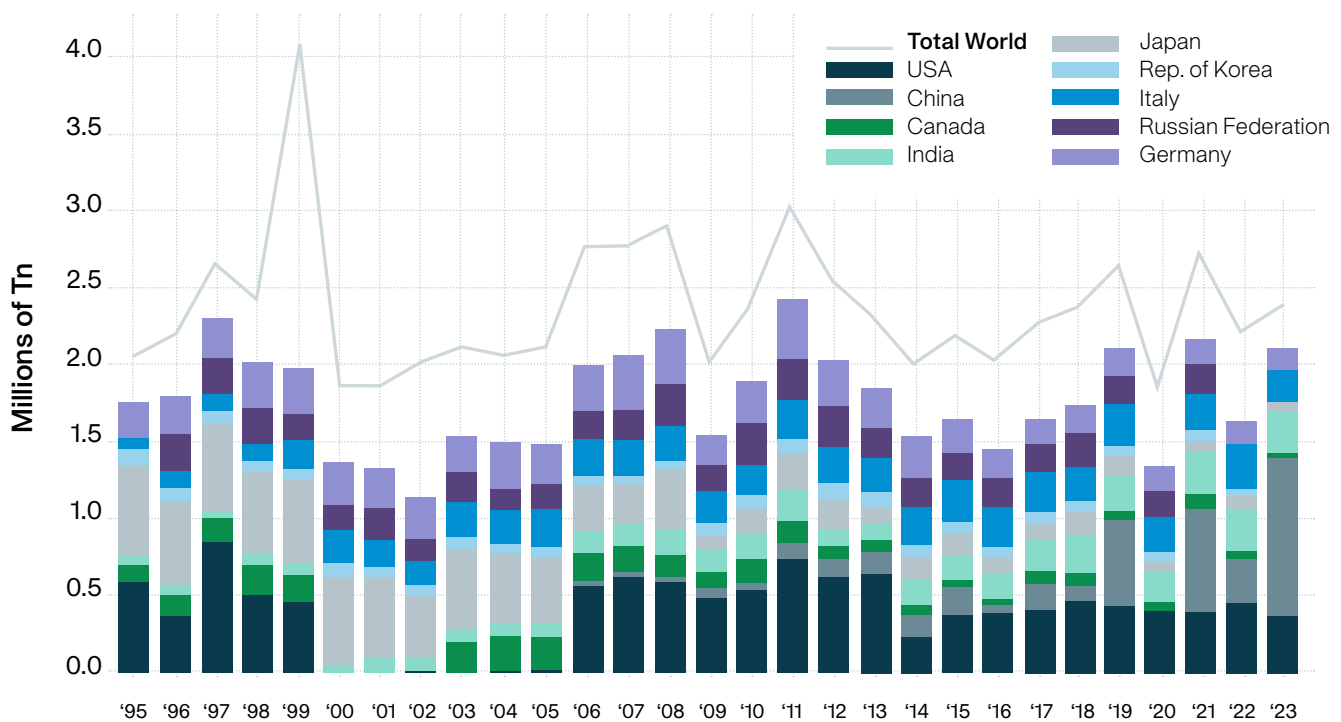


Figure 10: Country sample (most representative)

Source: Exante Data. UN ComTrade

12. <https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals>
 13. <https://www.iea.org/policies/16639-international-resource-strategy-national-stockpiling-system>
 14. https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en
 15. <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-fluorspar.pdf>
 16. <https://www.sojitz.com/en/news/article/20230209.html>
 17. <https://www.solvay.com/en/press-release/pvdf-capacity-investment-growing-demand-ev-battery>
 18. https://en.wikipedia.org/wiki/Japan%E2%80%93South_Korea_trade_dispute
 19. <https://pib.gov.in/PressReleasePage.aspx?PRID=1895283#:~:text=To%20support%20the%20Ethanol%20Blending,the%20domestic%20fluorochemicals%20industry%20competitive.>

Supply

China is the world’s largest producer of fluorspar, accounting for approximately two thirds of global production. China is depleting its known reserves and has commenced large-scale imports from neighbouring Mongolia. China imported 1 million tonnes of fluorspar in 2023, representing 50% of total global imports and 12% of total global production. 85% of China’s exports in 2023 were sourced from Mongolia.

Benchmark Minerals Intelligence has estimated China will deplete its reserves by 2030. Project Blue has forecast a significant project gap emerging in the acidgrade fluorspar segment by 2030.

Mexico hosts the largest global reserves of fluorspar, located in the state of San Luis Potosi. These deposits are known to have high arsenic content, estimated at 250-300ppm.²⁰ This presents significant challenges in reaching the product specification for acidgrade fluorspar for use as a feedstock in electric vehicle batteries and semiconductor manufacturing.

China is expected to continue with its strategy of higher imports and lower exports to preserve its domestic resource base in fluorspar. This strategy is supportive of the development of new fluorspar projects in Asia, particularly in the acidgrade segment. This provides an opportunity to strengthen the diversity and improve the resilience of important supply chains in Asia.

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Acidgrade Fluorspar Project Gap

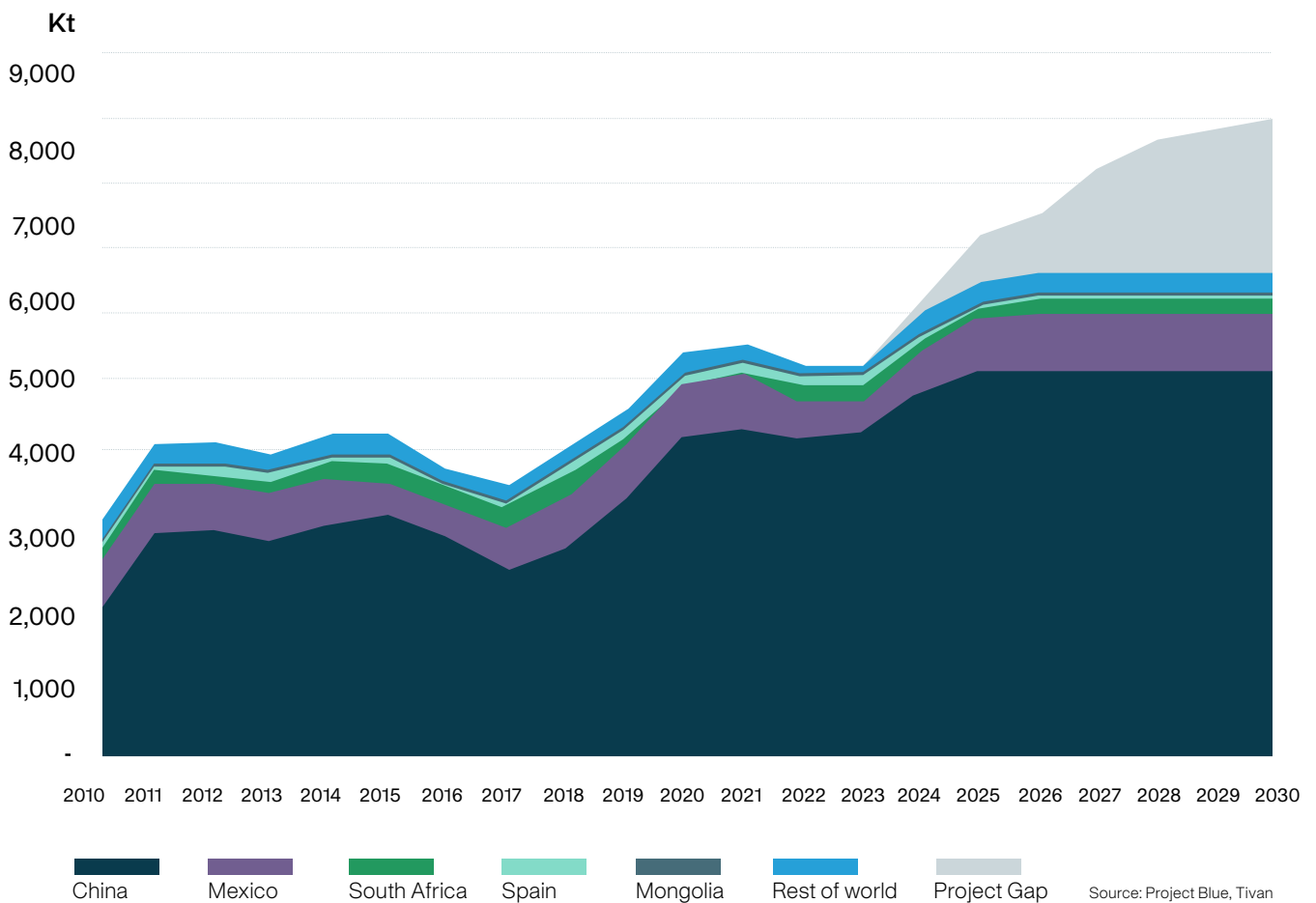


Figure 11: Acidgrade fluorspar: forecast supply required from new projects to meet forecast demand

20. <https://thediggings.com/mines/usgs10069432>

Comment from Tivan Executive Chairman, Mr Grant Wilson

The Speewah Fluorite Project shapes as one of the most important resources projects in Australia. The Project has a strategic opportunity to supply the global semiconductor industry, in which Australia is currently a bystander. In Asia, the Project has a credible opportunity to strengthen the resilience of key supply chains, including for electric vehicles, by producing a feedstock where structural scarcity is increasingly evident in China.

In conveying these opportunities, we have been mindful that many readers will have little familiarity with fluorspar, as it is typically referred to in global product markets. Hence, we have included extensive industry insights and data resources that will assist in moving rapidly up the knowledge-curve. In the months ahead we will continue our 'education campaign', including with roadshow and conference events in various towns and cities across Australia.

At its core, this is a technically rich Pre-Feasibility Study, with an uncommon level of detail provided across a broad range of disciplines. The depth of the Study reflects the hard work and dedication of our brilliant team at Tivan, and the highly valued contributions of our many Study Partners. It also reflects Tivan's commitment to deliver a robust Study, consistent with our broader ethos and our principles of forthright and timely communications.

In developing this Study we have been greatly assisted by the network of partners and stakeholders that we have established in the East Kimberley region. At Tivan the concept of regionalism is not an abstract policy goal - it is our lived experience and our mission, both in the East Kimberley and the Northern Territory. I extend my sincere thanks to all those who have made us feel so welcome on country. And I reiterate Tivan's commitment to genuinely include the Traditional Owners of the East Kimberley region throughout the lifecycle of the Project.

We have also been mindful of delivering a Study befitting of our Strategic Alliance partner, Sumitomo Corporation. Tivan is less than two years old, whereas Sumitomo can trace its history back to the 17th century. Yet our partnership is flourishing, reflecting as it does, shared values and belief in the importance of enterprising spirit. We are looking forward to hosting a delegation from Japan in the second half, and to finalising a mutually beneficial joint venture that will further strengthen the bilateral relationship between Australia and Japan.

I trust that with the achievement of this milestone shareholders of Tivan will see the Project as we do and come to more fully understand the company we are building. Delivering this Project will take Tivan to first revenue and first free cash flow, creating tremendous value for shareholders and relocating Tivan within the critical minerals sector in Australia.

The Speewah Fluorite Project will also mark the start of Tivan's journey to inspire durable change in ensuring that Australia's sovereign endowments are developed for the benefit of all.

Pre-Feasibility Study

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Introduction

The Pre-Feasibility Study for the Speewah Fluorite Project captures an intensive program of works that Tivan has completed with Study Partners since announcing the progression of the Project in January 2024. The decision by the Board to progress the Project was made following a due diligence phase conducted by Tivan's Project Team that was catalysed by the inclusion of Fluorite on the Critical Minerals List in December 2023.

Tivan's Team

Tivan is the principal author of this Study, comprising team members as follows:

Mr Michael Christ, Project Manager
 Mr Brendon Nicol, Process Manager
 Mr Stephen Walsh, Chief Geologist
 Mr Alex Botterill, Process Engineer

Mr Jason Giltay, Chief Financial Officer
 Ms Katrina Arratoon, VP Engagement
 Mr Grant Wilson, Executive Chairman

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Study Partners



Figure 12: Tivan's Pre-Feasibility Study partners

Project Background

Property Description and Location

The Speewah Project is owned 100% by Tivan and is located 100km south of the Port of Wyndham and 110km south-west of Kununurra in the Kimberley region of north-east Western Australia.

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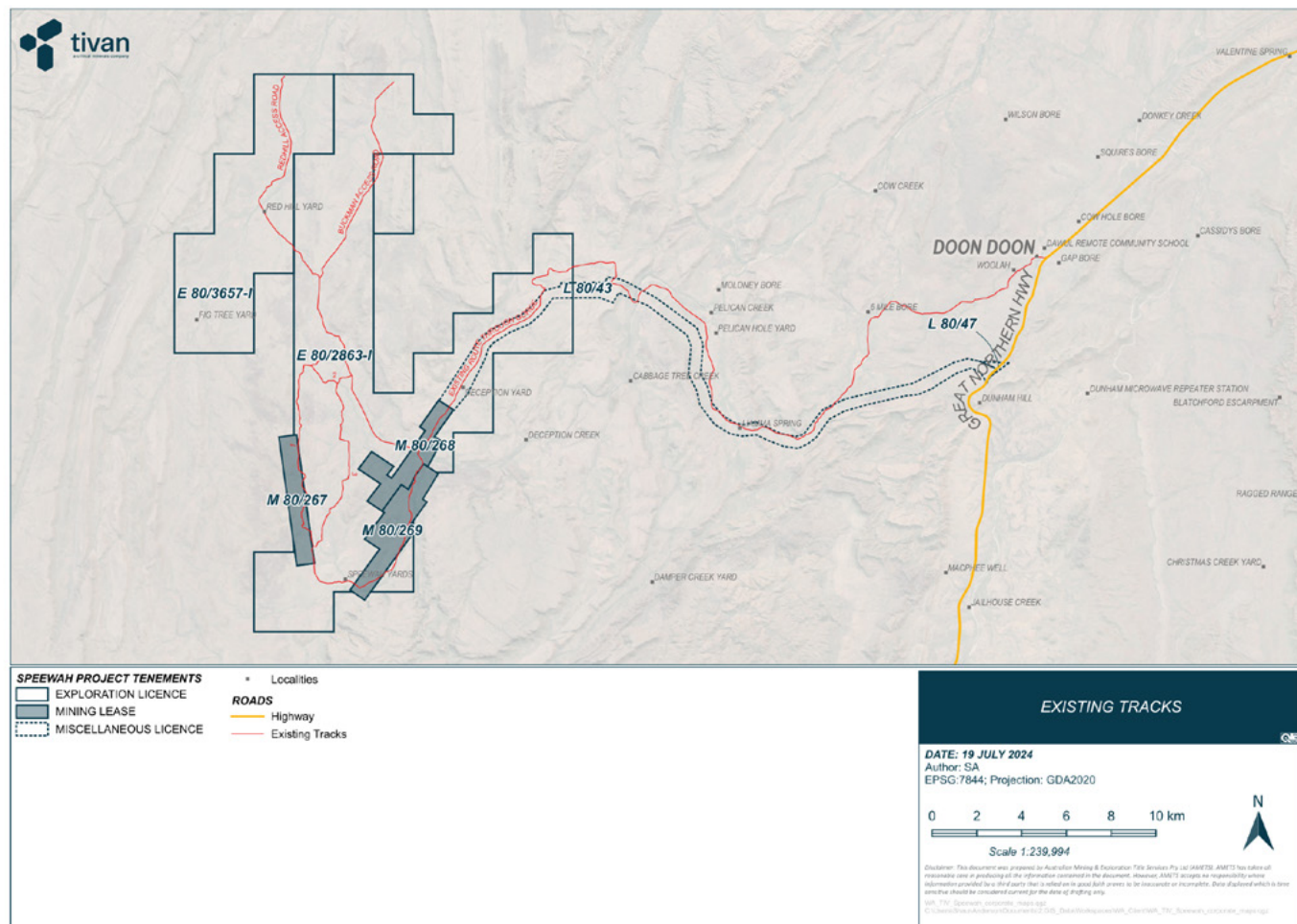


Figure 13: Speewah Fluorite Project with tenement and exploration track overlay

Mining Leases M80/268 and M80/269 contain the ABCE fluorite deposit that outcrops west of the Dunham River, and M80/267 covers the Central Structure fluorite-carbonatite occurrence at West Ridge and the West Vein fluorite prospect. The Exploration Licences E80/2863, E80/3657 and EL80/4468 cover the remainder of the Speewah Dome, plus extensions to major cross-cutting faults. The Central, Red Hill and Buckman Vanadium Deposits are within these tenements.

Table 2: Tivan Tenements at Speewah

Tenement Number	Granted	Holder	Area
E 80/2863	11/08/2003	Speewah Mining Ltd	46.0 BLKS
E 80/3657	29/01/007	Speewah Mining Ltd	17.0 BLKS
L 80/43	24/11/004	Speewah Mining Ltd	1854.0 HA
L 80/47	17/02/2006	Speewah Mining Ltd	25.0 HA
M 80/267	22/05/1989	Speewah Mining Ltd	480.2 HA
M 80/268	22/05/1989	Speewah Mining Ltd	597.2 HA
M 80/269	22/05/1989	Speewah Mining Ltd	749.0 HA

Project Background

The Project is situated within the Shire of Wyndham-East Kimberley (SWEK) Local Government Area, and all tenements reside within the single pastoralist lease of Doon Doon station, managed under sub-lease agreement with the Glen Hill Pastoral Aboriginal Corporation (GHPAC). Tivan signed a Heads of Agreement with GHPAC in May 2024, to further opportunities for regional collaboration in the area of Tivan’s Speewah Project.

The Speewah Fluorite Mining Leases, are located within a region where Native Title has yet to be determined. In December 2023 Tivan entered into a Heritage Protection Agreement (HPA) with the Kimberley Land Council (KLC). Exclusive Yurriyngem Taam (YT) Native Title has been determined to exist across access road tenements and portion of the Speewah Vanadium exploration tenements. In May 2024, Tivan entered into a second Heritage Protection Agreement with YT. Tivan has committed to work proactively with Traditional Owners to enable the continuation of exploration activities, open ongoing lines of collaborative and inclusive dialogue, and further pathways for the parties to negotiate Indigenous Land Use Agreements for the projects future transition into productive mining.

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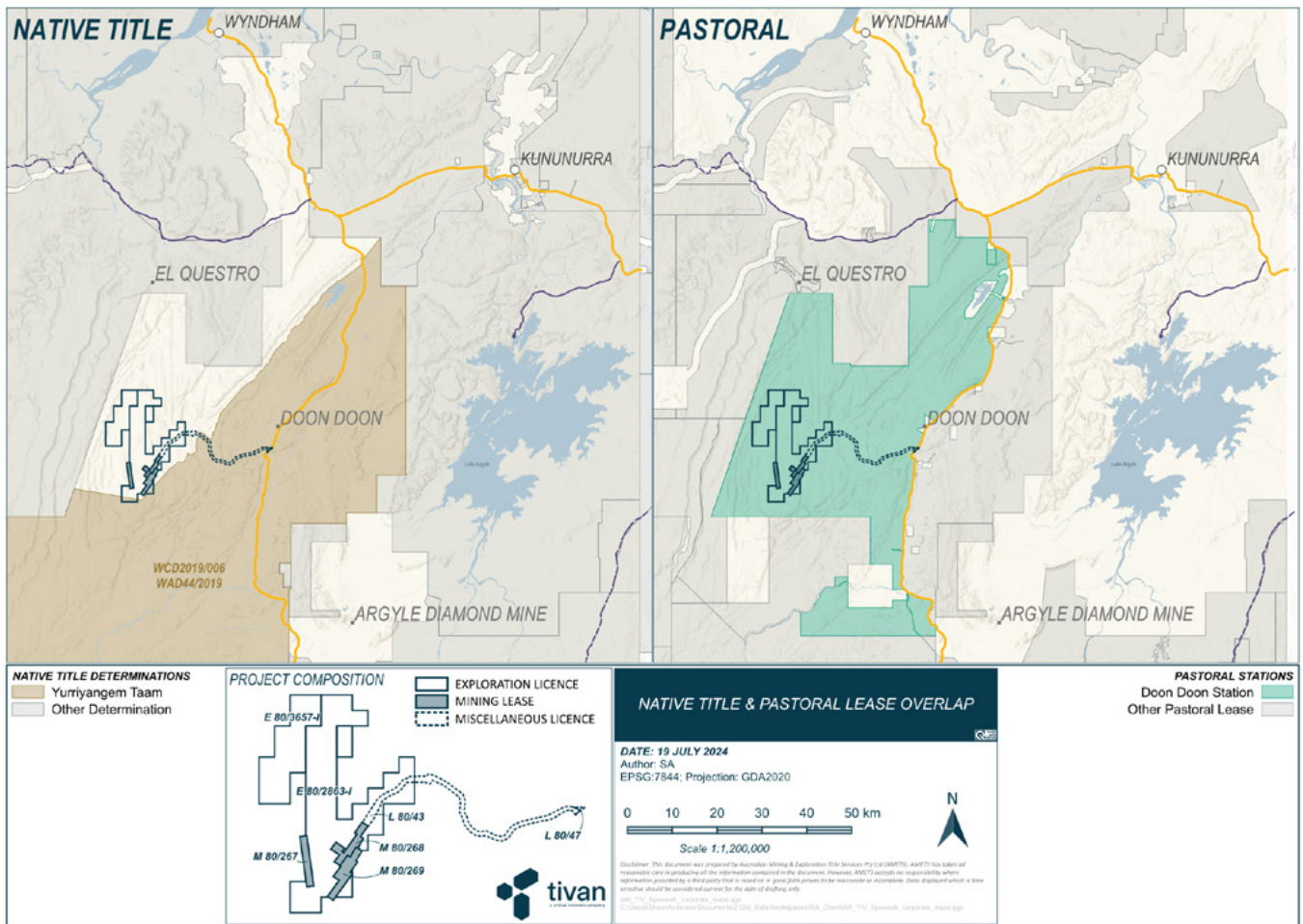


Figure 14: Tivan's Speewah tenements relative to Native Title Determination areas and Pastoral Leases

Accessibility, Climate, Local Resources Infrastructure and Physiography

The Project area is located on the eastern margin of the Kimberley Plateau within the Wunaamin Miliwundi Ranges of the Kimberley Foothills. Elevation drops from a high of approximately 600 mAHD in the Kimberley plateau to approximately 150 mAHD at the base of the valleys in the Kimberley foothills. The project area sits in the Speewah valley to the western flank of the Carr Boyd Ranges, and lies adjacent to the Dunham River, which is at approximately 175m AHD within the mining lease boundary. To the west of the Dunham, the land gently rises to a low N-S trending ridge with a maximum elevation of approximately 220m AHD.

Exploration of the project site is currently facilitated by way of 47 km of historical tracks accessed via controlled gate at Doon Doon pastoral Station, situated adjacent to the Great Northern highway. Doon Doon Pastoral Station is located adjacent to the Woolah Aboriginal Community, with population estimated at fewer than 100 people, and the Doon Doon Roadhouse which hosts a range of short term facilities and services for visitors travelling the Western Australian Kimberley region; including diesel and unleaded fuels, convenience store, kitchen, restrooms, BBQ and picnic facilities, Aswell as longer term accommodation at the Caravan Park & campground, which hosts powered, unpowered sites, and cabin sites, with camp kitchen, ablution and laundry facilities.

Once operational, the project will be accessed via 37 km on-tenement access road, with turn-off from the Great Northern highway located approximately 6km south of Doon Doon. Turnoff to the project access road will be located approximately one hours travel by road from the two nearest regional town centres; Wyndham and Kununurra. Regional centres host combined populations of approximately 6,000 people, predominately working across farming, agricultural, hospitality and tourism industries.

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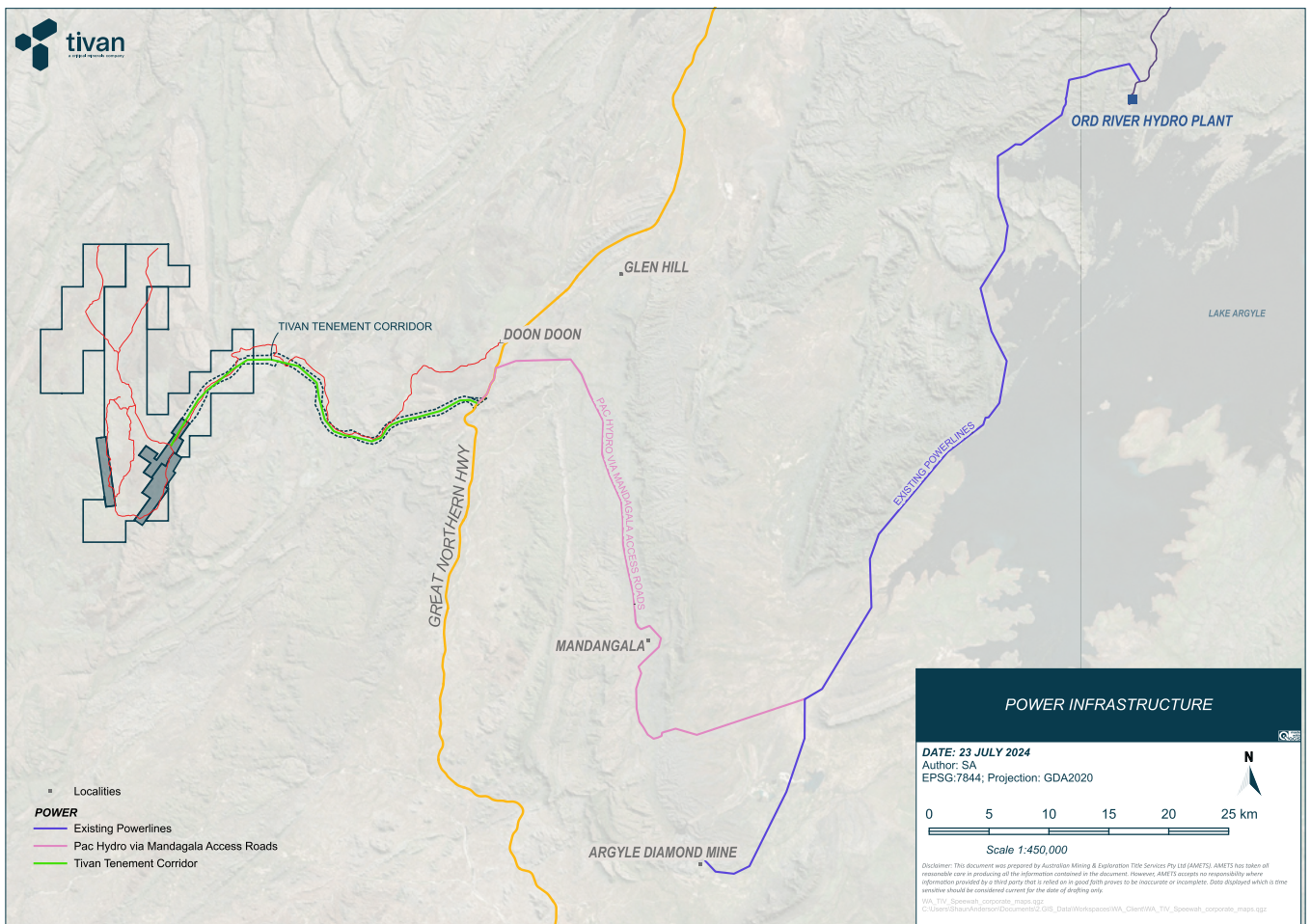


Figure 15: Speewah Fluorite Project location with respect to existing hydroelectric power supply from Ord River hydro, existing transmission lines to ADM and conceptual overhead transmission line corridor developed as part of this Study

Both towns have a strong history of support for mining projects such as the Rio Tinto Argyle Diamond Mine (ADM), Kimberley Metals Group Iron Ridge mine, Panoramic Resources Savannah Nickel Mine, and the Pantoro Limited Halls Creek Gold mine. The Port of Wyndham, owned by the Kimberley port Authority (KPA) and Operated by Cambridge Gulf Limited (CGL) provides extensive services as a key import and export facility for fuels, consumables, reagents and products for industry and retail markets. In July 2023, Tivan Signed a heads of agreement with CGL, to collaborate on opportunities to support Tivan’s Speewah Project.

The town of Kununurra provides access to a skilled local workforce, an interstate airport, service and maintenance industry, and supply chain logistics hubs. Tivan is firmly committed to identifying opportunities to maximise the local participation in its Speewah Project.

The Project is uniquely sized and located to capitalise on available capacity of renewable power from the Ord River Hydro Power plant. In May 2024 Tivan announced it had reached a Memorandum of Understanding with Pacific Hydro, owners and operators of the Ord River Hydro Power Plant and existing transmission lines to ADM, and has engaged with Horizon Power for technical and commercial planning associated with a transmission extension that would benefit both the Speewah Fluorite Project, and remote communities along new infrastructure corridors.

Speewah experiences a semi-arid climate with distinct wet and dry seasons; it borders closely on the tropical savanna climate. The dry season from April to September. The build-up season from October to December. The Summer monsoon period between January and March.

The nearest reliable climate stations at the time of the study, are located at Kachana Station (BoM Station ID: 002069; 21 km west of the project area) and Dunham River – Liamma (DWER station ID: 502019). Both stations provide good quality historical datasets (refer below The average annual rainfall (between 2000 and 2020) recorded at both Kachana and Liamma stations is approximately 1,000mm.

The Speewah project is located within a design wind Category A region and is well shielded by encircling terrain. Cyclonic conditions are not uncommon for the region, typically only 30-40% of cyclones that develop out at sea make landfall each year, and whilst the inland position of Speewah means that cyclonic winds are unlikely to impact the project, prolonged periods of rainfall during such events is likely to occur.

It is anticipated that the cumulative (groundwater and surface water) pit inflows will exceed the process and infrastructure requirements for the project.

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Speewah Climate and Rainfall

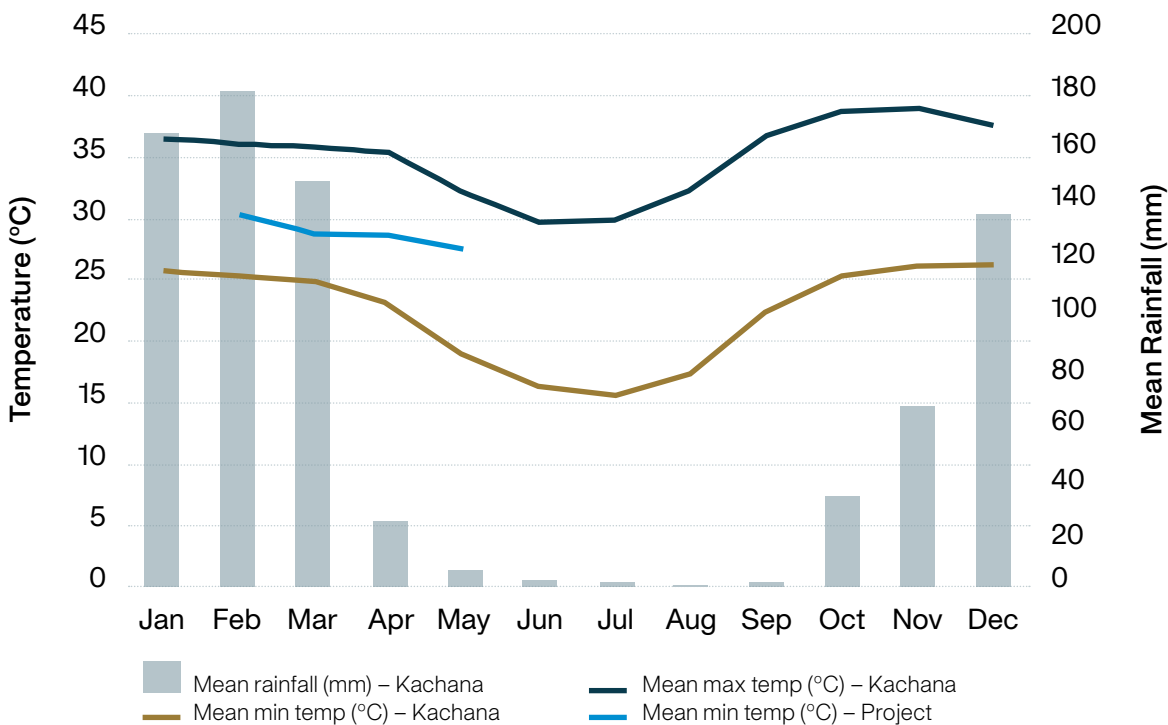


Figure 16: Mean monthly temperatures and rainfall from Kachana Climate Station

History

1900–2003

Exploration within the Speewah Valley and surrounding areas has been carried out since the early 1900s for a range of commodities, including uranium, base metals, gold, heavy mineral sands, tin, rare earths, diamonds, fluorite and barite.

Fluorite was first recorded at Speewah in 1905, and at Martin's lead mine about 20 km further north, as described by Blatchford in 1927. Much of the Speewah Valley was held by Durack and Martin under Temporary Reserves in 1927–1928 and 1946–1949, although details of exploration are not known. Fluorite mineralisation was also described in this area, 20 km north–northwest of Mount Yates (Simpson, 1951).

From 1968 to 1971, exploration for uranium by CRA Exploration Pty Ltd (CRA), and for base metals, uranium and heavy minerals by Planet Management and Research Pty Ltd was carried out over part of the ground now held by Tivan Limited. It was concluded in 1972 with no deposits of economic significance having been discovered, and the tenements were subsequently relinquished.

Great Boulder Mines Ltd and North Kalgoorlie Mines Ltd (GBNK) acquired two blocks of mineral claims in the Speewah Valley in 1972 to evaluate the potential for base metal, silver, fluorite and barite mineralisation. These areas are currently covered by mining leases M80/267 to M80/269. Exploration and drilling during 1972–1973 included 24 diamond core drill holes (2,014 m), 129 airtrack percussion holes (1,855 m) and 15 costeans (267 m) in the Main Zone area. A further diamond drill hole was unsuccessfully attempted on another vein some 5 km to the southwest at the northern end of what is now referred to as West Ridge (M80/267). Nine fluorite vein sets were identified in the Main Zone area and one vein (West Vein) in the West Ridge area; these contain assessed reserves of 1,641,000 tonnes at an average grade of 47% CaF₂ (fluorite). GBNK was taken over by Western Mining Corporation Ltd, who later dropped the ground.

During the 1970s and early 1980s, several companies, including CRA, Whim Creek Consolidated NL, Gem Exploration and Minerals Ltd, Stockdale Prospecting Pty Ltd and Stafford Holdings Pty Ltd, held various tenements in the Speewah area and carried out exploration for base metals, diamonds, tin, fluorite and barite, apparently without success.

Mining and Primary Development Pty Ltd (Mining and Primary) took out three exploration licences (E80/446 to E80/448) in 1984 over the Speewah fluorite deposit and the other known fluorite and barite occurrences in the Speewah Valley. Mining and Primary's research suggested that fluorite mineralisation may be indicative of areas prospective for gold mineralisation. Elmina NL (Elmina) acquired the tenements from Mining and Primary in 1987 and carried out a review of previous exploration. This was followed in 1988 by a program of gold and base metal reconnaissance sampling in target areas defined by interpretation of remotely sensed data, west of the Main Zone fluorite mineralisation.

In 1989, Elmina established a grid over the Main Zone and compiled and reinterpreted previous drilling data. After upgrading of the access road, a drilling program comprising 1,809 m in 33 reverse circulation (RC) holes (including four diamond (NQ) core tails of 130 m) was undertaken. Elmina's objective was to bring the project to a stage where a decision to mine could be made, to take advantage of an improvement at that time in global fluorite markets.

Samples from the drilling and from outcrop were composited and submitted to Nedpac Engineering Pty Ltd (Nedpac) for preliminary metallurgical testwork. Nedpac carried out a computer-based geostatistical resource estimate in 1990, which delineated a resource of 3.87 Mt at 25% CaF₂ above the -60 m level (below the river datum). Nedpac also provided 'door knob' estimates of mining and processing costs. In 1990, Elmina commissioned Gemell Mining Engineers to carry out an order-of-magnitude cost study on the Speewah deposit, and several options were investigated. A valuation on the preferred mining option was carried out.

Following the decline in the global fluorite market in 1990–1991, Elmina continued to evaluate various marketing and mining scenarios including potential value-adding processing options. However, Elmina decided not to progress any of these.

In 1995, acid-grade fluorite prices improved to US\$150–155 per tonne CIF (cost, insurance and freight). This encouraged Elmina to re-evaluate a fluorite operation and update the pre-feasibility study for a 65,000 tpa acid-grade fluorite plant supplying domestic (10,000 tpa) and export markets. In 1996 and 1997, strong expressions of interest from end-users of acid-grade fluorite in Japan and North America encouraged Elmina to re-examine the study for a 100,000 tpa operation. This work showed that more fluorite needed to be delineated by drilling and Elmina therefore focused its efforts on obtaining funding for a bankable feasibility study that would include the additional reserve drilling.

Exploration and research undertaken between 1993 and 1998 in association with University of Western Australia (UWA) geology Honours and PhD projects showed the fluorite mineralisation to be related to carbonatite and the associated quartz veining and alteration to be indicative of a high-level epithermal system with potential for gold, silver and base metal mineralisation (Alvin, 1993; 1998). The research studies investigated fluid inclusions in fluorite, and whole-rock geochemistry

History

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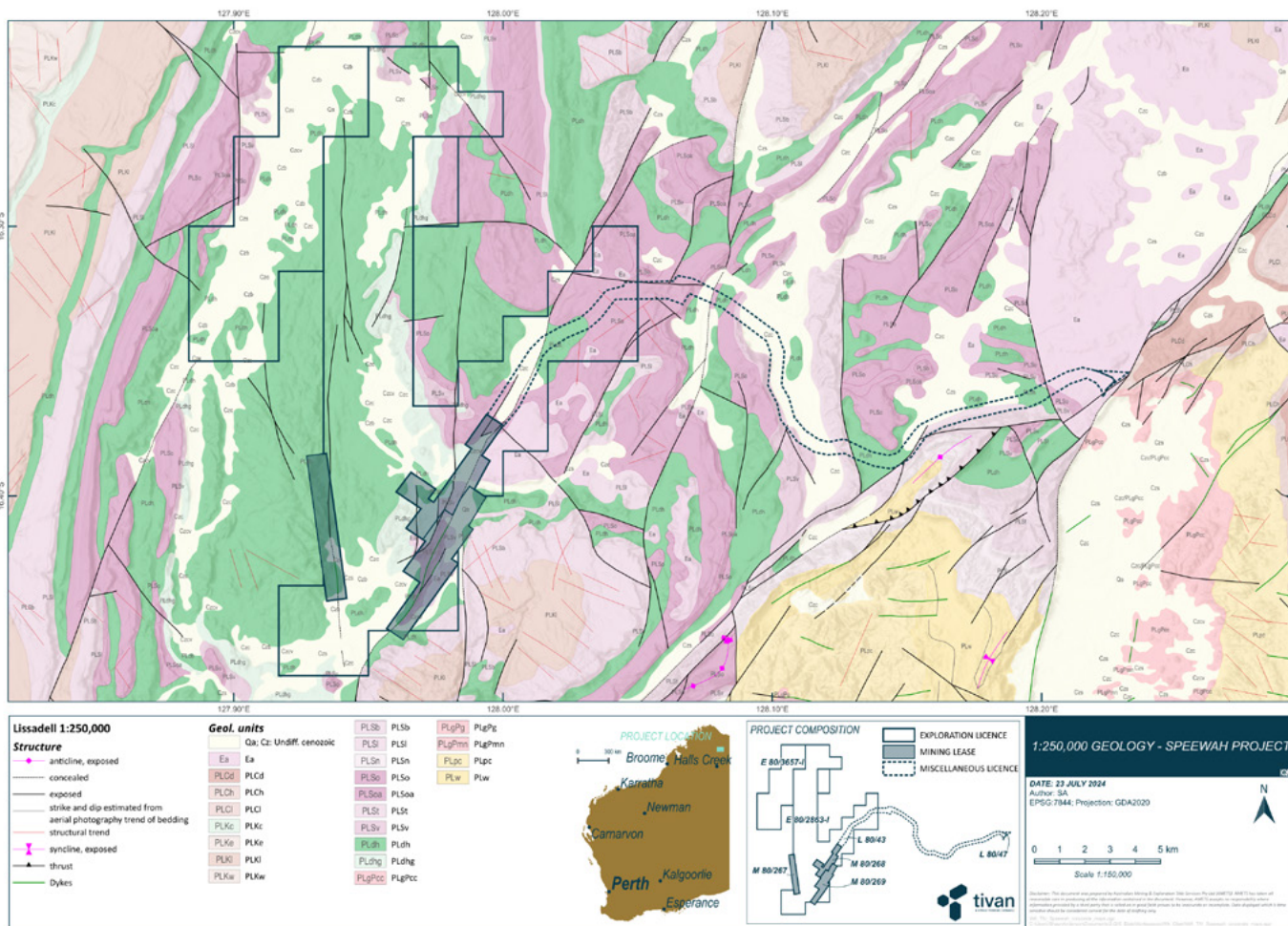


Figure 17: Geology of Speewah

and geochronology studies to determine relationships of the main dolerite, the granophyre, a carbonatite dyke and the known mineralisation. These studies, which concluded early in 1998, also identified additional fluorite vein systems.

Between 1996 and 1998, Elmina compiled a GIS database of all the historical base metal, vanadium, uranium and diamond exploration data (stream sediment and gravel sample geochemical and mineralogical data, soil and rock sample geochemistry), reinterpreted NOAA and Landsat TM (Thematic Mapper), airborne magnetic and radiometric data, and updated the drill hole database.

In 1999, Elmina became a technology-focused company and changed its name to Quadrant Iridium Ltd (Quadrant). In 2000, a new resource estimate was completed by Ravensgate Pty Ltd (Ravensgate), giving a global in-situ resource for the ABC deposit as 3.85 Mt at 25% CaF₂ using a 10% CaF₂ cut-off. Ravensgate concluded that further infill drilling was required to upgrade the estimate to Measured, Indicated and Inferred categories in accordance with the Australasian Code for Reporting of Mineral Resources and Ore Reserves (September 1999).

Speewah Metals purchased the tenements from Elmina in 2002 with a view to funding a bankable feasibility study on the fluorite resource. After completion of regional 1:500 scale geological mapping and rock chip sampling, 15 RC holes were drilled into the ABC, D, E and G vein systems to assess the confidence of previous resource drilling as well as the potential for the delineation of further resource tonnes.

The resource estimate completed by Speewah Metals gave an inferred resource of 4.7 Mt at 24.4% CaF₂ using a 10% CaF₂ bottom cut. This estimate was subsequently verified by Resource Evaluations Pty Ltd, resulting in an upgraded resource of 6.2 Mt at 26.4% CaF₂ also using a 10% CaF₂ bottom cut. Neither of these estimates were reported to the specifications and guidelines stipulated within the JORC Code (2004).

Based on these resources, Speewah Metals undertook preliminary metallurgical testwork and market studies prior to entering into a farm-in joint venture agreement with Doral in September 2003.

2003–2024

In 2003–2004, a series of diamond holes, SDH001 to SDH009, were drilled systematically across the main A and B vein system nominally to collect metallurgical samples. Core photography and high-quality hand-drawn, extensively annotated geological logs were completed, which provide the best set of information consistently across all programs from 1970 to the present. Unfortunately, systematic downhole interval assays were not taken and only metallurgical composite assays from some holes are available. However, the graphical logs recording 1 m interval downhole visual observations of fluorite content were recorded in bar chart form in 5% CaF₂ increments. SRK has entered these in the database and the visual observations of CaF₂ grade averages have proven to be remarkably close to the respective individual estimation domain averages when compared to other phases of drilling. This series of diamond holes is also the source of the density data used for the current (2024) estimate.

The ABC vein system was drilled by Doral/Speewah Metals in 2003–2004 to provide an Indicated and Inferred Mineral Resource of 4.4 Mt at 23.6% CaF₂ using a 10% CaF₂ cut-off. Further drilling in 2007 resulted in a 25% upgrade to the Mineral Resource estimate (completed in 2008) to 5.5 Mt at 24.5% CaF₂ using a 10% CaF₂ cut-off.

Diamond core drilling by NiPlats Australia Limited (NiPlats) for the 2008 field season was undertaken to investigate the potential for iron oxide copper-gold (IOCG)-style copper + gold mineralisation beneath the ABC fluorite vein system and test whether the fluorite system extends at depth or is associated with carbonatite source rocks.

A total of 11,541 RC samples from both fluorite and vanadium exploration were submitted to Ultra Trace Laboratories in Perth for analysis during 2008. Drill samples from the ABCE fluorite deposit were assayed for F, Fe₂O₃, K₂O and P₂O₅ using X-ray fluorescence (XRF) and for As, Bi, Ag, Ca, Cu and Pb using mixed acid digest with an inductively coupled plasma (ICP) finish.

Widespread reconnaissance outcrop mapping across a large part of the Speewah project area was undertaken during 2008. This included the subdivision of part of the Speewah Sill into several mappable units. Observations of rock type at each outcrop were classified according to the new mapping units, and localities were recorded using Garmin GPS 76CSx hand-held GPS units. This information, combined with the GSWA Lissadell 1:250,000 mapsheet, was used to create (1) an updated 1:250,000 geological map for the Speewah tenements, (2) a 1:100,000 geological map for Central prospect, and (3) a 1:10,000 map of West Vein prospect. In 2009, Speewah Metals drilled a further 6 RC holes mainly targeting fluorite at depth in the southern part of the deposit. These holes appeared to close off the B Vein mineralisation at elevations ~50 mRL, approximately 150 m below surface.

In 2008–2011, Speewah Metals, using a grant from the WA Department of Mines and Petroleum's Exploration Incentive Program, and drilled a series of deep (700 m) stratigraphic holes beneath the A and B fluorite veins, targeting IOCG copper and gold but also testing for fluorite. The A and B fluorite veins were found at depth approximately 450 m from surface, with true widths ranging from <1 m to approximately 3.5 m.

In 2009, Runge Limited completed a Mineral Resource for NiPlats based on drilling up until 2008. Additional shallow RC drilling and deep diamond was completed during 2009 by Speewah Metals, but a Mineral Resource estimate was not undertaken.

Between 2012 and 2018, King River Copper drilled 7 holes on the eastern periphery of the resource area, targeting IOCG mineralisation. Some of the holes intercepted minor fluorite mineralisation grading at <10% CaF₂.

In 2018, CSA Global re-reported the 2009 Mineral Resource (unchanged) for King River Resources as part of a 2018 Scoping Study, without incorporating the post-2008 drilling results.

Acquisition of the Speewah Project by Tivan

Tivan acquired the Speewah Project from King River Resources in February 2023, for consideration of \$20 million in cash and shares equivalent. Tivan's principal focus in 2023 was to advance the Speewah Vanadium Titanomagnetite Project.

Following the inclusion of fluorine on the Critical Minerals List in December 2023, Tivan announced it was progressing the renamed Speewah Fluorite Project in January 2024. This Study represents the first major milestone delivered by Tivan for the Project.

Geology

Geological Setting and Mineralisation

The Speewah fluorite deposit occurs on the western edge of the Halls Creek Mobile Zone and on the southeast side of the Speewah Dome (folded Early Proterozoic units of the Kimberly Block). The King River Fault forms the eastern margin of the Kimberly Block and consists of a series of intersecting faults. Fluorite mineralisation is predominantly hosted by north-northeast and northeast trending faults within the King River Fault, with minor occurrences along north-trending normal faults within the Speewah Dome.

The Early Proterozoic Valentine Siltstone and Lansdowne Arkose of the Speewah Group host most of the mineralisation and outcrop as linear north-northeast trending ridges. These sediments dip 10 to 20 degrees to the southeast.

Fluorite veins have been mapped in three areas known as the Main Zone, West Zone and Central Zone. In the Main Zone, at least nine vein sets have been mapped over a strike length of 8 km. These contain the strike-continuous A-B-C veins, and the less understood D-E-F-G veins, Cross and South vein sets.

The predominantly white-fluorite mineralisation occurs mainly within tabular steeply dipping veins showing very good strike continuity. The veins range in thickness from 1 to 10 m, often flanked by lower grade stockwork and stringer veins, forming an envelope up to 50 m wide.



Figure 18: Fluorite specimens from diamond drill core of the Speewah Fluorite Resource showing typical colour variations.
Photo Credit: Stephen Walsh

Fluorite is associated with quartz-feldspar veining but is younger. It occurs in the various settings previously discussed and listed below:

- Large, persistent veins occupying the main north and northeast trending structures
- Fault breccias and brecciated veins occupying the main structures
- Stockworks and breccias hosted preferentially by the sandstone and to a lesser extent by the dolerites adjacent to the main structures
- En echelon vein sets trending northwest between structures
- En echelon vein sets trending northeast (rare)
- Thin, persistent veinlets following jointing mainly in the siltstones (rare)
- Thin, persistent veinlets following bedding planes in the siltstones (rare)



Figure 19: Outcropping fluorite at the southern extent of the existing resource. Photo Credit: Stephen Walsh

The larger veins range in true thicknesses of up to 15m and are up to 800m long. They have similar persistence occurrence down dip within the faults and have been intersected in several holes as deep as 400m below the surface, but are only approximately 0.5 m wide at that depth. The stockworks tend to occur adjacent to the main faults and are predominantly hosted by the brittle sandstone unit, although reasonable stockwork veining sometimes occurs in the dolerites. Best fluorite intersections occur where the main north trending faults contain fluorite in the form of veins and breccias, and the adjoining wall rocks (usually hanging wall) contain sandstone-hosted stockwork veining. The en echelon vein systems usually have a lower density of veining than the stockwork and hence a lower fluorite grade globally.

The fluorite veins are younger and crosscut the earlier quartz-feldspar veins. They often form co-axially in the center of the quartz-feldspar veins and as vug fill within them and in the matrix of quartz-feldspar vein breccia. Later carbonate veins crosscut all earlier features. Carbonate and quartz also infill voids in the fluorite veins, and occasionally quartz veinlets cut across fluorite veins.

The fluorite is predominantly green to white in colour, with less common purple-coloured fluorite. In outcrop, it weathers to a grey-white colour. It is generally coarsely crystalline, often with euhedral crystals infilling open spaces. The green-coloured fluorite appears to be younger than the purple variety.

Resource Estimates

2024 Mineral Resource Estimate

The Mineral Resource Estimate (MRE) was last reported in 2009 and re-reported without change in 2018. Tivan identified that since 2009, additional drilling and exploration work had been completed by the previous resource owners. This provided the opportunity to update the resource using existing data that had not been previously incorporated. Subsequently, Tivan commissioned SRK to complete an updated Mineral Resource Estimate for the Speewah Fluorite Project in 2024.

SRK reviewed, validated and incorporated additional historical data that had not been used in the 2009 estimate. Changes to the estimate were due to incorporation of the additional data and an improved interpretation of structure, lithology and grade distribution. This enabled an increase to both overall tonnage and the indicated proportion of the Mineral Resource.

The increases were primarily driven by the following factors:

- The ability to link along-strike veins that were previously disconnected.
- Addition of material on the eastern structures.
- Increased confidence in continuity along strike and down dip from both new drilling, mapping and validated historical data.
- Additional material within a previously unmodelled low-grade sandstone/siltstone lithology to the east of the main resource.

The successful Mineral Resource estimate update resulted in an Indicated and Inferred Resource of 37.3 million tonnes at 9.1% CaF₂ (2% CaF₂ cut-off grade) containing 3.39 million tonnes CaF₂; with ~62% of the resource tonnage in the Indicated category. This confirms Speewah as one of the largest high grade Fluorite resources globally. The Mineral Resource estimate includes a high-grade component of 8.6 million tonnes at 22.8% CaF₂ (10% CaF₂ cut-off grade) containing 1.95 million tonnes CaF₂. The Resource update represents a 37% increase in tonnage at a 2% CaF₂ cut-off grade, and a 28% increase in tonnage at a 10% CaF₂ cut-off grade, compared to the prior resource estimate in 2018.

Table 3: Drill collar count and total metres for collars within the resource area

Company	Start year	Phase	Number of Holes	Metres
GBKN	1972	SB 1972	15	86
GBNK	1972	SVA 1972	100	1482
GBNK	1972	SVD 1972	24	2683
Elmina	1989	SF_1989	31	1738
Speewah Metals	2002	SRC1-16 2002	15	965
Doral/ Speewah Metals	2003	SDH2003_4	11	1341
Doral/ Speewah Metals	2003	SRC17-96 2003_5	80	6450
NiPlats	2006	SDH08 2006_7	2	1296
NiPlats	2006	SRC97-192 2006_7 South	37	3787
Speewah Metals	2008	SRC193-298 2008	31	5838
Speewah Metals	2009	SDH0x 2009_11	16	3622
Speewah Metals	2009	SRC407-515 2009_10	6	853
King River Copper	2012	KRRC 2012_18	7	1260
Total			375	31401

Source: SRK 2024. Speewah fluorite Mineral Resource update

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Table 4: Speewah Fluorite Project – Mineral Resource Estimate 2024

Mineral Resource 2% cut-off		Mt	%CaF ₂	kt CaF ₂
Vein	Indicated	3.1	31.4	987
	Inferred	1.9	25.3	488
Vein Sub Total		5.1	29.1	1,475
Stockwork	Indicated	20.0	6.3	1,264
	Inferred	12.2	5.3	652
Stockwork Sub Total		32.2	5.9	1,916
		Indicated	23.2	2,251
		Inferred	14.1	1,139
Total		37.3	9.1	3,390

Inclusive of

High Grade Mineral Resource 10% cut-off		Mt	%CaF ₂	kt CaF ₂
Vein	Indicated	3.1	31.8	982
	Inferred	1.8	26.2	481
Vein Sub Total		4.9	29.7	1,464
Stockwork	Indicated	2.7	13.4	363
	Inferred	0.9	13.3	124
Stockwork Sub Total		3.6	13.4	487
		Indicated	5.8	1,345
		Inferred	2.8	605
Total		8.6	22.8	1,950

Source: SRK

1 Differences in totals may occur to rounding.

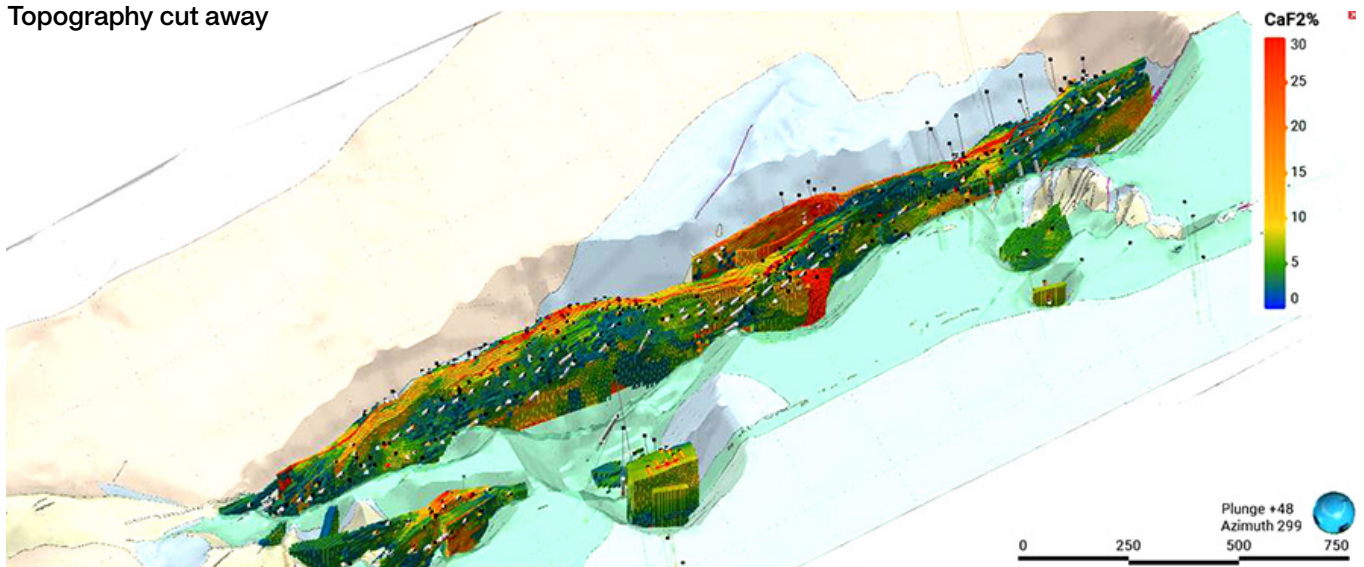
2 The 2% cut-off is based on a USD600 Fluorite (CaF₂) average price from Q1 2024 and Revenue Factor of 1.5

3 The 2% cut-off Mineral Resource is inclusive of the 10% High Grade resource

4 The Mineral Resource is reported within a constraining Revenue Factor 1.5 pit shell based on a USD600 Fluorite price

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Topography cut away



Source: SRK

Figure 20: Lithology; drill collars. All block model (veins and stockwork) coloured by CaF₂%

The resulting Mineral Resource estimate is displayed as a Grade Tonnage curve in Figure 21.

Grade Tonnage Curves

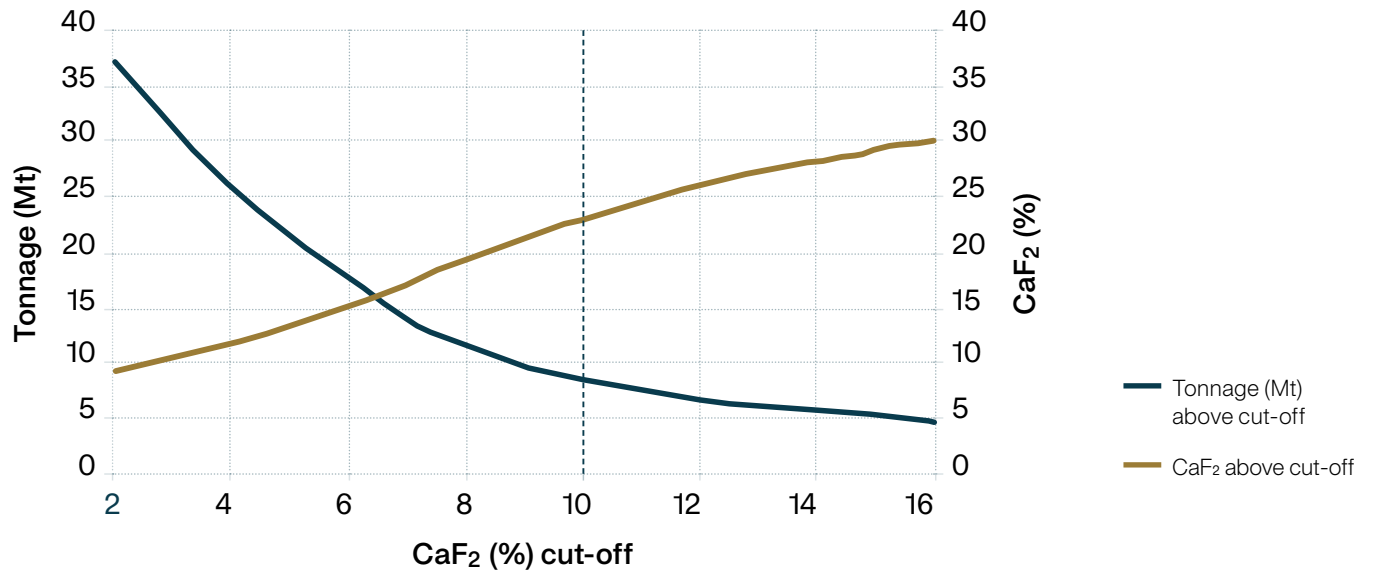


Figure 21: All Indicated and Inferred

Source: SRK

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Figure 22: Speewah Fluorite veins in drill core. Photo Credit: Tivan

Exploration

Historical Drilling

Over the years, substantial drilling campaigns have been conducted over the Speewah Fluorite deposit, reflecting a concerted effort to explore and evaluate its mineral potential. These extensive drilling programs have meticulously mapped the deposit's geological features, leading to a thorough understanding of its mineralization. The culmination of this rigorous exploration activity is the current Mineral Resource estimate, which provides a detailed and accurate assessment of the deposit's size, grade, and economic viability. This resource estimate not only underscores the significant value of the Speewah fluorite but also highlights the progress made through sustained exploration and development efforts, paving the way for future mining operations.

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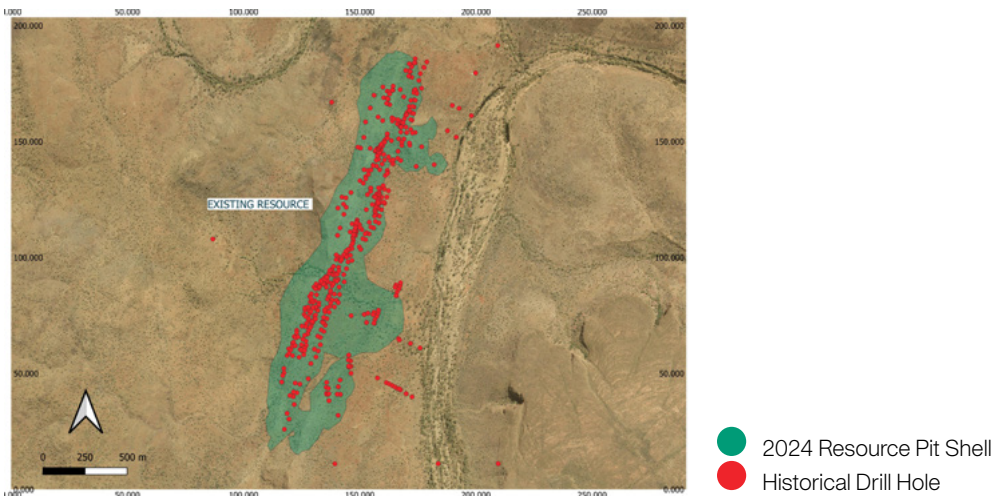


Figure 23: Historical exploration drilling completed across the Speewah Fluorite Resource

Exploration

A multistage exploration strategy has been developed for the Speewah Fluorite Project to expand and enhance the existing resource as well as explore Exploration Targets* within the current exploration leases held by Tivan. Planned across five stages, each stage will focus on specific targets and areas as a combination of exploration and resource development.

Tivan engaged SRK consultants to complete an Exploration Target* for the Speewah Fluorite Project. SRK reviewed the available drilling, surface sampling, mapping data and historical reports to generate a series of prospective exploration areas to be evaluated for inclusion in the Exploration Target*.

The Exploration Target* outlined by SRK is deemed conservative, as it encompasses only 22% of the total prospective strike length within the project area. This indicates that a significant portion of the project's potential remains unexplored, leaving room for substantial future discoveries and development. Tivan has also identified a number of additional highly prospective areas which will be incorporated into the multistage exploration program.

Only areas informed by drilling that contain high-grade (>30% CaF₂) intersections were chosen to be included in the Exploration Target*, and these have been categorized by their proximity to the current resource. These targets were selected as they represent the most well-informed areas that have similar characteristics to the current resource. The areas included in the Exploration Target* have a cumulative strike length of 13.1 km.

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Exploration

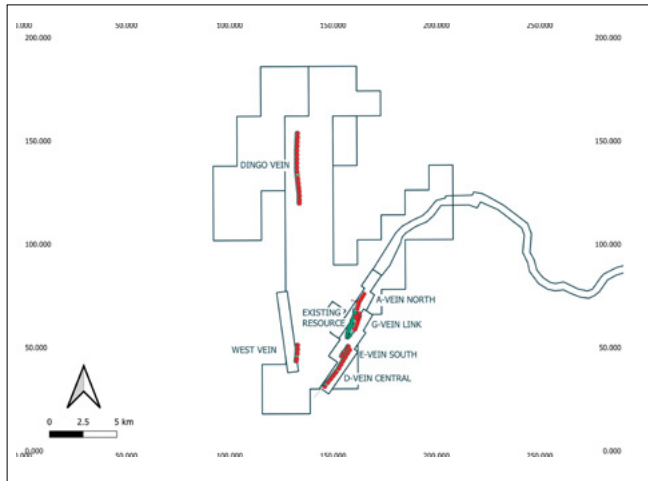


Figure 24: Exploration Target* areas in proximity to existing resource.

The Exploration Target* for the Speewah Fluorite Project has a range of 8.4 – 17 Mt grading between 6% CaF₂ and 10% CaF₂. Exploration target ranges shown below in Table 5. Specific exploration target ranges are listed in relevant exploration stage sections. The extensive exploration target and the substantial prospective strike length highlight the considerable upside potential for resource growth through continued exploration and development drilling. These factors underscore the project’s promising future, as ongoing and future drilling activities are expected to significantly expand the current resource base. This potential for growth reinforces the value of the exploration efforts and positions the project for significant advancements.

Table 5: Total Exploration Target* Ranges

Target	Cut-off (%CaF ₂)	Lower Tonnage (Kt)	Upper Tonnage (Kt)	Lower Grade (%CaF ₂)	Upper Grade (CaF ₂)
Total	2%	8400	17000	6%	10%
Inclusive of	10%	1900	3900	16%	26%

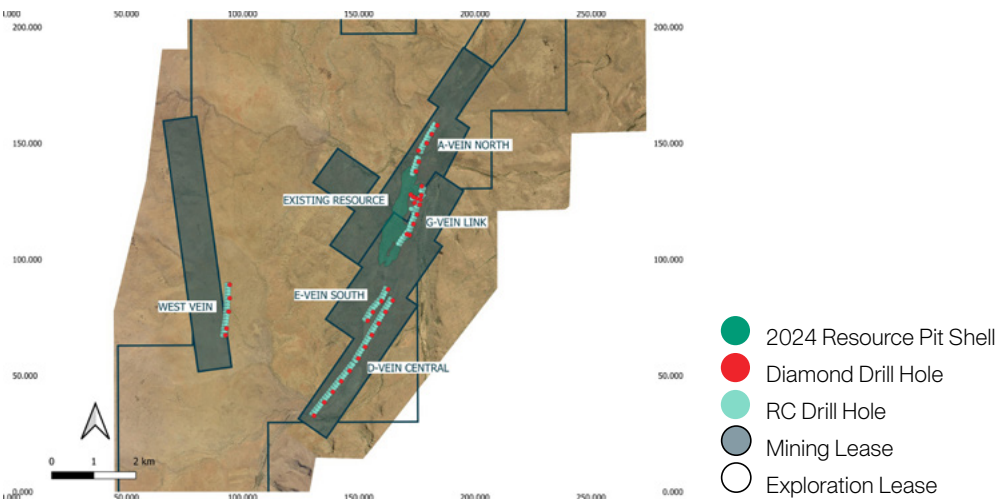


Figure 25: Overview of near mine exploration planned around the Speewah Fluorite Resource

Throughout the exploration stages, resource development drilling will also be completed, aimed at upgrading a sizeable portion of the current resource from the inferred to indicated category. This transition is crucial for enhancing the reliability and accuracy of the to be calculated reserve estimate. This upgrade will not only bolster the confidence in the resource base but also pave the way for a more substantial reserve estimate, thereby supporting future mining and development plans. Nominal spacing for drilling to achieve an indicated category is 40m. An infill program will be designed based on this spacing to upgrade the resource.

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

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Exploration

Stage 1

A comprehensive drilling campaign for 2024 is planned to commence in Q3 2024. The program is a multiple purpose campaign, focusing on near mine exploration and resource development.

Near mine exploration is the highest priority in order to expand the existing resource. This will focus on two primary targets in close proximity to the existing Speewah Fluorite Resource and are considered to be direct extensions of the existing resource. A-Vein North and G-Vein link are Exploration Targets* to the north and east respectively of the existing resource. The targets had been previously identified as extensions of the existing resource and were included by SRK when defining the exploration target.

G-Vein Link

G-Vein Link is a targeted link between two existing veins which are included in the 2024 Mineral Resource Estimate. G-Vein link is considered a high priority target as it lies in close proximity to the existing resource pit shell. Successful definition of the G-Vein Link exploration target would result in up to a 6.44% increase to the existing resource.

A-Vein North

A-Vein North is a targeted extension of the A-Vein, which comprises a major part of the existing resource. A-Vein is shown to extend North along strike under cover. The resource no longer outcrops at this point and is considered open to an unknown extent. Successful definition of the A-Vein North will confirm the resource does in fact continue along strike. Definition of the A-Vein North would result in up to a 5.9% increase to the existing resource.

Table 6: Stage 1 Exploration Target* Ranges

G-Vein Link	2%	1,200	2,400	5.5%	9.5%
Inclusive of	10%	280	550	14%	24%
A-Vein North extension	2%	1,100	2,200	8.0%	12%
Inclusive of	10%	250	500	20%	30%

Planned Drilling

Based on the Exploration Targets* defined by SRK, Tivan has designed a comprehensive exploration program to target the resource extensions outlined above. The program will consist of Reverse Circulation (RC) and Diamond drilling. Drill spacing is designed on an 80m spacing to convert the Exploration Target* to an Inferred Mineral Resource. This spacing offers an optimal balance for maximizing value while achieving high-resolution data acquisition. The chosen interval ensures comprehensive coverage and enhances the precision of the geological model, facilitating accurate categorization into the inferred resource category. This strategic approach not only supports efficient resource evaluation but also aligns with industry standards for high-quality data collection.

Table 7: Stage 1 Exploration Drilling Summary

Target	RC Holes	RC Metres	Diamond Holes	Diamond Metres	Total Holes	Total Metres
G-Vein Link	67	6255	8	2000	75	8255
A-Vein North	47	4185	6	1500	53	5685
Total	114	10440	14	3500	128	13940

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Exploration

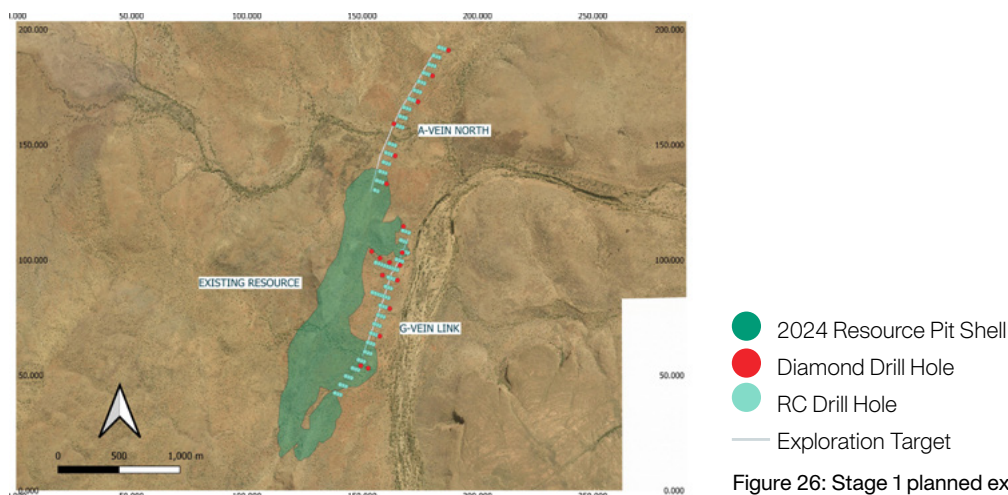


Figure 26: Stage 1 planned exploration drilling

RC Holes are planned in a fence configuration to intersect the Exploration Targets* at three different target depths. Diamond holes account for ~10% of the total drill holes and are strategically distributed throughout the drilling areas for the maximum benefit to the program. Several holes are also planned to test the undrilled zone between the main ore body and the parallel Exploration Targets*. Historic drilling has predominantly targeted outcropping zones whereas these holes will test the continuity of the ore body under cover and determine if additional veins or mineralisation are present. The previously unmodelled low-grade sandstone and siltstone lithology which these drill holes target, presents a promising new dimension to our geological understanding of the area. This previously overlooked area offers significant potential for resource expansion. Its integration into our models could significantly enhance our resource estimates and overall project viability. Future stages will also target this area. If this area contains economic mineralization, it could play a pivotal role in bridging the gap between the main resource and the proximal veins to the east. This would provide substantial advantages by significantly increasing the overall resource base. The resultant continuity in mineralization would enable more efficient mining optimization and planning. Furthermore, the potential for an expanded economic pit shell would not only enhance the project's feasibility but also extend the mine life, leading to greater long-term profitability and operational sustainability.

Approvals

DMIRS

The Mining Act 1978 requires that a Programme of Work (PoW) is lodged and approved before conducting any ground disturbing activities with mechanised equipment. A Programme of Work is a comprehensive plan that must be submitted and approved before any ground-disturbing activities using mechanised equipment can begin. The PoW includes detailed descriptions of the proposed activities, the geographic location and layout, and the methods and machinery to be employed. It also involves a thorough environmental impact assessment, outlining potential effects on the environment and proposed mitigation strategies. Additionally, the PoW requires documentation of community and stakeholder consultations to address any concerns. Once submitted, the Department of Mines, Industry Regulation and Safety (DMIRS) reviews the PoW for compliance with legal and environmental standards, ensuring that mining activities are conducted responsibly and sustainably. Tivan submitted a PoW to DMIRS on 11 July 2024 and anticipates an expedited approval without conditions.

Traditional Owners

Tivan has signed two Heritage Protection Agreements (HPAs) with the Kimberley Land Council Aboriginal Corporation (KLC) to protect heritage and native title rights for the Speewah Project. The agreements outline the following:

- Exploration Activity Protocols: Guidelines to minimize the impact on Heritage and Native Title Rights through planning, approval, monitoring, and rehabilitation of exploration activities.
- Collaborative Dialogue: Continuous communication between Tivan, KLC, Traditional Owners, and Native Title Holders, with economic participation provisions during the project development phase.
- Future Agreement Pathway: Frameworks for negotiating further agreements for transitioning to productive mining.

Tivan submitted a HIA notice to the KLC in June 2024. This approval marks significant steps forward for the Speewah Project, emphasizing Tivan's commitment to respectful and inclusive engagement with Traditional Owners and Native Title Holders. Tivan will continue to submit HIA notices for all exploration related activities at Speewah.

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Stage 2

Stage 2 exploration program is a multi-purpose campaign, focusing on near mine exploration and resource development. This stage will focus on two Exploration Targets*, E-Vein South and D-Vein Central. These are considered proximal to the existing resource and are treated as near mine exploration. An 80m optimal drill hole spacing will be used as per previous stages. Both Reverse Circulation (RC) and Diamond drilling will be used. Successful definition of Exploration Targets* in Stage 2 would result in up to a 11.29% increase to existing resource. Furthermore, Stage 2 will complete further infill drilling to test the area between the main resource and the proximal veins. Minimal drilling has been completed in the area. This will reinforce the work completed in Stage 1 and offer further insight to the continuity of the ore body undercover.

Table 8: Stage 2 Exploration Target* Ranges

Target	Cut-off (%CaF ₂)	Lower Tonnage (Kt)	Upper Tonnage (Kt)	Lower Grade (%CaF ₂)	Upper Grade (CaF ₂)
E-Vein South	2%	60	110	12%	16%
Inclusive of	10%	10	30	30%	40%
D-Vein Central	2%	2100	4100	5%	9%
Inclusive of	10%	470	950	12%	22%

Table 9: Stage 2 Exploration Drilling Summary

Target	RC Holes	RC Metres	Diamond Holes	Diamond Metres	Total Holes	Total Metres
E-Vein South	36	3240	4	1000	40	4240
D-Vein Central	126	11340	11	2570	137	14090
Total	162	14580	15	3750	177	18330

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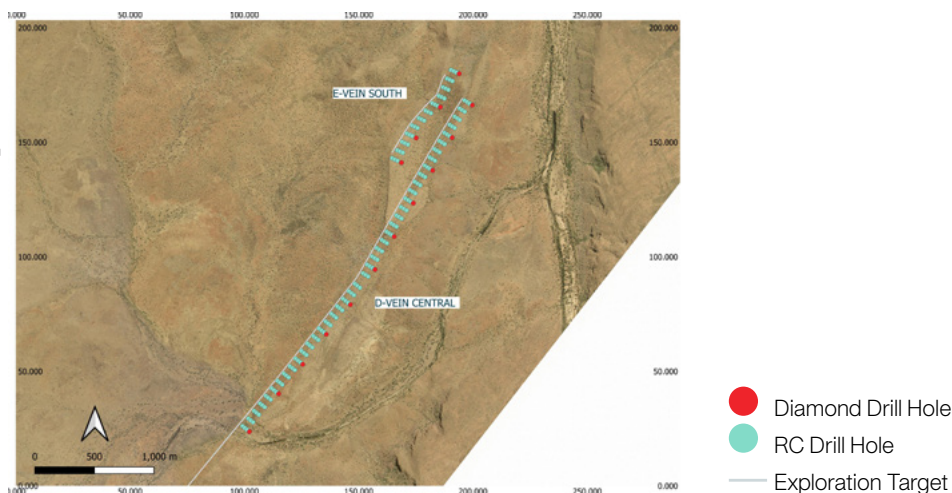


Figure 27: Stage 2 planned exploration drilling

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Stage 3

Stage 3 exploration seeks to add a significant upgrade to the existing resource. The primary focus of stage three is to target mineralisation of the southern extents of the Dingo Vein, with secondary focus on completing infill resource drilling. An 80m optimal drill hole spacing will be used as per previous stages. Both Reverse Circulation (RC) and Diamond drilling will be used. The Dingo Vein lies in the northern portion of Tivan Exploration Lease E80/2863. This was identified as part of the Exploration Target* definition and offers the largest potential increase to the resource – 7mt or 18.76% resource uplift. The Dingo Vein is a mapped continuation of the West Vein. The Dingo Vein lies approximately 15km from the existing resource. Due to its extensive regional scale, the exploration of the Dingo Vein will be conducted in two stages. The initial drilling of the southern extents is anticipated to yield valuable geological insights, enabling more precise targeting of the northern portion. This approach aims to enhance the overall success rate of the exploration efforts. Approximately 50% of the target is aimed to be achieved through Stage 3 drilling, with the remainder to be completed in Stage 5.

Table 10: Dingo Vein Exploration Target* Ranges. Stage 3 targets approximately 50% of the overall target

Target	Cut-off (%CaF ₂)	Lower Tonnage (Kt)	Upper Tonnage (Kt)	Lower Grade (%CaF ₂)	Upper Grade (CaF ₂)
Dingo Vein	2%	3500	7000	6%	10%
Inclusive of	10%	810	1600	15%	25%

Table 11: Stage 3 Exploration Drilling Summary

Target	RC Holes	RC Metres	Diamond Holes	Diamond Metres	Total Holes	Total Metres
Dingo Vein South	84	7560	8	2000	92	9560
A-Vein South	36	3240	0	0	36	3240
Total	120	10800	8	2000	128	12800

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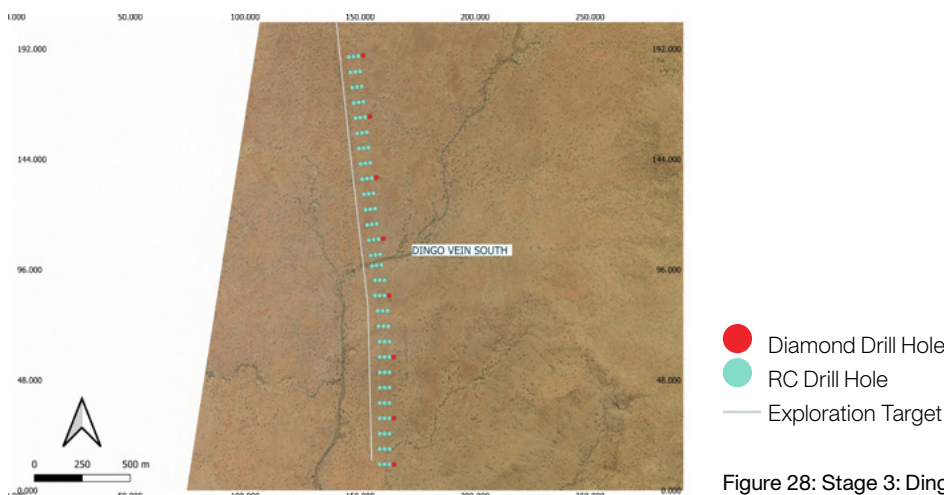


Figure 28: Stage 3: Dingo Vein South planned exploration drilling

Stage 3 exploration will also target an area not defined in the 2024 Exploration Target*; therefore, no potential grade and tonnage ranges are given. Mineralisation extends along strike to the south of the existing resource. Stage 3 will target the southern extension of the A-Vein, referred to as the A-Vein South. By stage three, extension surface sampling results will be available to inform drill targeting for the A-Vein South. Drilling is planned on a 160m spacing with RC only. Anticipating successful results, future infill drilling will be completed on a tighter spacing to achieve indicated or inferred categorization, with diamond drilling also implemented at this stage.

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Exploration

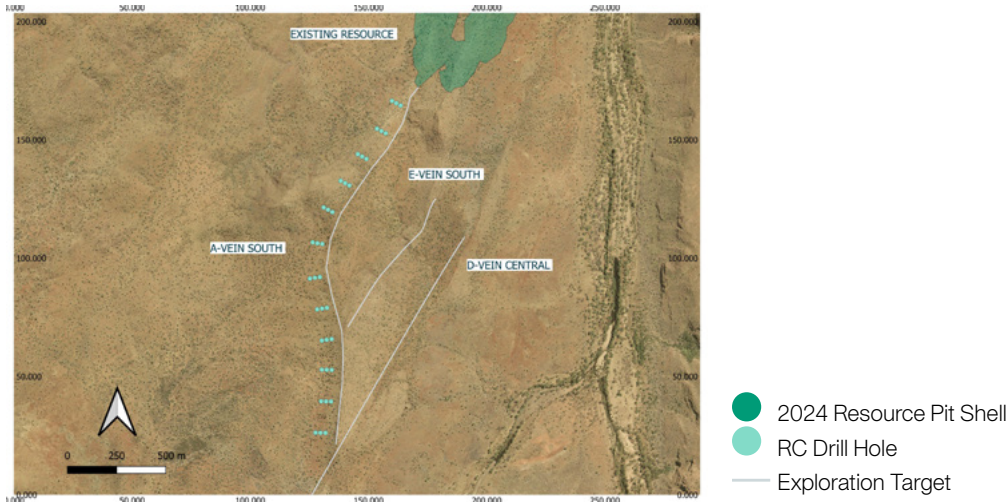


Figure 29: Stage 3: A-Vein South planned exploration drilling

Stage 4

Stage 4 will target the West Vein and resource development drilling. The West Vein is a previously drilled target located approximately 3km south-west of the existing resource. Previous drilling achieved a number of High-Grade intercepts. Fluorite veining is significantly narrower than the main resource, albeit at an exceptionally higher average CaF₂ grade.

Successful definition of Exploration Targets* in Stage 3 would result in up to a 2.57% increase to existing resource.

Table 12: West Vein Exploration Target* Ranges

Target	Cut-off (%CaF ₂)	Lower Tonnage (Kt)	Upper Tonnage (Kt)	Lower Grade (%CaF ₂)	Upper Grade (CaF ₂)
West Vein	2%	480	960	10%	14%
Inclusive of	10%	100	220	25%	35%

Table 13: West Vein Exploration Drilling Summary

Target	RC Holes	RC Metres	Diamond Holes	Diamond Metres	Total Holes	Total Metres
West Vein	48	4320	5	1250	53	5570

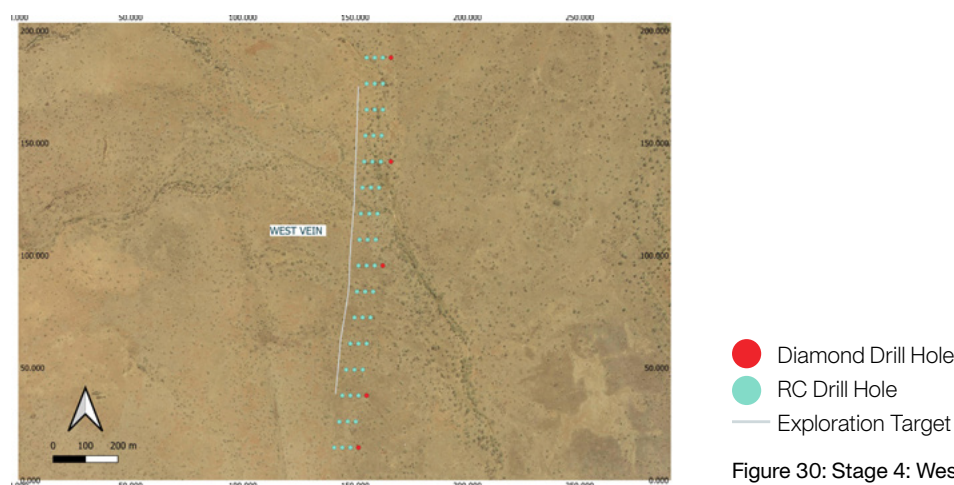


Figure 30: Stage 4: West Vein planned exploration drilling

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

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Exploration

Targeted resource development drill holes around the existing resource will be designed as the geological model and Mineral Resource estimates evolves over time and is informed by prior exploration stages. Tivan anticipates up to 10,000 metres of RC and Diamond drilling for resource development in Stage 4.

Stage 5

Stage 5 exploration will comprise of drilling the northern extents of the Dingo Vein, resource development drilling and further near mine exploration. Based on expected success in previous stages, the focus of this stage will be to upgrade the previous Exploration Targets* from an inferred to indicated category, for including in the Mineral Reserve Estimate. In parallel with this, Dingo Vein North will be drilled out as per the second half of the Exploration Target*. This stage will provide confirmation if the Dingo Vein is open along strike and does in fact continue further north on Tivan exploration leases.

Table 14: Dingo Vein Exploration Target* Ranges. Stage 5 targets approximately 50% of the overall target.

Target	Cut-off (%CaF ₂)	Lower Tonnage (Kt)	Upper Tonnage (Kt)	Lower Grade (%CaF ₂)	Upper Grade (CaF ₂)
Dingo Vein	2%	3500	7000	6%	10%
Inclusive of	10%	810	1600	15%	25%

Table 15: Dingo Vein North Exploration Drilling Summary

Target	RC Holes	RC Metres	Diamond Holes	Diamond Metres	Total Holes	Total Metres
Dingo Vein North	117	10530	10	2500	127	13030

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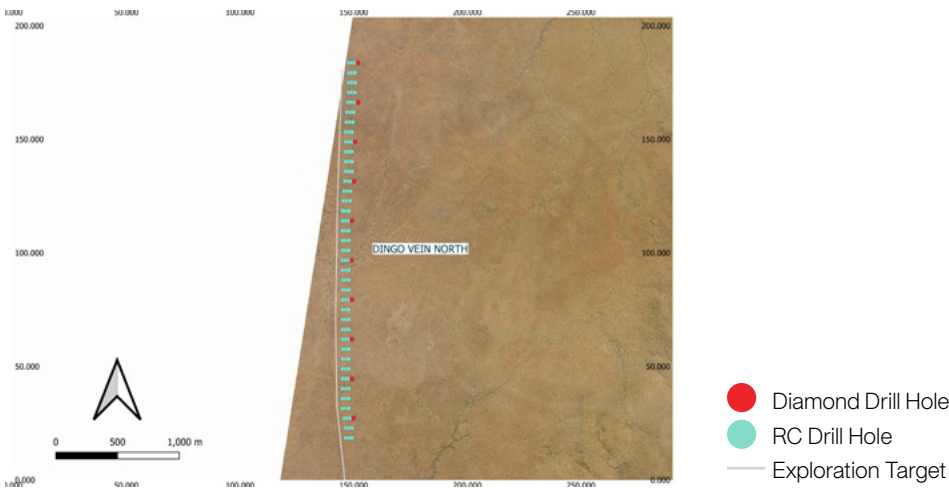


Figure 31: Stage 5: Dingo Vein North planned exploration drilling

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Surface sampling

As surface sampling is instrumental in defining segments of the Exploration Target*, Tivan plans to conduct additional surface sampling in prospective areas along the strike where no previous sampling has been completed. Tivan anticipates that this new sampling, combined with planned exploration drilling, will enable a future re-estimation of a larger Exploration Target*. The Exploration Target* is expected to be updated annually to reflect the ongoing results and insights gained from these activities, thereby ensuring a systematic progression along the resource upgrade pathway.

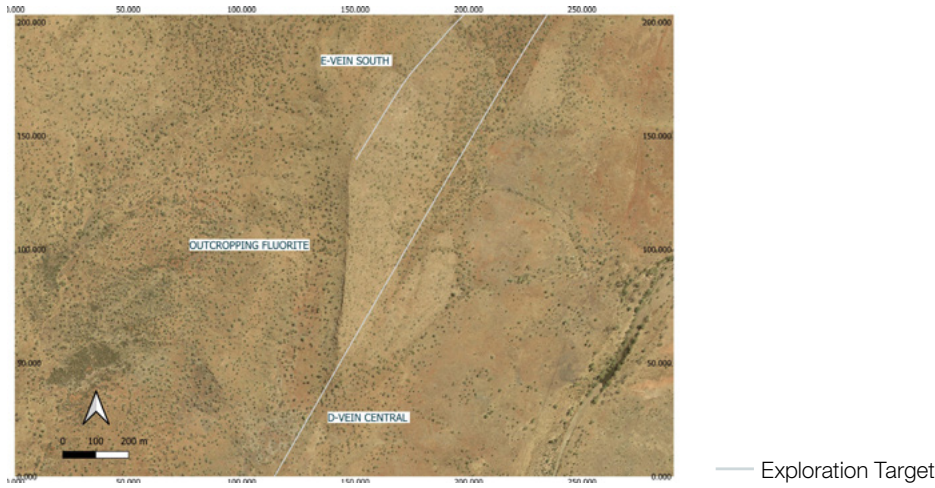


Figure 32: Outcropping Fluorite for planned surface sampling

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Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Reserve Estimates

An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified (JORC 2012).

Reserve modelling is a crucial component in project planning as it provides a detailed assessment of a resource's economic viability. By integrating geological, geophysical, and hydrological data, reserve models help predict the quantity and quality of the resource, guiding investment decisions and project design. These models facilitate scenario analysis, risk assessment, and optimization of extraction methods, ensuring efficient resource management. Furthermore, accurate reserve modelling supports regulatory compliance and enhances stakeholder confidence by providing a transparent and quantifiable basis for project development, ultimately contributing to the project's long-term success.

The Feasibility study undertaken by Tivan on the Speewah Fluorite will serve to identify and classify the key modifying factors which can be primarily used in the calculation of ore reserves. Modifying factors will be determined after diligent consideration of all mining, metallurgical, infrastructure, social, environmental, governmental and financial aspects of the operation. As the 2024 Mineral Resource estimate only contains indicated and inferred material, the reserve will be calculated from the Indicated material only. The Inferred Mineral Resources carry a low level of geological confidence, and there is no assurance that further exploration will upgrade these to Indicated Mineral Resources. Further detailed exploration is required to enhance resource classification and project certainty.

The declaration of the Speewah Fluorite Ore Reserve Estimation will be based on the Company's internal studies which demonstrate economic viability of the orebody. The Ore Reserves classification will reflect the Competent Person's view of the deposit. Tivan predicts that only Probable Ore Reserves will be declared and will be based on Indicated Mineral Resources following consideration of modifying factors.

Metallurgical Testwork

With the acquisition of the Speewah Fluorite deposit, Tivan received a dataroom of historical testwork data. The historic data describes work performed on high grade vein ore composites and a composite with blended high grade vein ore and low grade stockwork ore. Lycopodium reviewed the metallurgical database as an early activity in the Study, where applicable the results from the testwork have been utilised for the Study design.

The capacity for Tivan to perform new testwork has been limited due to a lack of available metallurgical or drilling samples. The previous work was also >20 years old and not all reagents from the old testwork programs are manufactured in 2024. Due to these limitations Tivan have approached the new testwork program with an aim to first evaluate a set of optimised conditions from the Ammtec (2004) testwork program with replacement reagents.

Historic Testwork

The testwork programs executed by the previous owners are summarised in Table 16.

Table 16: Historic Testwork Programs

Laboratory	Year	Description
Nedpac Engineering (Nedpac)	1989	High-grade composite flotation and gravity separation testwork
Independent Metallurgical Laboratories (IML)	1991	High-grade composite flotation testwork
Amdel	2003	High-grade flotation testwork and gravity separation testwork
Amdel	2004	Blended HG/LG ore composite gravity separation testwork
Ammtec	2004	Blended HG/LG ore composite comminution and flotation testwork

The historic testwork has investigated the following areas:

- Comminution characteristics of the ore
- Gravity concentration
- Flotation

The final testwork program for the project (Ammtec 2004) utilised diamond core, the remaining programs all utilised RC as the sample source. In all testwork programs composites were prepared from samples across the deposit, therefore, no variability work has been performed for the Project. The hole locations for samples utilised in the testwork programs are presented in Figure 33.

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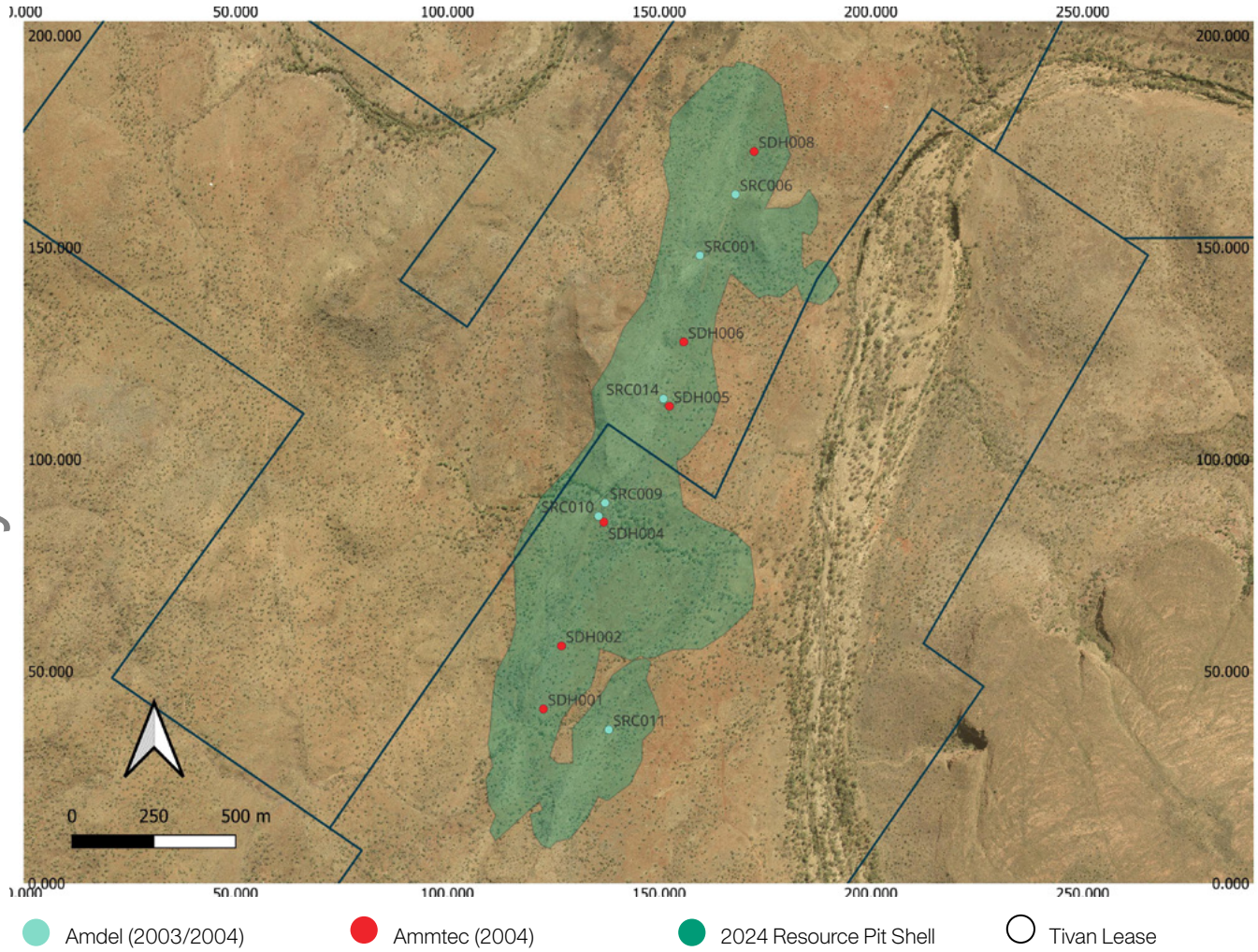


Figure 33: Historical metallurgical hole locations

The Nedpac and IML testwork programs were conducted on a composite prepared from 27 RC samples across the A, B and C veins of the Resource. The holes the 27 samples originated from have not been documented in the reports received by Tivan and are therefore not shown in Figure 33.

Gravity Separation

Gravity separation testwork from the programs indicated that the fluorite can effectively be upgraded with high recovery while rejecting a large proportion of gangue minerals. There is an opportunity to modify the Study process flowsheet by incorporating a gravity separation step to reduce the load on the mills. This opportunity will be considered in testwork on new diamond drilling samples obtained for Feasibility Study and Definitive Feasibility Study testwork.

Comminution

Comminution testwork was performed in the Ammtec 2004 program. The data showed that the ore is abrasive with strength and hardness properties that support the amenability to SAG milling. The comminution testwork is the only area which included some deposit variability, however, more variability testing will be conducted for subsequent study phases.

Flotation

Batch flotation testwork has been the major focus of previous testwork campaigns for the preparation of acidgrade fluorspar. Thirty-eight flotation tests have been conducted on the Speewah ore and of these, twenty-five trials also included a cleaner stage. Optimal results from each of the programs are presented in Table 17.

Table 17: Optimal Flotation Results – Historic Testwork Programs

Laboratory	Test #	Feed Grade	Grade	Recovery
		CaF ₂ (%)	CaF ₂ (%)	CaF ₂ (%)
Nedpac	PGH 251	40.2	95.2	93.8
IML	PGH 367	41.3	98.6	90.3
Amdel*	QHG 1, QHG 2, QHG 3, DHG 1, DHG2, DHG 3	QHG – 41.4 DHG – 46.5	98.8	Not reported
Ammtec	RG 5708	21.6	96.8	92.9

*multiple trials composited to produce market samples

The flotation testwork has broadly looked at many variables for the flowsheet including:

- Collectors and depressant selection
- Reagent dosing
- Rougher and cleaner conditioning and flotation times
- Grind size

High grade testwork by IML and Amdel comfortably achieved the target fluorite grade and impurity limits for commercial fluorspar products. The final product from the Ammtec program was very close to the target CaF₂ grade of 97%.

A notably positive outcome of the historic flotation work is the low arsenic content in the final fluorspar concentrates. The typical product specification for acidspar has a very tight limit of 3 ppm arsenic. Arsenic within the Speewah Resource has been measured at a relatively low-mean composition of 3 ppm (see Table 18). The maximum arsenic assay within the pit shell was 31 ppm, promisingly arsenic assays which were significantly above the mean (3 ppm) were isolated metres and no higher-grade arsenic zones were identified in the Resource in a review by SRK. Importantly, the IML and Amdel testwork demonstrated that the arsenic in the orebody is being rejected by the flotation process. Arsenic has only been measured in the IML and Amdel programs, the assays were performed on final concentrate samples and in both cases arsenic was below the limits of detection (IML <1 ppm, Amdel <3 ppm), demonstrating that arsenic was rejected in the optimal trials for those programs.

Table 18: Element Assay Statistics – Open Pit Design

Analyte	Holes	Assay Count	Mean (ppm)	Maximum (ppm)
As	33	1364	3	31

Acidspar is named for its primary application which is the production of hydrofluoric acid. Arsenic levels in acidspar can materially increase hydrofluoric acid production costs due to additional cleaning requirements. Arsenic is problematic with some of the worlds largest fluorspar deposits, where the asset owners cannot achieve the tight specification for acidgrade fluorspar due to physical separation limitations that are inherent to the orebodies. The Speewah Resource advantageously has a low arsenic composition and historic flotation testwork has demonstrated rejection of the arsenic bearing minerals.

The past flotation testwork utilised a variety of different samples, flotation flowsheet configurations and reagent suites. Tivan are planning testwork programs and drilling programs to validate the updated process design in the Study. These programs will also address opportunities for design modifications and recovery/grade optimisation.

Tivan are working with Sumitomo Corporation to deliver Speewah acidspar product specifications that are aligned with end-user requirements.

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Tivan Testwork

Master composite sample from the Ammtec (2004) testwork program was received in plastic bags in a sealed drum as part of the Project acquisition. Tivan has conducted testwork this year utilising this composite to verify past flotation testwork, acquire SAG mill comminution (SMC) data and support planning for further testwork. Due to uncertainty regarding the origin of the samples and potential chemical changes to the stored samples between 2004 and 2024, the main purpose of this program was to support testwork for new drill core planned to be acquired this year. The aims of the program were as follows:

1. Obtain SMC data to support SAG mill selection and design
2. Compare flotation outcomes with Ammtec (2004) results to assess the following:
 - a. Is the remaining composite suitable for follow-up optimisation testwork
 - b. Find suitable replacements for reagents utilised in 2004 that are no longer manufactured
 - c. Obtain detailed mineralogy of the flotation products to assess opportunities for optimisation of product grades and recoveries

All testwork for the program was performed with ALS Metallurgy. The mineralogy work is still in progress, with results anticipated to be received in August.

Head assays on the sample confirmed that the composition closely resembled the head assays from the Ammtec (2004) testwork program and the SMC report confirmed both the selection of a SAG mill for the process flowsheet and the design parameters selected for the SAG mill.

Flotation

The flotation testwork was a batch program which emulated the best trial from the Ammtec testwork program. The flowsheet included sulphide flotation, rougher flotation and cleaner flotation. Rougher tests were conducted in a 4.4 L flotation cell and the cleaner tests were conducted in 4.4 L and 2.2 L flotation cells using the reagent scheme and conditions defined in the Ammtec (2004) testwork program.

The rougher flotation results were very good, achieving up to 99.5% fluorite recovery with 70% mass rejection of gangue to the tails. The rougher flotation results were close to the outcomes from the Ammtec (2004) program, validating the selected collector for the testwork program.

The cleaner flotation results were also considered to be good, achieving 89.1% fluorite recovery and a similar CaF₂ grade. For a first pass trial with the old sample and new reagents, the result is a positive outcome which met the goals for the program. An outcome of this testwork program was fewer cleaner stages to reach the similar grade and recovery, the closest comparable cleaner result is shown in Table 19. As this is a single result, further work will be required to establish the preferred conditions with the new commercially available reagents.

Table 19: Ammtec (2004) Versus Tivan (2024) (Cleaner Flotation)

Laboratory	Test #	Feed Grade	Grade	Recovery
		CaF ₂ (%)	CaF ₂ (%)	CaF ₂ (%)
Ammtec	RG 5708	21.6	96.8	92.9
Tivan	GJ21 18	20.3	96.1*	89.1

*assay result was 95.5%. See JORC Section 2 for details on correction applied to assay result.

The results from the flotation work are a solid baseline from which Tivan can now optimise the flowsheet in the next testwork phases.

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Figure 34: Fluorite cleaner concentrate from Tivan (2024) testwork program. Photo Credit: Alex Botterill

Forward Works

The Study has been progressed based on historic testwork and assumptions. The new design requires validation with a targeted testwork program utilising fresh ore samples from the deposit. This will be initiated as drill core becomes available.

Importantly, the 2024 testwork program has validated the plan to utilise the remaining composite sample to perform flotation optimisation testwork. This work will be performed in parallel with the drill campaign planning and execution to provide feedback for the testwork program on the drill core.

The flotation optimisation testwork on the remaining composite sample will include the following:

- Grind size, reagent selection and reagent dose optimisation
- Flotation condition optimisation
- Product specification and product recovery optimisation.

In parallel, the 2024 drilling program planned for Q4 will obtain 18 PQ diamond holes for variability and larger scale testwork programs to support the FS and DFS studies.

Feasibility Study and Definitive Feasibility Study scopes of work will include the following:

- Metspar by-product development works
- Gravity separation opportunity investigation
- Comminution variability testwork
- Flotation variability testing to confirm deposit recoveries and grades
- Flotation locked cycle testing
- Large scale testing to satisfy scale up factors for plant design
- Materials handling testwork
- Thickening and filtration testwork
- Vendor testwork
- Geochemical characterisation for environmental approvals
- Geophysical characterisation for tailings design.

Mining

Cautionary Statement

The Production Target (and forecast financial information derived from the Production Target) referred to in this report is underpinned by Indicated Mineral Resources of approximately 95% and Inferred Mineral Resources of approximately 5% over the life-of-mine evaluation period. Production scheduling assumes plant feed from Inferred Resources primarily during production years 2 to 4, and then later in the schedule in years 8 to 10. The first four years of the Production Target is underpinned by approximately 93% Indicated Mineral Resources and 7% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself (or the forecast financial information) will be realised. Refer also to the other disclaimers throughout this report.

As part of this Study, SRK completed a conceptual open pit mine study of the Speewah Fluorite deposit based on the April 2024 Updated Resource model. The key objectives of the mine study were to:

- Adequately define and describe the required mining methods to be employed by the mining operations
- Complete initial pit optimisation and undertake review of economic sensitivities
- Undertake strategic scheduling to inform economic modelling

Mining Methods

A conventional open pit mining method using 120t excavators and 40-60t articulated dump trucks was selected as the preferred mining method. All aspects of the mining operation, supervision, grade control and planning has assumed to be undertaken by an Owner’s team, all material will be drilled and blasted, and mining will be conducted in 5 m benches. Due to the small material movement, and size of the machines employed, mining operations aim to maximise recovery through use of good selective mining practises.

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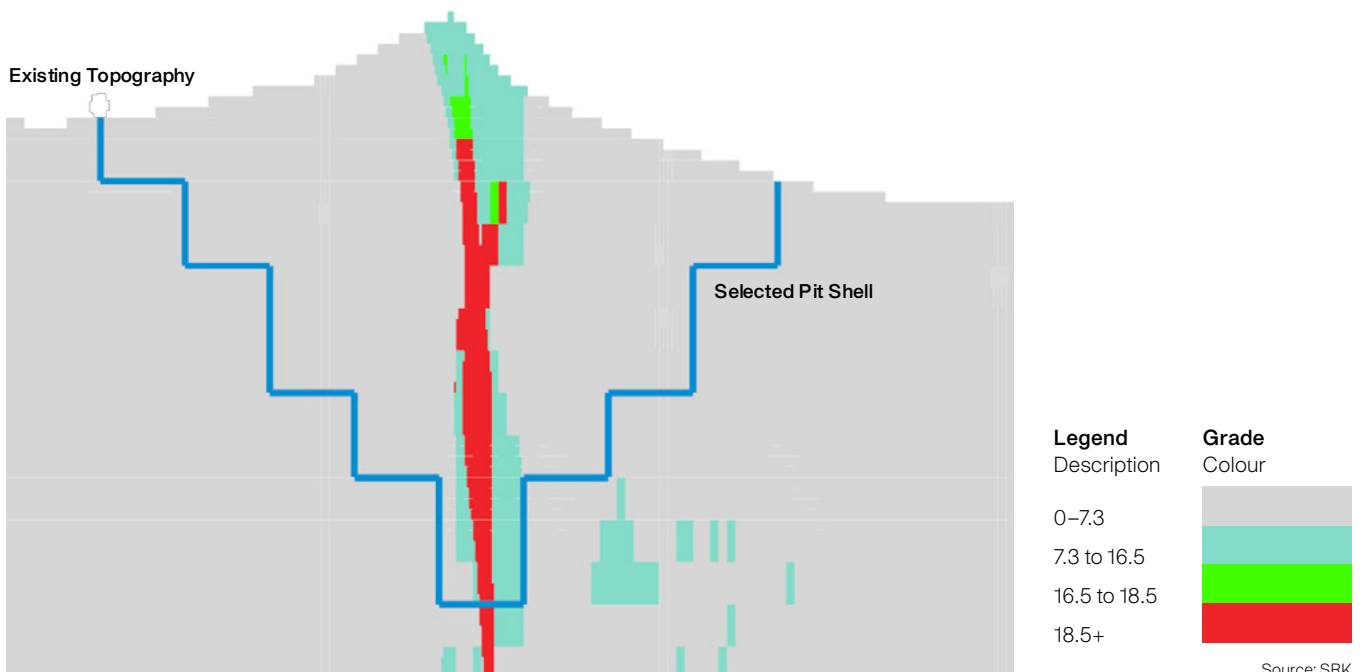


Figure 35: Cross sectional view of the Speewah fluorite resource

Pit Optimisation

SRK undertook open pit optimisation with a key objective to assess the economic pit extents and to understand the economic and physical characteristics of the deposit. Optimisation has considered Indicated resources, pricing, recoveries and other modifying factors.

Sensitivity analysis was conducted on processing costs and mill throughput, with the key objective to determine impact on the open pit inventory and cashflow based on variation to process plant arrangement. The pit shell representing Revenue Factor (RF) of 1.0 was selected based on the business objectives of maximising the discounted cash flow whilst maximising Life of Mine in the Study. As a result, the shell selected was based on a revenue factor of 1.0 providing for a mine life of 10.6 years. This decision was supported by the knowledge that planned resource drilling of exploration targets would result in a new resource estimate for the FS. The results of open pit optimisation for the selected pit shell are presented in Table 20 below.

Table 20: Mine Parameters – Optimised Pit Shell

Revenue Factor	Mine Life (years)	Strip Ratio (wste/Ore)	Avg. Grade (%CaF ₂)	Total Mined (Mt)	Total Waste (Mt)	Total Ore (Mt)
1.00	10.6	3.9	17.2	39.7	31.7	8.4

Mine Scheduling

The proposed mine schedule for the Project is shown below in Table 21 and Figure 36. The target process rate of 0.8Mtpa mill feed has been set, and a resulting 4Mtpa mining operation defined.

Mining has been scheduled to be completed under a two-shift day & night, with a 15 days on, 6 days off roster. Utilising a single digger and loader operation, six haul truck fleet, and a grade binning and loader blending strategy at the ROM pad; approximately 60 personnel are expected across mining operations, maintenance and supervision roles over the full Life of Mine. Equipment will be sourced from open market.

The mine schedule is composed of 95% indicated resource and 5% inferred resource. The ore in the schedule is inclusive of 35% of the total indicated resource and only 3% of the total inferred resource. This conservative split in the mine plan highlights opportunities for inclusion of additional ore into the schedule with future exploration or increases in commodity price.

Table 21: Strategic Mine Plan Schedule

Description	Units	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Plant feed (ind.)*	Mt	8.00	0.80	0.74	0.71	0.75	0.79	0.80	0.80	0.77	0.72	0.71	0.43
Plant feed (CaF ₂) (ind.)*	%	17.0	17.5	17.7	17.1	17.1	17.3	17.5	17.5	17.5	17.2	17.0	11.7
CaF ₂ metal (ind.)*	Mt	1.36	0.14	0.13	0.12	0.13	0.14	0.14	0.14	0.14	0.12	0.12	0.5
Plant feed (inf.)*	Mt	0.42	0.00	0.06	0.09	0.05	0.01	0.00	0.00	0.03	0.08	0.00	0.00
Plant feed (CaF ₂) (inf.)*	%	20.2	8.7	15.5	20.4	23.0	28.5	17.5	30.5	17.0	20.5	21.5	0.00
CaF ₂ metal (inf.)*	Mt	0.09	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.00
Plant feed (Total)	Mt	8.43	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.43
Plant feed (CaF ₂) (Total)	Mt	17.2	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	11.7
CaF ₂ metal (Total)	Mt	1.45	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.05
Stripping ratio (Avg.)	Waste/Ore	3.9	2.9	2.7	5.2	4.2	4.8	4.3	4.0	5.0	3.9	2.2	0.00
Total Rock	Mt	39.70	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.70	0.00
Total Waste	Mt	31.27	2.98	2.92	3.36	3.23	3.31	3.24	3.19	3.33	3.33	2.54	0.00
Total Ore	Mt	8.43	1.02	1.08	0.64	0.77	0.69	0.76	0.81	0.67	0.67	1.16	0.00
Total Movement	Mt	48.13	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.50	0.43

*(ind.): indicated *(inf.): inferred

Source: SRK

Expit Material Movement Summary

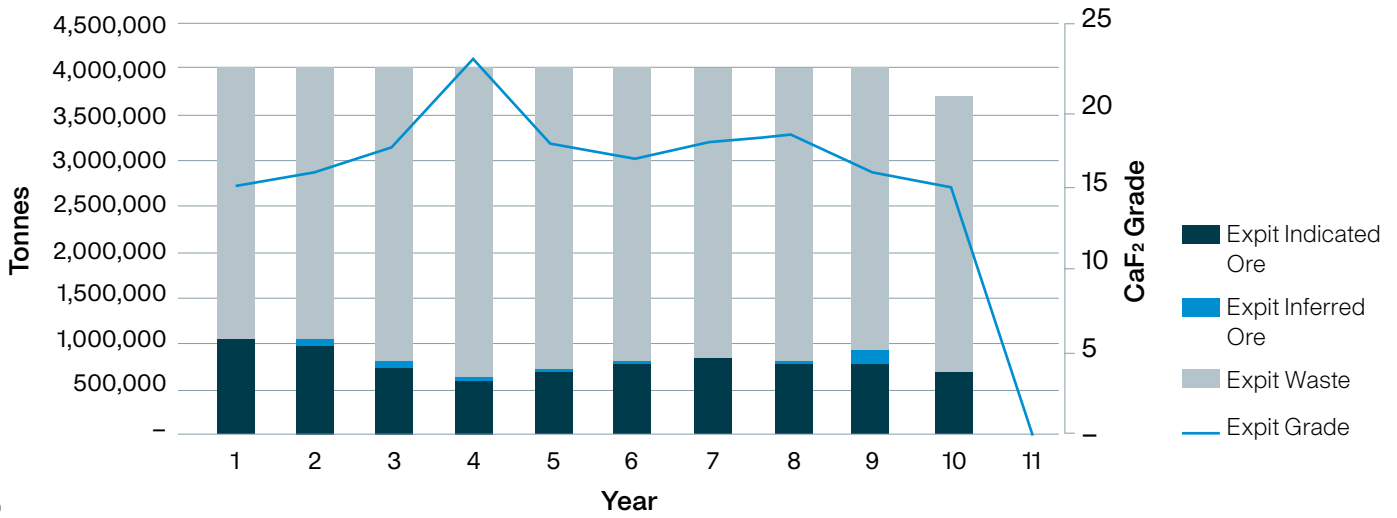


Figure 36: Expit material movement summary by classification for the project for years 1 to 10.6

Source: SRK 2024, Conceptual Open Pit Mine Study

The selected pit shell has been staged into practical mining areas as illustrated below in Figure 37 for the purposes of pit sequencing. Pit sequencing commences at the centre of the deposit, and expands both north and south. This approach was selected in order to target the shallowest, lowest strip ratio section of the deposit first in order to meet process plant feed requirement as early as possible, and to enhance the projects ability to capitalise on opportunities for progressive backfill of waste materials.

Whilst progressive backfill remains a positive opportunity for exploration in future study phases, Tivan and SRK have taken a conservative approach of locating adjacent waste rock dump facility, to estimate the average annual haulage cycle times for equipment estimates.

In-feed Tonnes and Grade: Location

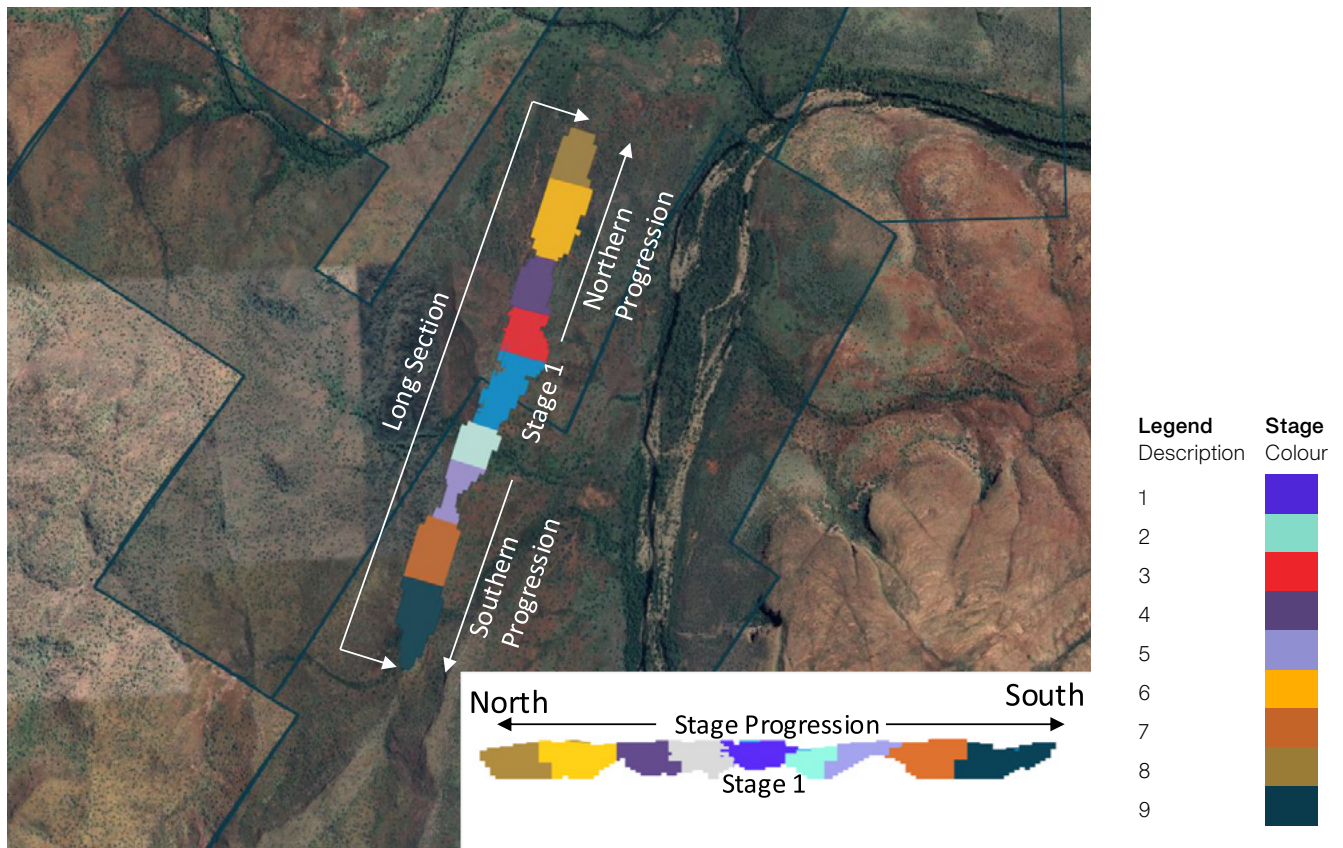


Figure 37: Overview of pit sequencing used for the purposes of strategic mine scheduling

Source: SRK 2024, Conceptual Open Pit Mine Study

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Expit Material Movement Summary

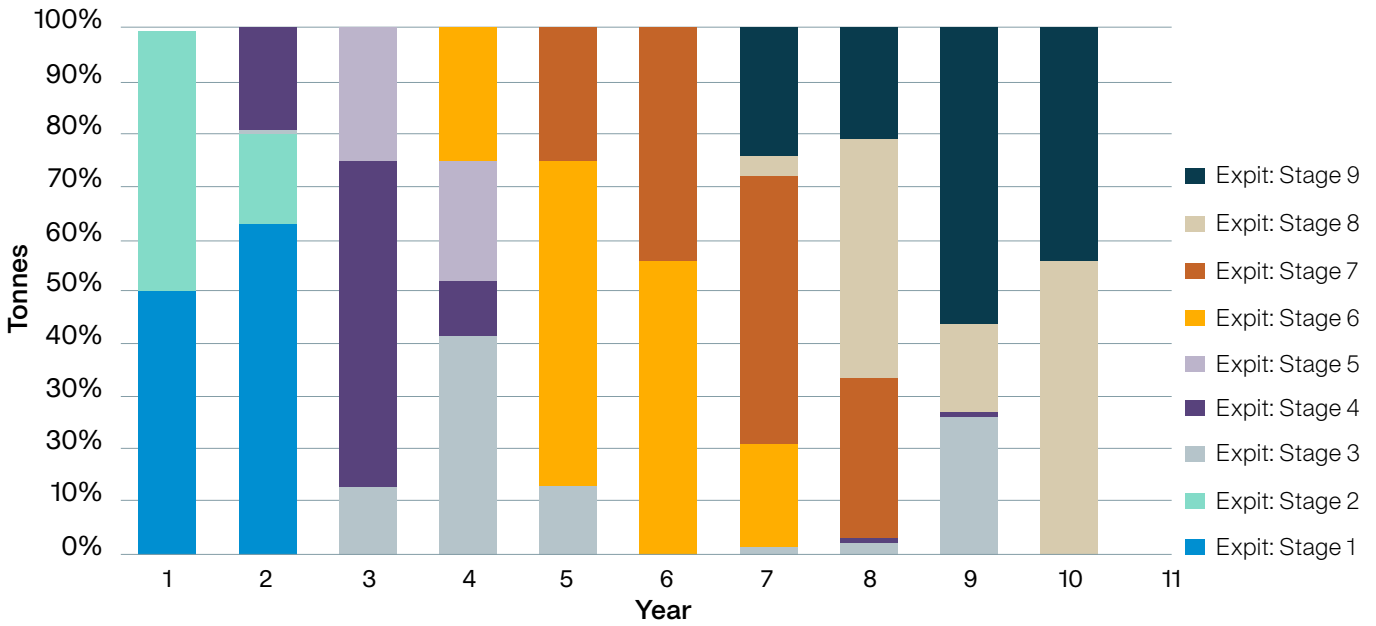


Figure 38: Expit material movement by pit summary for the project for years 1 to 10.6

Source: SRK 2024, Conceptual Open Pit Mine Study

It has been assumed for the purposes of this study, that 100% of mill feed material will be rehandled at the ex-pit stockpiles for blending purposes, with the key aim of maintaining a target mill feed grade of 17.5% in line with the requirements of the process plant.

The outcome of stockpile and blending strategy is a consistent feed to the plant, maintaining required throughput and average concentrate feed grades of 17.5%.

In-feed Tonnes and Grade: By Year

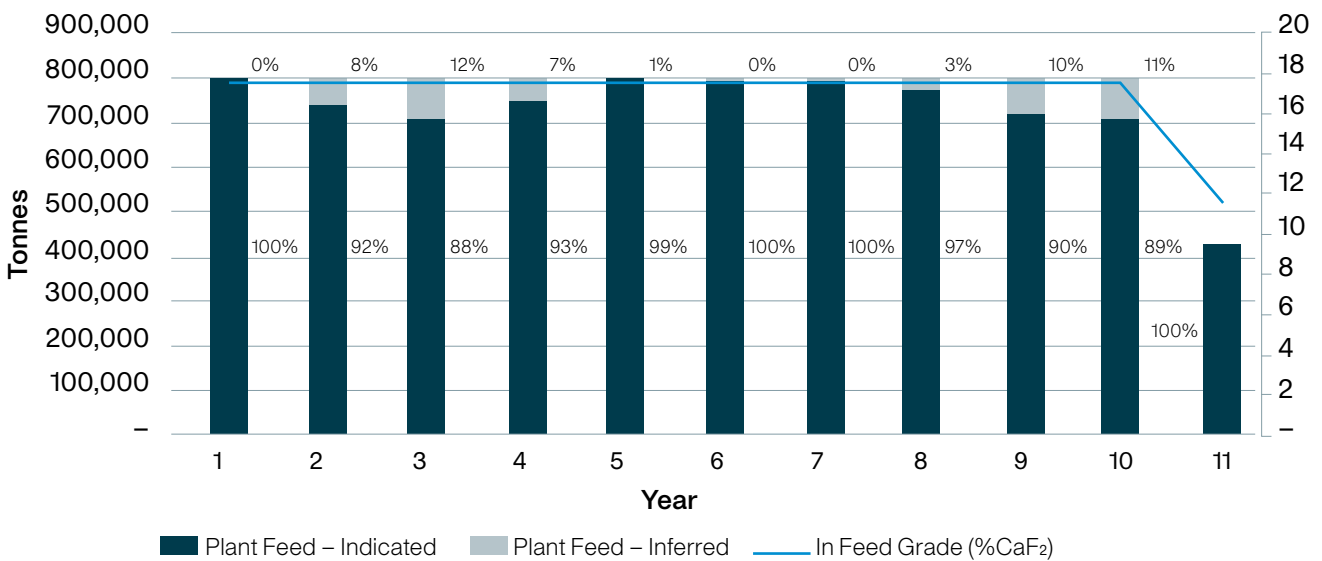


Figure 39: Plant in-feed tonnes and grade over Life of Mine

Source: SRK 2024, Conceptual Open Pit Mine Study

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Contract Mining

Tivan has undertaken early-stage engagement with mining contractors that have relevant capabilities and respected standing in the East Kimberley region. A list of civil and mining contractors that contributed to the Study is included in the Stakeholder Engagement section.

Tivan will continue to explore opportunities for contract mining solutions for the Project in future study phases.



Diversion Dam, Kununurra. Photo Credit: Ben Broady

Mineral Processing

Flowsheet Development

The process flowsheet for the Study is an update of the 2004 Metallurgical Design and Management (MDM) PFS. It is a flotation flowsheet (see Figure 40) with the following processing areas:

- Crushing: ROM ore is fed to a single stage jaw crusher
- Primary Milling: A closed-circuit SAG mill will grind the crushed product for sulphide flotation
- Sulphide Flotation: Flotation to separate the low mass of sulphides present in the feed
- Rougher Flotation: Coarse float on the sulphide flotation tails, maximising fluorite recovery and gangue rejection to reduce the load on the regrind mill
- Secondary Milling and Cleaner Flotation: The rougher concentrate is reground for the cleaner flotation circuit
- Thickening and Filtration: The final cleaner concentrate is thickened and filtered to produce the acidspar product
- Tailings Handling and Disposal
- Water Recovery: Water is recovered from the thickening and filtration circuit and the tailings storage facility

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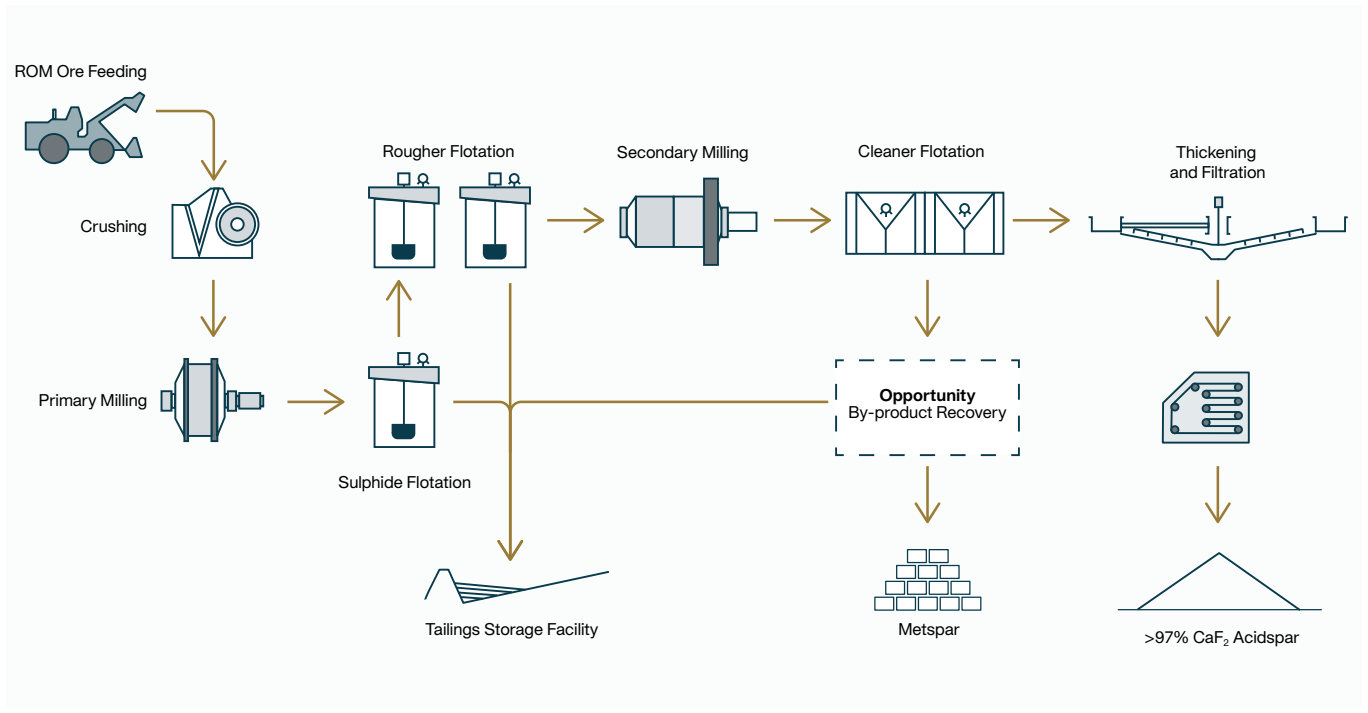


Figure 40: Speewah Fluorite Project process flowsheet

Source: Tivan

Metspar By-Product Opportunity

The cleaner flotation circuit rejects relatively high-grade fluorite which reports directly to the tailing's storage facility. This provides an opportunity to recover a metspar grade product from these tailings to uplift the total fluorite recovery from the ore and project revenue.

The focus of the Study was the recovery of an acid-grade fluorspar product, however, the metspar opportunity was investigated by Lycopodium at a concept level to inform actions for the next study phase. Lycopodium prepared a high-level mass balance, a high-level conceptual flowsheet and estimated mechanical equipment costs. The conceptual circuit will be "bolt-on" and would take the tailings from cleaner flotation as the feed. This feed would be relatively low tonnage and therefore the equipment will be relatively small compared to the rest of the flowsheet.

The metspar circuit will include the following processing steps:

- Fluorite scavenger flotation
- Concentrate thickening and filtration
- Drying
- Briquetting and bagging

The briquetting is required as metspar is typically a coarse product recovered in dense media separation plants. The product is mostly utilised as a fluxing agent in steel and aluminium smelting.

Lycopodium confirmed in the concept study that briquetting of the feedstock is technically feasible. Therefore, the key unknown to Tivan is the technical viability of recovering a fluorite product with a CaF₂ grade greater than 85%. Tivan are expecting mineralogy results on the cleaner flotation tailings from the recently executed flotation testwork program, these results will inform the path forward for development of this opportunity.

Despite the lower grade of the product, metspar prices have exceeded acidspars prices in recent years on a China, FOB basis, reflecting China's broader shift from exports to imports of fluorspar (see Figure 41). Without forming a view on whether this price disparity can be sustained, the structural shortage of fluorspar in Asia makes diversification of the Project's product suite an attractive option for Tivan. Tivan plan to include an investigation of metspar circuit capacity in the next study phase, this investigation will also include the option of installing increased spare capacity to provide an option to shift production volumes from acidspars to metspar.

Acidgrade Fluorspar Prices: Medium Term

- Mid MB-FLU-0003 – Fluorspar, acidspars, 97% CaF₂, wet filtercake, FOB China, \$/tonne
- Mid MB-FLU-0016 – Fluorspar, metspar, min 90% CaF₂, FOB China, \$/tonne
- Mid MB-FLU-0015 – Fluorspar, metspar, min 85% CaF₂, FOB China, \$/tonne

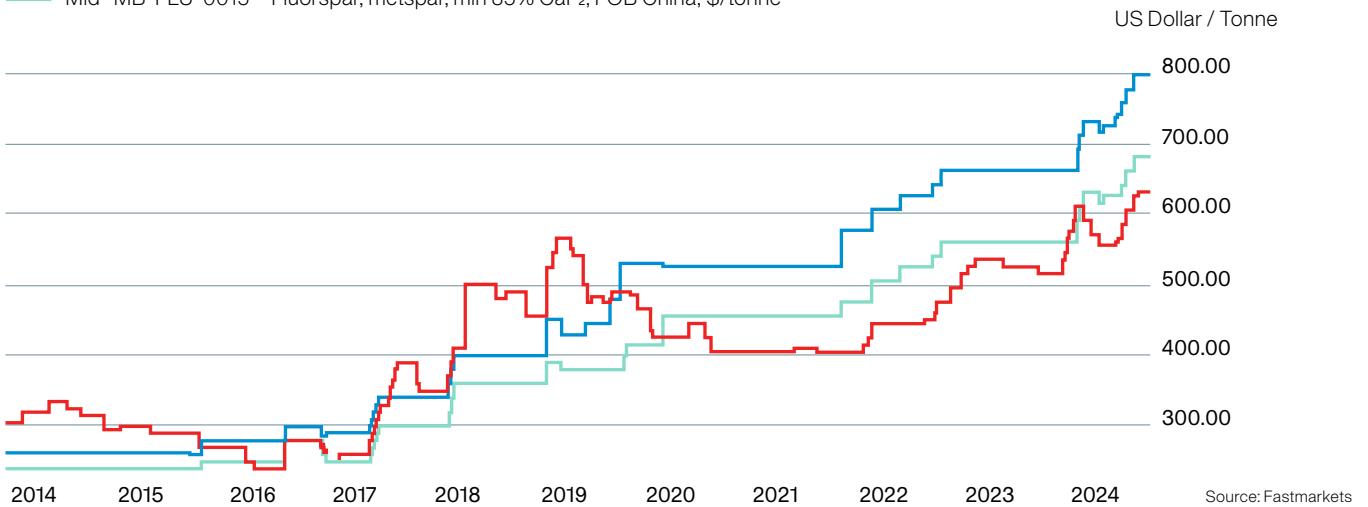


Figure 41: Metspar prices have traded at a premium to acidspars (China, FOB) since COVID-19

Acidspars remains Tivan's core product focus given the amenability of the Speewah ore body to achieve the higher specification and the criticality of acidgrade fluorspar to Asian markets and important supply chains. The metspar concept study was prepared with assumptions which require testwork to validate. With support from Lycopodium, Tivan will be developing and executing programs to investigate the opportunity. This testwork will feed into an engineering and financial assessment to determine if the flowsheet should be modified to include a metspar processing circuit.

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Mineralised Waste Opportunity

The mining sensitivity analysis highlighted the potential for the project to process lower grade ore in the deposit if the project parameters shift towards higher profits in latter years of the project. For the mining concept study, material that is mineralised but below the cut-off grade is characterised as waste. The pit shell includes some of this mineralised material and it reports to the waste rock dump.

Tivan will investigate separate stockpiling of lower grade mineralised ore which would have otherwise reported to the waste rock. This separately stockpiled lower grade mineralised ore has potential to become financially attractive to process in latter years of the project, extending the project life and total production of fluorite.

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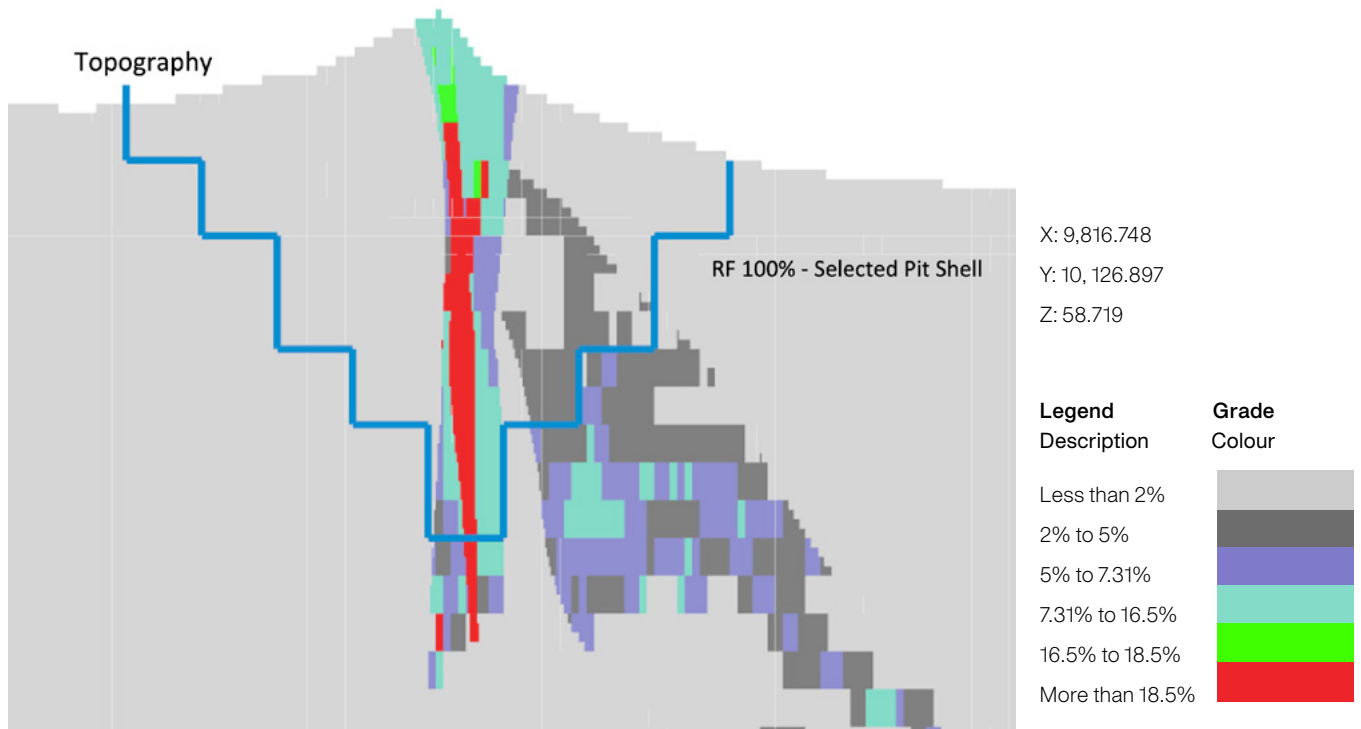


Figure 42: Example pit shell showing lower grade mineralised ore below 7.31% cut-off grade captured in the pit shell

Source: SRK

Process Plant and Layout Design

The locations for the tailing's storage facility, camp, solar array and process plant have been selected based on location studies from Lycopodium and SRK. The locations were based on proximity to mine, minimising cut and fill and avoiding potentially mineralised areas that have not been explored.

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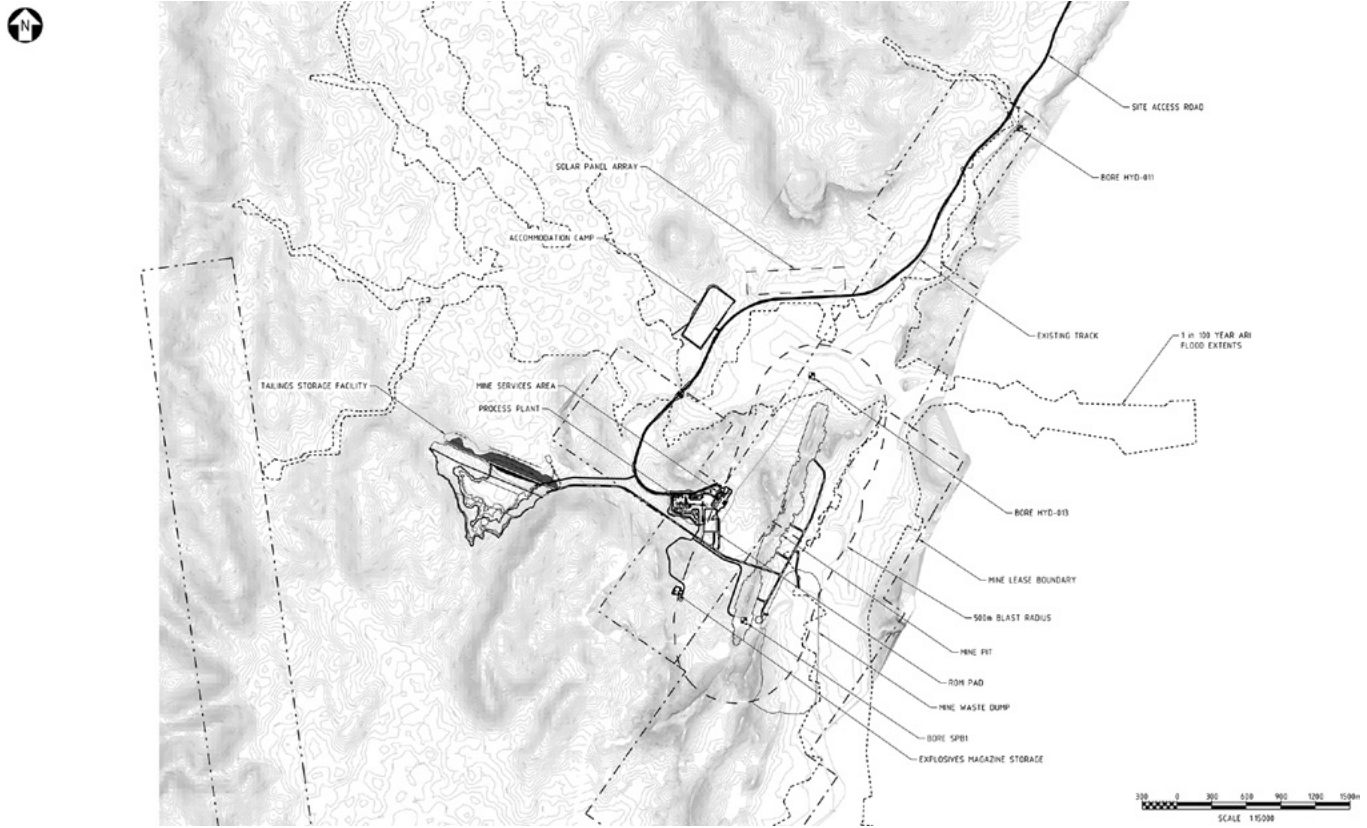


Figure 43: Site plan showing locations of key work areas for the Speewah Fluorite Project

Source: Lycopodium

The process plant and mine service area layout is shown in Figure 44 and the process plant 3D model is shown in Figure 45. The breakdown of responsibility for Project scopes and engineering disciplines is summarised in Table 22.

Table 22: Project Design Activities

Project Activity	Responsibility
Process Plant	
Process	Lycopodium
Mechanical	Lycopodium
Civil	Lycopodium
Electrical	ECG
Project Scope Compilation and Reporting	Lycopodium
Mining	SRK
Tailings	SRK
Testwork	ALS / WSP

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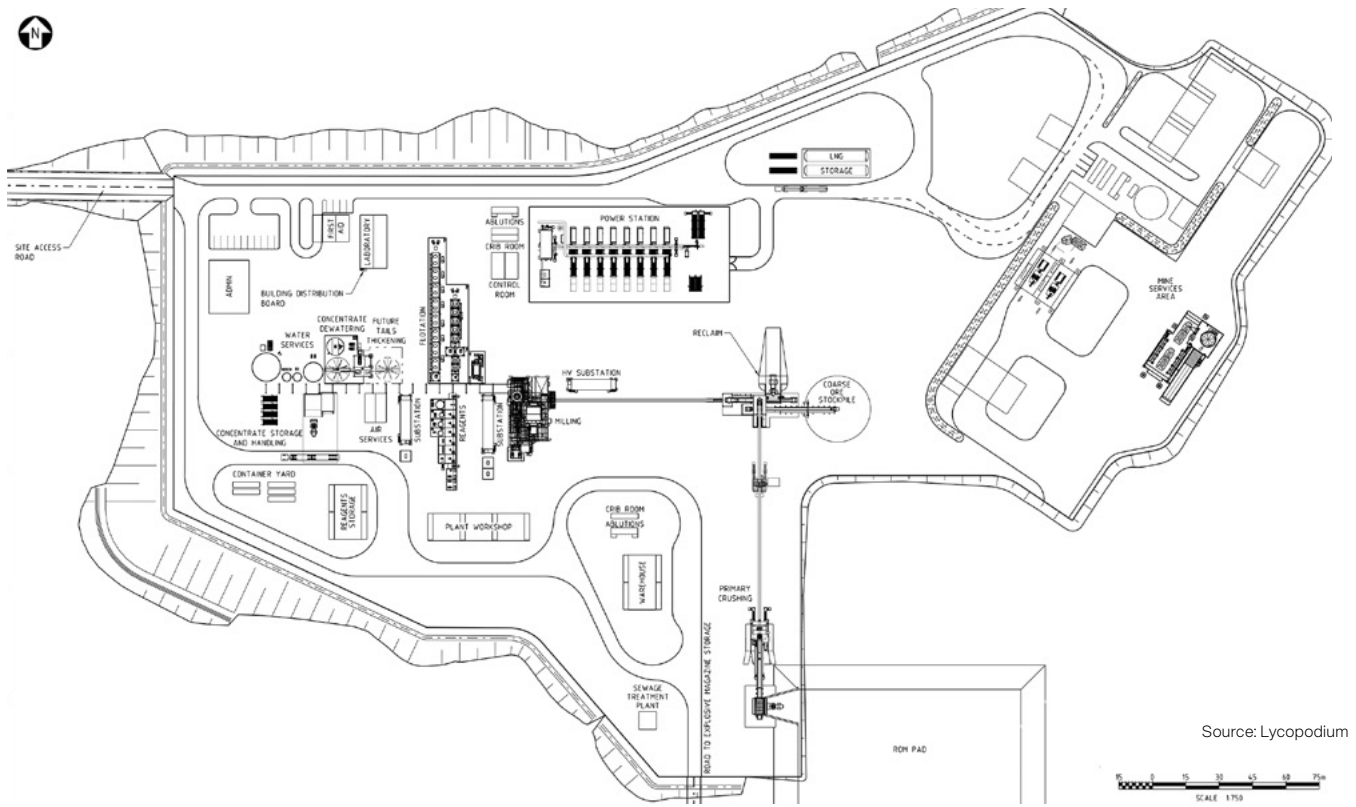


Figure 44: Process plant layout, showing the locations of all key process, non process and services in support of plant operations

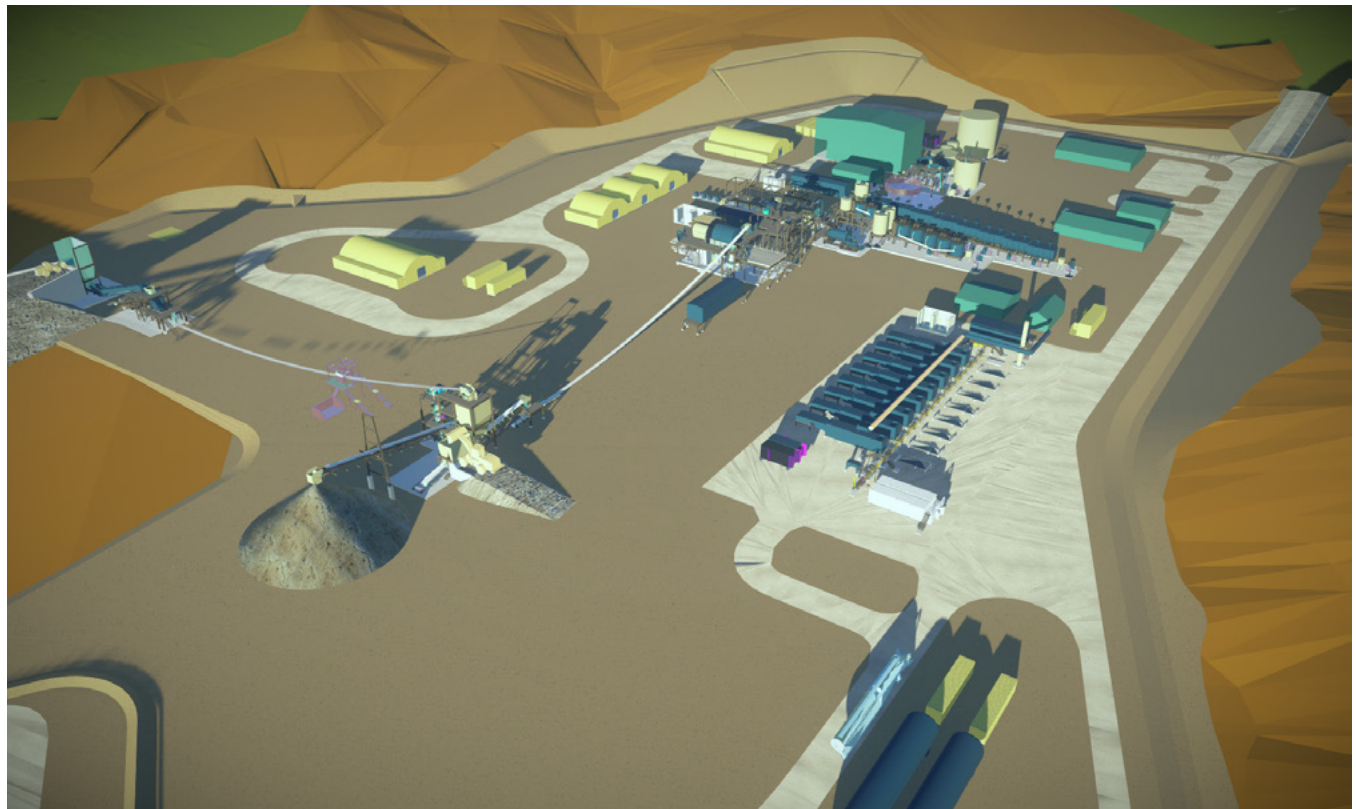


Figure 45: Artistic rendering of the process plant 3D model, developed by Lycopodium

Source: Lycopodium

Infrastructure

Access Road

Whilst the project is located favourably at approximately 25km direct line measurement from the existing dual lane sealed Great Northern Highway (GNH), the terrain in the region is challenging, in some places culturally sensitive, environmentally differentiated and socially valuable.

An important aspect of the success of the project lies in developing a solution for access to Site for the purposes of construction, and access from Site for the export of products.

As part of this Study, Tivan has investigated options for constructing the access road and has developed a pathway forward in undertaking additional site investigations and engineering studies to promote an outcome that derives the optimal balance of project economics and operational benefits.

Existing tracks

The existing 47km historical tracks are accessed via controlled gate at Doon Doon Pastoral Station, situated adjacent to the Great Northern highway. They are a single lane graded natural terrain tracks suited for pastoral and exploration purposes. The tracks weave their way through the landscape, have grades exceeding 12% in some places and have over 50 interactions with secondary and tertiary watercourses including a single point of crossing over the Dunham river.



Figure 46: Photo of the existing historical tracks at the Dunham River Crossing, demonstrating nature of the existing terrain, and access track interaction with primary, secondary and tertiary watercourses. Photo Credit: Ben Broady

Proposed Alignment

As part of the Study, Lycopodium undertook conceptual route options assessment to determine the most economical and respectful culturally sensitive alignment for the access road. The result of the assessment, is a 37km alignment that can be seen contrasted against existing tracks below in Figure 47.

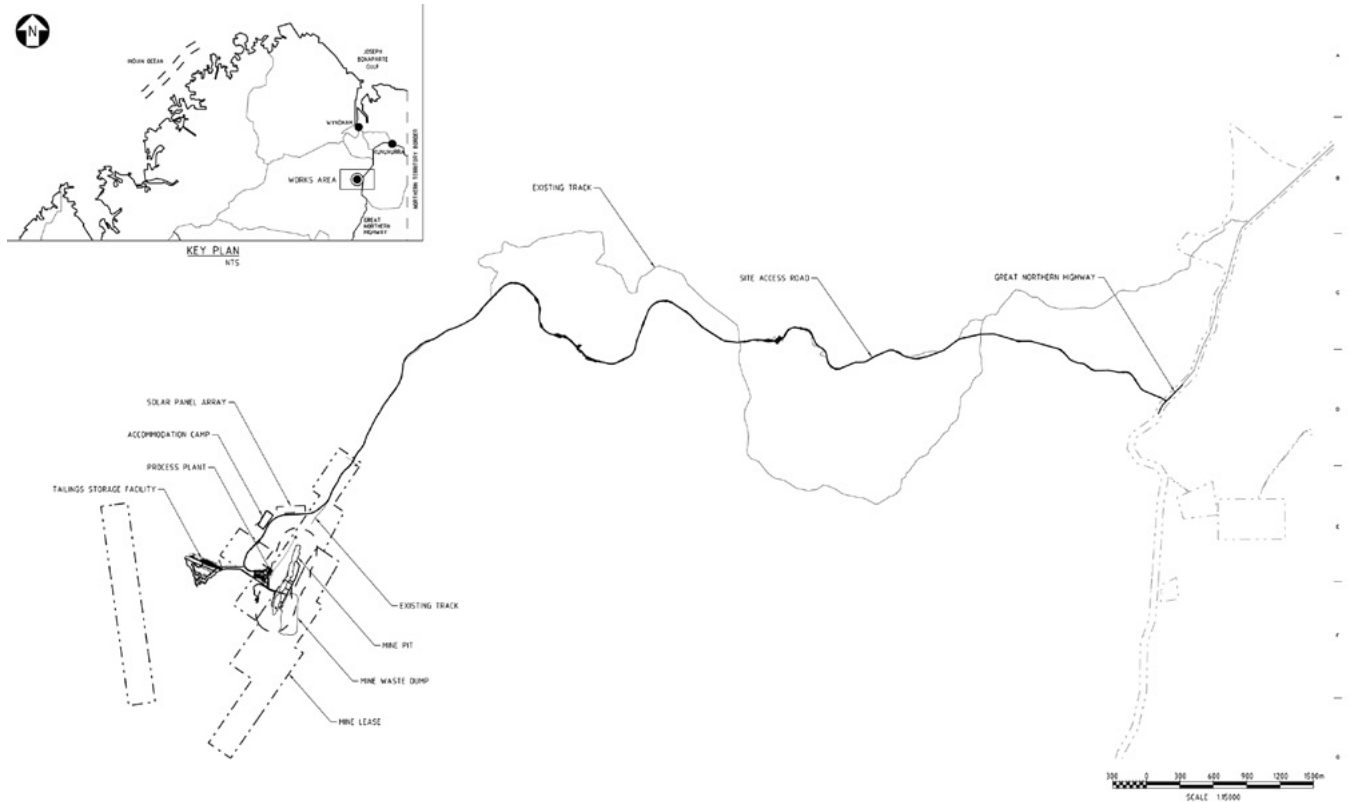


Figure 47: Site plan showing existing exploration tracks and proposed access road alignment produced by Lycopodium

Source: Lycopodium

The selected alignment has a turnoff located approximately 5 kilometers south along the Great Northern Highway from the Doon Doon Roadhouse. An important aspect of the route options assessment was to ensure that independent access to site was established, to enable the Project and Doon Doon pastoral enterprises to operate independently, minimising impacts to the local Aboriginal residential Woolah Community.

Beyond the initial GNH turnoff, a northern route alignment option was selected through joint discussion with Lycopodium as the optimal outcome for the Project, and with Traditional Owners, in respecting the presence of several named and unnamed cultural heritage sites located to the South.

The natural terrain beyond the Dunham River crossing elevates rapidly. Existing access tracks pass through a natural ravine in the adjacent ridgeline, before winding through a worked passage known colloquially as the 'jump-up'. Lycopodium explored numerous options for improvement of the route through this section of the road alignment, ultimately opting for an approach from the south, which although longer in distance, minimises cut and fill volumes and minimises interaction of watercourses. See below Figure 48 for example of the options assessment conducted by Lycopodium in this regard.

As part of the study design, Lycopodium completed preliminary quantity take-offs of bulk earthworks, with nominal allowances made for stormwater drainage requirements to undertake a budget quotation process with local civil and earthworks companies. Quotes received from these budget quotation requests have formed the basis of the capital cost estimate presented in this Study.

Detailed hydrological modelling, Site survey, and geotechnical investigation will be required in the future field work campaigns and study phases to enable the advancement of more detailed design development with increased accuracy in cost estimates.

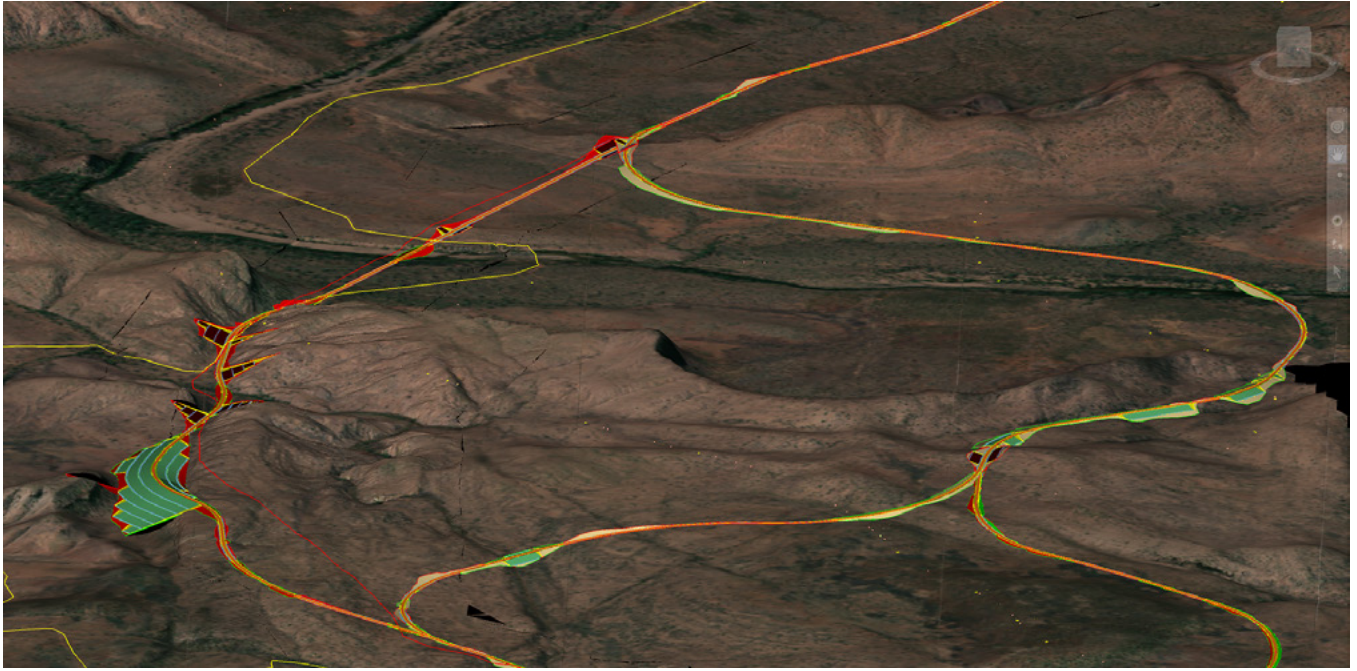


Figure 48: Example of road alignment options assessment conducted by Lycopodium

Source: Lycopodium

Regional Cultural Heritage and Ecotourism Opportunity

In developing the financial model for the Project, 50% of the estimated cost of the access road is included in the pre-production capital costs. The balance of 50% is assumed to be secured through from State and Federal Government sources, consistent with recent resources project development in Western Australia (Table 23).

The location of the Speewah site affords a long run opportunity in the East Kimberley region. Unlike other regional mining projects where spur roads are used from the Great Northern Highway for single use, the proximity of Speewah to the El Questro homestead provides the potential for a 'loop road' that joins the sealed section of the Gibb River Road to the north (a distance of approximately 40 kilometres). This corridor could also be used to extend the proposed transmission of hydro power from the Speewah site to El Questro, in support of culturally sensitive heritage activities and regional ecotourism opportunities.

Tivan has commenced discussions with regional Traditional Owners and key stakeholders on this topic, along with the Federal and Western Australian governments. Next steps include the preparation of a business case for the regional opportunity, factoring the pronounced seasonal effects on tourism in the East Kimberley region due to the prolonged wet-season and the deficit of social infrastructure.

While this Study does not evaluate the commercial and technical aspects of this long run opportunity, its potential supports the reasonable basis of a co-financing contribution from government for the access road.

Table 23: Resource Project Road Funding

<p>Mt Holland Lithium</p> <p>Mt Holland lithium mine and concentrator project between joint venture partners Covalent Lithium, Wesfarmers and Sociedad Química y Minera de Chile. Project \$120m for the access road with co-financing from State and Federal Government, agreed with WA Government in final terms.</p>
<p>Browns Range</p> <p>\$51 million towards the Ringer Soak and Northern Minerals Access Road in Browns Range. The Duncan and Gordon Downs Roads provide access from Halls Creek and the Great Northern Highway to the community of Ringer Soak, several pastoral stations and the Browns Range Project.</p>
<p>Perdaman Urea</p> <p>\$50 million in funding from WA Government to support early design works and upgrades to public infrastructure, including; road works, detailed design of a new Dampier Cargo Wharf; and upgrades to seawater supply infrastructure.</p>
<p>Hedland Road-Rail Safety</p> <p>An estimated \$68 million package of works split into three phases. Main Roads (WA) will manage the works with total funding for the road-over-rail projects provided by BHP (\$45.26 million), the Commonwealth Government (\$18.2 million) and the McGowan Government (\$4.54 million).</p>
<p>Table 23: Recent examples of government contributions to enabling infrastructure where the development of a resources project furthers the strategic objectives of Federal and WA Governments.</p>

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Aerial view of Speewah Valley. Photo Credit: Ben Broady

Accommodation

Workforce

Paramount to Tivan's vision for success of the Speewah project is the Company's goal to realise a local participation during operations of greater than 50%. Nearby populated town centres of Wyndham and Kununurra provide access to skilled trades, existing services industries, supply chains, and training solutions, and are located approximately one hour by road from the project access turnoff along the Great Northern Highway. The project has a unique opportunity to realise its aspirations.

Notwithstanding this, Tivan is conscious in its understanding that to build the Speewah project; many skilled trades, from many various backgrounds and disciplines will need to be engaged with over a short period of time during the construction phase of the project, and likely a significant portion of those trades will be provided by way of fly-in fly-out arrangements

As part of this Study, Tivan has aimed to strike balance between construction and operational labour needs of the project and has worked closely with several trusted partners to develop an optimal accommodation solution for the project.

Budget Quotations

As part of the Study, Lycopodium performed estimates to determine peak onsite labour requirements during construction and operational phases of the Speewah project. Labour estimates were conveyed into budget quotation requests for two separate aspects of accommodation:

- A permanent accommodation camp including all supporting facilities (kitchen, messing, laundry, camp management & recreational facilities). Turn-key supply and installation pricing basis.
- A temporary construction camp (including all ancillary facilities) located adjacent to the permanent camp with the facilities leased / hired on a temporary basis over the construction duration including mobilisation, installation and demobilisation.

Lycopodium received budget quotation advice from the market on the above scope elements, pricing of which has been used as the basis of the capital cost estimates for the Study.

Through Lycopodium's experience in the provision of remote project accommodation solutions, a day rate per bed for camp services and running fees was allowed for in the Study cost estimates.

Build Own Operate model

In recent months Tivan has been in discussions with Discovery Parks, owned by G'Day Group, as to the provision of temporary and permanent accommodation services related to the Speewah Project. A Build Own Operate (BOO) model is being considered, as part of Tivan's accommodation camp requirements. At a conceptual level, this would lower the pre-production capital expenditure for the Project, and increase operating expenditure in lieu.



Figure 49: Discovery Resorts Lake Argyle. Photo Credit: Ben Broady

As Australia's largest regional accommodation provider, Discovery Parks is a major local employer and contributes significantly to many regional economies. Discovery Parks are committed to growing, supporting and protecting regional communities, and giving back to the towns and regions in which we operate. Each park forms close ties with small businesses to source produce, supplies and services locally wherever possible. Discovery Parks connects with local tourism industry peers and chambers of commerce and assist community charities and volunteer groups by becoming actively involved in events, fundraising and other initiatives.

Discovery Parks operates three facilities in the Kimberley region; Discovery Resorts – Lake Argyle, Discovery Parks – Lake Kununurra and Discovery Parks – El Questro. Discovery's Workstay offering also supports the accommodation needs of Australia's mining and resources industries. A portfolio of 21 operational villages consisting of over 2,500 dedicated rooms. Workstay caters for over 30,000 meals per week across 16 dining halls. Workstay shares Tivan's vision to maximise local participation and contribution through employment to the communities in which it operates, and proudly advertises that of its 250 staff, more than 80% are currently employed on a local basis.

Tivan and Discovery Parks see commercial synergies in the Speewah project. Both companies are aligned with long- and short-term strategies for promoting the success of each other business interests. The commercial opportunity is expected to align with the below phased approach:

- Phase 1 – Exploration of cost competitive solutions for Construction & Operational accommodation at Speewah
- Phase 2 – Development planning for the expansion of the Kimberley regions infrastructure networks (road and power) to the benefit of broader regional communities and businesses.



Aerial view of Speewah Valley. Photo Credit: Ben Broady

Power

An independent power producer (IPP) model has been assumed for the project. Under this model, the IPP will be responsible for the design, construction, financing, ownership and operation of the asset under a power purchase agreement (PPA) for a fixed term.

Lycopodium, through its subconsultant ECG engineering, completed a power supply options study for the PFS. The study considered various scenarios for power supply including hydropower, diesel, gas and dual fuel generators. Additionally, fossil fuel options were modelled with hybrid solar photovoltaic (PV) to offset fuel consumption during the day.

A review of solar and wind options for the project showed that the Speewah Project has a good solar yield with a capacity factor of 22.5%. The wind resource at Speewah is however, relatively poor. The estimated capacity factor for wind was 18% for an IEC class 3 wind turbine. At Speewah, solar is considered the more viable renewable option compared to wind due to its higher capacity factor and the higher cost of development for wind power assets.

Review outcomes from the power supply options study were positive with the major highlights including:

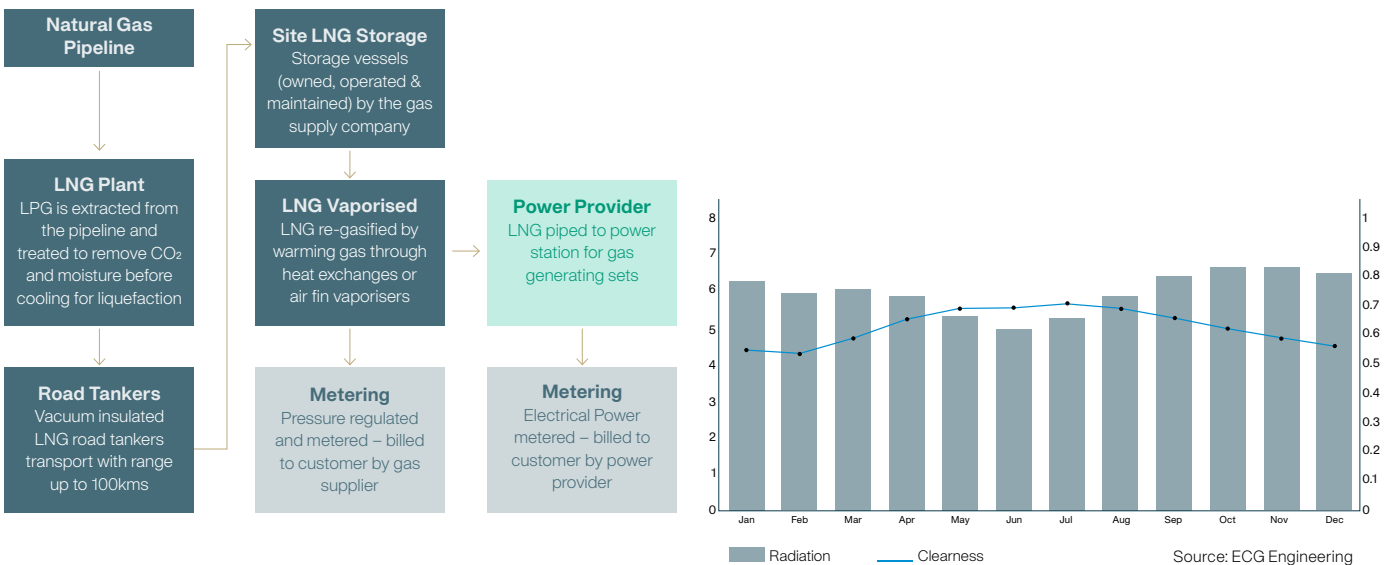
- Hydropower was identified as both a technically viable and cost competitive option
- Hybrid systems offered better economic outcomes than 100% fossil fuel power generation options
- LNG fuelled options had significantly lower costs than diesel supply options.

Tivan aim to operate with a low/zero carbon footprint and the study has promisingly shown that there is a significant opportunity to utilise hydropower, which will minimise the Project’s carbon footprint. The implementation of hydro power would further Tivan’s long run mission of producing ‘green critical minerals’ and establish the Project as the only Fluorite mine in the world powered by renewable energy. This would support carbon lifecycle of acidgrade Fluorspar produced at Speewah, improving the sustainability credentials of important supply chains in Asia.

Tivan are collaborating with Pacific Hydro and Horizon Energy to develop the hydropower option in support of early implementation.

Conservatively Tivan have selected the hybrid LNG/solar option for the Study while the hydropower option is being developed further. The hybrid LNG/solar option was selected over other options due to the lower costs compared to diesel options. The hybrid LNG/solar option will also benefit from less carbon emissions compared to diesel options.

Figure 50: Typical power generation trucked LNG process (left) and, monthly solar irradiance data for Speewah (right)



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Ord River Hydro and Overhead Transmission

The project is uniquely sized and located to capitalise on available capacity of renewable power from the Ord River Hydro Power Station (Power Station). In May 2024 Tivan announced it had reached a Memorandum of Understanding with Pacific Hydro, owners and operators of the Power Station and existing transmission lines to ADM. As part of the Study Tivan also engaged with Horizon Power for technical and commercial planning.

The Power Station is located 45 km South-East of Kununurra. Horizon Power has a supply agreement with Pacific Hydro for the Kununurra Interconnected System. The Power Station is capable of a maximum output of 30 MW (inclusive of 10% spinning reserve) under two-turbine operations.

The Power Station is currently underutilised due to the recent closure of the ADM. The ADM was contracted to take ~12 MW of generation from the Power Station. The region does not have any existing operations that can fulfill the full capacity and there is only a small number of projects with the potential to take on a significant proportion of the newly available supply. Tivan are conveniently located within 100 km of the Power Station, a technically and financially viable distance to extend overhead transmission lines from existing infrastructure, to supply the project.



Figure 51: Ord River Dam and Hydro Power Station. Photo Credit: Ben Broady

For the Study, Horizon Power prepared a Generation Assessment for Tivan which investigated how the Speewah Fluorite Project power demand will impact the network under their forecast peak loads for the Power Station. The study outcome showed that with the most conservative, worst case lake water levels, the Power Station would be able to supply the Tivan Speewah Project year-round, with some potential load curtailment between August and November (see Figure 52).

Power Station Spare Capacity FY2024

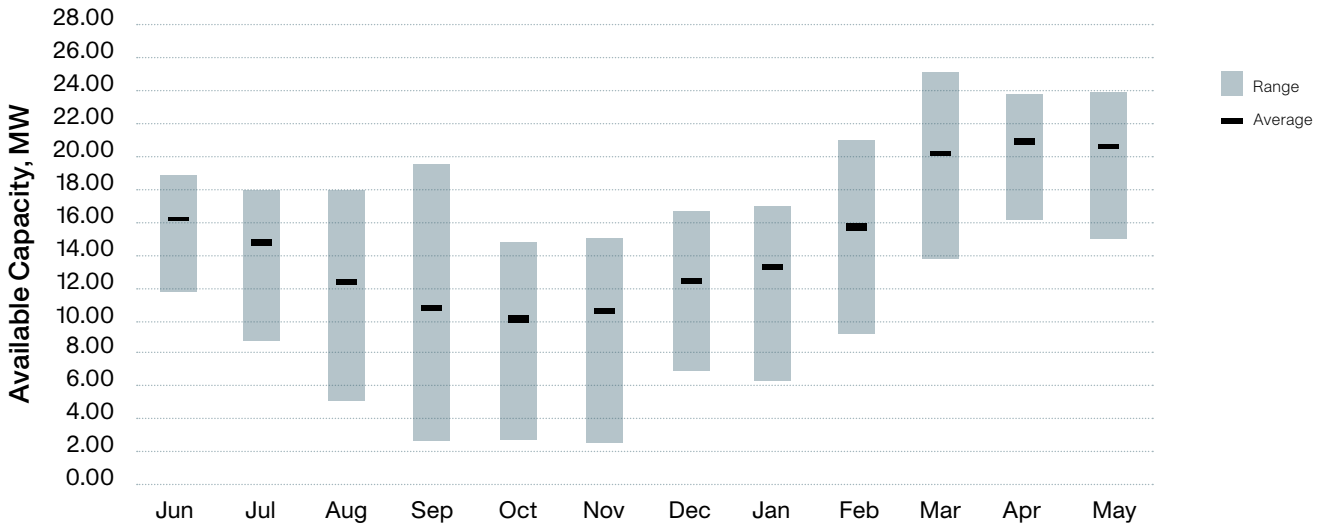


Figure 52: Available power station capacity FY2024 assuming minimum Lake Argyle levels

Source: Pacific Hydro

The ADM is currently being decommissioned, however, the overhead transmission infrastructure to the site is owned by Pacific Hydro and has not been decommissioned. In consultation with Pacific Hydro, Tivan have confirmed that it is a preference to utilise this existing infrastructure to connect the Speewah Fluorite Project to the hydropower station. This reduces the total estimated transmission length that requires installation to ~105 km.

Lycopodium included an Ord River Hydro Power option in the power options study to assess costs at a concept level. This study was performed independently. For a 10-year PPA which includes:

- Transmission infrastructure to connect the site,
- 132 kV substation,
- 132 kV/11kV transformer,
- Ownership and management of the above,

the costs of supply were approximately 17% higher than the cheapest power supply option (LNG/solar hybrid). Tivan shared the details of the power options study with Pacific Hydro, who confirmed that the assumptions were reasonable for a concept level study.

Early-stage validation of the technical and financial viability of the hydropower option with Horizon Power and Pacific Hydro is an extremely promising outcome for the Project. The cost comparison does not include the benefits in favour of the hydro option that accrue from a longer life of mine, nor does it allow for the possibility of contributions from government. These factors have the potential to make hydro the lowest cost power option for the Project, in addition to the tangible benefits for the Project in terms of its environmental and social footprints.

Tivan will continue to develop this power supply option in future study phases with the intention of implementing hydropower as the primary power source for the Project. Tivan will also be investigating cost reduction opportunities unique to the hydropower option in future study phases to improve the cost relative the cheaper LNG/solar alternative.

Tivan will also continue its engagement with representative groups of Traditional Owners and regional stakeholders on this topic, as described further in the Stakeholder Engagement section.

Water

SRK Consulting completed a conceptual desktop Surface and Ground Water review of the Project, and worked closely with Tivan in coordinating the site plant water needs, including Pit dewatering and Process Water supply.

Surface water

To facilitate future impact assessment works and to improve understanding of local hydrological responses that will inform stormwater management design, SRK has developed a baseline monitoring network of streamflow gauge sites that will be established as part of field investigatory works planned to be undertaken by Tivan in Q3 2024.

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Pit Dewatering

SRK developed a conceptual steady state analytical model of potential ground and surface water flows to the pit, to determine potential pit dewatering requirements. The modelled pit inflow rates are considered conservative and provide Tivan with indicative range of inflows that can be expected at early stages of mining. Modelling also enabled the identification of potential groundwater drawdown radii for the project, which will be used to guide ongoing Hydrogeological, Hydrogeological and Biological baseline surveys.

SRK has also determined a network of groundwater monitoring and production bores required to validate and refine the hydrogeological model across the project area. The groundwater monitoring network utilises existing and new drillholes that Tivan intends to commence installation and testing of monitoring and production bores in Q3 2024.

Process Water Supply

Lycopodium has completed a Process water balance including allowance for all process, infrastructure, utility and accommodation needs.

The full supply of process water, over life of mine, is anticipated to come from groundwater. SRK have nominated the use of one existing, and one additional production bore to act in 'Duty' / 'Standby' operation.

Whilst the water quality required for processing is not fully understood at this stage, and will be the subject of future study phases, initial sampling and testing of groundwater demonstrates reasonable quality with neutral pH and low TDS.

Routine hydrogeological and hydrological surveys to Site will be completed over remaining 2024 dry season and 2025 wet seasons, with ground and surface water quality sampling and test work, along with data retrieved from stream and borehole loggers, strengthening the underlying assumptions used to complete ground and surface water modelling, and feed into the broader process plant design and Environmental Approvals.

Tailings

SRK were appointed by Tivan to prepare a Tailings Storage Facility (TSF) design concept for its proposed Speewah Fluorite Project. SRK completed an evaluation of potential TSF sites, configurations and construction methods. Based on the outcomes of the evaluation, the preferred design concept is a valley-fill, slurry TSF. The design concept accommodates the life of mine, storing 6.74 Mt tailings (dry mass).

Siting Assessment

Six sites were compared in an initial siting assessment which considered the location, embankment height and fill, tailings and catchment areas, expansion potential and operational complexity. The preferred site from this assessment was then evaluated qualitatively for the four different TSF configuration options. From this, the option which limits the TSF environmental impacts while maintaining comparably lower operational complexity was selected.

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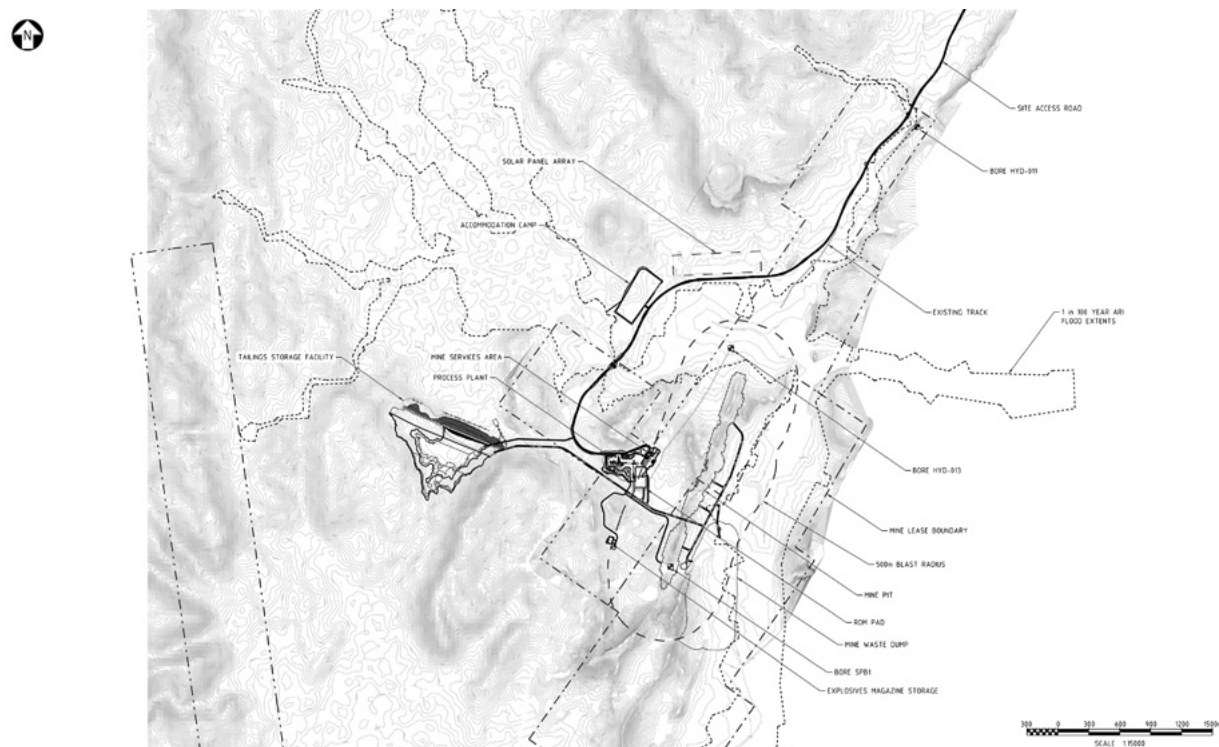


Figure 53: Proposed tailings storage facility location relative to the process plant, pit and waste rock dump sites

Source: Lycopodium

Concept Design

A centreline raise strategy has been adopted for the TSF concept. The starter embankment and centreline raises include a low-permeability core surrounded by an erosion-resistant layer of mine waste and filter-compatible transition zones to manage seepage and piping related risks. Fresh durable waste rock is placed downstream of these zones, providing a resisting mass to support tailings containment. The proposed embankment raise heights have been tailored to enable placement of downstream rockfill using mining fleet vehicles.

When operating, tailings deposition will occur from the main embankment, keeping the supernatant pond against the natural topography at the south of the facility. The supernatant pond will be decanted with relocatable pump installations.

Seepage from the tailings is expected to flow laterally towards the base of the valley. It is envisaged that alluvial materials located at the base of the valley will be reworked and compacted to mitigate vertical seepage. A seepage collection system will capture near surface flows from the TSF embankment. Seepage flows will report to the trenches and collected in seepage sumps. This will be returned to the TSF and not released to the environment.

During operations, an emergency spillway located along the eastern abutment of the embankment discharges flows during an extreme storm event (PMP). The spillway will convey flow above the operating pond which cannot be accommodated within the TSF.

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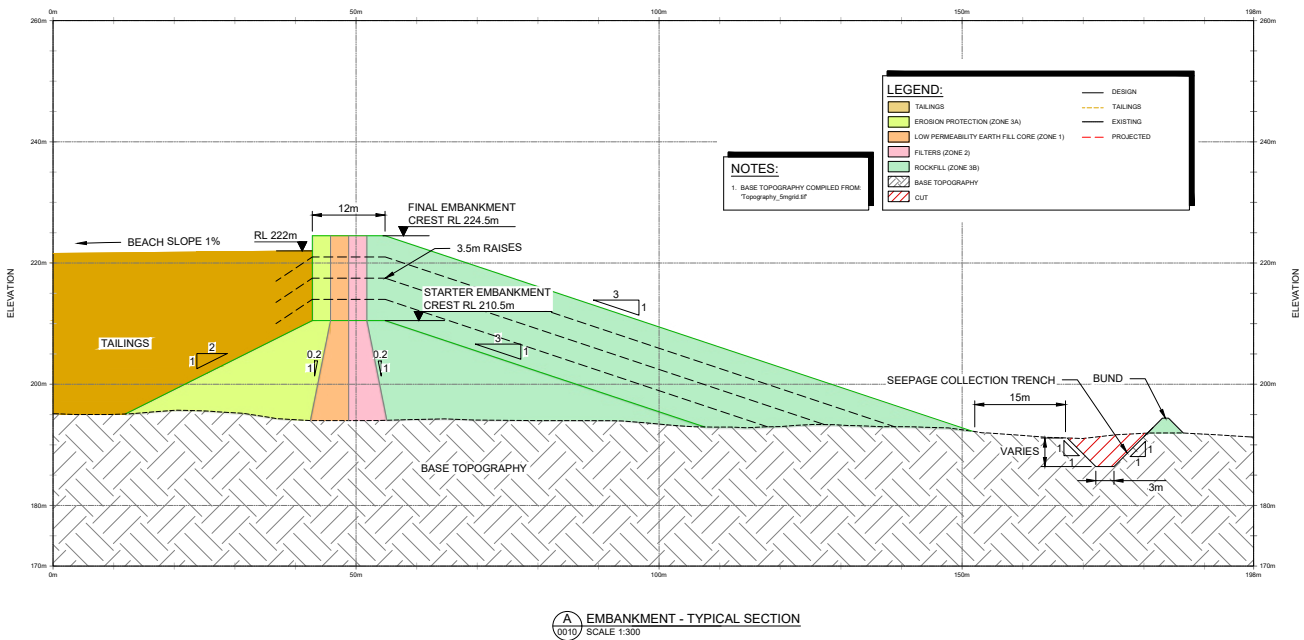


Figure 54: Typical section for Speewah Fluorite Project embankment design

Source: SRK

Fuel and Logistics

In July 2023, Tivan Signed a heads of agreement with Cambridge Gulf Limited (CGL) to collaborate on opportunities to support Tivan's Speewah Project.

Since 2004 diesel has been imported and distributed throughout the East Kimberley region and is currently supplied by CGL subsidiaries, CGL Fuel and CGL Logistics.



Figure 55: Example of CGL Logistics fuel distribution services across in the East Kimberley. Photo Credit: Ben Broady

CGL fuel and logistics has provided fuel distribution services for the purposes of power generation and use by Heavy Mobile Equipment for a number of large-scale mining operations in the Kimberley region including but not limited to;

- Rio Tinto's Argyle Diamond Mine
- Panoramic's Savannah Nickle Mine
- Pantoro's Halls Creek Gold Mine
- Kimberley Metal Group's Ridges Iron Ore Mine
- Kimberley Granite Holdings' Black Granite
- Northern Minerals Browns Range Rare Earths Project.

Tivan and CGL have discussed indicative pricing regarding the supply of diesel to Speewah, as well as the transport of concentrate products from Speewah to Wyndham Port. Indicative pricing in this regard has been used as the basis for this Study.

Port Handling

Wyndham Port is located beneath the Bastion Range of the North-West. The port is located at the mouth of the King, Pentecost, Durack, Forest, and Ord Rivers in the Cambridge Gulf. Wyndham Port is the only deep-water port between Broome and Darwin.

CGL has been leasing and operating the Port since 1999 with the current agreement extending through to 2029.

The facility operates as a working port servicing cruising, offshore projects and commodity import and exports which vary from year to year based on market condition. Current and recent exports include crude oil, live cattle, raw mined products, scrap metal and maize. Regular imports include diesel, the occasional explosive vessels, fertiliser and ammonium nitrate for the mining industry.



Figure 56: Port of Wyndham. Photo Credit: Ben Broady

The tidal range at the port is 8.7 m. The depth of water at the face of the port is -8.2 m relative to Lowest Astronomical Tide (LAT), typical vessel sizes received by the port at the circular wharf range between 10,000-15,000 DWT (ie 'handysize' type vessels). While no bulk import ability is currently present at the port, bulk export ability from the circular wharf is proven with recent operational experience in loading concentrate products for Savannah nickel operations.

Cargo storage at the port is limited to a container park of 400 no. 20' equivalent units but is believed to be sufficiently catered to handle the projects expected throughput of various reagent and consumable import needs.

Tivan and CGL have discussed indicative pricing for Interim storage arrangements at the port, as well as for towage, wharfage and labour associated with loadout of the Speewah Fluorite Concentrate Product. Indicative pricing in this regard has been used as the basis for this Study.

Environmental Approvals and Licenses

Under the WA Environmental Protection Act 1986 (EP Act) and Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), the project will require referral for environmental approvals to the WA Environmental Protection Authority (EPA) and the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW).

Due the relatively small footprint of the project, the simplicity of the process flowsheet, Tivan's advanced progress with local stakeholder and traditional owner groups, and the company's commitment to developing an understanding for best-in-class environmental baseline for the area, opportunity exists in the project obtaining approval through non-formal assessment process.

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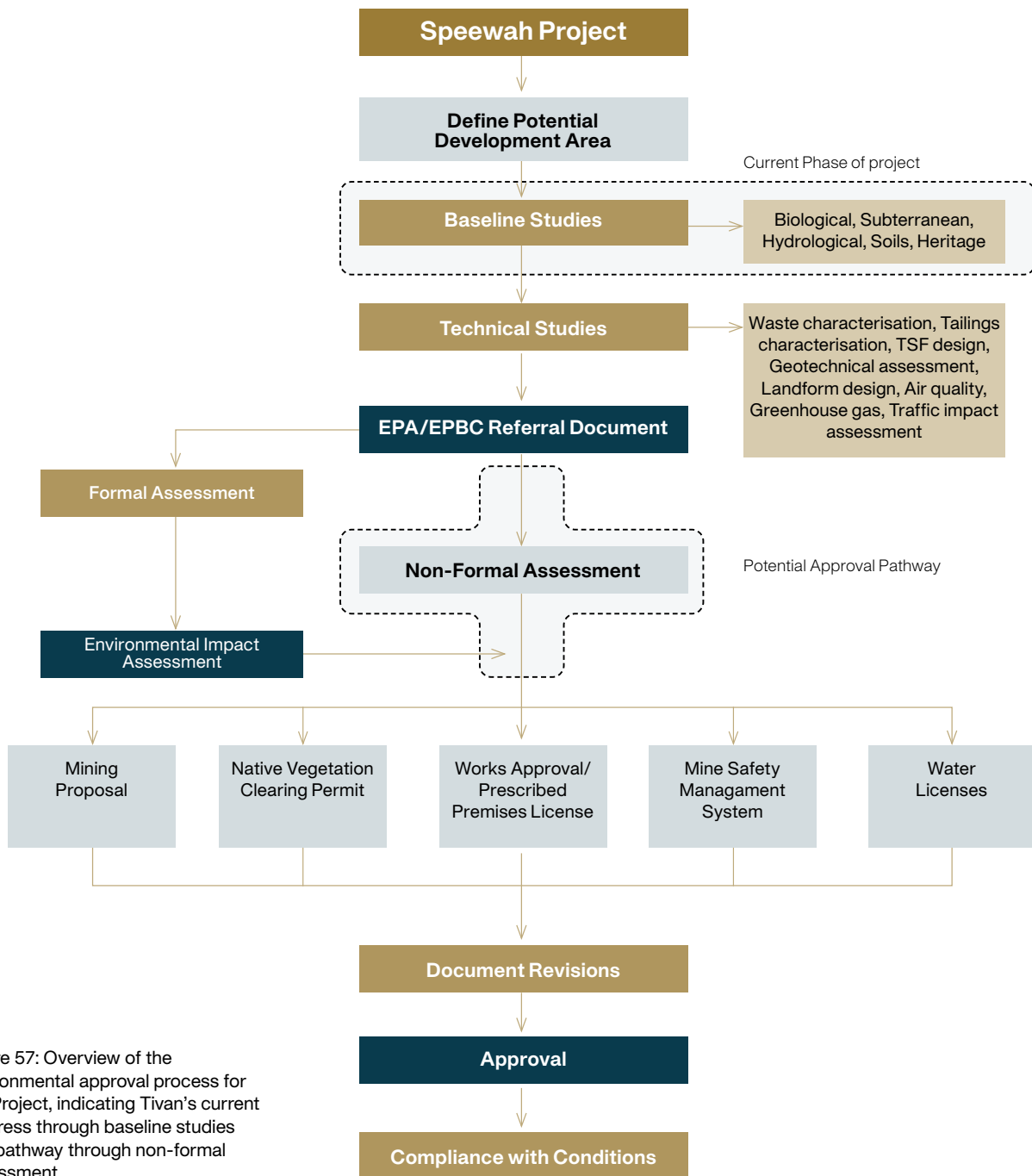


Figure 57: Overview of the environmental approval process for the Project, indicating Tivan's current progress through baseline studies and pathway through non-formal assessment

Based on existing Project information and currently known baseline characteristics, Project activities and impacts are expected to be adequately managed through other legislative instruments and Regulatory Authorities outside of the WA EPA, indicating a non-formal assessment pathway (see Table 24 for details).

Table 24: Alternative Instruments for Management of Speewah Fluorite Project Impacts*

Project Element	Instrument	Legislation	Regulatory Authority
Clearing of Native Vegetation	Native Vegetation Clearing Permit	<i>Environmental Protection (Clearing of Native Vegetation) Regulations 2004</i>	DBCA/DEMIRS
Open Pit Mining	Mining Proposal	<i>Mining Act 1978</i>	DEMIRS
Waste Rock Storage	Mining Proposal	<i>Mining Act 1978</i>	DEMIRS
Mine Site Support Infrastructure	Mining Proposal	<i>Mining Act 1978</i>	DEMIRS
Processing of Ore	Mining Proposal	<i>Mining Act 1978</i>	DEMIRS
	Works Approval / Prescribed Premise Licence	<i>Environmental Protection Act 1986 Part V</i>	DWER
Tailings Storage	Mining Proposal	<i>Mining Act 1978</i>	DEMIRS
	Works Approval / Prescribed Premise Licence	<i>Environmental Protection Act 1986 Part V</i>	DWER
Mine Dewatering	5C Water Abstraction Licence	<i>Rights in Water and Irrigation Act 1914</i>	DWER
	Works Approval / Prescribed Premise Licence	<i>Environmental Protection Act 1986 Part V</i>	DWER
Access Road River Crossing	S17 Bed and Banks Permit	<i>Rights in Water and Irrigation Act 1914</i>	DWER
Power Generation	Works Approval / Prescribed Premise Licence	<i>Environmental Protection Act 1986 Part V</i>	DWER
Landfill Facilities	Mining Proposal	<i>Mining Act 1978</i>	DEMIRS
	Works Approval / Prescribed Premise Licence	<i>Environmental Protection Act 1986 Part V</i>	DWER
Sewage Treatment Facilities	Works Approval / Prescribed Premise Licence	<i>Environmental Protection Act 1986 Part V</i>	DWER

*The above addresses key activities, however, does not represent an exhaustive list of Project activities that can be managed under alternative legislation.

Figure 58 below indicates the typical timeframes for EPA approval, as interpreted from published timeframes by the EPA. Approval Outcome 1 is contributing to the basis of the Tivan Implementation schedule for the project under the assumption of non-formal assessment by the WA EPA or DCCEEW.

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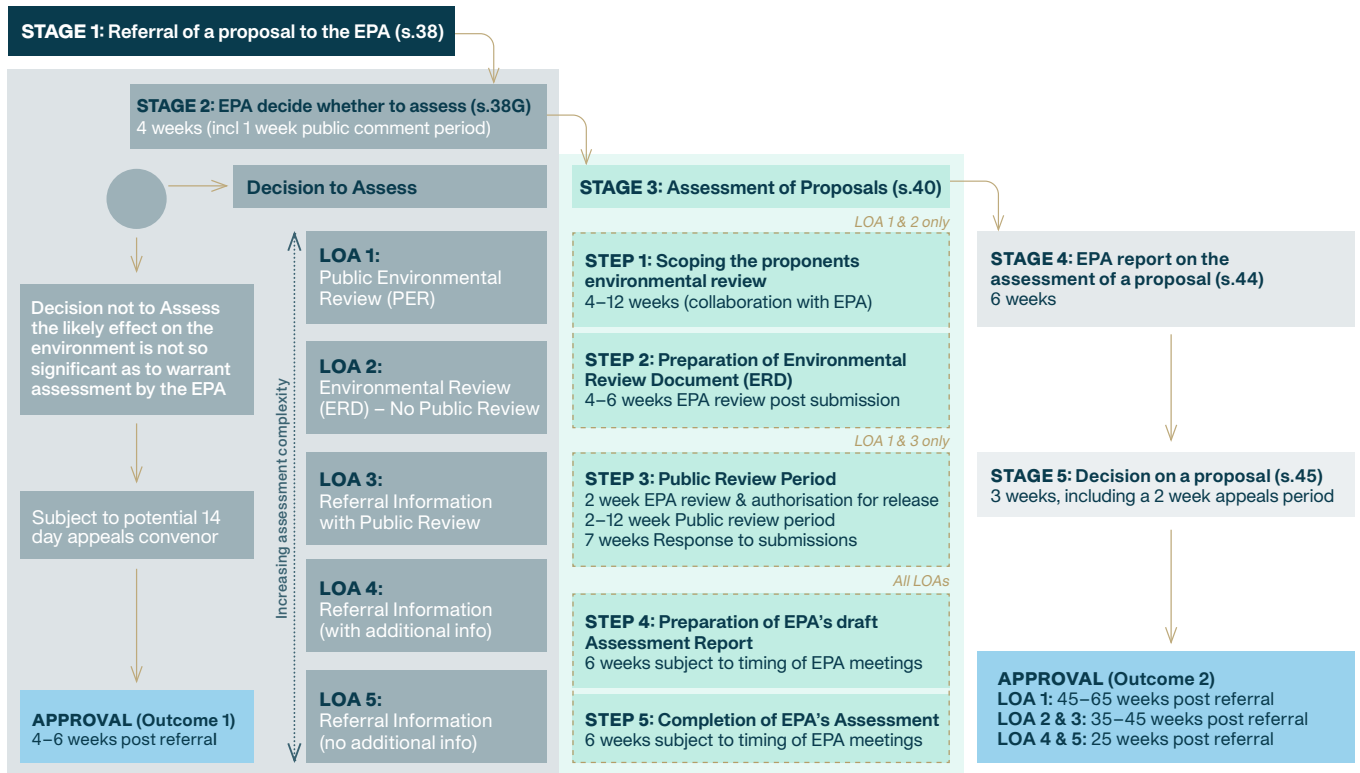


Figure 58: WA EPA environmental approval pathways as interpreted by Tivan and environmental consultant APM

Key to a project’s success in this approach is providing a referral that demonstrates evidence of a deep understanding of the project development areas underlying social and environmental significance, identification of all potentially sensitive receptors, and through detailed third-party Environmental Impact Assessments (EIA) determination that the project will have no net negative impact to those receptors and can be adequately managed through other existing processes. Tivan intends to work closely with APM, the EPA and DCCEEW over the coming months to ensure alignment on content and format of the referral document, continue to progress baseline surveys and commence technical studies to target an outcome of a non-formal review.

The most applicable precedence set by projects in the Kimberley region that has received approval following the non-formal review process is the Ridges Iron Ore Project, which was referred to the WA EPA and DCCEEW in 2010 and received ‘Not Formally Assessed’ / ‘Not a Controlled Action’ outcomes. The Ridges Iron Ore Project is situated approximately 40 km east of the Speewah Project, along Great Northern Highway.

Development Area

The Proposed development area for the purposes of environmental baseline and technical impact assessments covers an area of approximately 9,307 ha and is illustrated below in Figure 59.

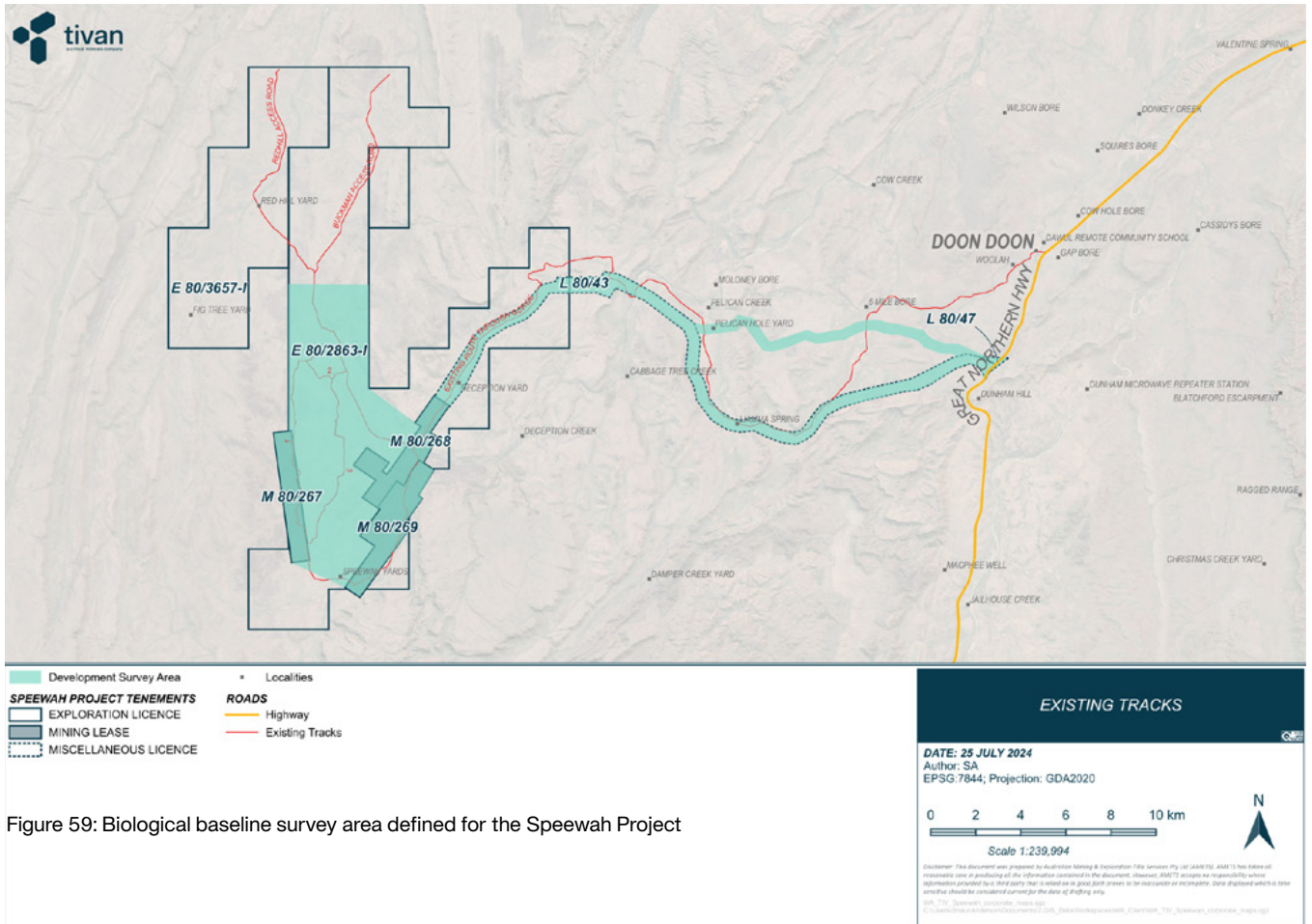


Figure 59: Biological baseline survey area defined for the Speewah Project

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Baseline Surveys

To assist the EIA process, the EPA has identified 14 environmental factors for consideration; organised into five themes: Sea, Land, Water, Air and People. Below table presents those factors, with preliminary screening completed by Tivan and APM in determining relevance to the project.

Table 25: EPA Environmental Factors and Objectives

Theme	Factor	Objective	Relevance
Sea	Benthic communities and habitats	To protect benthic communities and habitats so that biological diversity and ecological integrity are maintained.	Not Applicable*
	Coastal processes	To maintain the geophysical processes that shape coastal morphology so that the environmental values of the coast are protected.	Not Applicable*
	Marine environmental quality	To maintain the quality of water, sediment and biota so that environmental values are protected.	Not Applicable*
	Marine fauna	To protect marine fauna so that biological diversity and ecological integrity are maintained.	Not Applicable*
Land	Flora and vegetation	To protect flora and vegetation so that biological diversity and ecological integrity are maintained.	Applicable
	Landforms	To maintain the variety and integrity of distinctive physical landforms so that environmental values are protected.	Not Applicable
	Subterranean fauna	To protect subterranean fauna so that biological diversity and ecological integrity are maintained.	Applicable
	Terrestrial environmental quality	To maintain the quality of land and soils so that environmental values are protected.	Applicable
	Terrestrial fauna	To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.	Applicable
Water	Inland waters	To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected.	Applicable
Air	Air quality	To maintain air quality and minimize emissions so that environmental values are protected.	Not Applicable#
	Greenhouse gas emissions	To minimize the risk of environmental harm associated with climate change by reducing greenhouse gas emissions as far as practicable.	Applicable
People	Social surroundings	To protect social surroundings from significant harm.	Applicable
	Human health	To protect human health from significant harm	Not Applicable#

*Not applicable based on current proposal to use Wyndham Port. May be applicable if Project scope changes.

Source: APM

#May be applicable, depending on the outcomes of toxicological testing and impact assessment.

Based on current knowledge it is not expected to be applicable.

In August and September of 2023 Tivan engaged with APM to conduct a Dry Season Biological Survey at the Speewah Project. The factors covered during the survey were flora and vegetation and terrestrial fauna.

The fauna survey was conducted over three two-week periods between the 1st August and the 18th September 2023, comprising approximately 42 person days. Additional unmanned survey techniques were deployed to cover the period 1st August to 6th October 2023. The survey was conducted at a detailed level of assessment and applied techniques were quantitative and standardised, with at least one trapping site established in each habitat type, to allow analysis and comparison of data.

The flora and vegetation survey was conducted over a twelve day period between the 7th and 18th of August 2023, comprising approximately 48 person days. The survey was conducted at a Detailed level of assessment to provide adequate local and regional context relative to the values of the flora and vegetation within the survey area. Survey effort included multiple quadrats located at representative points throughout each preliminary vegetation type (determined during the Desktop

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Study phase). Traverses were also used to provide information on the distribution of vegetation types and the location of boundaries between vegetation types and habitats.

Additionally, in April and May 2024, APM returned to site to conduct a Wet Season Biological Survey of the Speewah Project. The Factors covered during the survey were flora and vegetation and terrestrial fauna.

The flora and vegetation survey comprised 12 person days. The survey was conducted at a detailed level of assessment to provide adequate local and regional context relative to the values of the flora and vegetation within the survey area. Survey effort included revisiting quadrants allocated at representative points throughout each preliminary vegetation type during the dry season to rescore floristic composition. Additional sites were also allocated into areas unable to be accessed in the Dry Season survey. **Flora and Vegetation Baseline Surveys for the Project area are now complete.**

The targeted fauna survey comprised 6 person days in the field, conducted by helicopter concurrently with the flora and vegetation survey. The survey methods comprised walked traverses to record the presence/absence and quality of habitat suitable for conservation significant fauna; and deployment of motion sensor cameras and autonomous acoustic recording devices. The retrieval of cameras and bat detectors was completed in mid-June, review of which will enable Tivan and APM to conduct narrowed targeted Fauna survey during 2025 Wet Season to fulfil the requirement for multi-season detailed survey as stated in regulatory guidance for Environmental Impact Assessment. **Fauna baselines studies are expected to conclude with wet season survey in Q1 2025.**

Through increased understanding of Flora and Vegetation Baseline surveys, as well as improved understanding of potential Hydrogeological impacts of dewatering, Tivan with support from APM and key subconsultants plans to commence Short Range Endemic (SRE) Surveys, and Subterranean Fauna (STF) Surveys in Q3 2024. SRE baseline collection require a multi-season survey as required by regulator guidance for Environmental Impact Assessments. To this end, SRE Surveys are due to be complete with wet season survey in Q1 2025. STF surveys require the use of boreholes (through either exploration or for water monitoring or production purposes) and trapping and Tivan intends to conduct initial STF survey using existing exploration holes in Q3 2024, and transition to a combination of new and existing holes following Q3 drill programme. **STF Surveys are scheduled to conclude in Q2 2025.**

Tivan and APM consider inland waters as the greatest risk element to the projects success in realising a manageable impact status, and subsequent non-formal assessment. Determination of this point is largely driven by the act of ground dewatering to allow for mining operations, located proximately to the Dunham River and associated tributaries, and the potential for impact to groundwater dependent ecosystems (GDE). Detailed Hydrological and Hydrogeological monitoring activities are due to commence in Q3 2024, and sufficient data is expected to enable **update to ground and surface water models in Q2 2025.**

Technical Studies

Technical Studies associated with environmental impact assessments (EIA) are planned to commence and conclude in Q2 2025.

Most Technical studies rely on completed baseline surveys and the Project to be sufficiently defined through engineering prior to commencement of assessments. Tivan and APM will facilitate discussion with 3rd party independent subconsultants, to review the Study Engineering design inputs and advise the project on any considerations relating to existing optionality in the engineering design, with the aim for FS deliverables to be used for the purposes of EIA. The current EIA studies planned to be conducted include:

- Traffic Impact Assessment
- Social Impact Assessment
- GHG and Climate Assessment
- Air Quality Assessment
- Noise Impact Assessment

Some Technical studies do not require preceding baseline studies and may be started earlier. Tivan will continue to work with existing partners on advancing understanding of the project in this regard;

- Tailings and Waste Rock Characterisation – WSP
- Landform Design (Evolution Modelling) – SRK
- Hydro Modelling and Water Management Plan – SRK
- Source Pathway Receptor (SPR) Modelling – SRK
- Groundwater Dependent Ecosystems Impact Assessment – APM
- Threatened Species Significant and Impact Assessment – APM

Approvals and Licenses

Further to Formal Environmental Approvals, Tivan will be working closely with its selected partners in developing the necessary submissions to obtain approvals and licenses to both build and operate the facility. Work on these aspects is currently anticipated to commence at the end of FS In Q3 2025 and prior to the conclusion of DFS in Q3 2025. An overview of the key approvals and licenses as they relate to the Speewah Project are as follows.

Mining Proposal

Further to Formal Environmental Approvals, Tivan will be working closely with its selected partners in developing the necessary submissions to obtain approvals and licenses to both build and operate the facility. Work on these aspects is currently anticipated to commence at the end of FS In Q3 2025 and prior to the conclusion of DFS in Q3 2025. An overview of the key approvals and licenses as they relate to the Speewah Project are as follows.

Native Vegetation Clearing Permits

Where a project has been assessed by the EPA under section 40 of Part IV of the EP Act (as part of a proposal referred under section 38), separate vegetation clearing approvals are not required, as impacts of clearing are addressed by conditions set out within a Ministerial Statement. In the case for the Speewah project, where Environmental approval is sought via the non-formal review process, additional Native Vegetation Clearing permits will need to be obtained. Tivan will work closely with APM, Lycopodium and SRK to ensure native vegetation clearing permits are sought at points in time where the necessary engineering detail can be provided for DEMIRS/DBCA review.

Prescribed Premises Licence and Works Approvals

The Department of Water and Environmental Regulation (DWER) administers legislation that governs the management of emissions, discharges and pollutants from premises prescribed under Part V of the EP Act and the Environmental Protection Regulations 1987. DWER regulates industrial emissions and waste disposal through a Works Approval and licensing process.

A Works Approval and subsequent Prescribed Premise Licence(s) will be required to construct and operate the processing plant, TSF and landfill facilities (as relevant). Depending on whether threshold levels are triggered, activities such as dewatering, power generation and sewage treatment may also require licensing. Tivan will work closely with APM and Lycopodium to ensure that advice regarding plant emission limits are adequately identified ahead of planned engineering activities, and that approvals are sought at points in time where the necessary engineering detail can be provided for DWER review.

Mine Safety Management Systems

The Western Australian work health and safety (WHS) laws came into effect on 31 March 2022. The WHS laws include the:

- Work Health and Safety Act 2020 (WHS Act); and
- Work Health and Safety (Mines) Regulations 2022 (WHS Mines Regulations).

A Mine Safety Management System (MSMS; Regulation 621) must be developed on risk management principles. The MSMS takes into account the safety aspects of the mining operation and outlines measures that the operator will take to ensure a safe workplace and how they will comply with the Act and Regulations.

Tivan is committed to safe and healthy working environment, inclusive of physical, emotional and cultural aspects, and the right of all workers to return home safely. Tivan will continue to develop its systems and procedures to be operationally ready in 2027.

Implementation and Schedule

Tivan has previously communicated its commitment to the path ahead through feasibility studies, noting the Company’s desire to move rapidly across multiple workstreams. Tivan is steadfast in this commitment and presents again the below timeline in Figure 60 to highlight the key workstreams associated within the project development, and the major milestones of each.

Project Timeline to Definitive Feasibility Study

	2024							2025									
	Q2		Q3			Q4		Q1			Q2			Q3		Q4	
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
Drill Planning	●																
Pre-Feasibility Study	●	●															
Drill Campaign			●	●	●	●											
Feasibility Testwork	●	●	●	●	●	●	●										
ILUA #1 (access road)	●	●	●	●	●	●	●										
Binding Joint Venture	●	●	●	●	●	●	●										
Drilling Assays							●	●	●								
Resource Estimate Update									●	●							
Feasibility Study					●	●	●	●	●	●							
Environmental Impact Assessments								●	●	●							
Maiden Reserve Calculation									●	●	●						
Definitive Feasibility Testwork									●	●	●	●	●	●	●	●	●
ILUA #2 (site)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Project Environmental Approval	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Mining Proposal and Works Licenses											●	●	●	●	●	●	●
Definitive Feasibility Study											●	●	●	●	●	●	●

Figure 60: Speewah Fluorite Project: study phase implementation schedule

It is anticipated that final investment decision (FID) will be made on the project following review of the outcomes of the Definitive Feasibility Study, predicated on the associated preceding major milestones also being achieved.

The execution strategy proposed for the Speewah Project is an Engineering, Procurement and Construction Management (EPCM) approach and this has formed the basis of the capital estimate and the associated implementation schedule.

As part of the Study Lycopodium and Tivan have worked closely in preparing an indicative implementation schedule that meets the project’s primary goal of achieving Australia’s first commercial production of acidgrade fluorspar by Q1 2027.

Essential to the project achieving this timeline is the implementation of a Pre-FID early works campaign that will involve the engineering design, tender and award of site access road and accommodation subcontracts, as well as the placement of purchase orders on major and long lead mechanical equipment packages.

A preliminary implementation schedule has been prepared by Lycopodium based on its extensive experience in implementing projects similar to the Speewah Fluorite project, and including inputs received from key Subcontract and Procurement packages engaged throughout the budget quotation process conducted during the Study. The preliminary schedule estimates a construction duration of approximately 17 months following FID.

Given the relatively simple nature of the flow sheet, commissioning is currently expected to be completed over a 3-month period, during which pre/dry/wet commissioning activities will take place, much of which will be under the supervision of vendor representatives with commissioning expertise.

First production will coincide with wet plant ore commissioning and is expected to involve a 2 to 3-month ramp-up period to achieve nameplate capacity.

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Stakeholder Engagement

Management Framework

Tivan supports best practice principles of stakeholder engagement, meaning that management is continually seeking to promote alignment between the interests of shareholders and stakeholders in advancing the Company's activities. Tivan seeks to hear the voices of community and stakeholders and to ensure that views and concerns are both understood and responded to throughout planning and development.

At the Project level, Tivan is pursuing a three-phase approach to minimising negative impacts on country, framed as 'Avoid, Mitigate, Offset'. This includes strict regulatory compliance with environmental permissions for the Project.

Concurrently, Tivan is seeking to further all available opportunities to maximise the positive community-wide impacts of the Project in the East Kimberley region. This includes Tivan's workforce and procurement strategy. It also extends to Tivan's plans to utilise the Ord River Hydro Power Plant, the planning for which includes the provision of hydro power to various local communities and businesses.

With respect to Traditional Owners and Native Title Holders, Tivan has established firmwide policies that centre upon concepts of Early Inclusion and Gainful Participation. The overriding aim of these policies is to promote alignment and risk sharing through the life-cycle of the Project. Tivan views these policies as broader and more suitable than the narrowly defined concept of 'Free, Prior and Informed Consent'.²¹

Progress to Date

2023

Tivan has been working in the East Kimberley since the acquisition of Speewah in Q1 2023. The initial outreach program was focused upon key regional bodies, including:

- Kimberley Development Corporation
- Kimberley Land Council
- Miriwing Gajerrong (MG) Corporation
- Shire of Wyndham-East Kimberley
- East Kimberley Chamber of Commerce and Industry

Tivan's initial outreach program included the Woolah Aboriginal community at Doon Doon, a small regional township with the closest proximity to the Speewah site. Tivan has completed various community works programs at Doon Doon over the past year.

Tivan broadened its outreach program through the course of 2023, prioritising stakeholders and commercial enterprises that were viewed as potentially relevant to the Company's critical paths. Cambridge Gulf Limited was viewed as a strategic priority, as all project development pathways that were under consideration involved the Port of Wyndham.

Outreach in respect of Tivan's hydro power planning commenced in 2023, including with Horizon Power, Pacific Hydro and Rio Tinto, as the owner of the ADM. As Tivan's principal focus at the time was the Speewah Vanadium Titanomagnetite Project, where power requirements were considerably larger than the capacity of the Ord River Hydro Power Plant, the resulting discussions were preliminary in nature.

Tivan also prioritised early scoping of local workforce development with key regional bodies, including meetings with TAFE WA, at its North Regional campuses in Wyndham and Broome.

Reflecting Tivan's early engagement with Traditional Owners and Native Title Holders, a Heritage Protection Agreement was concluded with the Kimberley Land Council in December that extends across the entire Speewah site.



Kununurra town centre. Photo Credit: Ben Broady

2024

Tivan shifted its priorities to the Speewah Fluorite Project in early 2024. As a result, Tivan's stakeholder engagement in the East Kimberley has broadened and deepened over the past six months.

There have been three main areas of focus:

1. Maintaining and deepening dialogues with key regional bodies
2. Broadening outreach in the community, including to local commercial enterprises and representative groups of Traditional Owners and Native Title Holders that neighbour the Speewah site
3. Accelerating dialogue with various departments and agencies and relevant Ministers of the Western Australian and Federal governments.

In respect of the proposed access road to the Speewah site, Tivan concluded a second Heritage Protection Agreement with the Kimberley Land Council in February, acting in an agency capacity for the Yurriyangem Taam (YT) Aboriginal Corporation. Subsequently, Tivan met with the Board of YT at Halls Creek, to introduce the Project in detail and to progress a pathway toward an Indigenous Land Use Agreement for the proposed access road.

Concurrently, Tivan commenced a detailed planning phase to evaluate the use of Hydro power as an option for the Project. This involved the commencement of technical evaluations with Horizon Power and Pacific Hydro, and significantly broadening the outreach program to Traditional Owners and Native Title Holders groups that neighbour the Speewah site.

These groups include:

- Yurriyangem Taam (YT) Aboriginal Corporation
- Miriwing Gajerrong (MG) Corporation
- Galganyem Group
- Willinggin Aboriginal Corporation
- Balangarra Aboriginal Corporation.

Reflecting the importance of coexistence and cooperation with pastoral leases interests at the Speewah site, Tivan concluded a Heads of Agreement with Glen Hill Pastoral Aboriginal Corporation in May. Tivan is also evaluating the potential commercial synergies for the Project of acquiring the roadhouse at Doon Doon.

As part of estimating costs of the Project for this Study, Tivan engaged various local enterprises with demonstrated capabilities. The three main areas of focus were construction of the access road, mine site contracting and mine site accommodation. Table 26 provides a summary of these local enterprises and current status.

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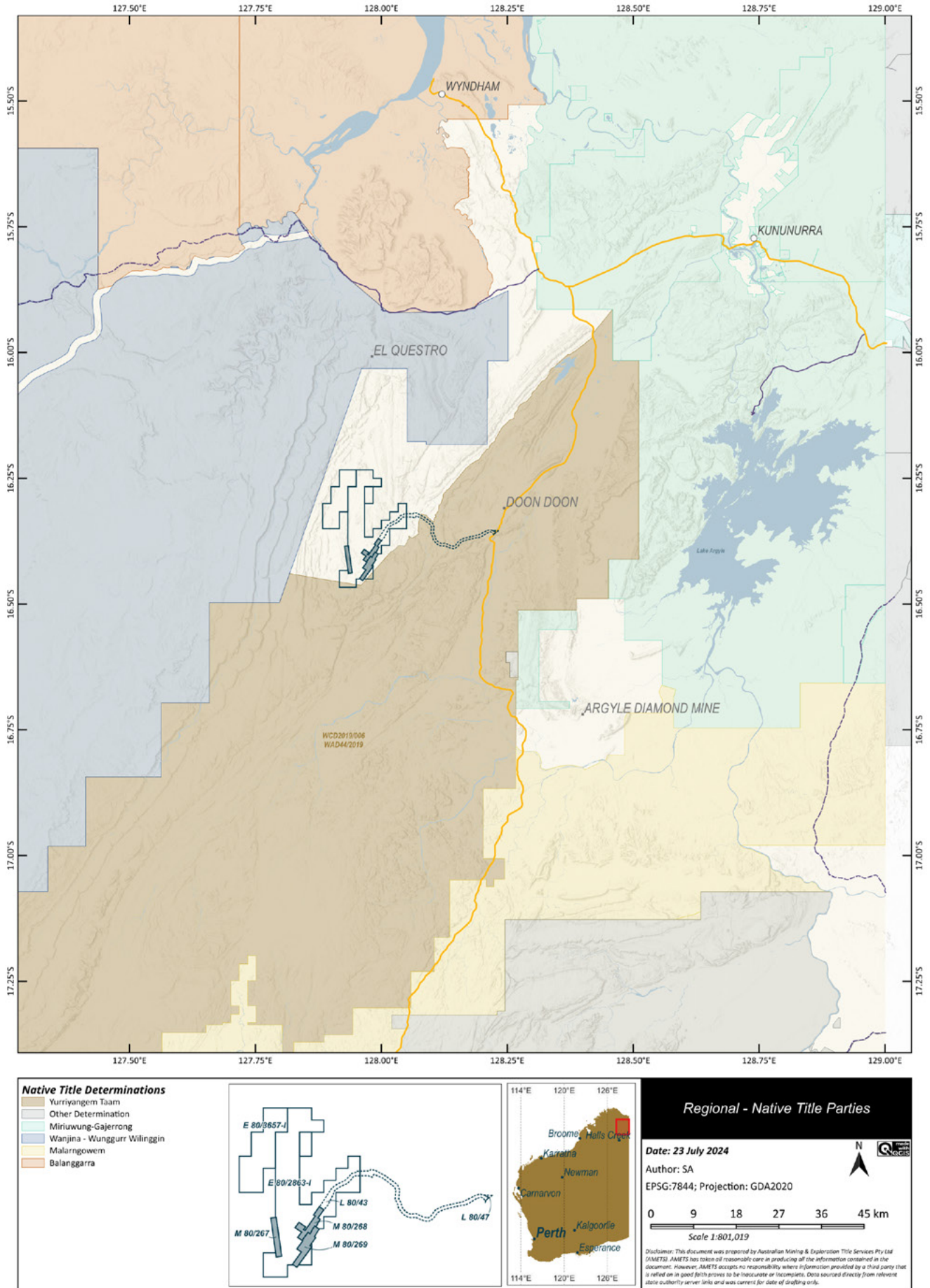


Figure 61: Native Title Determinations in the East Kimberley region. Tivan is actively supporting a KLC-led process to determine Native Title over the South Pentecost Unclaimed Area that will include but not be limited to the 'unclaimed' area in the vicinity of the Speewah tenements

Table 26: Tivan Engagement with Local Enterprises

Enterprise	Capability	Status
Cambridge Gulf Limited	Operator of Port of Wyndham	Heads of Agreement: July 2023: provided estimates to PFS
MDM Mining & Civil	Civil and Mining (engaged at ADM)	Provided estimates to PFS
Daduru	Civil and Mining; transport logistics	Preliminary discussions, inclusive of Balanggarra
Ngarranggarni	Civil and Mining	Preliminary discussions, inclusive of Yurriyangem Taam: provided estimates to PFS
Carey Group	Civil and Mining (engaged at Thunderbird)	Provided estimates to PFS
Glen Hill Pastoral Aboriginal Corp	Pastoral lease; commercial synergies	Heads of Agreement: May 2024
G'Day Group/Discovery Parks	Owner / operator of El Questro; mine site accommodation	Commercial discussions on BOO model for accommodation
Pacific Hydro	Hydro generation/transmission	Memorandum of Understanding: April 2024
Horizon Power	Hydro transmission	Provided Pre-Feasibility Study for Hydro: Mar-Jul 2024
Ben Broady	Local photography & aerial reconnaissance	Contributed images to PFS

Reflecting its demonstrated local capability, Tivan concluded a Memorandum of Understanding with G'Day Group, the owner and operated of the El Questro Homestead, in July. The agreement provides a pathway for G'Day Group to develop the mine site accommodation on a build own operate ('BOO') basis in the year ahead. Tivan and G'Day Group are evaluating further commercial synergies in the region, including the provision of low voltage hydro power from the Speewah site along a northern corridor to El Questro.

Tivan's engagement with departments and agencies of the Western Australian and Federal governments is an ongoing workstream, that includes:

- Export Finance Australia
- Critical Minerals Office
- Northern Australia Infrastructure Facility
- Clean Energy Finance Corporation
- Department of Energy, Mines, Industry Regulation and Safety (DEMIRS – WA)
- Department of Jobs, Tourism, Science and Innovation (JTSI – WA)
- Department of Transport (WA)
- Western Australian Environmental Protection Agency

By way of summary, Table 27 provides a day count of Tivan team members and direct contractors in the Kimberley through 2023-24. Tivan's field trips to Speewah will be affected by the wet season (in Q4/Q1) until such time as the access road is upgraded.

Table 27: Tivan Day Count in Kimberley

	Q1	Q2	Q3	Q4	Q1	Q2	Total
Tivan Team	4	25	52	0	0	8	89
Contractors	0	3	31	0	0	10	44

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Pathways Ahead

In the phase beyond this Study, Tivan plans to further broaden and accelerate its community engagement, including through a heightened presence of team members in the East Kimberley.

Tivan is scheduled to commence its drilling program for the Project in Q3, that will significantly increase Tivan’s presence on country, inclusive of direct contractors. The drill program is proceeding through relevant processes under the Heritage Protection Agreement with the Kimberley Land Council and as a Program of Works with the Department of Energy, Mines, Industry Regulation and Safety.

Tivan is scheduled to host a Business After Hours event as part of the Kimberley Economic Forum in Kununurra on August 28. This is a showcase event where Tivan will present its planning for the Project to the East Kimberley community.

Tivan will continue to mature its commercial engagement with local enterprises listed in Table 26 in parallel. This process will be assisted by the publication of the Study, as it provides baseline estimates for relevant contractors, as well marking the commencement of Tivan’s workforce buildup strategy. Tivan is committed to localising as much of its workforce as possible and is prioritising the participation of Aboriginal peoples and Indigenous owned enterprises within the planning and development phases.

Tivan will continue through its next phase of studies for power options for the Project. This will include ongoing engagement with Pacific Hydro and Horizon Power, as well as the Western Australia and Federal governments, in respect of plans to utilise capacity from the Ord River Hydro Power Plant and associated transmission corridors.

The pathway forward in utilising hydro power will necessarily involve heightened engagement with representative bodies for Traditional Owners and Native Title Holders. Tivan views the opportunity to reuse the existing transmission corridor and to access the capacity available at the Ord River Hydro Power Plant as transformative for communities and business enterprises across the East Kimberley region. Tivan is committed to working with stakeholders and government to deliver this outcome.

As regards the Speewah site, Tivan notes that the majority of the Speewah Fluorite Resource resides on Mining Leases (ML80/267-268). Independently of the rights conveyed under these Mining Leases, Tivan is pursuing a pathway at the Speewah site that will involve the economic participation of an as yet to be determined group of Traditional Owners.

To achieve this outcome, Tivan is working with the Kimberley Land Council to support a process that will determine Native Title over land referred to the South Pentecost Unclaimed Area in Figure 61. This determination area includes the majority of the Speewah site. In parallel, Tivan and the Kimberley Land Council are working toward an Indigenous Land Use Agreement’ that will convey the economic participation of the resulting determination group, whilst ensuring that Tivan continues to progress along its project development pathway. These processes reflect the constructive working relationship that Tivan and the Kimberley Land Council have established since early 2023.

With the benefit of this Study, Tivan will accelerate its engagement with departments and agencies of the Western Australian and Federal governments and heighten its engagement with relevant Ministers in support of project delivery.

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WELCOME SUNDOWNER
WED 28 AUGUST, 5PM - 7:30PM
@ THE HOOCHERY, KUNUNURRA

Figure 62: Tivan is hosting a community event on 28 August to introduce the Speewah Fluorite Project

Source: East Kimberley Chamber of Commerce

Economic Analysis

Price History

This Study uses historical price data from Fastmarkets. Fastmarkets is the industry benchmark Price Reporting Agency (PRA) for fluorspar and complies with IOSCO price reporting principles. Fastmarkets provides a comprehensive guide of its pricing methodologies.²²

The relevant time series (fluorspar, acidspar, 97% CaF₂, wet filtercake, FOB, China, \$/tonne) is surveyed on weekly basis. Tivan views the time series as the most representative available for the Project, particularly as offtake is focused on Asian markets. Acidgrade fluorspar has continuous long-term price histories available over a 35 year horizon.

Acidgrade Fluorspar Prices: Long Term

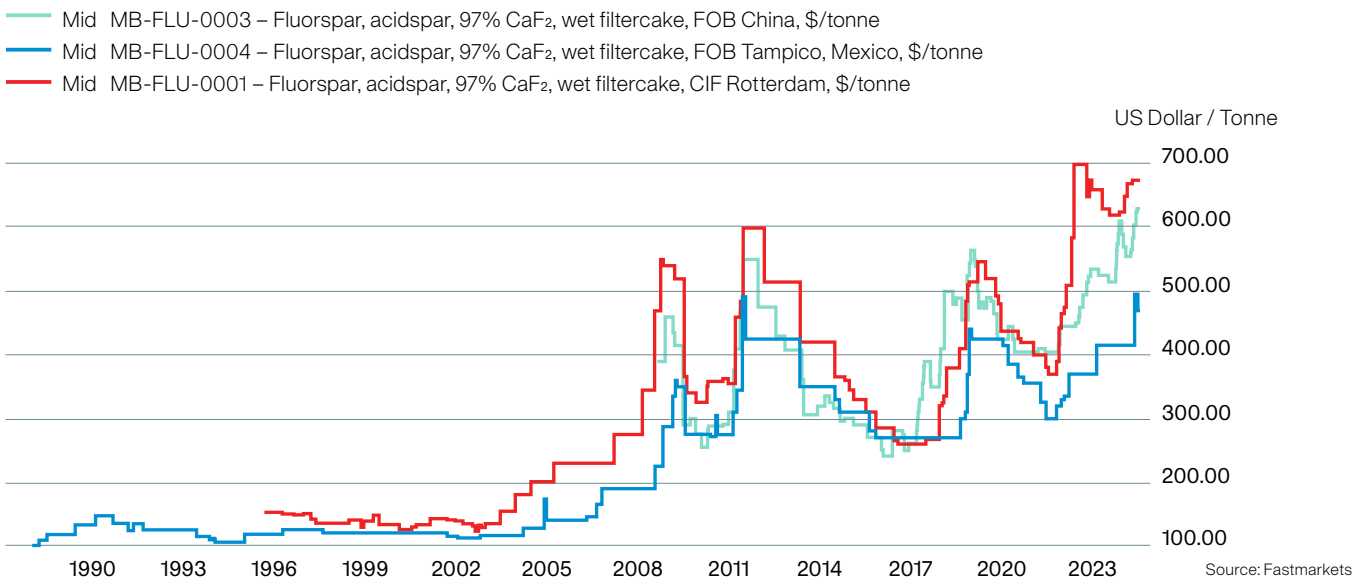


Figure 63: Acidgrade fluorspar prices are available as a long term continuous time series

The use of Free on Board (FOB) pricing is appropriate as it reflects the price at which China is exporting fluorspar, principally to Asia. China exported 377kt of fluorspar in 2023, or 30% of total global exports. Prices of fluorspar in China tend to trade at a modest discount to export prices, reflecting domestic priorities.

With China rapidly depleting domestic reserves and shifting to net importer of fluorspar, there are open questions in terms of China's capacity to provide ongoing supply to export markets. Changes in global tariff regimes, especially between the US and China, pose further risks in terms of disruption of supply chains for fluorspar on a global basis.

22. <https://www.fastmarkets.com/methodology/>

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The realised volatility of fluorspar prices is low within the critical minerals and rare earths sector. This reflects the relative maturity of the fluorspar market with its long-standing industrial use cases. Lower realised price volatility is conducive for project finance, all else equal.

Price Volatility: Fluorspar, Lithium

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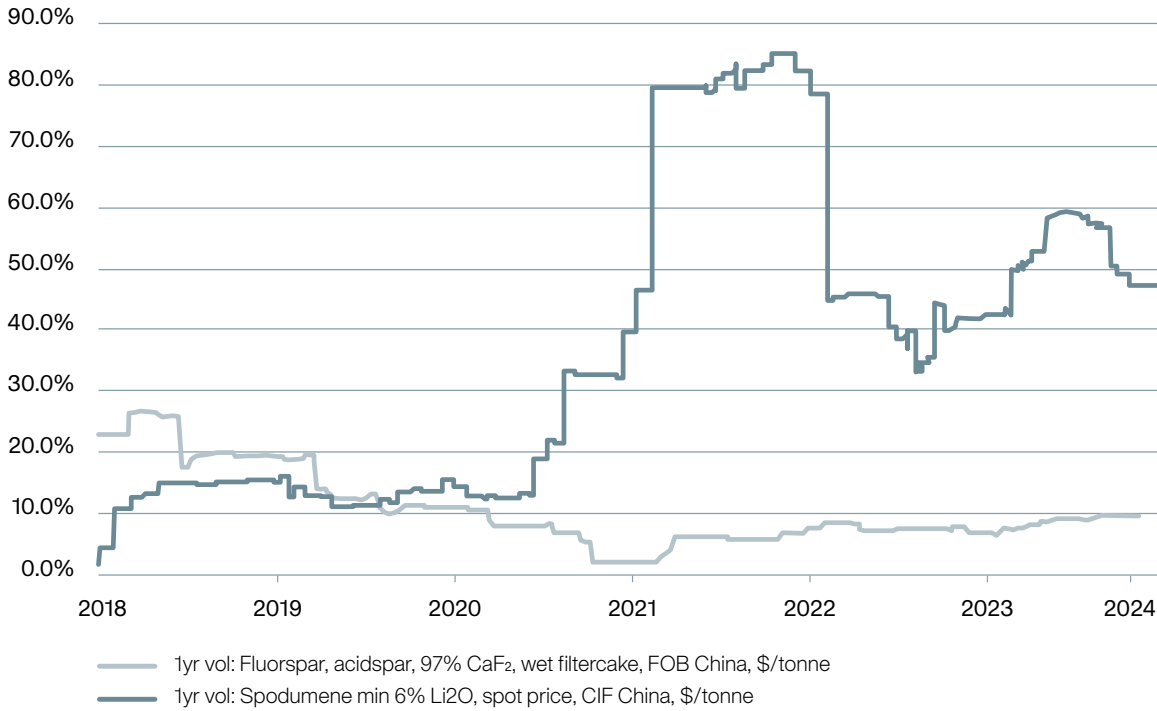


Figure 64: The price volatility of fluorspar is low in comparison to Lithium; Rolling 1 Year realised

Source: Tivan, Fastmarkets

Price Forecast

This Study is based on a price forecast that reflects:

- Long run price trends observable in the fluorspar market
- Demand and supply analysis over the forecast horizon
- Balance of payments dynamics for major importing and exporting countries
- A price ceiling that corresponds the thresholds used by Tivan and SRK Consulting in estimating the Speewah Fluorite Resource and defining the Mineral Exploration Target

i) Long run price trends

Over the past 30 years the price of acidgrade fluorspar has achieved a compound annual growth rate of approximately 6% in nominal terms. The availability of a continuous, long run time series with high data integrity provides a sound basis for econometric modelling and cross validation with long run trends in balance of payments statistics.

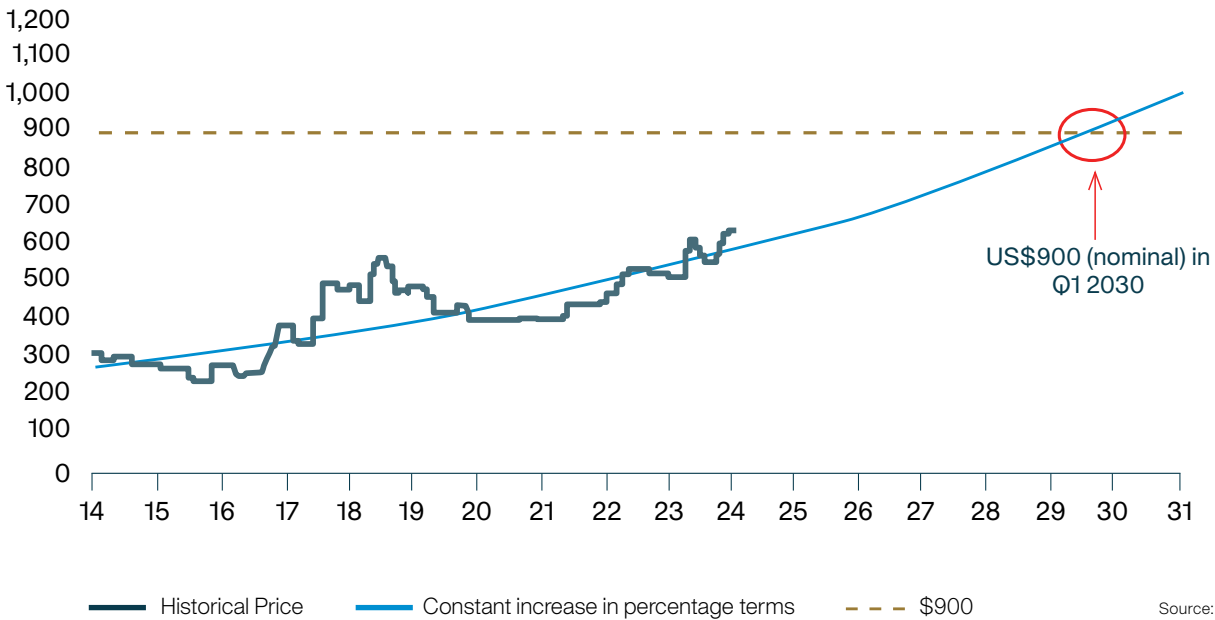
To strengthen robustness, the price forecast is based on the observable trend over the past 10 years. This period includes the multi-year disruption to global demand and industrial supply chains caused by COVID-19. The pandemic provides a useful downside stress test, with the price of acidgrade fluorspar (China, FOB) holding the US\$400/tonne level, providing an operating margin above the Project’s C1 Cost estimate of US\$303/tonne.

The compound annual growth rate over the 10 years period is approximately 7%. In developing the price forecast for the Project, a regression model has been used to capture the trend in constant percentage terms. As shown in Figure 65, acidgrade fluorspar (China, FOB) has realised prices above the fitted trend in 2024.

In the event that prices realised by the Project are higher than the price forecast, the project economics estimated by this Study will be higher, and vice versa.

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Acidgrade Fluorspar: Trend Model



Source: Tivan, Fastmarkets

Figure 65: Fluorspar, acidspar, 97%, CaF₂, wet filtercake, FOB China, \$/tonne: 10 Year Trend Model

ii) Demand and supply

The price forecast is supported by demand and supply dynamics over the relevant horizon. The fluorspar market has historically been close to balance and does not carry inventories or stockpiles. According to Benchmark Minerals Intelligence, the maximum imbalance recorded in 2018, as a supply deficit of 142 k tonnes of fluorspar (all grades).

Benchmark Minerals Intelligence (Figure 4) and Project Blue (Figure 11) are independently forecasting a significant demand / supply imbalance to emerge from 2026. These forecasts are based on granular analysis of midstream and upstream demand, including from electric vehicle batteries and semiconductor manufacturing. Upstream supply is forecast to be constrained by rapid resource depletion and increasing ESG constraints in China, and a variety of constraints faced by resource owners, especially in western countries.

Alternative sources of supply of fluorine are not viewed as economically viable within the price forecast of the Project. Fluosilicic acid (FSA) is constrained by its limited use cases and the low head grade of fluorine in phosphate rock, typically around 3%. Whilst there are various global initiatives underway to recover fluorine from industrial wastestreams,²³ these efforts have proved difficult to scale.

Absent a significant supply resource, the fluorspar market is forecast to move into historic deficit from 2027, both in outright terms and a percentage of global production. The deficit is forecast to occur principally in the acidgrade fluorspar market segment, reflecting competing sources demand for hydrofluoric acid and bottlenecks in the upstream supply of low arsenic fluorspar.

The price forecast for the Project does not reflect the risk of structural scarcity emerging in acidgrade fluorspar beyond 2030, nor attendant the risk of disruption in its supply chains.

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Global Exports of Fluorspar

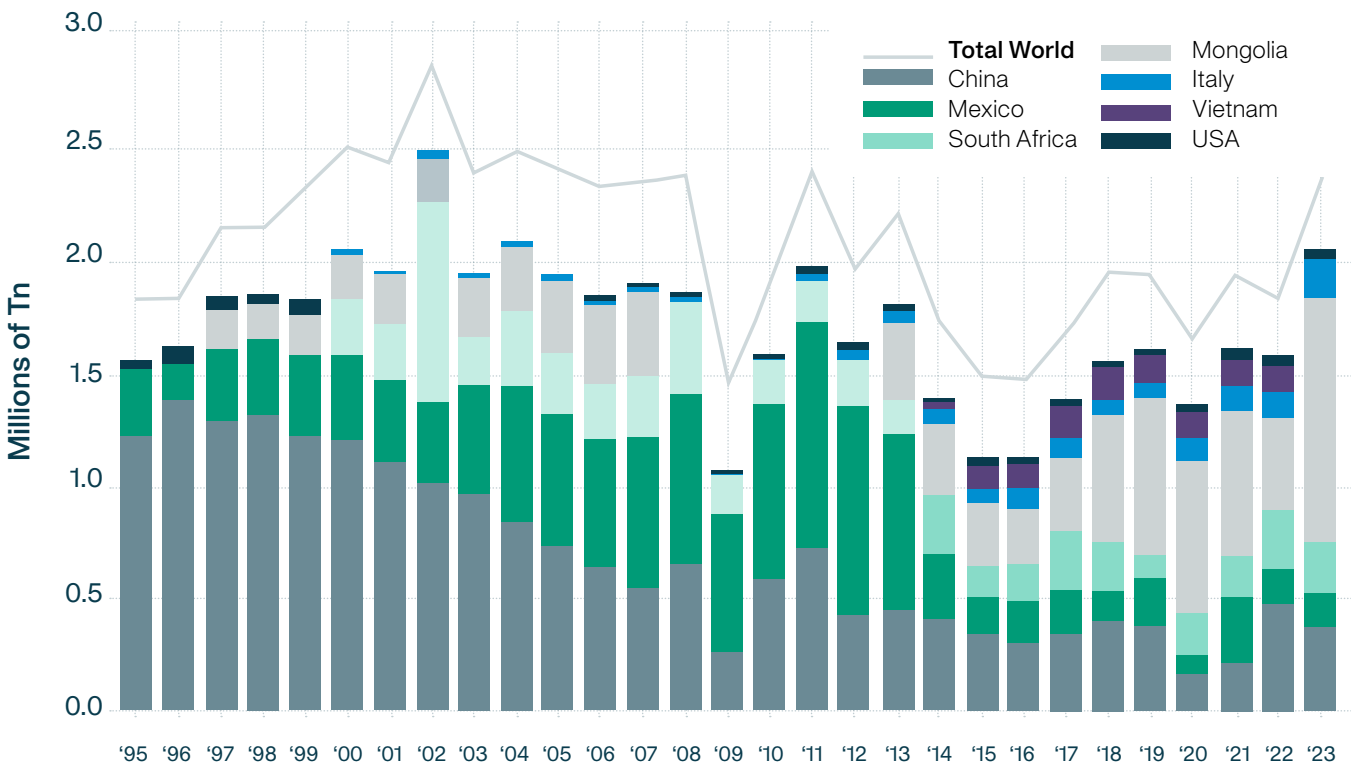


Figure 66: Country sample (most representative)

Source: Exante Data. UN ComTrade

23. <https://esg.tsmc.com/en/update/responsibleSupplyChain/caseStudy/40/index.html>

In Australia, see: <https://www.abxgroup.com.au/site/pdf/76ec1560-7856-4a4e-8593-e824f6124fc6/Initial-33M-modern-manufacturing-grant-received.pdf>

iii) Balance of payments

The price forecast is supported by trends in the balance of payments of countries that are major importer and exporter of fluorspar, observed over the long run and short run. Trade statistics are based on customs-cleared and primary sourced data, hence provide a high integrity means of cross-validation. In support of this Study, Exante Data authored a customised report that evaluated cross-border dynamics in both fluorspar and hydrofluoric acid.

Over the long run, the most significant dynamic is China evolving from the world’s dominant exporter of fluorspar to the world’s dominant importer. This trend is corroborative of the reserve depletion forecast that has been made by Benchmark Minerals Intelligence. In other words, if China was not facing significant constraints in terms of its domestic resources, a significant expansion in imports would not be expected.

As it stands, China imported record volumes of fluorspar in 2023, principally from Mongolia as metspar. Monthly data, available through to May 2024, suggest that China is on track to exceed these volumes in 2024. China’s import volumes may also come to reflect the revocation of mining licenses associated with a nationwide inspection by the Mine Safety Administration, announced in March, that is due to conclude in August.²⁴

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China: Cumulative Monthly Imports of Fluorspar

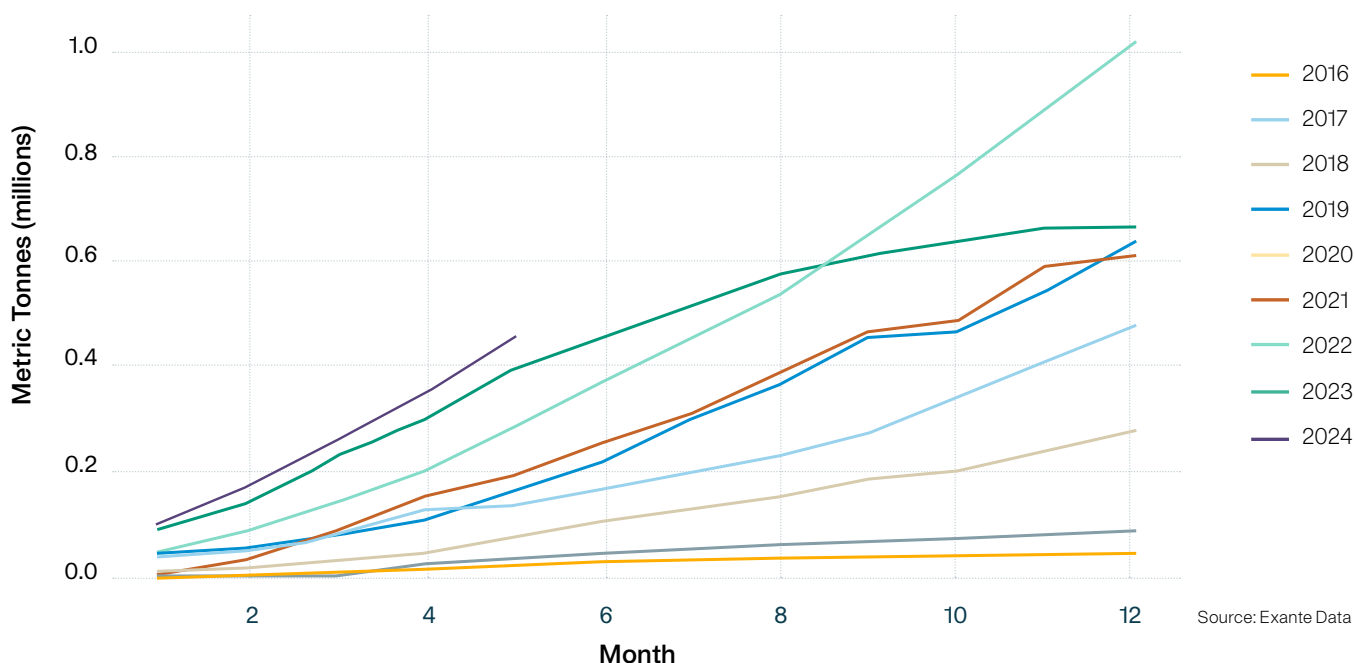


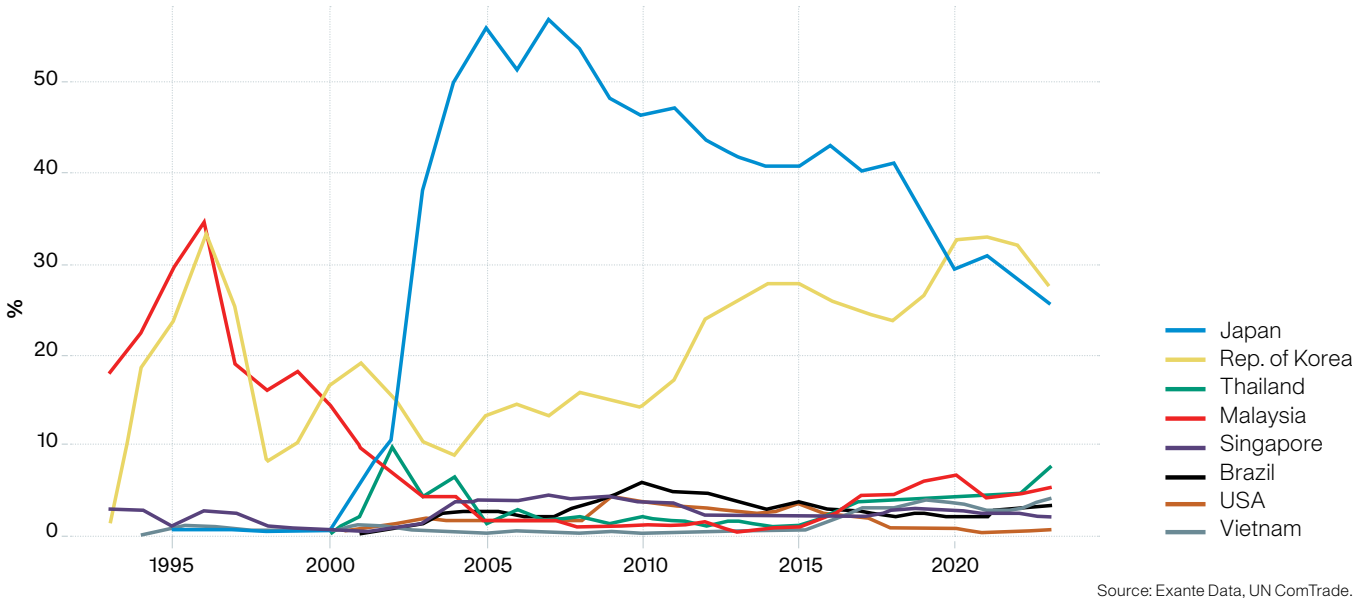
Figure 67: China is tracking at historically high levels of imports of Fluorspar in 2024

Beyond China, the standout trends in global balance of payments include:

- The emergence of India as major importer of fluorspar, soon to surpass the US in volume terms
- China’s increasing reliance upon imports of fluorspar from Mongolia
- The reliance the US has on imports of fluorspar from Mexico, at around 80% of total
- South Africa gradually increasing export volumes over the past 5 years, with India a key market
- Morocco’s exports of fluorspar falling to near zero, following reserve repletion over the past decade
- Italy and Vietnam emerging as small yet stable exporters of fluorspar over the past 5 years
- China’s increasing dominance of midstream exports of hydrofluoric acid (at 75% of global share), with Japan and South Korea the major importers

24. <https://www.fastmarkets.com/insights/chinas-fluorspar-prices-rise-on-the-first-nationwide-safety-inspection-of-fluorspar-mining/>

China's Exports of Hydrofluoric Acid



Source: Exante Data, UN ComTrade.

Figure 68: Destinations as percent of total exports by volume

Short run and long run trade dynamics are consistent with a market where the strategic rationale to secure supply from upstream resources may come to predominate. Resource scarcity may also reduce the influence China has over the price of fluorspar over the medium term. China’s transition from price maker to price taker is more likely to occur in the acidgrade fluorspar segment, given strategic importance of its dominant position in the midstream hydrofluoric acid market. This is consistent with China lowering import tariffs on low arsenic fluorspar to zero in early 2024.

The cross-validation from the balance of payments is supportive of the price forecast for the Project and suggests that risk scenarios for the price of fluorspar are asymmetrically skewed to the upside.

iv) Price Ceiling

In estimating the Speewah Fluorite Resource in April 2024 and the Mineral Exploration Target in May 2024, Tivan and SRK Consulting made threshold assumptions as to cut-off grades and fluorspar prices. As disclosed at the time, the reporting cut-off grade of 2% CaF₂ assumed a price US\$600/tonne, being the current acidspars fluorspar price (China, FOB), with an industry standard revenue factor of 1.5x applied to US\$900/tonne. The marginal cut-off derivation was defined as:

Cut-off = processing cost / (revenue * recovery), where processing cost is AUD25 at an AUDUSD exchange rate of 0.65 and with a recovery of 90%

The Mineral Resource estimate then applied a peer based cut-off grade of 10% to generate the high-grade resource estimate (8.6 million tonnes at 22.8% CaF₂) in accordance with JORC.

To promote consistency with resource estimate and exploration target definition, the price forecast for the Project applies a ceiling price of US\$900/tonne, projected to be reached in Q1 2030.

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Industry trends

Industry trends in the fluorspar market are reported regularly by various companies and by national agencies tasked with reporting on geological resources and critical minerals. Leading market intelligence firms include Benchmark Minerals Intelligence, Project Blue and ChemAnalyst.

Project Blue describes the dominant industry trend in terms of China's role:

China's role in global fluorspar markets has shifted from being a low-cost source of fluorspar to the international market to becoming an important supplier of value-added fluorine products as domestic companies have moved down the fluorine value chain. This process is continuing, with China currently trying to lower its reliance on imports for higher-grade products (such as ultra-high purity HF for the semiconductor industry). It is likely that there will be further consolidation in the Chinese industry going forward in line with government policies. In recent years, Chinese fluorspar exports have decreased drastically as domestic demand for fluorspar (mainly acidspar) has increased accordingly, forcing China to become a net fluorspar importer despite being the largest producer globally.

Competitiveness and Peers

The Project is well placed to strengthen the resilience and improve the diversity of important supply chains in Asia. These aims are supported by the geographic location of Speewah, with nearby port access in the north-west of Australia, offering proximity and efficient transit to Asian markets. Speewah is the only major fluorspar resource situated in a western-bloc country in Asia.

While the Project has a compelling rationale in terms of security of supply, it also needs to satisfy broader tests of commercial viability and remain competitive throughout the commodity cycle. This includes by absorbing Australia's higher cost structure, notably in terms of higher labour costs and stricter compliance with environmental, social and governance (ESG) standards.

These are general challenges faced by the critical minerals sector in Australia and often act as constraint on project finance and development.²⁵ For the Project, the superior characteristics of the Speewah Fluorite Resource, in terms of size, grade, depth, mineralogy and location, provide the basis for robust project economics and a globally competitive position amid rapidly shifting market dynamics.

i) Cost curve

This Study does not include an industry cost curve, owing to:

- the lack of credible reporting of production costs, with most global fluorspar resources owned by state owned enterprises, private companies and conglomerated groups
- the rapid rate of resource depletion (both in terms of grade and outright tonnage), which is imparting upward pressure on production costs due to the exhaustion of higher quality resources
- increasing compliance with mine safety and environmental regulations, increasing the cost of production, especially in China
- the differences in resource size, grade, depth and mineralogy that can significantly affect production costs

As an indicative guide, Tivan has reviewed a range of estimates of labour costs for fluorspar projects that are in operations in low-cost jurisdictions including China, Mongolia, Mexico and South Africa. These estimates suggest a labour cost disadvantage for the Project of approximately US\$40-60/tonne, as measured in C1 Cost terms. This indicative guide does not account for reserve depletion dynamics or tightening of ESG standards in these countries, nor differences in resource characteristics.

ii) Resource depletion

Regarding resource depletion, the US Geological Survey (USGS) provided the most authoritative global dataset via its Mineral Commodity Summary, published in Q1 each year. The 2023 update for fluorspar showed mine production in China of 5.7 million tonnes of CaF₂ and reserves of 67 million tonnes. On this basis, China's mining rate of fluorspar was 2.7x higher than the rest of the world.

Reserves are reported by USGS as metal tonnes of CaF₂. Reserves are defined as that part of reserve base that could be economically extracted or produced at the time of determination. In general practice not all reserves translate into mine production, due to a variety of factors.

25. <https://tivan.com.au/wp-content/uploads/2023/06/Submission-Document-5-FA-2.pdf>

Table 28: Global Fluorspar Reserves – USGS 2023

	Mine Production		Reserves
	2022	2023	
United States	NA	NA	NA
China	5700	5700	67000
Germany	60	60	NA
Iran	116	120	4500
Mexico	1000	1000	68000
Mongolia	425	930	34000
Pakistan	52	52	NA
South Africa	406	410	41000
Spain	153	150	15000
Vietnam	218	170	3400
Other Countries	190	170	50000
World total (rounded)	8320	8800	280000

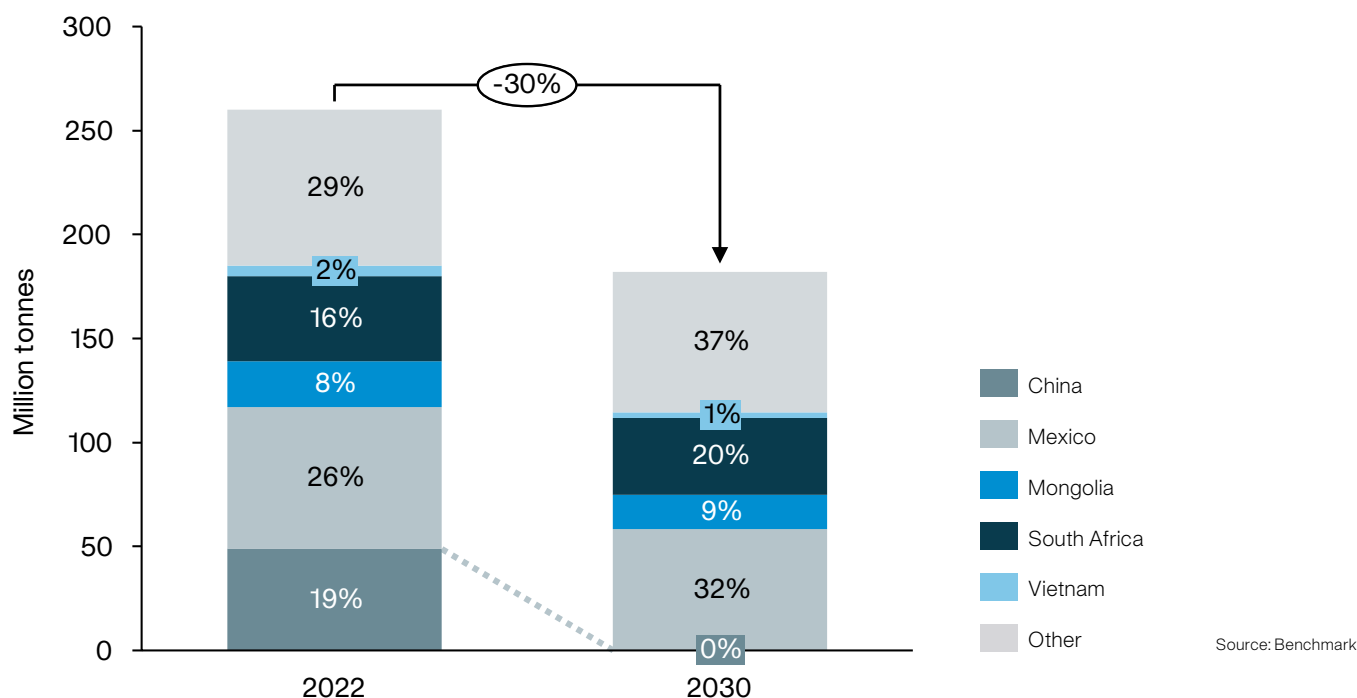
Source: USGS

The veracity of China’s reporting of its Mineral Resources is often questioned. The following points can be made independently of these concerns:

1. China’s coverage of reserves to mine production is low
2. There is significant dispersion in terms of size, grade, depth, mineralogy and location of fluorspar resources in China that may hinder economic recovery
3. Environmental and safety standards for fluorspar mining are China tightening. This includes the notice of “Carrying Out Special Safety Production Rectification for Fluorite Mines” announced by the National Mine Safety Administration in March.²⁶ Heightened regulation may pose a constraint to the economic recovery of fluorspar in China.

Reflecting these drivers, Benchmark Minerals Intelligence has forecast that China will deplete its reserves of fluorspar by 2030.

Fluorspar Reserve Depletion



Source: Benchmark

Figure 69: Global fluorspar reserves by country, as forecast by Benchmark Minerals Intelligence

26. <https://mp.weixin.qq.com/s/xne3fx7dVQrR8GKJcWcJUA>
 Translated version: <https://documents.tivan.com.au/NoticeoftheGeneral.pdf>

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China is more likely to deplete its fluor spar reserves along a more graduated path, whilst continuing to shift from exporting to importing, preserving its domestic resources and limiting strategic vulnerabilities in downstream industries. This is consistent with the increase in imports observed since the pandemic (Figure 70) and the lower year on year exports that China recorded in 2023 and year to date in 2024.

China: Cumulative Monthly Exports of Fluorspar

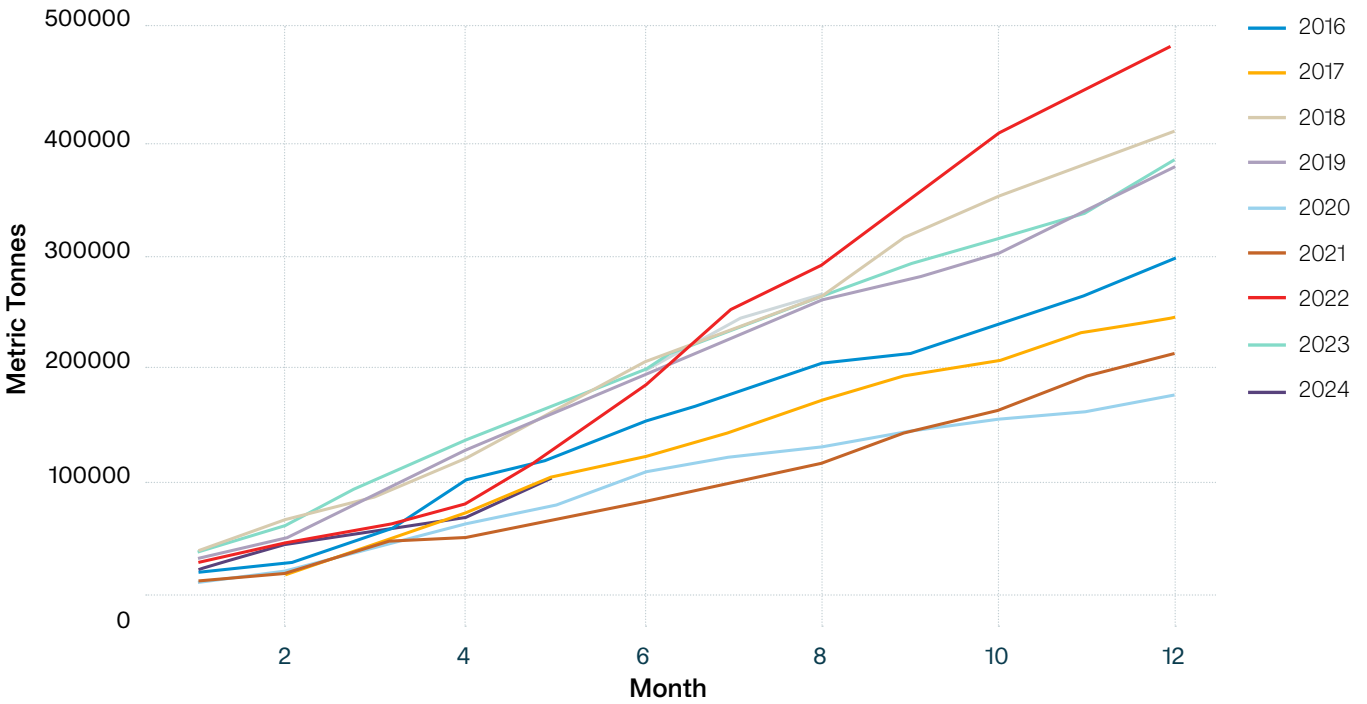


Figure 70: China's monthly exports of fluor spar are tracking low levels in 2024 and continue to recede year on year

Source: Exante Data

Resource depletion is supportive of fluor spar prices on a global basis, including the long-term uptrend observed in China's export prices. China's shifting role supports the competitiveness of the Project by limiting the volumes of fluor spar that may be reasonably expected to be exported by the largest global producer to Asian markets. Resource depletion, along with tighter environmental and safety standards, are expected to weigh on China's competitive position in fluor spar production over the medium term.

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iii) Peer resources

Cautionary Statement

With respect to the historical estimates and/or foreign estimates of mineralisation of the peer resources disclosed in tables below:

- with the exception of the Speewah Fluorite Resource, the data are not reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (referred to as the “JORC Code (2012)”);
- a Competent Person has not done sufficient work to classify the historical estimates or foreign estimates as Mineral Resources or Ore Reserves in accordance with the JORC Code (2012); and
- it is uncertain that following evaluation if the historical estimates or foreign estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code (2012).

Mr Stephen Walsh (BSc), a Competent Person, who is the Chief Geologist and an employee of Tivan, and a member of the Australasian Institute of Mining and Metallurgy (AusIMM), has considered the information for the historical estimates and/or foreign estimates of mineralisation for the peer resources disclosed in the table below and considers that the information disclosed is an accurate representation of the available data for peer resources and the global fluorspar market. Mr Walsh consents to the inclusion in this Study of the matters based on this information in the form and context which it appears, with relevant links provided for each resource described.

The comparison of peer resources has been prepared in accordance with ASX Compliance Updates 08/18 (September 2018)²⁷ and Update 08/24 (July 2024).²⁸ Due care has been taken to:

- Provide the relevant sources of information and reference points for the comparison
- Disclose differences in categories of resources or reserves, where available
- Disclose differences in development, including stage and type of mine

So as to provide a reasonable basis for peer comparison, two data tables have been included, reflecting different standards of data quality:

1. Tier 1: high quality resource data, compliant with JORC or equivalent global standard, showing different categories of resources or reserves
2. Tier 2: resource data from asset owners that includes reporting of size and grade, where available, noting different stages of development

Consistent with ASX guidance, the Global fluorspar Peer Resource Comparison chart overleaf shows Tier 1 resources only. A cut-off grade of 12.5% CaF₂ has been applied. The annotations reflect the following resource characteristics:

1. Region: Colour codes are used to depict different geographic regions
2. Year: Year of most recent resource estimate or data
3. Stage of development: P – Product, C – Closed, S – Studies
4. Type of mine: O – Open Pit, U – Underground
5. Trajectory: > Resource Expansion, < Resource Depletion

Estimated in accordance with JORC (2012) at 8.6 million tonnes at 22.8% CaF₂, Speewah is a large, high-grade fluorite resource by global standards. Speewah’s total resource tonnage estimated in accordance with JORC (2012) is 37.3mt at 9.1% CaF₂.

Speewah’s resource trajectory is supported by the Exploration Target developed in conjunction with SRK Consulting, reported in accordance with JORC (2012). The drill program described in the Geology section includes greenfield areas not included in the Exploration Target. The Exploration Target* has a range of:

8.4 to 17 million tonnes grading between 6% CaF₂ and 10% CaF₂ (2% CaF₂ cut-off grade)

inclusive of a high-grade component of

1.9 to 3.9 million tonnes grading between 16% CaF₂ and 26% CaF₂ (10% CaF₂ cut-off grade)

The Speewah Fluorite Resource is outcropping, supporting an open pit mine. Open pit mining is generally more cost effective than underground mining and reduces technical risks.

Cautionary Statement

*The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

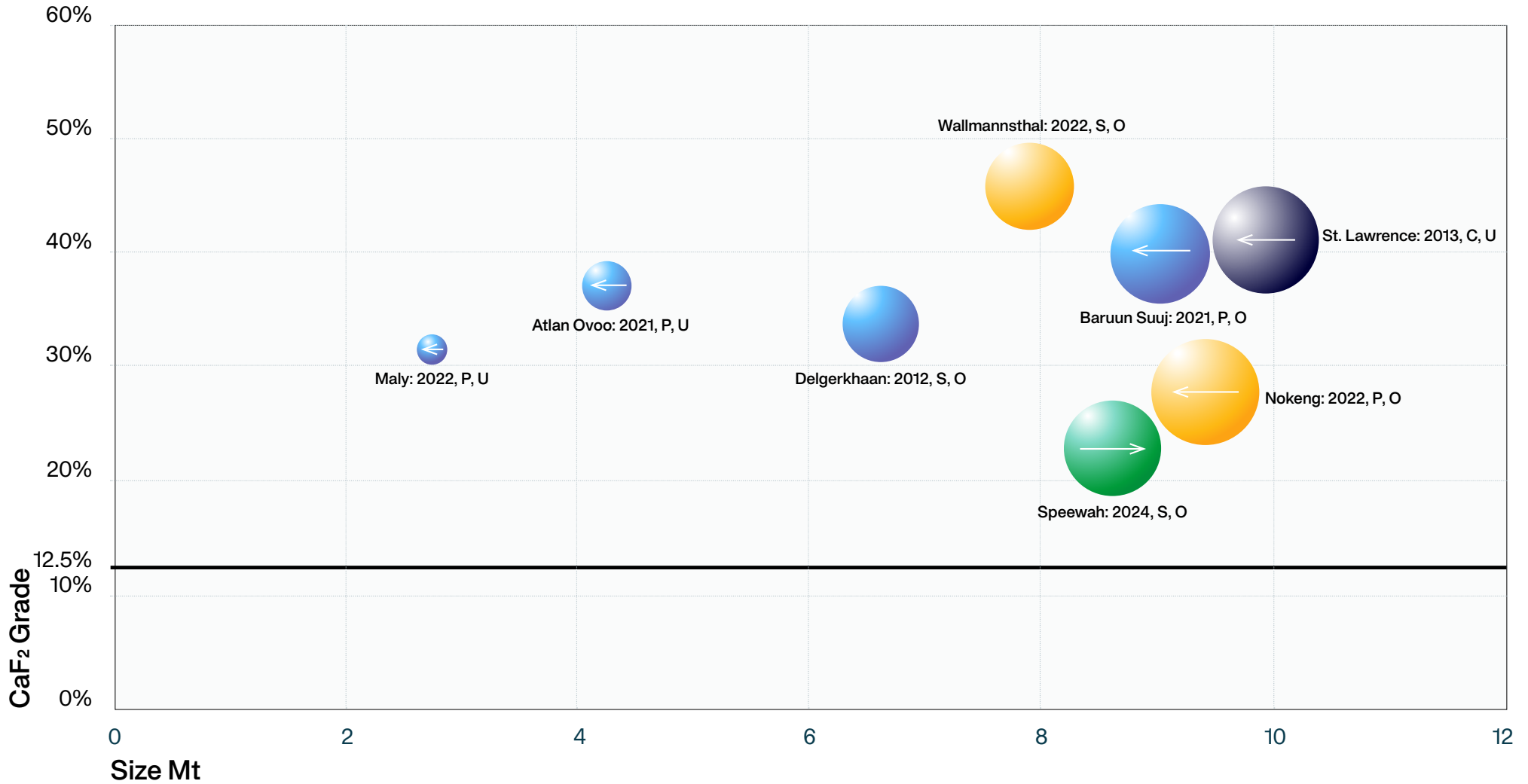
27. <https://www.asx.com.au/content/dam/asx/documents/listings/compliance-updates/2018/Listed%20Entity%20Update%20-%2008-18-19%20September%202018.PDF>

28. <https://www.asx.com.au/content/dam/asx/documents/listings/compliance-updates/2024/listed-at-compliance-update-25-july-2024.pdf>

Global Fluorspar Peer Resource Comparison

Figure 71: Global fluorspar Peer Resource Comparison (Tier 1 data quality)

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Stage	Type	Trajectory	Cut-off 12.5% CaF ₂
P – Production	O – Open Pit	→ Expansion	Year: Most recent resource estimate
C – Closed	U – Underground	← Depletion	
S – Studies			

Table 29: Global Fluorspar Peer Resource Comparison Table: Tier 1 Data Quality

Country	Mine Type	Asset	Operator	Stage	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Size (Mt)	Grade (%)	Year	Resource Category	Standard	Trajectory	Data Source
Australia	Open Pit	Speewah	Tivan	Studies	0.0	23.2	14.1	37.3	9.1%	2024	Mineral Resource	JORC	Expansion	61203568.pdf (tivan.com.au)
Australia	Open Pit	Speewah	Tivan	Studies	0.0	5.8	2.8	8.6	22.8%	2024	High Grade Mineral Resource	JORC	Expansion	61203568.pdf (tivan.com.au)
Canada	Underground	St. Lawrence	Canada Fluorspar	Closed	0.0	9.1	1.0	10.04	41.0%	2013	Mineral Resource	CIM/NI 43-101	Depletion	Canada Fluorspar (NL) Inc._St. Lawrence Project
Canada	Open Pit	Ashram	Commerce Resources	Studies	0.0	73.2	131.1	204.3	4.9%	2024	Mineral Resource	CIM/NI 43-101	Depletion	Commerce Resources Files NI 43-101 Technical Report
Mongolia	Underground	Atlan Ovoo	Arcus Holdings	Operating	0.0	1.3	3.0	4.3	37.0%	2021	Mineral Resource	Not stated	Depletion	http://arcusholdings.com/3-mines-in-mongolia/
Mongolia	Open Pit	Delgerkhaan	Wayo Fluorite	Studies	0.0	6.6	0.0	6.6	33.7%	2012	Mineral Resource	Not stated	n/a	https://wayo-fluorite.com/operation/
Mongolia	Open Pit	Baruun Suuj	KHD Fluorite	Operating	0.0	6.3	2.7	9.0	39.7%	2021	Mineral Resource	Not stated	Depletion	https://imformed.com/fluorspar-new-sources
Mongolia	Underground	Maly	KHD Fluorite	Operating	0.0	2.5	0.1	2.6	31.5%	2022	Mineral Resource	Not stated	Depletion	https://imformed.com/fluorspar-new-sources
South Africa	Open Pit	Nokeng	Sepfluor	Operating	6.7	2.4	0.3	9.4	27.8%	2022	Mineral Reserve	SAMREC	Depletion	Nokeng Fluorspar mine – Sepfluor
South Africa	Open Pit	Wallmannsthal	Sepfluor	Studies	4.3	3.0	0.7	7.9	45.8%	2022	Mineral Resource	SAMREC	n/a	Wallmannsthal Fluorspar desposit – Sepfluor
Sweden	Underground	Storuman	Tertiary Minerals	Studies	0.0	25.0	2.7	27.7	10.2%	2011	Mineral Resource	JORC	n/a	https://www.tertiaryminerals.com/storuman

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Table 30: Other Global Fluorspar Projects and Deposits: Table: Tier 2 Data Quality

Country	Mine Type	Asset	Operator	Owner	Stage	Size (Mt)	Grade (%)	Year	Trajectory	Data Source
Australia	Underground	Moina	Mazel Resources	Mazel Resources	Deposit	28.0	16.0%	2023	n/a	(28) Post LinkedIn
China	Underground	Yangshan, Madiu	Luoyang Fengrui	Luoyang Fengrui	Operating	14.5	44.2%	n/a	Depletion	http://www.frfluorine.com/aboutus/
China	Underground	Bayan Noel, Bayan Tara	Chifeng City Sky-Horse	Chifeng City Sky-Horse	Operating	8.8	n/a	n/a	Depletion	https://www.made-in-china.com/showroom/tianma0476
China	Underground	Various assets	Subsidiary Companies	China Kings Resources	Operating	27.0	n/a	n/a	Depletion	http://www.chinesekings.com/about_en.html
Germany	Underground	Kafersteige	Deutsche Flussspat	Deutsche Flussspat	Studies	n/a	n/a	n/a	n/a	New Analysis (projectblue.com)
Germany	Underground	Niederschlag	Erzgebirgische	Erzgebirgische	Operating	1.15	n/a	n/a	Depletion	https://link.springer.com/article/10.1007/s00126-020-01035-y
India	Open Pit	Kadipani	Gujarat Mineral Corp	Gujarat Mineral Corp	Operating	7.5	17.0%	n/a	Depletion	https://www.gmdcltd.com/minerals_mines/kadipani/
Italy	Open Pit	Silius	Mineraria Gerrai	Mineraria Gerrai	Operating	2.2	n/a	n/a	Depletion	https://www.minerariagerrei.com/
Russia	Underground	Yaroslavsk	Yaroslavsk Mining	Yaroslavsk Mining	Closed	22	30.9%	n/a	n/a	https://rusal.ru/en/press-center/press-releases
Mexico	Underground	Las Cuevas	Koura	Koura	Operating	30.0	84.0%	2008	Depletion	https://www.mdpi.com/2075-163X/9/1/35
Mexico	Open Pit	La Sabina	Koura	Koura	Operating	n/a	n/a	n/a	Depletion	Koura Global Global Leader Largest Fluorspar Manufacturer
Mongolia	Underground	Bor Under	Mongolrosvetmet	Mongolrosvetmet	Operating	3.4	34.9%	2018	Depletion	https://www.mongolros.mn/a/29
Mongolia	Underground	Zuun Tsagaan Del	Mongolrosvetmet	Mongolrosvetmet	Operating	4.5	33.3%	2018	Depletion	https://www.mongolros.mn/a/29
Mongolia	Open pit	Khukh-Dei	Mongolczechmetall	Mongolczechmetall	Operating	1.0	39.3%	2018	Depletion	https://www.mongolros.mn/a/29
Mongolia	Open pit	Urgen	Mongolczechmetall	Mongolczechmetall	Operating	3.9	42.7%	2018	Depletion	https://www.mongolros.mn/a/29
Mongolia	Underground	Oosmonskogo 1	Arcus Holdings	Arcus Holdings	Operating	n/a	n/a	n/a	Depletion	http://arcusholdings.com/3-mines-in-mongolia/
Morocco	Open pit	Jebel Tirremi	Gujarat Fluorochemicals	Gujarat Fluorochemicals	Operating	4.8	28.0%	2023	Depletion	https://link.springer.com/article/10.1007/
South Africa	Open pit	Kruidfontein	Sepfluor	Sepfluor	Deposit	2.8	28.0%	2022	Expansion	https://www.sepfluor.co.za/prospects/
South Africa	Open Pit	Vergenoeg	Vergenoeg Mining Company	Minersa	Operating	n/a	n/a	n/a	Depletion	https://www.minersa.com/eng/vergenoeg_mining.php
South Africa	Open pit	Doornhoek	SA Fluorite	Eurasian Resources Group	Deposit	n/a	13.8%	n/a	n/a	https://sahris.sahra.org.za/sites/default/files/additionaldocs/
South Africa	Open pit	Witkop	Witkop Fluorspar Mine	Sallies Industrial Minerals	Closed	n/a	n/a	n/a	n/a	https://www.mindat.org/loc-16405.html
Spain	Underground	Emilio	Minersa	Minersa	Operating	n/a	n/a	n/a	Depletion	Emilio Mine, Loroñe, Obdulia vein, Colunga, Asturias, Spain (mindat.org)
Spain	Underground	Lujar	Minera De Orgive	Minera De Orgive	Operating	n/a	n/a	n/a	Depletion	Sierra De Lújar Mines Spain - Mine Explorer Society
Thailand	Deposit	Mae Hong Son	Asian Mineral Resources	Asian Mineral Resources	Operating	n/a	n/a	n/a	Depletion	The Mineral Industry of Thailand in 2019 (usgs.gov)
United Kingdom	Open pit	Weardale	Fluorspar Ventures	Fluorspar Ventures	Studies	n/a	n/a	n/a	n/a	Fluorite Mines in the North Pennines - Weardale proper (fluor-spar.com)
USA	Open pit	Lost Sheep	Ares Strategic Mining	Ares Strategic Mining	Studies	n/a	n/a	n/a	Expansion	Lost Sheep Mine ARES Strategic Mining Returning Fluorspar
Vietnam	Open pit	Nui Phao	Nui Phao Mining Company	Masan High Tech Materials	Operating	n/a	n/a	n/a	Depletion	https://www.srk.com/en/publications/nui-phao-project-review

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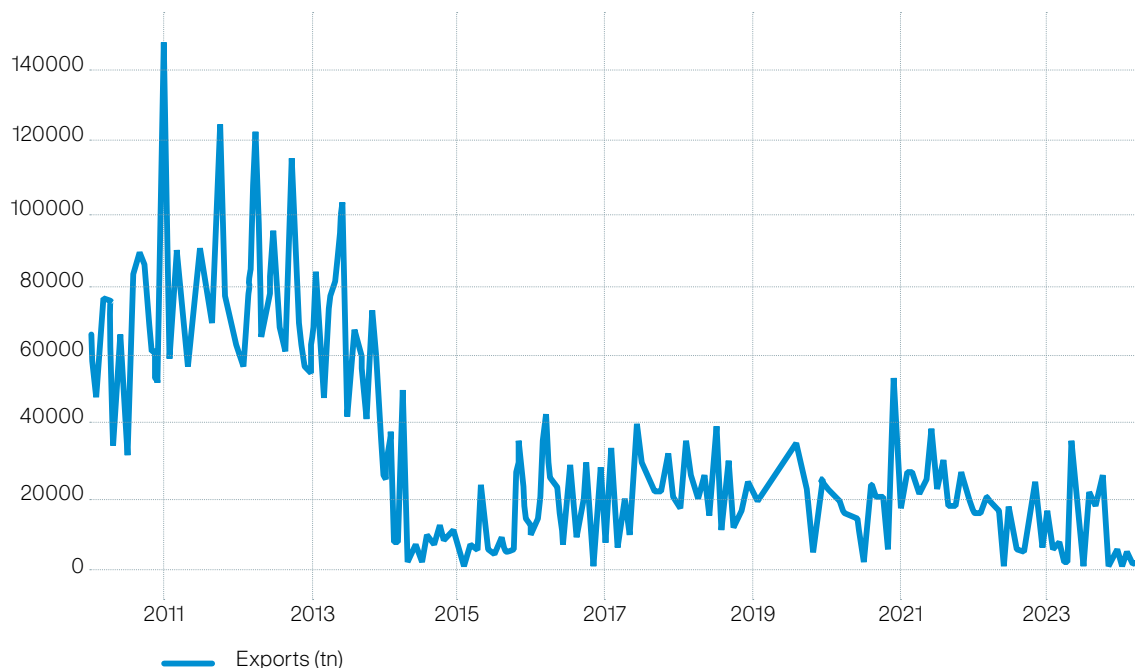
iv) High presence of arsenic

As discussed in the Metallurgical Testwork section, the Speewah Fluorite Resource has been measured to have an average composition of 3ppm arsenic, with testwork demonstrating rejection to tailings by the flotation process.

The low incidence of arsenic is a durable competitive advantage for the Project, supporting the production acidgrade fluorspar and the supply chain for electric vehicle batteries and semi-conductor manufacturing.

The presence of Arsenic in Mexico’s large, high grade fluorspar resources, estimated at 250-300ppm, has acted as durable competitive disadvantage.²⁹ This is cross-validated by Mexico’s relatively poor export performance, by the discount observable in Mexico, Tampico, FOB prices (Figure 72) and by China focusing its import tariff relief on low arsenic fluorspar.

Mexico Trade of Fluorspar (monthly)



Source:
Exante Data
Un ComTrade

Figure 72: Mexico exports of fluorspar remain at low levels; shown on a monthly basis

vi) Proximity to Asian markets

Speewah’s proximity to Asian markets is a durable competitive advantage for the Project. While offtake from the Project will be priced on an Australia, Wyndham, FOB basis, customers in Asia will benefit from lower shipping and logistics costs when compared to exporting countries such as South Africa, Mexico and Canada.

The advantage in terms of proximity suggests that China’s exports of fluorspar will be the main competitive source of supply for the Project in Asian markets.

Tivan will provide further details on shipping and logistics at the Feasibility Study stage.

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29. <https://thediggings.com/mines/usgs10069432>

Table 31: Distances of Fluorspar Exporters to Ports in Asia

Destination		Origin						
		Australia	South Africa		Mexico		Canada	
		Wyndham	Durban		Mazatlan		St. John's	
		Port to Port Distance (km)	Port to Port Distance (km)	% Increase compared to Wyndham	Port to Port Distance (km)	% Increase compared to Wyndham	Port to Port Distance (km)	% Increase compared to Wyndham
India	Chennai	6326	7571	20%	18822	198%	16451	160%
	Vizag	6313	8060	28%	18798	198%	16940	18%
	Mumbai	7641	7054	-8%	20394	167%	14616	91%
Japan	Chiba	5913	14229	141%	10721	81%	18589	214%
	Ube	5615	13577	142%	11479	104%	19340	244%
South Korea	Busan	5673	13490	138%	11442	102%	19277	240%
China	Huangdao	5847	13416	129%	12353	111%	20207	246%
	Yingkou	6397	13973	118%	12707	99%	20579	222%
	Shanghai	5336	12992	143%	12342	131%	20198	279%

Source: Sea-distances.org

Offtake

Tivan has been working in close collaboration with Sumitomo Corporation on offtake strategy for the Project since April. In this phase, Tivan has shared extensive data resources with Sumitomo Corporation regarding production targets, testwork, product specifications, logistics and shipping, and project schedule.

Through its representative offices across Asia, Sumitomo Corporation has commenced marketing offtake from the Project. These efforts have confirmed strong interest in the Project in various countries across Asia, including Japan, India, South Korea and China. Taiwan, officially the Republic of China, is also a significant consumer of downstream fluorspar products, given its world leading semiconductor industry.

These marketing activities have cross-validated:

- The structural shortage of supply of acidgrade fluorspar and Metspar in Asian markets, principally driven by the retrenchment of exports from China over recent years. The high cost of shipping and logistics from other geographical regions has confirmed the comparative advantage of Speewah’s location as proximate to Asian markets
- The strategic importance to Japan of securing supply of acidgrade Fluorspar. This has been further reflected in meetings between Tivan and key Japanese government agencies, including JOGMEC and the Japan Bank for International Cooperation (JBIC).
- Concerns around the metallurgical properties of alternative fluorspar resources, coupled with the long lead time to project delivery and sovereign risks that may be associated with other fluorspar projects. These factors are conducive for demand for offtake from the Project, with Australia recognised as top tier mining jurisdiction, with strong standards of governance and resource definition.

The demand for offtake from the Project is further reflected by Tivan receiving several proposals from prominent multi-national companies to join the proposed Joint Venture for the Project since the announcement of the Strategic Alliance Agreement with Sumitomo Corporation. These proposals have been respectfully declined by Tivan.

As the testwork program for the Project proceeds, Tivan will mature the product specification for offtake from Speewah, in collaboration with marketing efforts by Sumitomo Corporation. This will include the preparation of samples, which have been requested by many potential customers across Asia.

Upon completion of a binding Joint Venture agreement, Sumitomo Corporation will be appointed as the sole distributor and partner for the Project in Asia. This arrangement will enable Tivan to leverage the extensive network of Sumitomo Corporation in Asia to secure optimal offtake arrangements for the Project.

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Financial Analysis

Overview

The Study for the Speewah Fluorite Project has been financially evaluated through a life-of-mine financial model that utilises a discounted cashflow methodology. The financial model incorporates revenue, capital cost, operating cost, and financial assumptions on the basis of the mining, processing and production target metrics developed for the Project. The financial model derives a net present value on the basis of discounted cashflows (pre-tax and post-tax basis) over the Project's anticipated life-of-mine.

As detailed below in *Base Case Financial Outcomes*, financial evaluation of the Speewah Fluorite Project has delivered robust financial outcomes for the Project, returning a post-tax NPV of \$354.7 million, IRR of 33.2% and payback period of 2.8 years (based on post-tax real cashflows using a discount rate of 8.0%). The key assumptions underpinning the financial model are detailed below in the section *Base Case Assumptions*.

The Company has a reasonable basis to believe the Project can attract the required level of funding to progress into construction and operations.

On this basis, the Tivan Board has endorsed further progression of the Project into the next stage of development planning.

Unless otherwise indicated, all financial values are stated in Australian dollars (real) as at November 2025 and do not provide for escalation and exclude Australian Goods and Services Tax.

Base Case Financial Outcomes

The Speewah Fluorite Project is forecast to deliver robust financial outcomes over the life of the Project on the basis of the Study key assumptions outlined. Revenue generated life-of-mine is underpinned by positive current market dynamics for Acidgrade fluorspar and a favourable pricing outlook. The headline results of the base case financial analysis for the Project are summarised as follows:

- **Pre-tax: NPV of \$480.1 million, IRR of 37.9% and payback period of 2.6 years.**
- **Post tax: NPV of \$354.7 million, IRR of 33.2% and payback period of 2.8 years.**

The key financial outcomes are summarised below in Table 32.

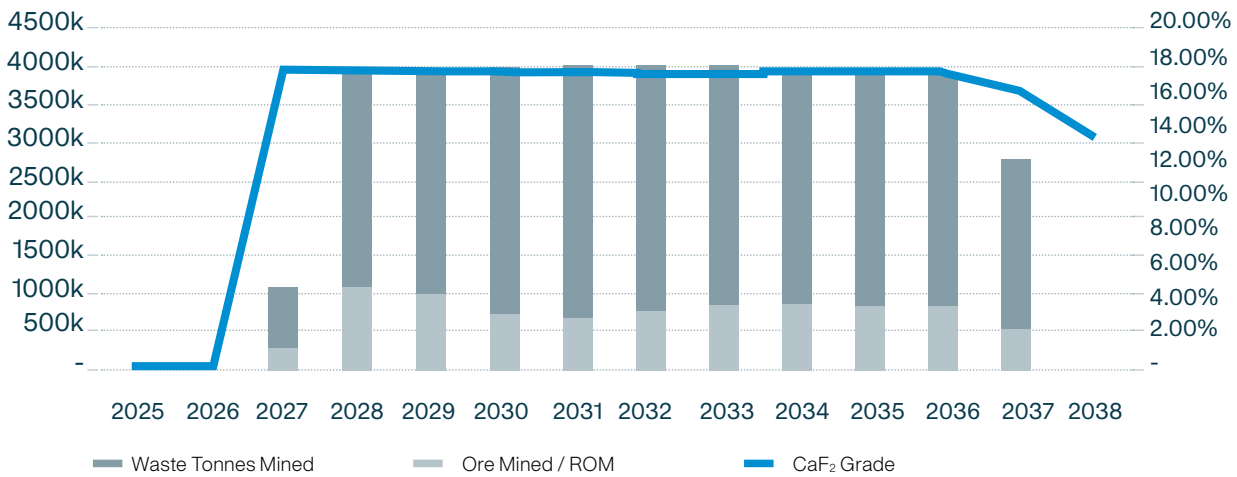
Table 32: Speewah Fluorite Project – Key Financial Outcomes

Metric	Unit	PFS Base Case
Revenue (LOM)	A\$M	1,952
Revenue (LOM average annual)	A\$M	184
EBITDA (LOM)	A\$M	1,203
EBITDA (LOM average annual)	A\$M	114
Total C1 costs (LOM) ¹	A\$M	690
Total C1 costs (LOM per tonne fluorspar shipped) ¹	A\$ per tonne	467
All-in Sustaining costs (LOM) ²	A\$M	773
All-in Sustaining costs (LOM per tonne fluorspar shipped) ²	A\$ per tonne	523
NPV (8.0%, post-tax, real)	A\$M	354.7
IRR (post-tax, real)	%	33.2
Payback period (from start of operations)	Years	2.8

1. C1 costs include mining, processing, logistics and shipping costs

2. All-in sustaining costs include C1 costs, royalties and sustaining capital costs

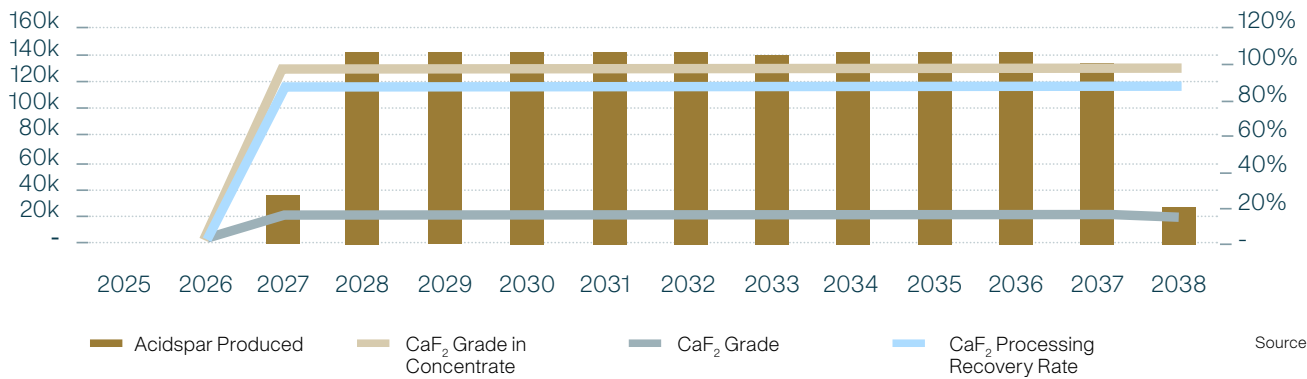
Material Mined (t) and Grade (%)



Source: Tivan

Figure 73: Output from financial model

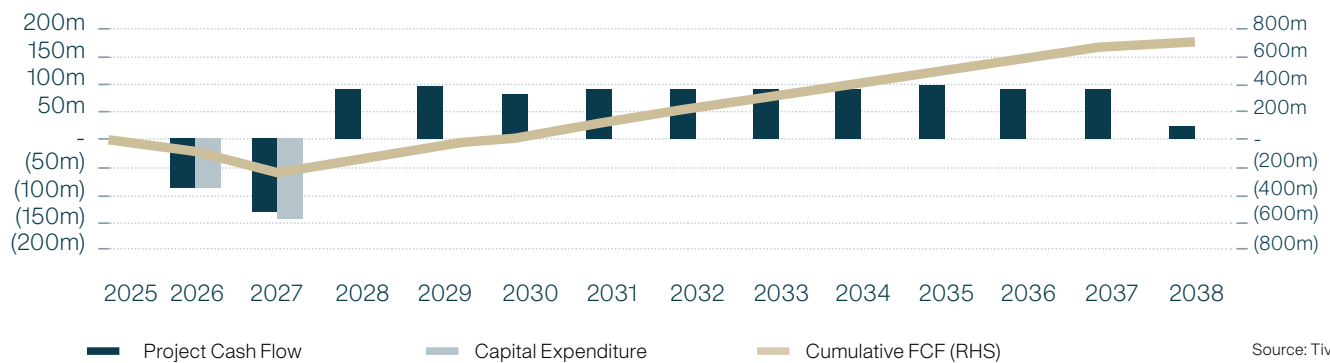
Acidspar Produced (t) and Grade (%)



Source: Tivan

Figure 74: Output from financial model

Project free cashflow (ungeared, A\$)



Source: Tivan

Figure 75: Output from financial model

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Base Case Assumptions

The life-of-mine financial model has been prepared on the basis of the following key assumptions:

Scheduling

- The Project involves construction at the Speewah site of a new open pit mining and processing operation, and supporting non-process infrastructure, to produce acidgrade fluorspar (97% CaF₂) for marketing and distribution of product to customers in the Asian market.
- Project design and construction occurs over a period of 17 months from November 2025.
- Mining occurs over a period of 10 years from April 2027 to March 2037.
- Processing operations occur over a period of 10.6 years from April 2027 to October 2037.

Mining Physicals

- High-grade component of the Speewah Mineral Resource is the focus of mining operations.
- The life-of-mine mining schedule represents 23% of the total Indicated and Inferred Resource.
- Life-of-mine material (ore grade) totals 8.4 million tonnes – 8.0 million tonnes classified as Indicated Resources (95%), and 0.4 million tonnes classified as Inferred Resources (5%).
- The Exploration Target estimate prepared by SRK Consulting has been excluded from mine scheduling.

Processing Physicals

- Processing of 8.4 million tonnes at an average grade of 17.25% CaF₂ life-of-mine, delivering an acidgrade fluorspar (97% CaF₂) Production Target of 1.48 million tonnes life-of-mine.
- Processing plant is sized with a capacity of 0.8 million tonnes per annum.

Capital Costs

- Pre-production capital costs have been included and built-up on the basis of the assumptions and parameters detailed in the Study; the capital cost estimate was compiled by Lycopodium and reflects the assumptions and parameters outlined in the Study
- Pre-production capital totals \$236.3 million for design and construction of mine, process and non-process infrastructure (+30/-20% accuracy):

Table 33: Capital Cost Estimate Summary

Item	Cost A\$ million
Construction distributables	21.4
Processing plant	48.8
Reagents & plant services	20.4
Infrastructure	66.3
Mining	24.2
Sub-total	181.1
Management costs	16.9
Owner's costs	13.6
Contingency	24.8
Total	236.3

- Contingency of 12.5% is included in pre-production capital costs.
- Total capital costs of the access road from the Great Northern Highway to the mine site are estimated at \$54.3 million (including contingency); 50% of this is included in the pre-production capital costs. The balance of 50% is assumed to be secured through State and Federal Government sources, consistent with recent resources project development in Western Australia. Should the Company not be able to secure such contributions, this component of the access road will be added to total pre-production capital costs
- Sustaining capital costs for mining and tailings have been included and built-up on the basis of the assumptions detailed in this Study.

Operating Costs

- Operating costs have been included and built-up on the basis of the estimates detailed in the Study on a FOB Wyndham basis:

Table 34: Operating Cost Estimate Summary

Metric	Cost A\$ per tonne shipped	Cost US\$ per tonne shipped ⁴
Mining costs ¹	142.2	92.4
Processing costs ²	287.9	187.1
Logistics and port handling costs ³	36.7	23.9
Total	466.8	303.4

1. Source: SRK (+ / - 50%)

2. Source: Lycopodium (+30/-20%)

3. Source: CGL (+/- 50%)

4. A\$:US\$ exchange rate of 0.65

- The Study assumes logistics and port handling costs for transportation from the mine site to an interim storage warehouse at Wyndham Port, then transport from the storage warehouse to berth, plus towage, wharfage and transfer to ship's hull.

Revenue

- Detailed price forecasting has been undertaken for acidgrade fluorspar (97% CaF₂), supported by data from Fastmarkets, and underpinned by extensive evaluation of long run price trends, market supply and demand analysis, and balance of payments dynamics for major importing and exporting countries, as detailed in the *Market Studies and Contracts* section of this Study.
- Acidgrade fluorspar (97% CaF₂) prices are stated in US\$ and are applied in real terms (assuming an inflation rate of 2%) over the life-of-mine financial model, consistent with long term growth rates, commencing at a price of US\$650 in 2025.
- A price ceiling of US\$900 has been utilised to the end of project life, consistent with pricing and the revenue factor utilised by SRK for the Speewah Fluorite Mineral Resource estimate in April 2024.

Financial

- A\$:US\$ exchange rate of 0.65.
- Corporate tax rate of 30%.
- Tivan group accumulated carried forward tax losses of \$88.2 million (30 June 2023) are utilised in full to offset assessable income with assumed compliance on tax loss eligibility requirements.
- A Critical Minerals Production Tax Incentive at a rate of 10% on assumed eligible refining and processing expenditure is included, consistent with the Federal Government FY24/25 budget and on the assumption legislation will be approved and enacted. The incentive will provide eligible recipients with a refundable tax offset for the costs of processing the 31 critical minerals currently listed in Australia, consistent with the Government's Critical Minerals Strategy. The credit will be available for a maximum of 10 years between 1 July 2027 and 30 June 2040. The incentive is not yet legislated; should the legislation not be enacted, the assumed refundable tax offset will not be received.
- Discount rate of 8.0%. This assumption reflects the low pre-production capital expenditure of the Project, and Tivan's pathway to project finance with its Strategic Alliance partner Sumitomo Corporation (see below in the *Project Funding* section).
- State Government and Land Access royalties combined as 3% of gross revenue. Consistent with regulation 85 of the Mining Regulations 1981, offtake from the Project is proposed to be sold in "metallic form or equivalent processing".
- NPV calculation date: November 2025 based on scheduled start of construction.

Key assumptions and modelling inputs are summarised in Table 36.

Effective C1 Costs

The application of the budgeted Critical Minerals Production Tax Incentive reduces the estimated tax payable for the Project over the life-of-mine. Assuming that the Incentive is legislated and that the Project's refining and processing expenditures are eligible, the tax adjusted operating costs of the Project are lowered, consistent with the policy intention of the Federal government.

The financial model provides for this as Effective C1 Costs, as reported in Table 1. On a life-of-mine per tonne of fluorspar shipped basis, in Australia dollar terms, the C1 Costs and Effective C1 Costs are \$467/tonne and \$443/tonne respectively. In US dollar terms, the C1 Costs and Effective C1 Costs are US\$303/tonne and US\$288/tonne.

Table 35: Key Project Assumptions and Financial Modelling Inputs

Metric	Unit	PFS Base Case
Scheduling		
Construction start	Date	November 2025
Construction end	Date	March 2027
Construction duration	Months	17
Operations start	Date	April 2027
Operations end	Date	October 2037
Operations duration (LOM)	Years	10.6
Mining Physicals		
Mining duration	Years	10.0
Total tonnes material mined (waste)	Mt	31.3
Total tonnes material mined (ore)	Mt	8.4
– Indicated	Mt	8.0
– Inferred	Mt	0.4
– Indicated	% of total	95
– Inferred	% of total	5
Strip ratio	-	3.72
Tonnes material mined (ore) (average annual)	Mtpa	0.84
Grade CaF ₂ (LOM average)	%	17.25
Processing Physicals		
Processing plant capacity	Mtpa	0.8
Processing rate (LOM average annual)	Mtpa	0.79
CaF ₂ recovery (LOM average)	%	90.0
Fluorspar (97% CaF ₂) production (wet LOM)	Mt	1.48
Fluorspar (97% CaF ₂) production (wet LOM average annual)	Ktpa	139.7
Capital Costs		
Pre-production capital costs (including contingency)	A\$M	236.3
Contingency	%	12.5
Government sourced – access road capital cost	%	50
Sustaining capital (LOM)	A\$M	24.5
Operating Costs		
Per tonne fluorspar shipped	A\$ per tonne	466.8
Per tonne fluorspar shipped	US\$ per tonne	303.4
Revenue		
Acidgrade fluorspar price 2025	US\$ per tonne	650
Acidgrade fluorspar price ceiling	US\$ per tonne	900
Financial		
Exchange rate	A\$:US\$	0.65
Corporate tax rate	%	30
Discount rate	%	8.0
NPV date	Date	November 2025
Royalties (State Government and Land Access)	%	3.0

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Project Funding

The PFS for the Speewah Fluorite Project has delivered estimated pre-production capital costs of \$236.3 million (excluding financing costs and working capital). The life-of-mine financial model is prepared on the basis of a 100% equity funding assumption.

As noted above, the Speewah Fluorite Project is forecast to deliver robust financial and technical outcomes over the life of the Project as demonstrated through the life-of-mine financial model and PFS. Tivan has a reasonable basis to believe the Project can attract the required level of funding to progress into construction and operations, based on the following factors:

- The Project has high criticality. Offtake from the Project will strengthen the resilience and diversity of important supply chains and industries in Asia. The Speewah Fluorite Resource is uniquely placed in Asia to provide a long-term supply of acidgrade fluorspar sourced from a western-bloc country. The high criticality of the Project supports project finance, from both private and public sources.
- Tivan has signed a Strategic Alliance Agreement with Sumitomo Corporation, a leading Japanese trading house and Fortune Global 500 company, that provides a framework for negotiation of a binding joint venture agreement for the development, financing and operation of the Project. Reflecting the high criticality of the Project to important supply chains in Asia, this Agreement was secured by Tivan before the publication of this Study.
- Tivan and Sumitomo Corporation intend to negotiate and enter into the binding joint venture agreement in calendar year 2024, including agreement on equity interests and contributions to the joint venture. During the term of the agreement, the parties are negotiating on an exclusive basis, inclusive of Japan Organization for Metals and Energy Security (JOGMEC) and relevant Japanese government agencies. Sumitomo Corporation and JOGMEC have extensive experience and capabilities in financing large-scale energy and resource projects around the world. Tivan has a reasonable basis to expect these capabilities will be deployed to facilitate project finance for the Project.
- The inclusion of Fluorite on the Critical Minerals List in December 2023 provides Tivan with access to government facilitation in support of project finance. This includes eligibility to apply to programs such as the International Partnerships in Critical Minerals Program, the Critical Minerals Facility and the Critical Minerals Production Tax Incentive. The inclusion also supports the award of Major Project Status for the Speewah Project. As described in the Executive Summary, the Project is strongly aligned with the objectives of the Federal government's Critical Minerals Strategy. Tivan is working in close collaboration with relevant agencies and departments of the Federal and Western Australian governments to access relevant programs, in support of project finance.
- Within the context of the critical minerals and rare earths sector, the Project has low pre-production capital costs. The Australian Critical Minerals Prospectus lists 52 projects,³⁰ a majority of which have capital expenditures that significantly exceed the estimated pre-production capital costs of the Project. The low pre-production costs for the Project reduce the amount of equity and debt funding to be sourced from project financiers, thereby lowering risk exposure, in support of project finance.
- The price of acidgrade fluorspar has a long-term history, exceeding 30 years, and has realised low price volatility throughout period. The availability of long-term price data, provided by a Price Reporting Agency that is compliant with IOSCO principles (see *Price History* section), is supportive of project finance. The low realised price volatility of acidgrade fluorspar reduces the risk exposure of project financiers, in support of project finance.
- Over the past year Tivan has demonstrated strong access to capital markets as an ASX listed entity. Following a change of control event at the end of 2022, the new management team at Tivan comprehensively restructured the Company. Following this, Tivan has raised capital on four occasions, demonstrating consistent access to capital markets, notwithstanding the pronounced downturn that has occurred in the critical minerals sector. Reflecting the extensive experience and capabilities of the new management team in global finance, capital raisings have been secured with minimal price discounts and sourced from a highly pedigreed cohort of local and global institutional investors.

Table 36: Tivan Recent Capital Raisings

Date	Structure	Amount Raised	Discount (10 day VWAP)	New Institutional Shareholders
12 Jul 2023	Placement + SPP	\$5m + \$1m	2.7%	4
8 Dec 2023	Placement	\$2m	7.0%	5
22 Mar 2024	Convert + Placement	Convert: \$2.8m first tranche, \$8.4m on mutual consent Placement: \$1.2m	11.2%	–
3 Jul 2024	Placement	\$4.5m	10.4%	5

30. <https://international.austrade.gov.au/en/news-and-analysis/publications-and-reports/critical-minerals-prospectus>

- In support of project finance, the Project is well advanced with its approvals and permissionings processes and is operating on a rapid project delivery timeframe. This Study achieves a major project milestone, conveying the extensive engineering and geological work that has been completed for the Project. The involvement of Tier 1 contracting firms provides assurance of the robustness of the Study, in further support of project finance.

In advancing towards project finance, Tivan will consider a debt and equity structure for the Project. Tivan has commenced discussions for project finance, including with commercial banks and relevant government agencies in Australia and Japan. Under a conventional project financing structure, Tivan expects debt funding sources may include commercial debt, government concessional funding and grants, and funding from Export Credit Agencies. The publication of this Study provides an important milestone in furthering these discussions.

Tivan views a joint venture as the optimal pathway to secure project finance whilst maximising the retention of value per share from the Project for shareholders. Potential implications on the project financing structure and funding sources are being considered in parallel to the process for negotiation and finalisation of a Joint Venture agreement with Sumitomo Corporation. In support these processes, Tivan is hosting a delegation from Japan in the second half of 2024, including meetings with the Australian government and a visit to the Speewah site.

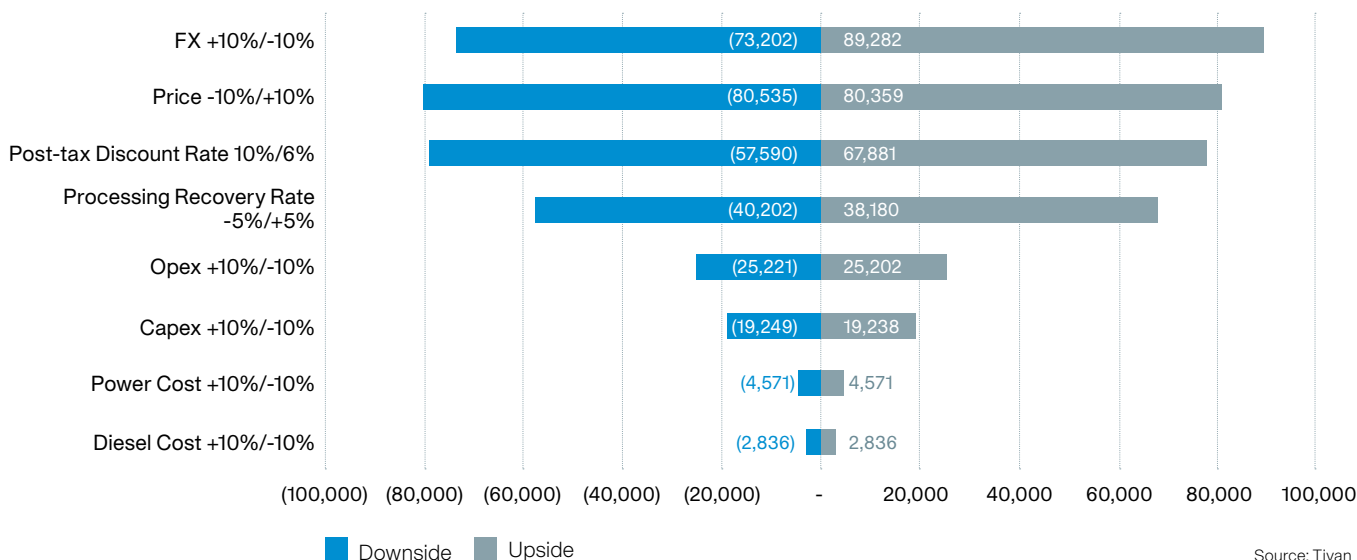
Whilst the Project is forecast to deliver robust financial and technical outcomes, and current the project financing outlook is considered positive, there is no guarantee that the Company will be able to secure the required level of funding to construct the Project or be able to secure funding on terms favourable to the Company. Any additional equity financing may dilute existing shareholders, and debt financing, if available, may involve restrictions on financing and operating activities.

Sensitivity Analysis

The life-of-mine financial model prepared for the Speewah Fluorite Project includes sensitivity analysis on post-tax project returns - NPV and IRR - for the base case model to test the financial impact of changes in the key assumptions (+ / - 10% unless otherwise indicated).

The sensitivity analysis highlights that the Project base case returns are most sensitive to foreign exchange (\$A:\$US fluctuations) and Acidgrade fluorospar pricing; and least sensitive to changes in diesel and power pricing.

Post-tax NPV Sensitivity (in AUD'000)



Source: Tivan

Figure 76: Output from financial model

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Post-tax IRR Sensitivity (in %)

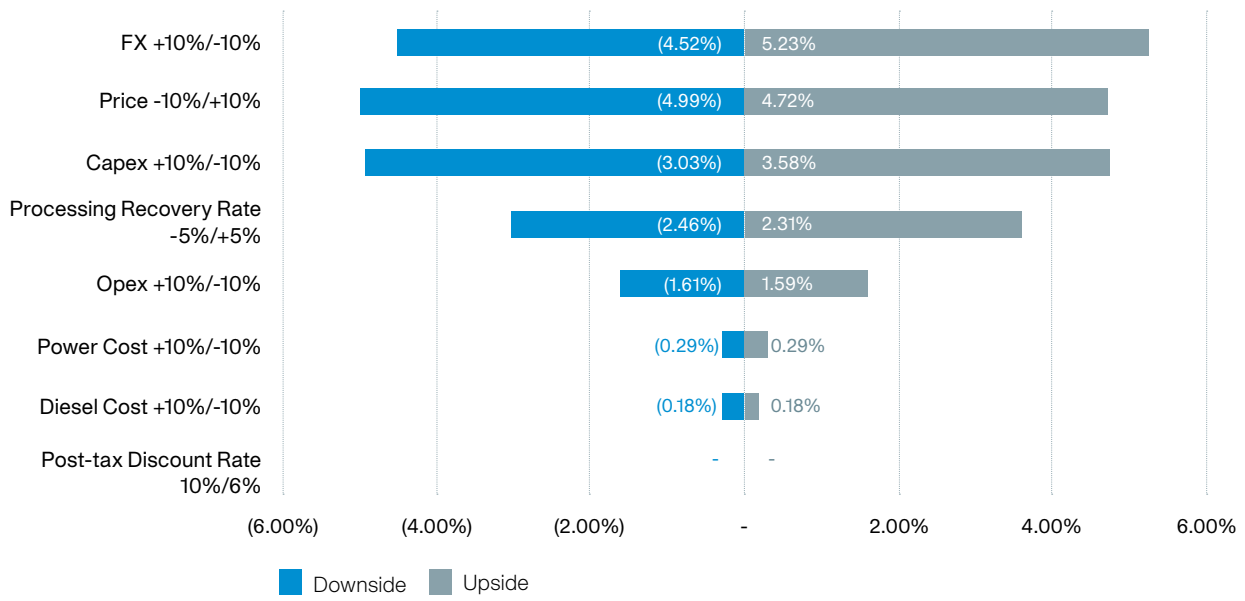


Figure 77: Output from financial model

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Opportunities and Risks

Opportunities to Improve Financial Outcomes

The Company has identified a number of opportunities with the potential to improve upon the already robust financial outcomes for the Speewah Fluorite Project. These opportunities include:

Table 37: Summary of Project Opportunities

Opportunity [†]	Potential Outcome	Basis
Mineral Resource estimate expansion (including high-grade component)	<ul style="list-style-type: none"> Mine life extension Increase in production rate 	<ul style="list-style-type: none"> Exploration Target estimate prepared by SRK[*] Areas identified considered geologically prospective for fluorite mineralisation excluded from the Exploration Target where exploration data is currently limited Multi-stage exploration drilling and sampling program developed by Tivan targeting Mineral Resource estimate expansion Refer to the <i>Resource Estimates</i> and <i>Exploration</i> sections of this Study
Metallurgical spar product (“Metspar”)	<ul style="list-style-type: none"> Increased recovery of fluorite to saleable products Increased revenue and profit 	<ul style="list-style-type: none"> Concept investigation with Lycopodium concluded that it is technically viable to produce briquettes from the cleaner tailings Cleaner tailings are relatively high in fluorite Cleaner tailings are relatively low mass Refer to the <i>Mineral Processing</i> section of this Study
Low-grade ore stockpiling	<ul style="list-style-type: none"> Mine life extension 	<ul style="list-style-type: none"> Mineralised ore below the cut-off grade is currently reporting to the waste rock dump Low-grade mineralised ore could be separately stockpiled to be accessed in the latter years of the project if it becomes economically attractive to process. Refer to the <i>Mineral Processing</i> section of this Study
Hydropower	<ul style="list-style-type: none"> Reduction in carbon emissions relative to fossil fuel generated power Comparable or cheaper costs of power supply Stakeholders in the region may also benefit 	<ul style="list-style-type: none"> Memorandum of Understanding (“MoU”) with Pacific Hydro Engaging in discussions with Horizon Power Lycopodium power options study demonstrated technical viability and competitive pricing Refer to the <i>Infrastructure</i> section of this Study

[†] There is no guarantee that the opportunities identified by the Company will materialise nor deliver improved financial outcomes for the Speewah Fluorite Project.

^{*} The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. 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. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

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Risks to Financial Outcomes

The Company notes that there are risks inherent in the resources industry that have the potential to adversely impact upon the Project's financial outcomes. Where practical and not cost prohibitive, the Company will seek to mitigate such risks.

Risks factors include but are not limited to:

- **Commodity price fluctuation:** Mineral product prices inherently fluctuate and are affected by factors including the relationship between global supply and demand for minerals, forward selling by producers, the cost of production and general global economic conditions. Adverse movements in commodity prices will impact revenue for the Project.
- **Foreign exchange fluctuation:** international prices of various commodities are typically denominated in United States dollars, whereas Project income, and the majority of expenditure, and will be taken into account in Australian currency, exposing the Company to the fluctuations and volatility of the rate of exchange between the United States dollar and the Australian dollar as determined in international markets.
- **Capital and operating cost fluctuation:** pre-production capital costs and operating costs set out in this PFS are subject to further Project progression and definition, and confirmation by way of contractual arrangements noting costs will be both fixed and variable across the Project, and therefore have the potential to vary and adversely impact Project outcomes.
- **Delays to project schedule:** The Project schedule underpinning the PFS and life-of-mine has been developed with Lycopodium. As with all resources Projects, the schedule is subject to a risk of delay due to development planning and construction workstreams taking longer than anticipated, and factors outside of the control of the Company including but not limited to weather events, labour shortages, industrial disputes, engineering challenges, resource constraints, logistics constraints, supplier delays, or force majeure events.
- **Taxation:** Project outcomes may be impacted by tax legislation including corporate taxes and taxation related to the resource industry, including in the areas of corporate tax rates and accumulated tax losses, and changes in tax legislation. The Critical Minerals Production Tax Incentive noted above in this section of the PFS has not yet been legislated; should the legislation not be enacted, the assumed refundable tax offset resulting from the Critical Minerals Production Tax Incentive will not be received.
- **Mineral Resources:** The Mineral Resource estimate for the Speewah Fluorite Project that underpins the PFS and life-of-mine financial model is an expression of independent expert judgment based on knowledge, experience and industry practice. Should the Company encounter mineralisation or formations different from those predicted by past drilling, sampling and similar examinations, Mineral Resource estimates may have to be adjusted and mining plans may have to be altered in a way which could adversely affect Project outcomes.
- **Product specification:** Mineral product prices including for acidgrade fluorspar are based on certain market based production specifications in order to achieve market pricing. Should mineral production specifications not be achieved in full, product sold may realise lower revenue and financial outcomes.
- **Metallurgical:** The economic viability of mineral recovery depends on a number of factors such as the development of an economic process route through to final product. Further, changes in mineralogy throughout an ore body may result in inconsistent metal recovery that may adversely affect Project outcomes.
- **Geotechnical Uncertainties:** The Company's resources are subject to geotechnical risk which may adversely impact future earthworks and mining operations. These risks may increase the upfront capital costs associated with civil infrastructure relevant to the project, as well as the costs of production where impacting directly on the mining of ore, or restrict the mining rate achievable.

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Conclusion

This Study has provided robust strategic, technical, economic, financial and social foundations for the Speewah Fluorite Project. On this basis the Board of Tivan is pleased to endorse the progression of the Project into its next phase of development planning.

JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> HQ Diamond core from 2003/2004 drilling was used to prepare the composite sample utilised for metallurgical testwork. Metallurgical testwork (2024) was completed on the fluorite composite sample prepared in 2004. Crushed (P100 25 mm) diamond core was recovered from a 200 L drum stored in a secure location.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> The composite utilised for this program was prepared from 4 HQ diamond holes. The hole locations were selected with even spacing along the strike length of the deposit and each traversed the full width of the mineralisation. The core intervals were selected to achieve a blended grade close to the grade expected to feed the plant in the 2004 engineering study.

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Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> All diamond core intervals were measured and recorded for rock quality designation (RQD) and core loss. Core recovery through the ore portion of the deposit is considered high (99%) No bias is observed due to core loss.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>2004</p> <ul style="list-style-type: none"> Holes SDH 004, SDH 005 and SDH 006 were cut into half core and combined with hole SDH 008. Holes were combined in varying amounts to form the composite. <p>2024</p> <ul style="list-style-type: none"> 1 bag supplied the sample for the comminution work The remaining sample from the comminution bag and the remaining bags were then composited and a 10 kg sub-sample was extracted for the flotation program. The remaining composite was reserved for future testwork. Sample sizes were considered appropriate to the grain size of the material being sampled
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> All samples for this program were analysed by XRF at ALS Global Standards, blanks and duplicates were utilised according to ALS Global standard QA/QC procedures The head sample from 10 kg composite was re-split and analysed to confirm the head grade All flotation products were re-assayed using reserves from the samples submitted for analysis

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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Multiple phases and types of drilling and sampling across the same veins confirm the tenor of both the vein and stockwork CaF₂ mineralisation. There are no dedicated twin holes. SRK has examined statistics for CaF₂ split into 10 phases/drilling methods and compared by estimation domain Single assay result adjusted to report the 2024 cleaner product grade in the body of the report (Table 19). A traceable impurity was unintentionally introduced by the laboratory and the assay was adjusted to remove the impurity. 2024 CaF₂ compositions reported based on fluoride assays
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Collar and downhole survey methods vary greatly with the phases of exploration, from compass and tape, theodolite and chain, theodolite and EDM to handheld GPS and DGPS. Compilation and modelling suggest that the older collars fit reasonably well with later surface mapping and with DGPS surveyed collars. Uncertainty of +/- 5 m at surface appears likely for the Pre 2000 data but is not considered material to the final Resource estimate. No collars were eliminated due to horizontal discrepancies. The grid system used for the estimate is a Local Grid aligned to the strike of the deposit. Transforms are used where original data requires conversion from local to AMG or from AMG to local. Early collars were mostly originally located in local grid whereas later exploration utilised AMG co-ordinates as original with subsequent transforms. SRK has utilised the reported transformation parameters and found excellent horizontal correspondence between local grid original data and transformed AMG original data. Downhole surveys were not available for holes drilled prior to 2003 with only a nominal dip and azimuth supplied. Doral used an Eastman single shot camera to give a collar and end-of-hole survey. Drilling by NiPlats used a GlobalTec Pathfinder Digital Survey tool with 3 surveys per RC hole and every 50m for core holes. Elevation data is AHD71 and is the same in both Local and AMG. Lidar data has been used for topographic control. Some older holes did not have elevation surveys. Recently surveyed collars were found to have good correspondence (+/- 1m or better) with the available topography data. For the final estimate all collars were snapped to topography to avoid outcrop in air discrepancies when modelling.

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Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> No new drilling results are reported No new drilling results are reported As described above, the metallurgical samples were composited from 5 bags of crushed diamond core. The crushed diamond core was a composite prepared in 2004 from selected intervals of core sourced from 4 HQ diamond holes.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> Holes are typically drilled oriented across the strike of the sub vertical mineralisation intersecting dip angles between 10 and 70 degrees. Sample interval orientation is considered not to create any biases.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security 	<ul style="list-style-type: none"> The material used for the 2024 program was recovered from a drum stored at a secure site and transported to a commercial laboratory by the company. The historical measures to ensure security of the sample prior to Tivan's acquisition of the Speewah assets are unknown. The company has no reason to believe that the historical handling will cause issues with the samples intended purposes
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> The results of any historic audits or reviews of sampling techniques and data are unknown.

Section 2: Reporting of Exploration Results

(Criteria listed in section 1 also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Speewah Fluorite Resource is encompassed by tenement M 80 / 269 with an expiry date of 21/05/2031 owned by 'Speewah Mining PTY LTD' which is a 100% owned subsidiary of Tivan.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The deposit has been explored by numerous parties from 1970 to the present. A comprehensive record of this exploration is contained in the Western Australian department of Energy, Mines, Industrial regulation and Safety – online systems Mineral exploration reports (WAMEX) at https://www.dmp.wa.gov.au/WAMEX-Minerals-Exploration-1476.aspx The most significant of these companies are: <ul style="list-style-type: none"> Great Bounder Mines / North Kalgurlie Mines Elmina N.L. Speewah Resources Doral Resources NiPlats King River Copper
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Greenvale Fault forms the eastern margin of the Kimberley Block and consists of a series of intersecting faults. Fluorite mineralisation is mainly hosted by north northeast and north trending faults within the Greenvale Fault, with minor occurrences along north trending normal faults within the Speewah Dome. The Early Proterozoic, Valentine Siltstone and Lansdowne Arkose of the Speewah Group host most of the mineralisation and outcrop as linear north northeast trending ridges. These sediments dip 10° to 20° to the SE. The other major unit exposed in the core of the dome is the Hart Dolerite (1703Ma), which was emplaced as a sill predominantly within the Valentine Siltstone. The predominantly white fluorite mineralisation occurs mainly within tabular steeply dipping veins showing very good strike continuity often over several hundred metres in length. The veins range in thickness from less than 1m to 15m, often flanked by lower grade stockwork and stringer veins, forming an overall envelope up to 50m wide.

Criteria	JORC Code explanation	Commentary
Geology (continued)		<ul style="list-style-type: none"> • The fluorite veins have been mapped in three prospect areas known as Main Zone, West Zone and Central Zone over an area of approximately 160km². Potential also exists under soil covered areas and in steep topographical areas within the district. In the Main Zone, at least nine fluorite vein sets have been mapped over a strike length of 8 kilometres. • The following description is after Crossing 2004 and SRK's observations concur with the various mineralisation settings described. • Fluorite is associated with quartz-feldspar veining but is younger. It occurs in the various settings previously discussed: • Large, persistent veins occupying the main northerly and northeasterly trending structures. • Fault breccias and brecciated veins occupying the main structures. • Stockworks and breccias hosted preferentially by the sandstone and to a lesser extent by the dolerites adjacent to the main structures. • En-echelon vein sets trending northwesterly between structures. • En-echelon vein set trending northeast (rare). • Thin persistent veinlets following jointing mainly in the siltstones (rare). • Thin persistent veinlets following bedding planes in the siltstones (rare). • The larger veins range in thickness up to 15 metres and are up to 800m long. They have similar persistence down-dip within the faults and have been intersected in several holes as deep as 400m below surface, albeit it only in the order of 0.5m wide at that depth. • The stockworks tend to occur adjacent to the main faults and are dominantly hosted by the brittle sandstone unit, although reasonable stockwork veining sometimes occurs in the dolerites. Best fluorite intersections occur where the main northerly trending faults contain fluorite in the form of veins and breccias, and the adjoining wall rocks (usually hanging wall) contain sandstone hosted stockwork veining. The en-echelon vein systems usually have a lower density of veining than the stockwork and hence a lower fluorite grade globally. • The fluorite veins are younger and crosscut the earlier quartz-feldspar veins, as seen in the photo above. They also often form co-axially in the center of the quartz-feldspar veins, and as vugh fill within them and in the matrix of quartz-feldspar vein breccia. Later carbonate veins crosscut all earlier features. Carbonate and quartz also infills voids in the fluorite veins, and occasionally quartz veinlets cut across fluorite veins. The fluorite is dominantly green to whitish in colour with less common purplish fluorite. In outcrop it weathers to grayish-white. It is generally coarsely crystalline often with euhedral crystals infilling open-spaces. The greenish fluorite appears to be younger than the purple variety.

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> • A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> – easting and northing of the drillhole collar – elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar – dip and azimuth of the hole – downhole length and interception depth – hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> • No new drilling results are being reported. Prior to 2007 ASX and / or media release announcements the companies involved with the project are not available publicly and hence cannot be referenced. A comprehensive record of the exploration from 1970 onwards, including collar, survey and assay data, is contained in the Western Australian department of Energy, Mines, Industrial regulation and Safety – online systems Mineral exploration reports (WAMEX) at https://www.dmp.wa.gov.au/WAMEX-Minerals-Exploration-1476.aspx
Data aggregation methods	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • No new drilling results are being reported • No metal equivalent values are reported for the metallurgical results
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. • If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • No new drilling results are being reported
Diagrams	<ul style="list-style-type: none"> • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> • No new drilling results are being reported
Balanced reporting	<ul style="list-style-type: none"> • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> • No new drilling results are being reported

Criteria	JORC Code explanation	Commentary
<p>Other substantive exploration data</p>	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> Information is reported in this table or the report
<p>Further work</p>	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> A drill program is being planned with the aim of expanding the Speewah Fluorite Mineral Resource, targeting fluorite mineralisation along strike of and below the existing resource, and at proximal veins outside of the existing resource, and also for facilitating metallurgical testwork and (see ASX announcement of 22 April 2024). Tivan announced an exploration target for the Speewah Fluorite Project (see ASX announcement of 7 May 2024). The drilling program is being planned within the framework of the Heritage Protection Agreements that Tivan recently concluded with the Kimberley Land Council. Tivan will submit a Program of Works application to the Department of Energy, Mines, Industry Regulation and Safety (“DEMIRS”) at the appropriate time. Following completion of the resource extension drill program, the results will be incorporated into the resource model. A subsequent Mineral Resource update will then be undertaken with SRK. Further extensive metallurgical testwork is planned for the FS and DFS.

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Section 4: Estimation and Reporting of Ore Reserves

(Criteria listed in section 1 and where relevant Section 2, also apply to this section.)

This table is not being used to report Ore Reserves. As per the ASX Interim Guidance: Reporting Scoping Studies dated November 2016, this table is being used as a framework to disclose underlying study assumptions.

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported The study is based on the Mineral Resource estimate The full details regarding the Mineral Resource estimate can be seen in the ASX Release dated 22 April 2024.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Person most recently visited the site in April 2024 to accompany and support a heritage survey. It was the opinion of the Company and the Competent Person that sufficient information to undertake the other works described in this announcement could be gained without requiring a site visit.
Study status	<ul style="list-style-type: none"> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported The study presented in this document is a PFS. The PFS has been prepared with input from: <ul style="list-style-type: none"> SRK (mining, hydrology, hydrogeology, tailings storage, geology) APM (environmental) Lycopodium (metallurgical testwork review, process design and balance of NPI) Model Answers (financial analysis)
Cut-off parameters	<ul style="list-style-type: none"> The basis of the cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> SRK undertook an open pit optimisation study to assess the economic pit extents based on processing and logistics costs provided by the Company. Mining costs for the optimisation study were developed by SRK based on their internal database. Sensitivity analysis was conducted on the processing costs and mill throughput. The selected cut-off grade was based on extending the mine-life and maximising discounted cash flow

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Criteria	JORC Code explanation	Commentary
<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods. 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported The mineralisation at Speewah outcrops at surface and fresh ore is relatively shallow. SRK analysis demonstrated that the ore is well suited to conventional open-pit mining methods. A mining dilution factor of 10% was used Due to small material movement, and the size of the machines employed, mining operations aim to maximise recovery through good selective mining practices. On this basis a mining recovery factor of 97.5% was applied. The pit optimisation process was run using Whittle software and performed on the geological model prepared by SRK. As part of the setup the geological model was set to a 20 x 20 x10 m block size to model the minimum mining width at the base of the pit. A diluted block model was not generated or used for optimisation, a global dilution and ore loss were applied instead. Geotechnical data was not available for the pit, an assumed pit slope of 500 was assumed for the pit optimisation. The assumptions are based on a skinning dilution assessment which consists of creating a set of skins at 0.5-2 m thick at 0.5 m increments offset outwards from the orebody which are then used to dilute the ore. The LOM production target is comprised of 95% indicated and 5% inferred material on a tonnage basis. The pit optimisation was prepared on the basis of the Indicated Mineral Resource. The Inferred Mineral Resource included in the final production schedule is material that sits within the optimised pit shell. The project is not expected to be materially sensitive to the Inferred inclusion. The mining infrastructure was developed by SRK: <ul style="list-style-type: none"> No in-pit ramps or haul roads have been considered for the concept design Ex-pit haul roads to waste dump sites and ROM pads have been designed. These roads form the basis for the haulage cost estimate. Initial capital costs for clear & grub, topsoil stockpiling, ROM pad construction, and haul road construction were estimated by SRK using first principals. Basic downhole pump and generator capital costs have been allowed for purposes of pit dewatering, pit dewatering costs were captured in the OPEX

Criteria	JORC Code explanation	Commentary
<p>Mining factors or assumptions (continued)</p>		<ul style="list-style-type: none"> • Mine Service Areas (MSA) requirements were jointly developed by the Company and SRK; allowances for Light Mobile Equipment (LME) and Heavy Mobile Equipment (HME) workshops, tyre change, washdown, refuel, oil change facilities have been estimated using SRK file pricing. Personnel crib, ablutions, and office facilities have also been allowed for based on SRK file pricing. ANFO magazine and appropriate storage has also been allowed for and priced using SRK file pricing.
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> • The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<ul style="list-style-type: none"> • The PFS is based on a crushing, milling and flotation flowsheet. The selected technologies and flowsheet are the industry standard for recovery of an acidspar product and are considered appropriate for this style of mineralisation. • The process selection is considered low risk and is not novel in nature • Most of the testwork for the project was performed 20 or more years ago in five programs, testwork included the following: <ul style="list-style-type: none"> – Comminution testwork – UCS – CWi – BBWi – BBRI – Gravity – HLS <ul style="list-style-type: none"> – Erikson Cone – Wifley Table – Flotation <ul style="list-style-type: none"> – Total of 38 Bench scale rougher tests with 25 including cleaner flotation – Flotation variable optimisation including reagent selection and dosing, conditioning times, grind size • Due to sample limitations and changes in reagent availability Tivan conducted one flotation test to compare with historic data. New works also included an SMC test to validate SAG mill selection for the flowsheet. • Work has been conducted primarily on composites prepared from holes distributed throughout the orebody. Limited comminution variability work has been conducted. • All testwork has been performed at bench scale. • An overall recovery of 90% was selected for the study based on historic results

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Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions (continued)		<ul style="list-style-type: none"> It is currently assumed that material included in the mine schedule will produce an acidspar product with deleterious elements at levels that are acceptable for end-users. Tivan are working with Sumitomo Corporation to deliver Speewah acidspar product specifications that are aligned with end-user requirements
Environmental	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. 	<ul style="list-style-type: none"> WSP were engaged to review the deposit geology and prepare recommendations for the waste rock characterisation program. Waste rock characterisation testwork and the evaluation to confirm waste disposal assumptions will be undertaken in future studies. APM have been engaged to undertake and manage the environmental baseline studies and technical studies required to prepare the EPA/EPBC referral document. Baseline study progress <ul style="list-style-type: none"> Flora and vegetation baseline surveys for the Project area have been completed. Fauna baseline studies are expected to conclude with a wet season survey in Q1 2025. Subterranean fauna surveys are scheduled to start in Q3 2024 and conclude in Q2 2025. Hydrological and hydrogeological studies are scheduled to start in Q3 2024. Work will conclude with ground and surface water model updates in Q2 2025. Mine waste rock will be dumped to the south, adjacent to the pit. The location and the nature of the dump are considered conceptual level for the purposes of haulage cost estimation. Further studies into the siting of the dump, including interfaces with hydrological flood plains will be undertaken in future study phases. A potential site for the tailings storage facility was chosen in a siting assessment prepared by SRK. The preferred site is approximately 1 km from the process plant and was selected to limit environmental impacts and operational complexity. The option will be further developed in future studies.
Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed 	<ul style="list-style-type: none"> The company has proposed access to site via a 37 km road which connects to the Great Northern Highway. The Great Northern Highway is a fit for purpose sealed road designed for road trains (quads) Product will ship from Wyndham Port, which is ~100 km north of the Speewah deposit and is accessed directly via the Great Northern Highway

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Criteria	JORC Code explanation	Commentary
Infrastructure (continued)		<ul style="list-style-type: none"> • A hybrid LNG/solar power option is proposed for the PFS, however, the project is located close to the Ord River Hydro Power Station, which is currently underutilised. Tivan are collaborating with Pacific Hydro and Horizon Energy to facilitate hydropower supply for the project. • Nearby towns, Wyndham and Kununurra, provide access to skilled trades, services industries, supply chains and training solutions.
Costs	<ul style="list-style-type: none"> • The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private. 	<ul style="list-style-type: none"> • Capital costs derived for this project have come from several sources: <ul style="list-style-type: none"> – Mining (SRK); <ul style="list-style-type: none"> – Conceptual level designs of haul roads, waste dumps and ROM pads produced earthworks quantities and estimates were completed using a combination of first principals, and recent file pricing. – MSA area costs were derived from recent file pricing. – Costs for mobile equipment were supplied by the Company, based on conceptual level research on open market equipment availability. – Tailings (SRK); Conceptual level design produced earthworks quantities and estimates were prepared using recent file pricing. – Process & Balance of Plant (Lycopodium): Pre-feasibility level design produced quantities, and a combination of various pricing and estimating techniques: <ul style="list-style-type: none"> – Mechanical equipment; Budget Quotation Requests (BQR) from vendors of major mechanical equipment packages. Recent file pricing for smaller mechanical items. – Piping; Factored estimate for the supply and installation based on the cost of mechanical equipment – Structural Steel Supply & installation; Estimated allowances for quantities heavy, medium, light steel and platework, BQRs from multiple vendors, and benchmarked against recent file data for similar projects. – Concrete Supply & installation; Engineered allowances for quantities, BQRs from multiple contractors, and benchmarked against recent file data for similar projects. – Roads and bulk earthworks were priced using engineered supplied quantities, and BQRs from multiple contractors. – Electrical and instrumentation supply & installation were estimated by a subconsultant to Lycopodium (ECG) using engineering supplied quantities, BQRs for major electrical equipment, recent file pricing for the supply of electrical cables, bulks and devices, and first principals estimate for the purposes of installation.

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Criteria	JORC Code explanation	Commentary
<p>Costs (continued)</p>		<ul style="list-style-type: none"> • Operating costs derived for this project have come from several sources: <ul style="list-style-type: none"> – Labour; derived from HME/LME allowances for associated operators. Management and Technical services allowances provided based on recent similar projects. – Costs of Fuel were supplied ‘at the bowser’ by the Company. – Engineered estimates for the quantities of explosives were determined and costs developed using recent file pricing. – Equipment manufacturers recommendations for service and overhaul requirements of LME and HME were combined with recent file pricing to determine ongoing maintenance and replacement costs. – Tailings (SRK). Operator and consultant fee recommendations were provided for Process and balance of plant labour and G&A considerations. – Process & Balance of plant: <ul style="list-style-type: none"> – Power; dedicated power options study performed by Subconsultant ECG, considering various forms of power supply, and nomination of a 10-year hybrid LNG/ Solar facility, priced using recent file data. – Consumables; engineered quantities, combined with BQRs from multiple vendors, and use of recent file pricing. – Labour; Company determined operational labour needs, roster, superannuation and payroll tax allowances, engineering consultant supplied file pricing for salaries. – Maintenance; factored from the cost of mechanical equipment – General and Administrative costs; Combination of recent file pricing and allowances made by company and engineering consultant. – Laboratory; BQR to multiple suppliers on a build own and operate basis. • Exchange rates: recent history of AUD:USD • Costs for Transportation were derived from indicative estimates provided by Cambridge Gulf Limited (CGL), who are current operators of the port of Wyndham. CGL pricing included allowance for road transport of concentrate from Site to Port of Wyndham, Interim storage, port-side handling, pilotage and loadout to vessel. • Royalties: 3% in aggregate.

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Criteria	JORC Code explanation	Commentary
<p>Revenue factors</p>	<ul style="list-style-type: none"> The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> Revenue is based on sale of >97% acidgrade Fluorspar. The head grade is derived from the mining schedule and is based on the Mineral Resource Estimate with mining dilution. No penalty charges for the acidspar product are assumed for this study. Tivan are working with Sumitomo Corporation to deliver Speewah acidspar product specifications that are aligned with end-user requirements. Commodity price assumptions were derived from long term price history for acidgrade, Fluorspar, China, FOB provided by Fastmarkets. Fastmarkets is the industry benchmark Price Reporting Agency for Fluorspar and complies with IOSCO price reporting principles.
<p>Market assessment</p>	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<ul style="list-style-type: none"> The global fluorspar market has historically been close to balance and does not carry inventories or stockpiles. According to Benchmark Minerals Intelligence the maximum imbalance recorded in 2018, was a supply deficit of 142k tonnes of fluorspar (all grades). Independent market intelligence firms are forecasting a significant demand/supply imbalance from 2026. The imbalance is attributed to analysis of demand for electric vehicle batteries and semiconductor manufacturing. Supply is forecast to be further constrained by resource depletion and increasing ESG constraints in China, and a variety of constraints faced by resource owners, especially in western countries. Benchmark Minerals Intelligence has estimated that China will deplete its reserves by 2030. Project Blue has forecast a significant project gap emerging in the acidgrade fluorspar segment by 2030. The Critical Minerals Production Tax Incentive (CMPTI) was announced in the 2024-25 Federal Budget and Tivan are expected to qualify. The CMPTI lowers the tax payable by the Project, and can be represented as lowering the effective C1 costs. Through its representative offices across Asia, Sumitomo Corporation has commenced marketing offtake from the Project. These efforts have confirmed strong interest in the Project in various countries across Asia, including Japan, India, South Korea and China. Taiwan is also a significant consumer of downstream fluorspar products, given its world leading semiconductor industry.

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Market assessment (continued)		<ul style="list-style-type: none"> • The price forecast reflects the following: <ul style="list-style-type: none"> – Long run price trends observable in the Fluorspar market – Demand and supply analysis over the forecast horizon – Balance of payments dynamics for major importing and exporting countries – A price ceiling that corresponds to thresholds by Tivan and SRK consulting in estimating the Speewah Fluorite Resource and defining the Mineral Exploration Target
Economic	<ul style="list-style-type: none"> • The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> • Tivan has 100% ownership of the Speewah Fluorite Project • The PFS for the Speewah Fluorite Project has been financially evaluated through a life-of-mine financial model that utilises a discounted cashflow methodology • NPV ranges and sensitivities are displayed in the announcement.
Social	<ul style="list-style-type: none"> • The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> • The Project is located in northern Western Australia near the Woolah Aboriginal community at Doon Doon. Kununurra and Wyndham are the two closest regional towns in the Project area. • Tivan is pursuing an approach to stakeholders framed as 'Avoid, Mitigate, Offset', with the aim of minimising negative impacts on country and maximising positive community-wide impacts. • Tivans' outreach has focussed upon initiating and deepening engagement with key regional bodies including: <ul style="list-style-type: none"> – Kimberley Development Corporation – Kimberley Land Council – Miriuwing Gajerrong Corporation – Shire of Wyndham-East Kimberley – East Kimberley Chamber of Commerce and Industry • With respect to Traditional Owners and Native Title Holders, Tivan's firmwide policy is framed around the concepts of Early Inclusion and Gainful Participation. • Tivan has signed two Heritage Protection Agreements with the KLC to safeguard heritage and native title rights for the Speewah Project. These agreements outline the following: <ul style="list-style-type: none"> – Exploration activity protocols – Collaborative dialogue – Future agreement pathway • Tivan has strong standing in the East Kimberley region, and is working to include various local enterprises with demonstrated capabilities in supply chains for the Project.

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Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported No material naturally occurring risks identified with the exception of ground dewatering for mine operations in close proximity to the Dunham River and associated tributaries, and the potential impact to groundwater dependent ecosystems. SRK has reviewed the existing hydrology and hydrogeology data and provided recommendations for improving understanding to DFS level. Hydrological and hydrogeological studies are scheduled to start in Q3 2024. Work will conclude with ground and surface water model updates in Q2 2025 Subterranean fauna surveys are scheduled to start in Q3 2024 and conclude in Q2 2025. The outcome of these studies will determine if a non-formal assessment is practical. All relevant tenement licences are 100% owned by Tivan and its wholly owned subsidiaries No binding marketing arrangements are currently in place. Through its representative offices across Asia, Sumitomo Corporation has commenced marketing offtake from the Project.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person’s view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/confidence (continued)		<ul style="list-style-type: none">• The LOM production target is comprised of 95% indicated and 5% inferred material on a tonnage basis.• The Project is not in production, no comparison or reconciliation of data can be presented.

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