Technical Report on the Deep Fox and Foxtrot Project, Newfoundland and Labrador, Canada Report for NI 43-101

Search Minerals Inc.

SLR Project No: 233.03512.R0000

Effective Date:
May 31, 2022

Signature Date:
July 18, 2022

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1.0 SUMMARY

1.1 Executive Summary

SLR Consulting (Canada) Ltd. (SLR) was retained by Search Minerals Inc. (Search Minerals) to prepare an independent Technical Report on the Deep Fox and Foxtrot Rare Earth Element (REE) Project (the Project or the Property), located near St. Lewis, Newfoundland and Labrador, Canada. The purpose of this Technical Report is to disclose the results of a Preliminary Economic Assessment (PEA) on the Project based on a new mineral processing method and updated Mineral Resource estimates for both the Deep Fox deposit (Deep Fox) and the Foxtrot deposit (Foxtrot). This Technical Report conforms to National Instrument 43-101 (NI 43-101) Standards of Disclosure for Mineral Projects. SLR visited the Property and field office on August 26, 2015, and November 9 to 12, 2021.

Search Minerals is a public company that trades on the Toronto Stock Exchange (TSX) Venture Exchange under the symbol SMY, and on the OTCQB Venture Market under the symbol SHCMF. Search Minerals, through its wholly-owned subsidiary Alterra Resources Inc. (Alterra), owns Deep Fox and nearby Foxtrot, as well as a number of mineral prospects on its 100% owned Critical REE District spanning approximately 64 km. Search Minerals holds REE properties in the Red Wine Complex of Central Labrador and the Henley Harbour properties, located in southeast Labrador.

This Technical Report is considered by SLR to meet the requirements of a PEA as defined in Canadian NI 43-101 regulations. The PEA production scenario for the Project consists of initial mining at Deep Fox followed by Foxtrot, using both open pit and underground mining methods, at a production rate of 2,000 tonnes per day (tpd) or 720,000 tonnes per annum (tpa). Mineralized material from Deep Fox and Foxtrot will be fed to a magnetic separation plant (Primary Production Plant), which is to be built adjacent to Deep Fox, where mineralized material will be concentrated from approximately 0.87% total rare earth oxides (TREO) plus Yttrium (Y) to produce a rare earth mineral concentrate (approximately 26% mass pull) grading between 4% TREO+Y to 6% TREO+Y with 90% TREO+Y recovery.

The rare earth mineral concentrate will then be shipped from an upgraded port facility in Labrador to a hydrometallurgical processing plant (Hydrometallurgical Processing Plant) to be constructed on the island of Newfoundland for processing into a refined rare earth carbonate for further down stream processing (i.e., separation by others). The Hydrometallurgical Processing Plant utilizes a direct extraction process developed by Search Minerals. Search Minerals is investigating the potential to undertake further refinement of products using its own separation facility.

Both the Primary Production Plant and the Hydrometallurgical Processing Plant, with all supporting infrastructure, were designed and engineered by NewPro Consulting & Engineering Services Pty Ltd. (NewPro). Engineering designs and discussion is reported in NewPro's report "Search Minerals Inc., Fox Harbour Rare Earths Project, Processing Plant Scoping Study Update" identified as Revision C and Issued on January 25, 2022 (the NewPro Report).

It is estimated that the average annual production of refined rare earth carbonate will contain 1,437 tonnes (t) of the primary rare earth oxides (REO) of Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb) which account for approximately 92% of the Project's revenue. REO price forecasts were provided by Adamas Intelligence (AI), an independent research and advisory service focused on strategic metals and minerals. SLR notes that forecasts from AI were provided in October 2021 and subsequently updated in February 2022. There was a significant increase in REO prices, especially for

Nd and Pr (approximately 90%) as a result of a long term supply shortage. This supply shortage is directly related to the increased demand for critical metals to supply the green economy.

The economic analysis contained in this PEA is based, in part, on Inferred Resources, and is preliminary in nature. Inferred Resources are considered too geologically speculative to have mining and economic considerations applied to them and to be categorized as Mineral Reserves. There is no certainty that the reserves development, production, and economic forecasts on which this PEA is based will be realized.

All currency in this Technical Report is Canadian dollars (C$) unless otherwise noted.

1.1.1 Conclusions

Robust economic results indicate that the Project has good potential to become a long-life producer of critical REEs, providing an independent Canadian source of materials which are key to the green economy. Further conclusions by area are as follows:

1.1.1.1 Geology and Mineral Resources

- Significant REE deposits have been delineated at Deep Fox and Foxtrot by the Search Minerals exploration team. Deep Fox is located approximately two kilometres northeast of St. Lewis, Labrador. Foxtrot is located approximately 10 km west of St. Lewis, Labrador. Both deposits are located in the Fox Harbour Volcanic Belt (FHVB), which also hosts other REE prospects and targets owned by Search Minerals.
- Deep Fox mineralization is steeply dipping (approximately 80°) at an azimuth of 275°, with a strike length of approximately one kilometre. The majority of Deep Fox high grade mineralization occurs within steeply dipping packages of pantellerite. Two mineralized wireframes were modelled, a higher grade and more extensive footwall zone, and a thinner hanging wall zone. Deep Fox remains open at depth with potential to extend Mineral Resources to the east and west.
- Foxtrot mineralization consists of three steeply dipping mineralized zones, a thicker, predominantly pantellerite core, and a hanging wall and footwall zone consisting of pantellerite and low zirconium (Zr)-pantellerite bands. Foxtrot mineralization is steeply dipping (70° to 80°), with a strike length of approximately 765 m at an azimuth of 285°. Foxtrot remains open at depth and there is potential to extend Mineral Resources west and east of the current footprint.
- For both Deep Fox and Foxtrot, Search Minerals collected core and channel samples, assayed samples with a quality assurance and quality control (QA/QC) program, conducted surface exploration, and produced drill hole databases. SLR verified the content of the assay databases, reviewed the QA/QC programs and logging and sampling procedures, and performed location spot checks. The assay database, logging and sampling procedures, and QA/QC programs are acceptable for Mineral Resource estimation.
- SLR estimated Mineral Resources for the Project using all drill hole and channel sample data available as of December 31, 2021. Mineralization wireframes were modelled at Deep Fox and Foxtrot, using a nominal cut-off of $260/t Net Value. Open pit resource shells were generated for both deposits to constrain open pit Mineral Resources. Material with Net Value of $335/t and higher was used to report underground Mineral Resources remaining below the resource shells assuming an underground scenario. The underground Mineral Resources were reported at a block cut-off and validated using underground reporting shapes to ensure Reasonable Prospects of Eventual Economic Extraction (RPEEE).

- Deep Fox Mineral Resources include 5.1 million tonnes (Mt) classified as Indicated at average grades of 394 ppm Pr, 1,469 ppm Nd, 202 ppm Dy, and 34 ppm Tb, and 3.3 Mt classified as Inferred at average grades of 366 ppm Pr, 1,381 ppm Nd, 198 ppm Dy, and 33 ppm Tb.
- Foxtrot Mineral Resources include 10.0 Mt classified as Indicated at average grades of 366 ppm Pr, 1,368 ppm Nd, 176 ppm Dy, and 30 ppm Tb, and 3.0 Mt classified as Inferred at average grades of 371 ppm Pr, 1,384 ppm Nd, and 177 ppm Dy, and 30 ppm Tb.

1.1.1.2 Mining and Mineral Reserves

- Mining on the Property will be carried out using open pit and underground methods at a rate of 2,000 tpd starting at Deep Fox and followed by Foxtrot. Deep Fox will be mined over an 11 year period (seven years open pit and four years underground) and Foxtrot will be mined over a 16 year period (seven years open pit and nine years underground) for a total mine life of 26 years (the Foxtrot open pit and Deep Fox underground will both be mined in Year 11).
- A total of 18.137 Mt of mineralized material will be mined at grades of 1,416 ppm Nd, 379 ppm Pr, 188 ppm Dy, and 32 ppm Tb with an estimated average value of $756/t (net of process recoveries and payability terms).
- The PEA mineable quantities are based on 86% Indicated Mineral Resources and 14% Inferred Mineral Resources.
- The Deep Fox and Foxtrot open pits are planned to be mined using conventional truck and shovel operations using a contractor.
- The Deep Fox and Foxtrot underground mines are planned to be trackless mechanized operations accessed from the open pits by a single main ramp each and will be owner operated. Deep Fox and Foxtrot are generally steeply dipping with average widths of 15 m. The deposit configurations are suitable for mining using longhole mining methods with transverse and longitudinal accesses.
- The Deep Fox and Foxtrot underground mines will be a continuation of the open pit mining operations and will be mined at a production rate of 2,000 tpd.
- Mineral Reserves have not yet been estimated for the Project.

1.1.1.3 Mineral Processing

- SLR has reviewed the metallurgical test work reports and summaries provided by Search Minerals. The test work has been performed by SGS Canada Inc. (SGS), which is a highly experienced and competent laboratory. The interpretation of the test work appears to be reasonable.
- Although additional test work is required, the qualified person (QP) is of the opinion that the available test work is sufficient to define the design of recovery methods at a PEA level.
- The proposed Primary Production Plant includes a simple comminution circuit which, given adequate test work on a range of samples and competent design based on such test work, should be easily implemented. Similarly, the proposed magnetic separation circuits are standard in other industries and should operate as projected provided that test work confirms the preliminary test results forming the basis for the present design.
- The proposed hydrometallurgical process starts with an acid bake process. This is a widely practised method of decomposing REE minerals and is presently used to produce most of the world's REEs. The proposed Hydrometallurgical Processing Plant would dissolve the REE from the acid bake product in water and remove impurities through hydrolysis using a standard process.

The balance of the process includes REE precipitation and releach followed by multiple stages of purification ahead of REE carbonate precipitation. As noted by NewPro, additional test work is required to confirm process details. SLR is of the opinion that the process might be simplified.

- Although additional test work, including pilot plant operations, are required, SLR is of the opinion that the design and resulting equipment requirements and reagent demand are adequate for a PEA level of study.

1.1.1.4 Environment

- Search Minerals has a Code of Business Conduct policy, Integrated Policy on Health, Safety, Environment and Community Relations, Insider Trading Policy, Whistleblower Policy, and Disclosure Policy. Additional policies are under development.
- Search Minerals has corporate environmental and social policies, although these are being expanded and further developed.
- Baseline studies have been initiated based on preliminary Project information.
- The Project will require provincial approvals and permits. The revised project scope as currently configured does not trigger a federal Impact Assessment under the Impact Assessment Act (IAA).
- Search Minerals conducts community engagement in relation to exploration activities and plans to conduct further engagement activities in 2022. It has initiated some social initiatives such as offering limited scholarships to people in the local community.
- Search Minerals signed an agreement with the NunatuKavut Community Council (NCC) on August 27, 2012, to address exploration activities and this remains valid.
- Deep Fox lies within the St. Lewis protected water supply catchment area. Search Minerals continues to work directly with the St. Lewis Town Council to ensure that residents are informed of activities and that concerns are addressed in a timely manner. This is a key risk to manage as the Project progresses. Surface water studies are required to understand any potential quality and quantity impacts on the water resource. Surface water studies were initiated in 2020, have been ongoing since then and will continue throughout the exploration and development activities.
- A Rehabilitation and Closure Plan (RCP) and financial assurance for rehabilitation and closure costs will be required to obtain environmental approvals.

1.1.2 Recommendations

Advanced engineering studies (Pre-Feasibility, Feasibility) on the Project are merited, through further data collection, testing, and analysis.

SLR offers the following specific recommendations by area:

1.1.2.1 Geology and Mineral Resources

1. Expand the master drilling database content to include all QA/QC data.
2. Review and update the QA/QA protocols to address potential improvements regarding usage of coarse blank samples, type and number of certified reference materials (CRMs), nominal values of internal standards, and batch failing criteria and re-assay procedures.
3. Collect wider channel samples to generate field sample duplicates.

4. Conduct infill drilling on portions of Deep Fox and Foxtrot to a spacing of 15 m to 30 m. This is expected to suffice for Measured Resources (although this is subject to confirmation via variography). SLR understands that Search is currently undertaking a 11,000m infill exploration program.
5. Continue exploration for the expansion of Deep Fox and Foxtrot, with mineralization down-plunge and lateral extent targeted drilling.
6. Continue exploration of high grade REE prospects in the area.

1.1.2.2 Mining and Mineral Reserves

1. Develop a better understanding of the geotechnical conditions in order to optimize stope dimensions and potentially reduce the amount of development. SLR understands that Search Minerals is currently undertaking a 3,000 m geotechnical drilling program.
2. Continue drilling campaigns focusing on areas where Inferred Mineral Resources can be upgraded to the Indicated category.
3. Complete a study which assesses the required cemented rock fill (CRF) strength to confirm the stability of the exposed stope walls.
   - Additionally, assess the optimum backfill granulometry and cement content. This will provide information on cement content required and can provide opportunity for reduced operating costs.
4. Investigate using tailings in paste fill applications for backfill in primary transverse stopes.

1.1.2.3 Mineral Processing

1. Consistent with Search Minerals' plans, continue additional laboratory test work to confirm, or improve upon, present recovery and reagent consumption values and to examine the response of the beneficiation and hydrometallurgical processes to mineral variability.
   - Future test work must also include pilot-scale operations, the determination of engineering parameters such as liquid-solid-separation requirements, and the characterization of effluents and residues to allow the design of suitable handling, storage, and disposal facilities.
   - Waste solids and solutions from the beneficiation and hydrometallurgical processing plants need to be tested to allow for the design of suitable handling systems and ensure compliance with all applicable regulations.

1.1.2.4 Infrastructure

1. Complete a detailed environmental assessment and detailed engineering for the tailings site adjacent to the Primary Production Plant, identified by SLR, to confirm its viability. Identify and complete investigations for a tailings site for the Hydrometallurgical Processing Plant.
2. Continue investigating port locations. SLR understands that the Port of Fox Harbour has a limited draft of approximately nine metres which could allow for up to 15,000 deadweight tonnage (dwt) vessels. Fox Harbour will also have a limited shipping season and consideration for scheduling allowance will need to be accounted for.

3. Investigate the viability of the route proposed by SLR has, which utilizes an access road connecting Highway 513 to Deep Fox in order to avoid traffic in St. Lewis. These investigations should include environmental and engineering assessments.

1.1.2.5 Environment

1. Develop the corporate environmental and social policies and publish these on Search Minerals website.
   - Develop plans to implement and audit the requirements of these policies
2. Plan, progress, and expand on ongoing environmental and social baseline studies to ensure that all Project infrastructure and activities are covered. Ensure that all environmental and social aspects are fully addressed to provide a comprehensive baseline record for the Project, and to meet regulatory requirements for provincial and federal applications for approval and permitting.
   - These studies should include other receptor pathways that could affect human health e.g., soil, water, vegetation, animals, toxicity testing on target species, geochemical studies, and technological options to limit potential environmental and social risks.
3. Develop and implement a plan to obtain all the required federal and provincial approvals and permits and ensure that these are in place in advance of construction. This plan should be developed in consultation with the regulators, fully integrate with environmental study planning and engineering studies, and identify any risks to the approval processes and mitigation measures, if applicable.
4. Implement the community engagement plan and ensure that all stakeholders are included. The engagement plan should detail the process for engaging Indigenous communities interested in the Project.
5. Continue to honour the Mining Exploration Activities Agreement with the NCC which was signed on August 27, 2012. Determine the need for additional community agreements through engagement processes.
6. Continue to implement social initiatives and expand on these as appropriate and as needs are identified through stakeholder and Indigenous community engagement.
7. Continue surface water studies to understand any potential quality and quantity impacts on the St. Lewis protected water supply catchment area, and develop management and mitigation plans. Continue stakeholder engagement on this issue.
8. Conduct additional test work on the beneficiation and hydrometallurgical residues and effluents. As part of regulatory approval processes, compile an RCP in accordance with legal requirements and applicable guidelines, considering best practice where possible and ensuring that the financial assurance is in place as required by law.

A budget for carrying out the recommendations is as provided in Table 1-1.

Table 1-1: Budget for Recommended Actions
Search Minerals Inc. – Deep Fox and Foxtrot Project

Activity	Budgeted Cost (C$)
Infill and Exploration Drilling (10,000 m @ $200/m)	2,000,000

Activity	Budgeted Cost (C$)
Assaying (2,000 samples @ $100/each)	200,000
Geotechnical Investigation	300,000
Backfill Testing	100,000
Metallurgical Test Work	500,000
Environmental Baseline Monitoring	200,000
Advanced Engineering Study	1,000,000
Total	**4,300,000**

1.2 Economic Analysis

An economic analysis was performed using the assumptions presented in this Technical Report. The QP notes that, the economic analysis contained in this Technical Report is based, in part, on Inferred Resources, and is preliminary in nature. Inferred Resources are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Unlike Mineral Reserves, Mineral Resources do not have demonstrated economic viability. There is no certainty that economic forecasts on which this PEA is based will be realized. Table 1-2 presents the after-tax cash flow summary for the Project.

1.2.1 Economic Criteria

1.2.1.1 Revenue

- 2,000 tpd mining from both open pit and underground (720,000 tpa).
- Mill recovery varies by element, as indicated by NewPro based on test work, averaging 78%.
- Exchange rate C$1.00 = US$0.80.
- REE price varies, as detailed in Section 19.3.
- Net Value includes recovery, oxide conversion, and royalties.
- Revenue is recognized at the time of production.

1.2.1.2 Costs

- Pre-production period: 24 months.
- Mine life: 26 years.
- Life of mine (LOM) production plan as summarized in Section 16.
- Mine life capital totals $753.4 million comprising initial capital costs of $421.8 million, sustaining capital costs of $267.3 million, underground sustaining capital of $44.3 million, and reclamation and closure costs of $20.0 million, respectively.
- Average operating cost over the mine life is $344.59/t processed.

1.2.1.3 Taxation and Royalties

The Project is subject to the following encumbrances:

- 0.5% net smelter return (NSR) royalty for both Deep Fox and Foxtrot.
- SLR has used a simple "effective" tax rate of 38% based on previous tax modelling for the Foxtrot Project including Newfoundland and Labrador mining tax, and provincial and federal corporate income tax, including depreciation and tax credits.

Table 1-2: After-Tax Cash Flow Summary
Search Minerals Inc. – Deep Fox and Foxtrot

Parameter	Units	Value
Feed to Mill Rate	000 tpa	720
Feed to Mill, Total	Mt	18.1
LOM	years	26
Revenue, after fees	C$M	13,719
Operating Costs		
Open Pit Mining	C$M	334
Underground Mining	C$M	516
Additional Haulage to Plant (Foxtrot Only)	C$M	21
Primary Production Plant	C$M	706
General and Administration (G&A) (Primary Production Plant)	C$M	199
Transport to Hydrometallurgical Processing Plant	C$M	92
Hydrometallurgical Processing	C$M	1,643
G&A (Hydrometallurgical Processing Plant)	C$M	50
Separation Plant (Full feed)	C$M	1,960
Separation Plant (HREO)	C$M	729
Total Operating Costs	C$M	6,250
Expansion Capital		
Total Directs	C$M	245
Indirects/Owners	C$M	116
Contingency	C$M	61
Total Initial Capital	C$M	422
Sustaining Capital	C$M	267
UG Sustaining development	C$M	44
Reclamation and Closure	C$M	20
Total Capital Cost	C$M	753

Parameter	Units	Value
Cash Flow Summary		
Undiscounted Net Cash Flow, pre-tax	C$M	6,716
Payback Period, pre-tax	years	1.5
Pre-Tax NPV 8%	C$M	2,231
Pre-Tax NPV 10%	C$M	1,776
Pre-Tax NPV 12%	C$M	1,434
Pre-Tax IRR	%	55%
Project Taxes	C$M	2,620
Undiscounted Net Cash Flow, after-tax	C$M	4,097
Payback Period	years	1.8
NPV 8%	C$M	1,314
NPV 10%	C$M	1,032
NPV 12%	C$M	820
IRR	%	42%

1.2.2 Cash Flow Analysis

Considering the Project on a stand-alone basis, the undiscounted pre-tax cash flow totals $6,716 million over the mine life, and simple payback occurs 1.5 years from start of production.

1.2.3 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities:

- TREE Head Grade
- Net Value ($/t) (reflects REE price variations)
- Recovery
- Exchange Rate
- Operating Cost
- Capital Cost

Pre-tax IRR sensitivity over the base case has been calculated for a range of variations for each of the key parameters. The sensitivities are presented in Figure 1-1 and Table 1-3.

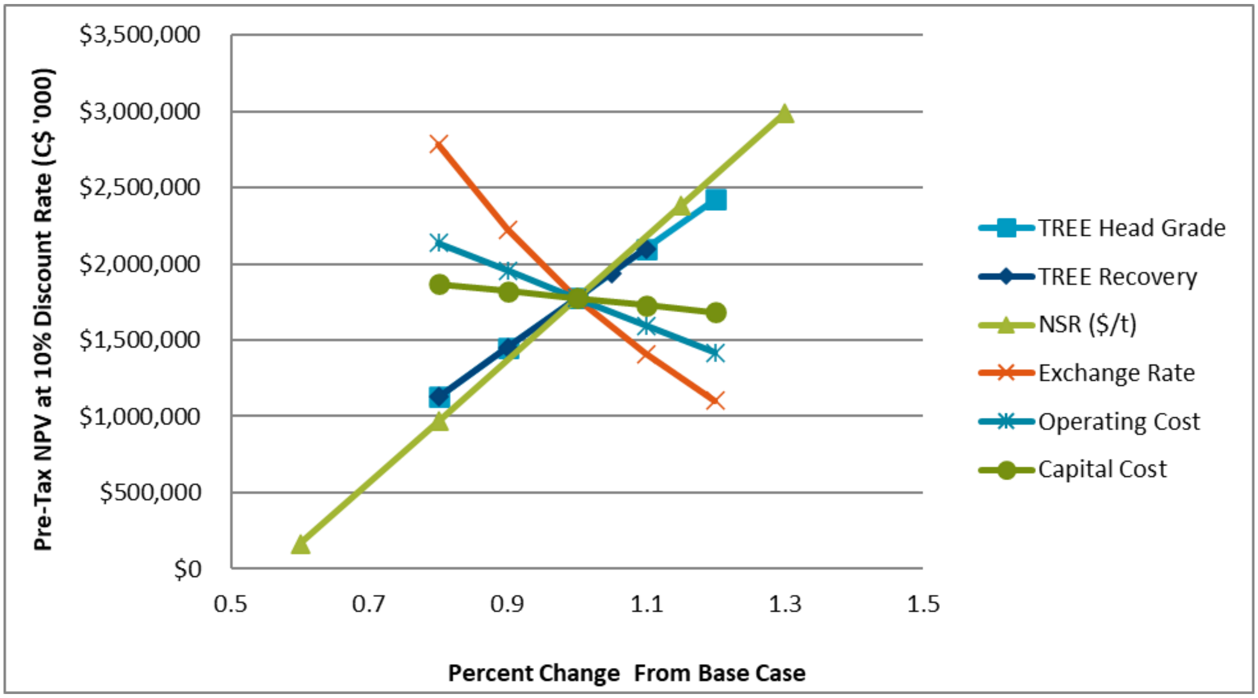


Figure 1-1: Pre-Tax Sensitivity Analysis

Table 1-3: Pre-Tax Sensitivity Analyses
Search Minerals Inc. – Deep Fox and Foxtrot

Factor	TREE Head Grade (%)	NPV at 10% (C$M)
0.8	0.69%	$1,127
0.9	0.78%	$1,451
1	**0.87%**	**$1,776**
1.1	0.95%	$2,100
1.2	1.04%	$2,425
Factor	**TREE Recovery (%)**	**NPV at 10% (C$M)**
0.8	63%	$1,127
0.9	71%	$1,451
1	**78%**	**$1,776**
1.05	82%	$1,938
1.1	86%	$2,100

	Net Value ($/t)	NPV at 10% (C$M)
0.6	$454	$164
0.8	$605	$970
1	**$756**	**$1,776**
1.15	$870	$2,380
1.3	$983	$2,985
	Exchange Rate (CAD:USD)	**NPV at 10% (C$M)**
0.8	0.64	$2,783
0.9	0.72	$2,224
1	**0.80**	**$1,776**
1.1	0.88	$1,409
1.2	0.96	$1,104
	Operating Cost (C$)	**NPV at 10% (C$M)**
0.8	$4,999,788	$2,135
0.9	$5,624,761	$1,955
1.00	**$6,249,735**	**$1,776**
1.30	$8,124,655	$1,236
1.50	$9,374,602	$876
	Capital Cost (C$)	**NPV at 10% (C$M)**
0.8	$602,750	$1,867
0.9	$678,094	$1,821
1.00	**$753,438**	**$1,776**
1.30	$979,469	$1,639
1.50	$1,130,157	$1,548

The sensitivities for REO prices range from 0.6 to 1.3 to capture the volatility in the REE market. This lower end of the range (0.6) was selected to overlap the October 2021 price forecasts by AI and the upper range (1.3) is to capture future upside.

The sensitivities for operating and capital costs range from 0.8 to 1.5. The higher sensitivity of 1.5 reflects the risk of sustained increased costs relating to supply chain issues.

All other sensitivities were carried out in the typical +/- 20% ranges.

1.3 Technical Summary

1.3.1 Property Description and Location

Deep Fox and Foxtrot are located in southeast Labrador, Canada. Deep Fox is approximately two kilometres northeast of St. Lewis, Labrador, and approximately 47 km east-southeast of Port Hope Simpson, Labrador. Foxtrot is located approximately 10 km west of St. Lewis, Labrador, and approximately 36 km east-southeast of Port Hope Simpson, Labrador.

1.3.2 Land Tenure

Deep Fox and Foxtrot are located on licences 023108M and 022088M, respectively. License 023108M contains 63 mineral claims covering an area of 1,575 ha, and licence 022088M contains 245 mineral claims covering an area of 6,125 ha.

Both licences are registered to Alterra, a wholly-owned subsidiary of Search Minerals. No surface rights for construction or quarrying are known to exist on the Foxtrot property. One quarry permit was issued for License 023108M (Deep Fox) in 2021 – this permit is for an existing quarry approximately two kilometres south of the proposed open pit site. All licences are currently held in good standing.

1.3.3 History

Complete aeromagnetic coverage and lake-sediment geochemical surveys were conducted over the region by the Geological Survey of Canada (GSC) in 1974 and 1984. Geological mapping at 1:100,000 scale was carried out from 1984 to 1987 by the Newfoundland and Labrador Geological Survey, as part of a five year Federal-Provincial joint project aimed at mapping an 80 km coastal fringe of the Grenville Province in southern Labrador. A detailed lake sediment survey was released by the Newfoundland and Labrador government in 2010 and covered the area of the claims.

In June 1996, Devonian Resources Inc. (Devonian) conducted work on a historic licence presently covered by mineral licence 022088M. Work included ground follow-up of the GSC lake sediment survey that indicated anomalous copper, nickel, and cobalt values. Devonian concluded that no further exploration was recommended.

From May to August 1996 Greenshield Resources Inc. conducted work on a historic licence presently covered by parts of mineral licences 022088M and 023108M. The program consisted of geological mapping, prospecting, lithogeochemical sampling, and diamond drilling. Exploration focused on assessing the potential for economic magmatic copper-nickel mineralized areas, however, no significant economic mineralization was observed.

The Foxtrot property was staked in 2009 and became part of the option agreement with B&A Minerals Inc. in 2009; the Foxtrot deposit was discovered in 2010. The Deep Fox property was part of an option agreement with the Quinlan's in 2011; the Deep Fox deposit was discovered in 2014.

In 2014, a master's thesis was completed to determine the geology, mineralogy, age, and origin of the rare earth minerals at the Foxtrot property.

Search Minerals entered into an option agreement to acquire the Deep Fox (formerly Deepwater Fox) property in 2011. The Deep Fox deposit was discovered in 2014 and the acquisition completed in 2015.

1.3.4 Geology and Mineralization

Deep Fox and Foxtrot occur in the 64 km long FHVB, which ranges in width from less than 50 m in the northwest to three kilometres in the east. Units dip steeply in a northerly direction and generally strike westerly to northwesterly, parallel to bounding faults to the north and south. The FHVB contains one peralkaline belt in the northwest and three peralkaline belts in the east, these belts of bimodal rocks dominated by REE-bearing felsic peralkaline flows and ash-flow tuffs and mafic to ultramafic volcanic and related subvolcanic units.

The three bimodal belts in the FHVB, from north to south: the Road Belt (RB), the Magnetite Belt (MTB) and South Belt (SB), have been the focus of REE exploration.

Deep Fox is hosted in the RB. In the Project area, the RB consists of, from north to south: 1) northern comendite, 2) anorthositic suite rocks consisting of anorthositic gabbro and anorthosite, 3) non-peralkaline rhyolite, 4) southern comendite, 5) mafic and ultramafic volcanic rocks, 6) mineralized pantellerite with interbedded non-peralkaline rhyolite and mafic volcanic rocks, and 7) a footwall non-peralkaline rhyolitic ash-flow tuff. Minor units of locally derived volcanogenic sediments, mafic volcanic flows, and related subvolcanic units and pegmatites occur throughout this sequence. Mineralized units are commonly interbedded with mafic to ultramafic volcanic units, quartzite, and locally derived volcanogenic sediments. Most units generally dip 75° to 85° northerly and drill data indicates that the mineralized zone plunges towards the northeast. The anorthositic suite and mineralized units form a prominent east-west trending ridge in the area. At Deep Fox the pantellerite mineralization is up to 42 m in thickness and typically averages 15m to30 m in thickness.

Foxtrot is hosted in the MTB. In the Project area, the MTB consists of pantellerite, comendite, non-peralkaline rhyolite, and mafic to ultramafic volcanic and related subvolcanic units. Mineralized units commonly range from five metres to 20 m in thickness. Mineralization is up to 100 m in thickness (comendites plus pantellerites) at Foxtrot, medium to high grade mineralization (pantellerite) is up to 25 m in thickness and typically averages 10 m to 14 m in thickness

1.3.5 Exploration Status

Search Minerals has conducted extensive exploration campaigns in the FHVB, over a strike length of greater than 60 km, and identified more than 20 targets along with Deep Fox and Foxtrot. Exploration to date consists of prospecting, mapping, lithogeochemical grab sampling, clearing, hand trenching, bulk sampling, channel sampling, and diamond drilling. At Deep Fox, a total of 100 drill holes and channels were completed and sampled, with a combined length of 12,920.7 m. A total of 119 diamond drill holes and channels with a total length of 19,399 m were completed at Foxtrot.

1.3.6 Mineral Resources

The Mineral Resource estimate for the Project is summarized in Table 1-4. SLR estimated Mineral Resources using drill hole and channel sample data available as of December 31, 2021. The Mineral Resources are reported based on a potential open pit and underground mining scenario as of December 31, 2021, at Net Value cut-off values of $260/t for open pit resources and $335/t for underground resources. No Mineral Reserves have been estimated for the Project.

The Mineral Resources were constrained by mineralized wireframes that took into consideration geological and Net Value continuity. A nominal Net Value of $260/t was used as cut-off for wireframing. Samples were composited to two metre length. Evaluation of raw assay grades prior to compositing indicated that capping of high grade values was not necessary. Composites were used to estimate block grades within discrete mineralized wireframes. Ordinary kriging (OK) methodology was used for block grade estimation at Deep Fox, while inverse distance cubed (ID^3) was used for Foxtrot.

Net Value was derived from the estimated operating costs for open pit and underground mining methods. Grades for all assays were combined with estimated metallurgical recoveries and prices to estimate the Net Value.

To convert volume to tonnes, simplified lithological models were created and bulk density factors were assigned for each lithology by determining the mean value of each rock type or interpreted lithological unit from bulk density testing carried out on the drill core and channel samples by Search Minerals.

Classification into the Indicated and Inferred categories was guided by drill hole and surface channel spacing, the reliability of data, and geological confidence in the continuity of grade.

Table 1-4: Summary of Mineral Resources as of December 31, 2021
Search Minerals Inc. – Deep Fox and Foxtrot Project

Classification	Tonnage (000 t)	Grade			
		(ppm Pr)	(ppm Nd)	(ppm Dy)	(ppm Tb)
		Open Pit			
Indicated	8,483	381	1,422	187	32
Inferred	1,441	329	1,231	179	30
		Underground			
Indicated	6,611	368	1,376	182	31
Inferred	4,862	380	1,427	191	33
		Totals			
Total Indicated	15,094	375	1,402	185	32
Total Inferred	6,303	369	1,382	188	32

Notes:

1. Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were followed for Mineral Resources.
2. Open Pit Mineral Resources were reported inside a resource shell at pit discard Net Value cut-off value of \$260/t. Underground Mineral Resources were constrained with mineralization wireframes below the resource shell and validated using underground mining solids based on a Net Value cut-off value of \$335/t. Both cut-off values account for all processing, G&A, refining, and transportation charges. Mining costs were assumed at \$6.50/t ore mined and \$5.00/t waste mined for open pit and \$75.00/t for underground
3. Net Value was assigned to blocks using metal prices, metallurgical recoveries, payables (as shown in their respective sections of this Technical Report) for each individual element.
4. A minimum mining width of two metres was used for both open pit and underground.
5. Bulk density varies from 2.71 t/m^3 to 2.92 t/m^3.
6. Revenue attributable to Pr, Nd, Dy, and Tb represents 92% of the total revenue.
7. The estimate is of Mineral Resources only and because these do not constitute Mineral Reserves, they do not have demonstrated economic viability.
8. Totals may not add or multiply accurately due to rounding.

The QPs are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

1.3.7 Mining Method

Mining is proposed to be carried out at Deep Fox and Foxtrot using a combination of open pit and underground methods. Mining will first take place at Deep Fox using open pit and underground methods over a period of approximately 11 years. Open pit operations at Foxtrot will commence in the last two years of the Deep Fox underground operation. Once mining is completed at Deep Fox, mining will transition completely to Foxtrot to extend the mine life an additional 15 years for an overall mine life of approximately 26 years.

The open pit mining production rate is assumed to be 720,000 tpa, or 2,000 tpd, of REE bearing material. For the purposes of this Technical Report, it is assumed that mining would be carried out year-round, however, given the relatively low production rate, there is the possibility of carrying out mining over a condensed period (six months) to avoid harsher conditions during the winter season.

Run of mine (ROM) mineralized material will be placed in a stockpile adjacent to the Primary Production Plant located near Deep Fox. ROM material will be fed to the concentrator using a front-end loader (FEL).

Open pit mining will be carried out by a contractor year-round using conventional truck and shovel open pit methods consisting of the following activities:

- Drilling performed by conventional production drills
- Blasting using ammonium nitrate fuel oil (ANFO) and a down-hole delay initiation system
- Loading and hauling operations performed with hydraulic shovel, FEL, and rigid frame haulage trucks

The production equipment will be supported by bulldozers, graders, and water trucks. Search Minerals will supervise the overall mining operation with its own employees including mining engineers, geologists, surveyors, and support staff.

Underground mining operations have been envisaged for mineralization not captured by open pit mining for both Deep Fox and Foxtrot. The production rate for the underground mines is assumed to be 720,000 tpa, or 2,000 tpd, of REE bearing material and will operate year-round. The underground mine will be owner operated. Underground capital (consisting of mobile equipment and mine development) will be spent during open pit operations, allowing funding via operating profit. Considering the geometry, continuity, and average width of the mineralized zones, both deposits are amenable to longhole mining methods. Sublevel stoping using transverse accesses will be used for areas where stope widths exceed 10 m while narrower stopes will be accessed using a longitudinal access.

Transverse longhole stopes will be mined using primary and secondary stopes and mining will progress from the lowest level of each mining panel and progress in a bottom-up fashion. Each mining panel consists of three to four stoping levels. Primary stopes will be mined first, starting from the bottom level and progressing vertically to the top. Once a vertical column of primary stopes has been mined the secondary stopes on either side will be mined. Transverse longhole mining allows for greater flexibility with the number of stopes that can be mined at any given time.

Longitudinal longhole stopes will be mined using a drive on each sublevel driven along the strike of the orebody. Mining will progress in a bottom-up sequence where stopes on the first level of each mining panel will be mined first before progressing to the next level.

A crown pillar of 25 m in height will be left under the bottom of the pit, which can be recovered by drilling upward from the first level of mining at the end of the LOM. CRF and unconsolidated rock fill (URF) will be used to satisfy backfill requirements at Deep Fox and Foxtrot

Underground mining will consist of development and production drilling, ground support, blasting, loading, hauling, and backfilling activities. The stationary equipment required for mining will include main and secondary ventilation fans combined with a propane heating system, air compressors, and a mine dewatering infrastructure (pumping stations, sumps, and pumps).

1.3.8 Mineral Processing

The majority of mineral processing and metallurgical testing on mineralized material from the St. Lewis area deposits has been conducted at SGS's Lakefield facility.

Magnetic separation of a rare earth mineral concentrate from various deposits was studied at SGS and reported in Search Minerals news releases on January 12, 2021, and April 12, 2021. The first deposit to be tested was Silver Fox. A channel sample was selected with 4.26% ZrO_2, 0.08% HfO_2 and 1.02% TREO. The sample was treated by low-intensity magnetic separation (LIMS) to recover an iron oxide rich material followed by wet high-intensity magnetic separation (WHIMS) up to 15,000 Gauss to recover a rare earth concentrate. The WHIMS nonmagnetic fraction was then tested for zircon flotation.

The combined grade of the WHIMS concentrate was re-analyzed and reported at 8.42% TREO+Y. The results demonstrated that the mass of the rare earth containing concentrate was only approximately 10% and the recovery of indicative elements (Ce, Nd for the LREE, and Y for HREE) was between 70% and 88%. This was a superior result compared with the earlier work (2012) and hence further work was performed on Foxtrot, Deep Fox, and the Fox Meadow deposits. These results were reported on April 12, 2021.

A batch test program was conducted to optimize the acid baking and water leaching process. An acid baking temperature of 190°C was selected with an acid addition of 145 kg/t H_2SO_4 for four hours. The particle size, water leach temperature, and % solids were studied. The extraction values for test 2 were 89% Pr, 90% Nd, 78% Tb, and 77% Dy.

Mineralized material from Deep Fox and Foxtrot will be processed through a beneficiation system using physical means followed by hydrometallurgical processing to form a marketable precipitate of mixed REE carbonate. The beneficiation operation will take place in a plant constructed near the deposits in Labrador – the Primary Production Plant. Mineral concentrates will be shipped to a brownfield site on the island of Newfoundland located close to a source of reagents and power for hydrometallurgical processing. The Hydrometallurgical Processing Plant is planned to be constructed on an existing brownfield site on the island of Newfoundland. The exact location of the Hydrometallurgical Processing Plant has not yet been selected.

1.3.9 Project Infrastructure

As of 2021, the nearby communities of Port Hope Simpson, St. Lewis, and Mary's Harbour, which have populations of approximately 403, 181, and 312, respectively, have various services including grocery stores, fuel stores, hotels, heavy equipment rentals, and labour resources. All three communities have port access as well as airstrips that can facilitate transportation of goods required for exploration programs. St. Lewis has deep water dock facilities and a small gravel airstrip suitable for small aircraft. Core storage, company lodging, and office space is located within the town of St. Lewis, in the Search Minerals owned and renovated Loran C building, formally occupied by the Canadian Coast Guard.

There is no electricity currently available on the Project site. The closest source is diesel generated electricity in the town of St. Lewis, located 10 km and two kilometres from Deep Fox and Foxtrot, respectively.

Water sources are plentiful over the Property.

SLR has envisaged access roads being constructed to connect the 513 with the Deep Fox property (bypassing the town of St. Lewis) as well as a section of road that would connect the Deep Fox property with the Port of Fox Harbour.

New infrastructure proposed in the PEA includes facilities at both the Project site in Labrador and the Hydrometallurgical Processing Plant in Newfoundland:

- Labrador Mine Site and Primary Production Plant
  - Water services including raw water intake, potable water, fire water, and sewage treatment
  - Power supply via diesel generation, with secondary heat recovery
  - Fuel storage
  - Buildings including the Primary Production Plant, site laboratory, office complex, maintenance shops, warehousing, and accommodation camp
  - Port facility
  - Access roads
  - Dry-stack filtered tailings storage
- Island of NL Hydrometallurgical Process Plant
  - Water services including raw water intake, process water, demineralized water plant, potable water, fire water, sewage treatment
  - Power supply via waste heat from the acid plant, plus grid connection
  - Steam plant
  - Fuel storage
  - Buildings including process plant, reagent storage, site laboratory, services building, offices, maintenance shops, warehousing, and concentrate storage
  - Port facility
  - Dry-stack residue storage pad

1.3.10 Market Studies

The supply side portion of the REE market is primarily driven by a select few countries: China, Australia, Malaysia, and the US. If supply chain issues continue, demand will outpace supply and price appreciation is anticipated to sustain.

Prices are currently substantially higher than 2020 and although there may be a scenario where supply is unobstructed in the short term, price depreciation is not expected to return to 2020 levels.

Looking forward, AI forecasts that the global rare earth market will consistently underproduce NdPr oxide from 2022, resulting in shortages by as early as 2023 if production does not increase beyond what is currently projected. Looking forward, from 2022 through 2035 AI forecasts that global TREO demand will rise at a compound annual growth rate (CAGR) of 6.0%, from 190,476 t to 407,621 t, driven primarily by the permanent magnet sector. TREO demand relating to permanent magnets (NdFeB magnets) is expected to rise at a CAGR of 8.3%, from 87,000 t to 246,000 t, boosted by strong demand growth from electric vehicle, wind power, general automotive, and other applications of NdFeB magnets. AI expects that electric vehicles will be responsible for over 40% of global magnet earth oxide demand by 2035.

Similarly, AI forecast that the global rare earth market will consistently underproduce Dy oxide resulting in shortages by as early as 2023 should production not increase beyond what is currently anticipated.

AI forecasts that the global rare earth market will consistently underproduce Tb oxide, resulting in ongoing and increasing shortages should production not increase beyond what is currently expected.

SLR notes that Nd, Pr, Dy, and TB make up approximately 92% of the Project value.

1.3.11 Environmental, Permitting and Social Considerations

Search Minerals has corporate environmental and social policies which are being expanded and further developed. The Project is in an early stage of development and baseline studies have been initiated based on preliminary Project information. Additional baseline work will be required to support environmental approvals and permitting.

The Project will require provincial approvals and permits. The revised project scope as currently configured does not trigger a federal Impact Assessment under the Impact Assessment Act (IAA).

Search Minerals conducts community engagement in relation to exploration activities and plans to conduct further engagement activities in 2022. Search Minerals holds an agreement with the NCC to address exploration activities and has initiated some social initiatives such as offering limited scholarships to people in the local community.

Deep Fox lies within the St. Lewis protected water supply catchment area. SLR understands that Search Minerals continues to work directly with the St. Lewis Town Council to ensure that residents are informed of activities and that concerns are addressed in a timely manner. This is a key risk to manage as the Project progresses. Surface water studies were initiated in 2020, have been ongoing since then, and will continue throughout the exploration and development activities to provide a better understanding of any potential quality and quantity impacts on this water resource.

An RCP and financial assurance for rehabilitation and closure costs will be required to obtain environmental approvals.

1.3.12 Capital and Operating Cost Estimates

The capital and operating costs for the processing, transport, and infrastructure were estimated by NewPro and reviewed by SLR. SLR estimated costs related to mining, tailings, and some additional infrastructure not covered in the NewPro estimate.

SLR notes that, due to global events relating to COVID 19 and the war in Ukraine, there have been significant increases to many goods, and freight prices have increased dramatically. SLR has not made any adjustments to the capital and operating cost estimates from NewPro to reflect these events, and the mining costs reflect “normal” conditions.

All costs are in Canadian Dollars (C$) unless otherwise stated.

The mine, process, and site infrastructure capital costs are summarized in Table 1-5.

Table 1-5: Overall Capital Cost Summary
Search Minerals Inc. –Deep Fox and Foxtrot Project

Area	Capital Cost (C$ 000)
Open Pit Mining	4,781
Infrastructure – Utilities – Primary Production Plant	68,104
Primary Production Plant	40,407
Infrastructure – Utilities – Hydrometallurgical Processing Plant	73,442
Hydrometallurgical Processing Plant	58,220
Total Directs	**244,954**
Indirects/Owners	115,635
Contingency	61,239
Total Initial Capital	**421,828**
Sustaining Capital	267,316
UG Sustaining development	44,294
Reclamation and Closure	20,000
Total Capital Cost	**753,438**

The initial and sustaining capital costs are estimated at $421.8 million and $267.3 million, respectively, for the Project. Underground sustaining capital and reclamation and closure costs are estimated at $44.3 million and $20.0 million, respectively. Total capital costs over the LOM are estimated at $753.4 million.

An RCP has not yet been developed and therefore no cost information is available. SLR has estimated $20 million at the end of the mine life based on similar sized operations and has not included any bonds or progressive reclamation costs.

Operating costs for processing, G&A, and transport were estimated by NewPro. SLR estimated the mining costs and separation plant costs.

A summary of the Project LOM operating costs is presented in Table 1-6.

Table 1-6: LOM Operating Costs
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Unit	Cost
OP Mining (Ore)	C$/t mined	6.50
OP Mining (Waste)	C$/t mined	5.00
UG Mining	C$/t mined	63.69
Mining	C$/t processed	61.75
Additional Haulage to Plant (Foxtrot Only)	C$/t processed	2.00

Area	Unit	Cost
Primary Production Plant	C$/t processed	38.90
G&A (Primary Production Plant)	C$/t processed	10.97
Transport/shipping to Hydrometallurgical Processing Plant	C$/t processed	5.07
Hydrometallurgical Processing	C$/t processed	90.60
G&A (Hydrometallurgical Processing Plant)	C$/t processed	2.74
Separation Plant (Full feed)	C$/t processed	108.05
	C$/kg TREO	12.50
Separation Plant (HREO)	C$/t processed	40.22
	C$/kg HREO	25.00
Total Operating Costs	**C$/t processed**	**344.59**
Open Pit Mining	C$ 000	333,915
Underground Mining	C$ 000	516,492
Additional Haulage to Plant (Foxtrot Only)	C$ 000	20,793
Primary Production Plant	C$ 000	705,602
G&A (Primary Production Plant)	C$ 000	198,959
Transport/shipping to Hydrometallurgical Processing Plant	C$ 000	91,909
Hydrometallurgical Processing	C$ 000	1,643,207
G&A (Hydrometallurgical Processing Plant)	C$ 000	49,740
Separation Plant (Full feed)	C$ 000	1,959,621
Separation Plant (HREO)	C$ 000	729,495
Total Operating Costs	**C$ 000**	**6,249,735**

2.0 INTRODUCTION

SLR Consulting (Canada) Ltd. (SLR) was retained by Search Minerals Inc. (Search Minerals) to prepare an independent Technical Report on the Deep Fox and Foxtrot Rare Earth Element (REE) Project (the Project or the Property), located near St. Lewis, Newfoundland and Labrador, Canada. The purpose of this Technical Report is to disclose the results of a Preliminary Economic Assessment (PEA) on the Project based on a new mineral processing method and updated Mineral Resource estimates for both the Deep Fox deposit (Deep Fox) and the Foxtrot deposit (Foxtrot). This Technical Report conforms to National Instrument 43-101 (NI 43-101) Standards of Disclosure for Mineral Projects. SLR visited the Property and field office on August 26, 2015, and November 9 to 12, 2021.

Search Minerals is a public company that trades on the Toronto Stock Exchange (TSX) Venture Exchange under the symbol SMY, and on the OTCQB Venture Market under the symbol SHCMF. Search Minerals, through its wholly-owned subsidiary Alterra Resources Inc. (Alterra), owns Deep Fox and nearby Foxtrot, as well as a number of mineral prospects on its 100% owned Critical REE District spanning approximately 64 km. Search Minerals holds REE properties in the Red Wine Complex of Central Labrador and the Henley Harbour properties, located in southeast Labrador.

This Technical Report is considered by SLR to meet the requirements of a PEA as defined in Canadian NI 43-101 regulations. The PEA production scenario for the Project consists of initial mining at Deep Fox followed by Foxtrot, using both open pit and underground mining methods, at a production rate of 2,000 tonnes per day (tpd) or 720,000 tonnes per annum (tpa). Mineralized material from Deep Fox and Foxtrot will be fed to a magnetic separation plant (Primary Production Plant), which is to be built adjacent to Deep Fox, where mineralized material will be concentrated from approximately 0.87% total rare earth oxides (TREO) plus Yttrium (Y) to produce a rare earth mineral concentrate (approximately 26% mass pull) grading between 4% TREO+Y to 6% TREO+Y with 90% TREO+Y recovery.

The rare earth mineral concentrate will then be shipped from an upgraded port facility in Labrador to a hydrometallurgical processing plant (Hydrometallurgical Processing Plant) to be constructed on the island of Newfoundland for processing into a refined rare earth carbonate for further down stream processing (i.e., separation by others). The Hydrometallurgical Processing Plant utilizes a direct extraction process developed by Search Minerals. Search Minerals is investigating the potential to undertake further refinement of products using its own separation facility.

Both the Primary Production Plant and the Hydrometallurgical Processing Plant, with all supporting infrastructure, were designed and engineered by NewPro Consulting & Engineering Services Pty Ltd. (NewPro). Engineering designs and discussion is reported in NewPro's report "Search Minerals Inc., Fox Harbour Rare Earths Project, Processing Plant Scoping Study Update" identified as Revision C and Issued on January 25, 2022 (the NewPro Report).

It is estimated that the average annual production of refined rare earth carbonate will contain 1,437 tonnes (t) of the primary rare earth oxides (REO) of Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb) which will account for approximately 92% of the Project's revenue. REO price forecasts were provided by Adamas Intelligence (AI), an independent research and advisory service focused on strategic metals and minerals. SLR notes that forecasts from AI were provided in October 2021 and subsequently updated in February 2022. There was a significant increase in REO prices, especially for Nd and Pr (approximately 90%) as a result of a long term supply shortage. This supply shortage is directly related to the increased demand for critical metals to supply the green economy.

The economic analysis contained in this PEA is based, in part, on Inferred Resources, and is preliminary in nature. Inferred Resources are considered too geologically speculative to have mining and economic considerations applied to them and to be categorized as Mineral Reserves. There is no certainty that the reserves development, production, and economic forecasts on which this PEA is based will be realized.

All currency in this Technical Report is Canadian dollars (C$) unless otherwise noted.

2.1 Sources of Information

Tudorel Ciuculescu, P.Geo., SLR Consulting Geologist, visited the Search Minerals premises in St. Lewis, Newfoundland and Labrador, Deep Fox, and Foxtrot from November 9 to November 12, 2021. Mr. Ciuculescu toured the office space, core logging and storage area, and core cutting shack. At the time of the visit, no logging or sampling activities were being conducted on the Foxtrot property. The location of drilling collars and channel start and end points were checked with a handheld GPS. Mr. Ciuculescu did not collect check samples during the site visit.

Previously, Ian Weir, P.Eng., SLR Principal Mining Engineer, and Katharine M. Masun, M.Sc., MSA, P.Geo., SLR Consulting Geologist, visited the Foxtrot property on August 26, 2015. On site, Mr. Weir and Ms. Masun observed exploration activities at Deep Fox and Foxtrot and visited the Project's field house to examine core.

Discussions were held with personnel from Search Minerals and their respective consultants as listed:

- Mr. Greg Andrew, President and Chief Executive Officer, Search Minerals
- Mr. Todd Burlingame, Chief Operating Officer, Search Minerals
- Dr. David Dreisinger, Ph.D., Director & Vice President Metallurgy, Search Minerals
- Dr. Randy Miller, Ph.D., P.Geo., Vice President, Exploration, Search Minerals
- Mr. Darrol Rice, GEMTEC Consulting Engineers and Scientists (GEMTEC)
- Mr. Ken Baxter, NewPro Consulting & Engineering Services Pty Ltd. (NewPro)

Table 2-1 presents a summary of the qualified person (QP) responsibilities in this Technical Report.

Table 2-1: Summary of QP Responsibilities
Search Minerals Inc. –Deep Fox and Foxtrot Project

Qualified Person	Title/Position	Sections
Tudorel Ciuculescu, M.Sc., P.Geo.	SLR Consultant Geologist	1.1.1.1, 1.1.2.1, 1.3.1 to 1.3.3, 1.3.5, 1.3.6, 4.0 to 6.0, 9.0, 10.1, 11.1, 14.0, 25.1, and 26.1
Katharine M. Masun, M.Sc., MSA, P.Geo	SLR Consultant Geologist	1.3.4, 7.0, 8.0, 10.2, 11.2, and 12.0
Ian Weir, P.Eng.	SLR Principal Mining Engineer	1.1.1.2, 1.1.2.2, 1.1.2.4, 1.2, 1.3.7, 1.3.9, 1.3.10, 1.3.12, 2.0, 3.0, 15.0, 16.0, 18.0, 19.0, 21.0 to 24.0, 25.2, 26.2, 26.4, and 30.0
Luis Vasquez, M.Sc., P.Eng.	SLR Senior Environmental Consultant and Hydrotechnical Engineer	1.1.1.4, 1.1.2.5, 1.3.11, 20.0, 25.4, and 26.5

Qualified Person	Title/Position	Sections
John R. Goode, P.Eng.	Principal, J.R. Goode and Associates	1.1.1.3, 1.1.2.3, 1.3.8, 13.0, 17.0, 25.3, and 26.3
All	-	27.0

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.

2.2 List of Abbreviations

Units of measurement used in this Technical Report conform to the metric system. All currency in this Technical Report is Canadian dollars (C$) unless otherwise noted.

µ	micron	kVA	kilovolt-amperes
µg	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C$	Canadian dollars	M	mega (million); molar
cal	calorie	m^2	square metre
cfm	cubic feet per minute	m^3	cubic metre
cm	centimetre	MASL	metres above sea level
cm^2	square centimetre	m^3/h	cubic metres per hour
d	day	mi	mile
dia	diameter	min	minute
dmt	dry metric tonne	µm	micrometre
dwt	dead-weight ton	mm	millimetre
°F	degree Fahrenheit	mph	miles per hour
ft	foot	MVA	megavolt-amperes
ft^2	square foot	MW	megawatt
ft^3	cubic foot	MWh	megawatt-hour
ft/s	foot per second	oz	Troy ounce (31.1035g)
g	gram	oz/st, opt	ounce per short ton
G	giga (billion)	ppb	part per billion
Gal	Imperial gallon	ppm	part per million
g/L	gram per litre	psia	pound per square inch absolute
Gpm	Imperial gallons per minute	psig	pound per square inch gauge
g/t	gram per tonne	RL	relative elevation
gr/ft^3	grain per cubic foot	s	second
gr/m^3	grain per cubic metre	st	short ton
ha	hectare	stpa	short ton per year
hp	horsepower	stpd	short ton per day

hr	hour	t	metric tonne
Hz	hertz	tpa	metric tonne per year
in.	inch	tpd	metric tonne per day
in^2	square inch	US$	United States dollar
J	joule	Usg	United States gallon
k	kilo (thousand)	Usgpm	US gallon per minute
kcal	kilocalorie	V	volt
kg	kilogram	W	watt
km	kilometre	wmt	wet metric tonne
km^2	square kilometre	wt%	weight percent
km/h	kilometre per hour	yd^3	cubic yard
kPa	kilopascal	yr	year

3.0 RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by SLR for Search Minerals. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as set forth in this Technical Report.

For the purpose of this Technical Report, SLR has relied on ownership information provided by Search Minerals. SLR has not researched property title or mineral rights for the Deep Fox and Foxtrot Properties and expresses no opinion as to the ownership status of the properties.

Except for the purposes legislated under provincial securities law, any use of this Technical Report by any third party is at that party's sole risk.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

Deep Fox is located in southeast Labrador, Canada, centred at 591,530 E and 5,804,340 N, UTM Grid Zone 21N, NAD 83, approximately two kilometres northeast of St. Lewis, Labrador, and approximately 47 km east-southeast of Port Hope Simpson, Labrador.

Foxtrot is located in southeast Labrador, Canada, centred at 580,000 E and 5,806,000 N, UTM Grid Zone 21N, NAD 83, approximately 10 km west of St. Lewis, Labrador, and approximately 36 km east-southeast of Port Hope Simpson, Labrador.

The locations of Deep Fox and Foxtrot are illustrated in Figure 4-1 and Figure 4-2.

4.2 Land Tenure

In Newfoundland and Labrador, a map staked licence is issued for a term of five years. However, a map staked licence may be renewed and held for a maximum of thirty years provided the required annual assessment work is completed and reported upon and renewal fees are paid as required. The minimum annual assessment work required to be done on a licence is:

- $200/claim in the first year
- $250/claim in the second year
- $300/claim in the third year
- $350/claim in the fourth year
- $400/claim in the fifth year
- $600/claim/year for years six to ten inclusive
- $900/claim/year for years eleven to fifteen inclusive
- $1,200/claim/year for years sixteen to twenty inclusive
- $2,000/claim/year for years twenty one to twenty five inclusive
- $2,500/claim/year for years twenty six to thirty inclusive

The renewal fees are:

- For year five $25/claim
- For year ten $50/claim
- For year fifteen $100/claim
- For years twenty to thirty $200/claim/year

In each year of the licence the minimum annual assessment work must be completed on or before the anniversary date.

Search Minerals' current mineral exploration license for the Project area may be held for five years provided the required amount of expenditures are made and properly detailed in an assessment report. The licenses can be renewed for additional five year periods, up to 30 years total, assuming they are maintained in good standing.

Deep Fox and Foxtrot are located on licences 023108M and 022088M, respectively. License 023108M contains 63 mineral claims covering an area of 1,575 ha, and licence 022088M contains 245 mineral claims covering an area of 6,125 ha. Both licences are registered to Alterra, a wholly-owned subsidiary of Search Minerals. No surface rights for construction or quarrying are known to exist on the Foxtrot property. One quarry permit was issued for License 023108M (Deep Fox) in 2021 – this permit is for an existing quarry approximately two kilometres south of the proposed open pit site. All licences are currently held in good standing. Licence details and statistics are summarized in Table 4-1.

Table 4-1: Summary of License and Claim Block Statistics
Search Minerals Inc. –Deep Fox and Foxtrot Project

Licence Number	Number of Claims	Area (ha)	Issuance Date	Renewal Date	Next Work Due	Expenditures Required ($)
022088M	245	6,125	21-Dec-09	21-Dec-24	21-Dec-24	59,786
023108M	63	1,575	17-Sep-09	17-Sep-24	17-Sep-30	126,000
027178M	35	875	20-Jun-08	20-Jun-23	20 Jun 2025	27,138
027447M	12	300	04-Nov-19	04-Nov-24	04 Nov 2023	1,883
032480M	14	350	23-May-21	23-May-26	23 May 2022	2,800
032539M	11	275	03-Jun-21	03-Jun-26	03 Jun 2022	2,200
033793M	58	1450	22-Aug-08	22-Aug-23	22 Aug 2026	46,226
034119M	6	150	29-Oct-19	29-Oct-24	29 Oct 2023	1,613
034506M	3	75	29-Jan-20	29-Jan-25	29 Jan 2022	750

4.3 Encumbrances

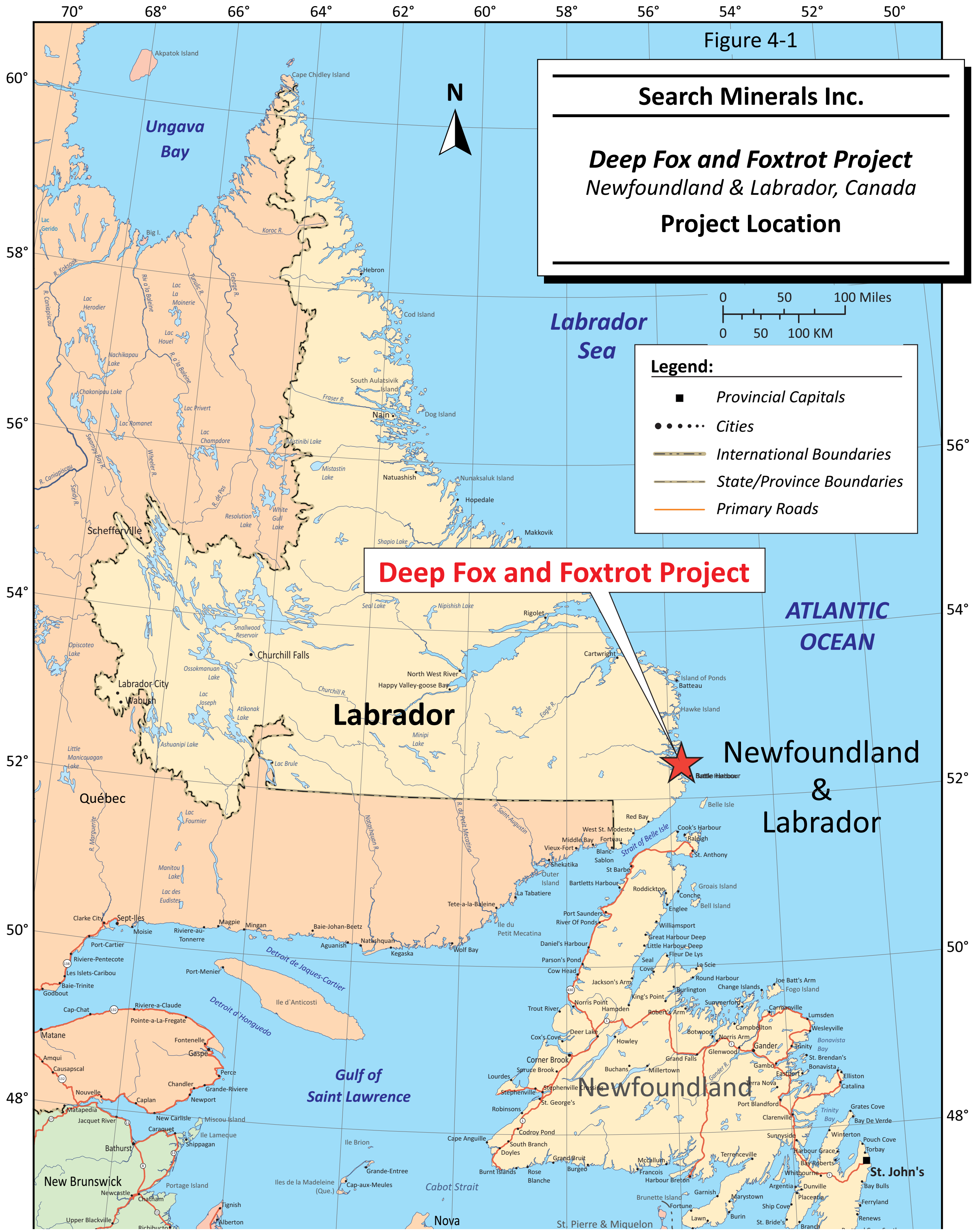
Search Minerals was fully permitted to conduct all work performed during the 2010 to 2021 exploration programs and remains fully permitted to conduct all current work being done. These include Exploration Permits, Water Use Permits, Wood Cutting Permits, Operating Permits, and a Permit for Development in a Public Water Supply Area as required.

4.4 Royalties

SLR understands that the Project has the following royalties:

- Deep Fox
  - 1.5% net smelter return (NSR) royalty with the option for 1% buyout for $1 million
- Foxtrot
  - 0.5% NSR

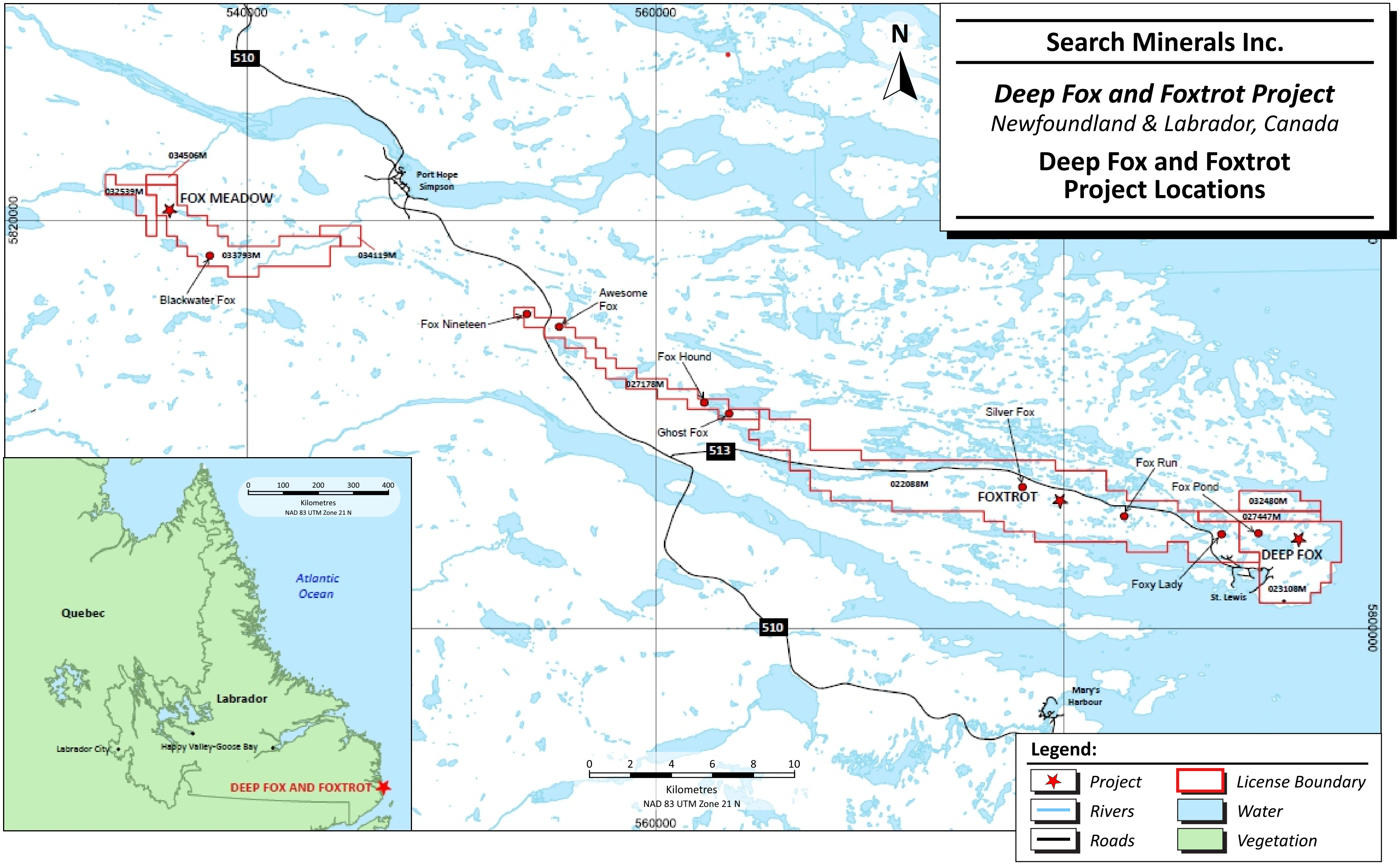
SLR is not aware of any environmental liabilities on the property. Search Minerals Inc.has all required permits to conduct the proposed work on the property. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.



July 2022

Source: SLR, 2022

Figure 4-2



July 2022

Source: Search Minerals, 2019.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

Deep Fox and Foxtrot are located approximately 10 km west northwest and two kilometres northeast of St. Lewis, Labrador, respectively, and 36 km and 47 km east-southeast of Port Hope Simpson, respectively. The majority of the Foxtrot property is accessible via Highway 513, an all-season gravel highway; areas not adjacent to the roadside are within walking distance. The Deep Fox property is accessible via a two-kilometre private woods road from St. Lewis. All parts of the Deep Fox property are within walking distance of the road and accessible from Fox Harbour Pond by boat and walking.

Travel to Port Hope Simpson and St. Lewis from Goose Bay, Labrador, is available via charter airplane, helicopter, and Highway 510, part of the fully paved (completed July, 2022) 1,149 km Trans Labrador Highway that stretches from western Labrador to the Strait of Belle Isle. Goose Bay, located approximately 350 km by air to the northwest of the Project, is a preferred hub as it is regularly serviced from eastern Canadian cities including Quebec City and Montreal, Quebec, and Halifax, Nova Scotia and St. John's, NL. Flight time from the exploration site to Goose Bay by helicopter is approximately two hours, and by fixed wing aircraft approximately one hour. Road travel from Goose Bay, a distance of approximately 460 km, to the site is approximately six hours. The site is also accessible via Highway 510 from the Strait of Belle Isle and via a short ferry trip from insular Newfoundland. The flight time to St. Anthony, Newfoundland and Labrador, is approximately half an hour.

5.2 Climate

The Project area is subject to a maritime climate. During the six month field season (May through October), temperatures range from an average low of 0°C in May, to an average high of 19°C in August. Over the same time period, average monthly precipitation ranges from 48 mm in May, to 91 mm in October. Average monthly snowfall in May and June are 6 cm and 3 cm, respectively; snow is not expected in the remaining months of the field season. Drilling activities can occur all year around due to relatively mild winters.

5.3 Local Resources and Infrastructure

As of 2021, the nearby communities of Port Hope Simpson, St. Lewis, and Mary's Harbour, which have populations of approximately 403, 181, and 312, respectively, have various services including grocery stores, fuel stores, hotels, heavy equipment rentals, and labour resources. All three communities have port access as well as airstrips that can facilitate transportation of goods required for exploration programs. St. Lewis has deep water dock facilities and a small gravel airstrip suitable for small aircraft. Core storage, company lodging, and office space is located within the town of St. Lewis, in the Search Minerals owned and renovated Loran C building, shown in Figure 5-1, formally occupied by the Canadian Coast Guard.

There is no electricity currently available on the Project site. The closest source is diesel generated electricity in the town of St. Lewis, located 10 km and two kilometres from Deep Fox and Foxtrot, respectively.

Water sources are plentiful over the Property.

Figure 5-1: Core Storage Facility and Company Lodging

5.4 Physiography

Elevation ranges from sea level to approximately 120 MASL. Topography is rugged with generally east-west striking ridges and hills with low lying areas containing rivers, ponds, and brooks that generally drain east or south into St. Lewis Inlet. As an ecoregion, the Property can be classified as 'Coastal Barrens' with the majority of the Property being scrubland. Vegetation consists of isolated black and white spruce stands in sheltered valleys, mosses, lichens, and Labrador tea in more barren areas, and lichen-covered bedrock in higher areas and along ridges.

6.0 HISTORY

6.1 Public Surveys and Studies

Early knowledge of the area is based mainly on a 1:500,000 scale reconnaissance mapping (Eade, 1962).

Complete aeromagnetic coverage and lake-sediment geochemical surveys were conducted over the region (Geological Survey of Canada (GSC), 1974a, 1974b, 1984). A detailed lake sediment survey was released by the Newfoundland and Labrador Government in 2010 and covered the area of the claims.

Geological mapping at 1:100,000 scale was carried out from 1984 to 1987 by Charles F. Gower of the Newfoundland and Labrador Geological Survey, as part of a five year Canada-Newfoundland joint project aimed at mapping an 80 km coastal fringe of the Grenville Province in southern Labrador (Gower et al., 1987 to 2009).

Meyer and Dean visited the area in 1988 to investigate a Pb-Cd-W-Cu lake sediment anomaly.

In 2014, a master's thesis was completed to determine the geology, mineralogy, age, and origin of the rare earth minerals at the Foxtrot property (Haley, 2014).

6.2 Exploration and Development History

Devonian Resources Inc. (Devonian) conducted work from June 1 to June 27, 1996, on a historic license presently covered by license 022088M (assessment file 003D/05/0021). Work conducted was prospecting follow up of a GSC lake sediment survey that indicated anomalous copper, nickel, and cobalt values. Devonian recommended that no further exploration be carried out. They also attempted to relocate the sample location found by the Newfoundland and Labrador Geological Survey in 1988 with anomalous zirconium (Zr) values. They did not find the rock described by the Newfoundland and Labrador Geological Survey and did not take any samples.

Greenshield Resources Inc. conducted work from May 29 to August 3, 1996, on a historic license presently covered by parts of licences 022088M and 023108M (assessment file LAB/1205). This file describes a program of geological mapping, prospecting, lithogeochemical sampling, and diamond drilling. Exploration focused on assessing the potential for economic magmatic copper-nickel mineralized areas within the Alexis River Anorthosite. The program was completed with no significant economic mineralization observed.

In 2008, Search Minerals began actively trading on the TSX Venture Exchange under the symbol SMY. In 2009, it successfully acquired all outstanding shares of Alterra, now a wholly-owned subsidiary of Search Minerals. Search Minerals, through Alterra, currently holds 472 mineral claims in southeast Labrador including 451 claims in the Critical REE District, where the Project is located. Search Minerals began extensive exploration in the Critical REE District in 2009 after it entered into a binding letter of intent to acquire an undivided 100% interest in certain claims in southeast Labrador owned by B&A Minerals Inc. (B&A) known as the Port Hope Simpson property; these claims have since been transferred to Alterra as per the option agreement. Adjacent land, including the Foxtrot, Deep Fox, Silver Fox, Awesome Fox, and Fox Meadow properties in the Fox Harbour Volcanic Belt (FHVB), and the Ocean View and Henley Harbour properties to the south, was acquired through subsequent staking. Exploration at Foxtrot began in 2010 with prospecting, mapping, channeling, and a Phase I diamond drill program. Channeling programs continued in 2011, 2012, 2014, and 2015. Phase II of drilling began in 2011 and Phase III in 2012. The Deep Fox property (formally named Deepwater Fox) was acquired from the Quinlan brothers via an option agreement signed in 2011 and completed in 2015. At the time, the Deep Fox property consisted of three mineral licences (016480M, 016620M, and 017646M), including 48 claims (1,200 ha) located east and north of the community of St. Lewis and contiguous with Alterra claims north and west of St. Lewis. The Quinlan licences were merged with relevant and adjacent Alterra claims to form the current Licence 023108M. Significant exploration at Deep Fox began in 2014 with a prospecting and mapping program; the discovery channel was completed in 2014. Channeling programs continued in 2015, 2017, 2018, 2019, and 2021. Drilling began with Phase I in 2017, and continued with Phase II in 2018, Phase III in 2021 and currently Phase IV in 2022.

6.3 Historical Resource Estimates

There are no historical resource or reserve estimates for Deep Fox or Foxtrot.

6.4 Past Production

There is no past production from either Deep Fox or Foxtrot.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

Dr. Randy Miller, Vice President Exploration of Search Minerals, provided SLR with the following Section 7 geological discussion, including the regional, local and property geological maps and cross-sections. Search Minerals also provided the characterization of the mineralization and the exploration geological model.

7.1 Regional Geology

Deep Fox and Foxtrot occur in the FHVB, part of the Fox Harbour Domain, located in the region adjacent to the boundaries of three tectonic terranes within the eastern Grenville Province, as presented in Figure 7-1. Units of the Lake Melville Terrane occur north of the FHVB, units of the Mealy Mountain Terrane to the west and southwest, and units of the Pinware Terrane to the south. Differing lithologies, structures, ages, and metamorphic signatures distinguish these terranes from one another; they are largely separated and defined by major fault zones (Gower et al., 1987, 1988; Gower, 2010, 2012; Hanmer and Scott, 1990).

The Lake Melville Terrane is located north of the FHVB. This terrane is characterized by the Alexis River anorthosite, biotite-bearing granite, granodiorite, and quartz diorite-to-diorite gneiss (Gower et al., 1987, 1988; Gower 2010; Hanmer and Scott, 1990). The Fox Harbour fault zone (Gower, 2012) separates the Lake Melville Terrane from the FHVB to the south. Near Deep Fox and Foxtrot, terrane boundary interpretations indicate that a thin sliver (five kilometre to six kilometre wide) of Mealy Mountains Terrane occurs between the Lake Melville Terrane to the north and the Pinware Terrane to the south (Gower, 2012). Detailed mapping indicates that the Fox Harbour Domain, including the FHVB, occurs in the northern half of this sliver and the Deer Harbour Domain in the southern half (Figure 7-1).

The Fox Harbour Domain, in the vicinity of Deep Fox and Foxtrot, is bordered to the north by the Fox Harbour fault zone and to the south by the Deer Harbour fault zone. This domain has been traced in outcrop for 64 km; it is terminated by a fault zone at the northwest end (west of Port Hope Simpson) and by the Labrador Sea on the eastern end (near St. Lewis). REE mineralization, peralkaline felsic volcanic rocks, and mafic volcanic rocks of a bimodal suite (Fox Harbour Volcanic Suite), and an associated anorthositic gabbro/volcanic suite distinguish this domain from adjacent domains and terranes; feldspar porphyries and deformed augen gneisses are also present. REE deposits and prospects in this domain include Foxtrot, Deep Fox, Silver Fox, Fox Meadow, Awesome Fox, Fox Run, Foxy Lady, and Fox Pond.

Regional structural data, satellite image interpretation, geology, ages and unique lithologies suggest that the Fox Harbour and Deer Harbour domains are not part of the Mealy Mountains Terrane as originally suggested by Gower (2012). Similar data suggest that at least two additional domains occur between the Lake Melville and Mealy Mountain terranes in the western portion of the region. The Camp #1 Domain occurs between the Lake Melville Terrane, to the north, and the Fox Harbour Domain, to the south. The Bobby’s Pond Domain occurs between the Fox Harbour and Camp #1 Domains to the north, the Deer Harbour Domain to the south and the Mealy Mountains Terrane to the west (Figure 7-1). The map pattern in the west shows the Mealy Mountains Terrane and the Bobby’s Pond Domain as forming a wedge between the Fox Harbour and Deer Harbour domains; the Bobby’s Pond Domain may be a subunit of the Mealy Mountain Terrane. In the western portion of the study area, the Deer Harbour fault zone separates the Deer Harbour Domain from the Mealy Mountain Terrane/ Bobby’s Pond Domain.

The Mealy Mountain Terrane units, west and southwest of the FHVB, consist of mostly biotite granitic gneiss, potassium feldspar megacrystic granite gneiss, quartz diorite to dioritic gneisses, and pelitic to semipelitic sedimentary gneisses (Gower et al., 1987, 1988; Gower, 2010).

The Pinware Terrane, in the St. Lewis Inlet area, consists of metamorphosed felsic to intermediate intrusions and older intercalated quartzo-feldspathic supracrustal rocks. Intrusions consist mainly of granite, k-feldspar megacrystic granite, quartz monzonite, and granodiorite. Supracrustal rocks, occurring between intrusions, consist mainly of felsic volcanic rocks and arenitic sediments (Gower, 2007, 2010). The Long Harbour fault zone is interpreted to separate the Deer Harbour Domain from the Pinware Terrane to the south (Gower, 2012).

Mapping and exploration south of the Long Harbour fault zone (south of the Deer Harbour Domain) indicate that peralkaline volcanic and intrusive rocks and related REE mineralization also occur in an area originally interpreted to be Pinware Terrane (Gower, 2012). These rocks and spatially associated mafic volcanic and non-peralkaline (NPR) supracrustal rocks have been grouped into the HighREE Hills Domain. The HighREE Hills Domain is characterized by peralkaline volcanic and subvolcanic rocks and related pegmatite- and vein-hosted REE mineralization. REE prospects in the HighREE Hills Domain include: HighREE Island, Pesky Hill, Toots Cove, and Southern Shore.

The Fox Harbour Domain has many characteristics of a continental rift zone: 1) elongate fault- bounded units (64 km long) with ages much younger than bounding units; 2) bimodal subaerial volcanic and related subvolcanic units; and 3) dominated by felsic peralkaline volcanic vents/flows and spatially related non-peralkaline ash-flow tuffs. Similar peralkaline-hosted REE mineralization has been discovered throughout this domain (e.g., Deep Fox and Foxtrot).

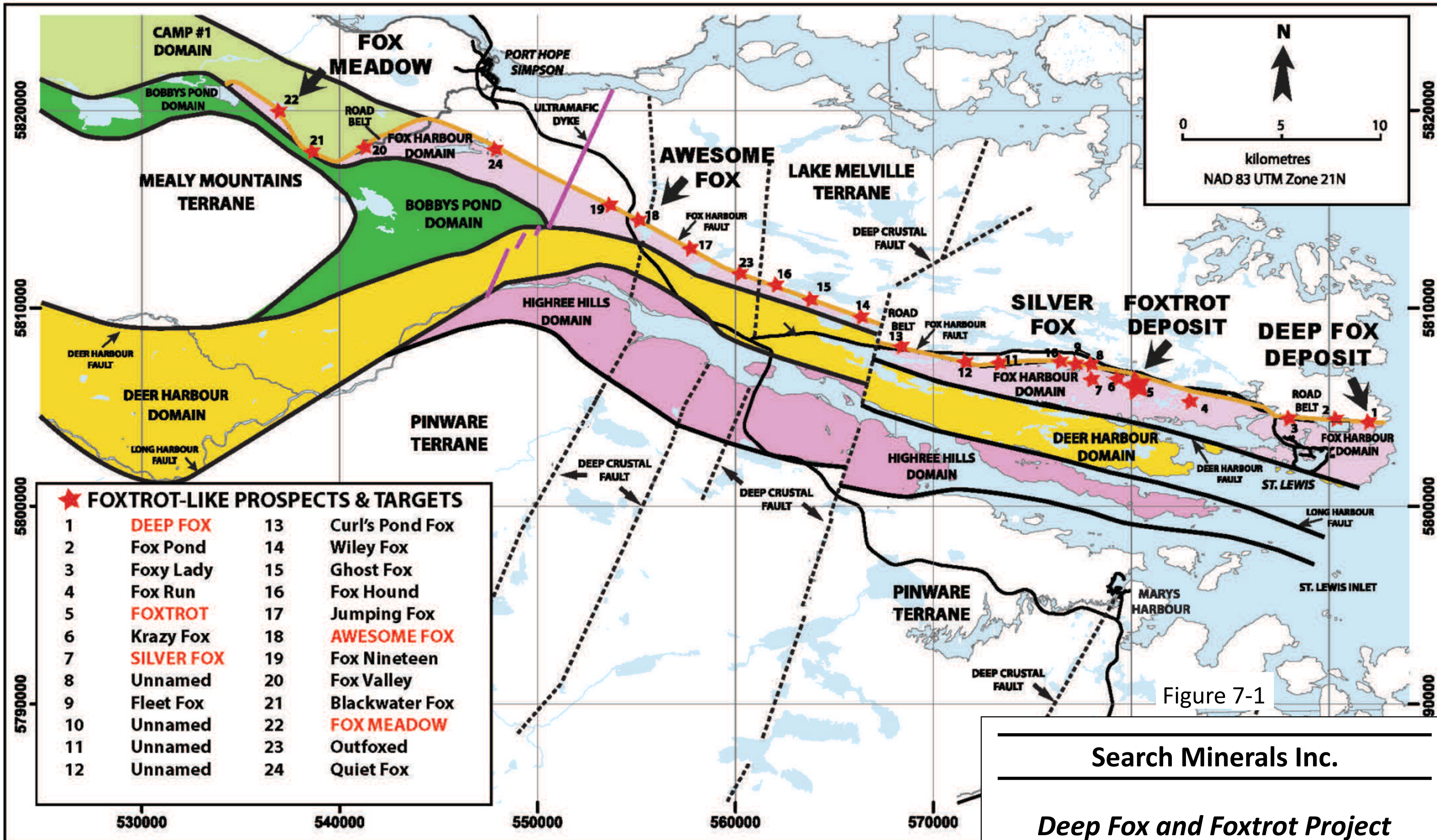


Figure 7-1

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Regional Geology

July 2022

Source: Search Minerals Inc., 2019.

7.2 Local Geology

The 64 km long FHVB ranges in width from less than 50 m in the northwest to three kilometres in the east. Units dip steeply in a northerly direction and generally strike westerly to northwesterly, parallel to bounding faults to the north and south. The FHVB contains one peralkaline belt in the northwest and three peralkaline belts in the east, these belts of bimodal rocks are dominated by REE-bearing felsic peralkaline flows and ash-flow tuffs and unmineralized mafic to ultramafic volcanic and related subvolcanic units. Feldspar megacrystic/porphyritic units (non-peralkaline volcanic and subvolcanic), including crystal tuffs in the eastern portion of the FHVB, predominantly occur between the three mineralized belts. Supracrustal units of sedimentary origin, including quartzite and locally derived volcanogenic sediments formed by erosion of felsic (commonly peralkaline) and mafic units, are locally abundant.

The three bimodal peralkaline-bearing mineralized belts in the FHVB, from north to south: the Road Belt (RB), the Magnetite Belt (MTB), and South Belt (SB), have been the focus of REE exploration. The RB, which occurs on the northern boundary of the FHVB, can be traced for 64 km throughout the FHVB. The MT and SB have only been observed in the eastern 30 km of the FHVB, east of the Curl's Pond deep crustal fault, as presented in Figure 7-1 and Figure 7-2. The mineralized units within the belts, predominantly pantellerite and comendite and trachytic equivalents (comenditic trachyte and pantelleritic trachyte west of Curl's Pond Fault), commonly occur in local topographic lows where ponds, bogs, and scarce outcrop predominate or on the sides of hills topped by extensive, less weathered, mafic, ultramafic or anorthositic units. Exploration for REE mineralization in the region indicates that the mineralized units exhibit relatively high radiometric (anomalous uranium (U) and thorium (Th) values) and relatively high magnetic (anomalous concentrations of magnetite) signatures that, when combined, are excellent indicators of mineralization. Airborne and ground-based radiometric-magnetic surveys clearly outline the three mineralized belts (Section 9); overburden and treed areas obscure bedrock exposure of the mineralized belts in some areas.

Medium to high grade REE mineralization, characterized by dysprosium (Dy) from 100 ppm to 400 ppm, is predominantly hosted by fine-grained, layered to massive pantellerite and Zr-enriched pantellerite. Lower grade mineralization, characterized by Dy from 20 ppm to 100 ppm, is predominantly hosted by fine-grained, mostly massive comendite and Zr-poor pantellerite. Mineralized units are commonly interbedded with mafic to ultramafic volcanic units, quartzite, and locally derived volcanogenic sediments (Figure 7-2).

Most of the rare earth mineralization occurs in allanite and fergusonite; minor amounts of REE occur in chevkinite, monazite, bastnaesite, britholite and zircon. The majority of the light REE (i.e., La to Sm) in the mineralization occurs in allanite, whereas the majority of the HREE (i.e., Eu to Lu) occurs in both fergusonite and allanite.

The RB commonly consists of non-peralkaline porphyritic feldspar-bearing units (mostly volcanic), mafic and ultramafic volcanic rocks, non-peralkaline felsic volcanic units (NPR and RHYODAC), comendite (peralkaline), and pantellerite (peralkaline). Anorthosite suite units, including anorthositic gabbro and ultramafic volcanic rocks, always occur north (i.e., within 25 m) of the RB felsic volcanic units, all on the southern side of the Fox Harbour fault zone. Individual highly mineralized units commonly range from less than one to five metres in thickness. The RB hosts the Deep Fox deposit and several significant REE prospects with high grade REE mineralization including Fox Pond, Fox Valley, Fox Meadow, and Foxy Lady. Medium to high grade mineralization at some of these prospects range from 10 m to 40 m in thickness (e.g., Deep Fox deposit and Fox Meadow prospect). Zones grading from low to high grade (comendite and pantellerite combined) are up to 100 m wide.

The MTB commonly consists of pantellerite, comendite, non-peralkaline rhyolite, and mafic to ultramafic volcanic and related subvolcanic units. Individual highly mineralized units commonly range up to one metre in thickness. This belt hosts Foxtrot and additional significant REE prospects in the area (e.g., Silver Fox and Fox Run). Mineralization is up to 100 m in thickness (comendite plus pantellerite) at Foxtrot; medium to high grade mineralization is up to 25 m in thickness, and typically averages 10 m to 14 m in thickness.

Lower grade REE mineralization is commonly found in the SB. The SB commonly consists of predominantly comendite, minor mafic and pantellerite units, feldspar-bearing porphyry, and locally abundant volcanogenic sediments and quartzite. Low grade mineralization (comendite) commonly ranges from 10 m to 50 m in thickness.

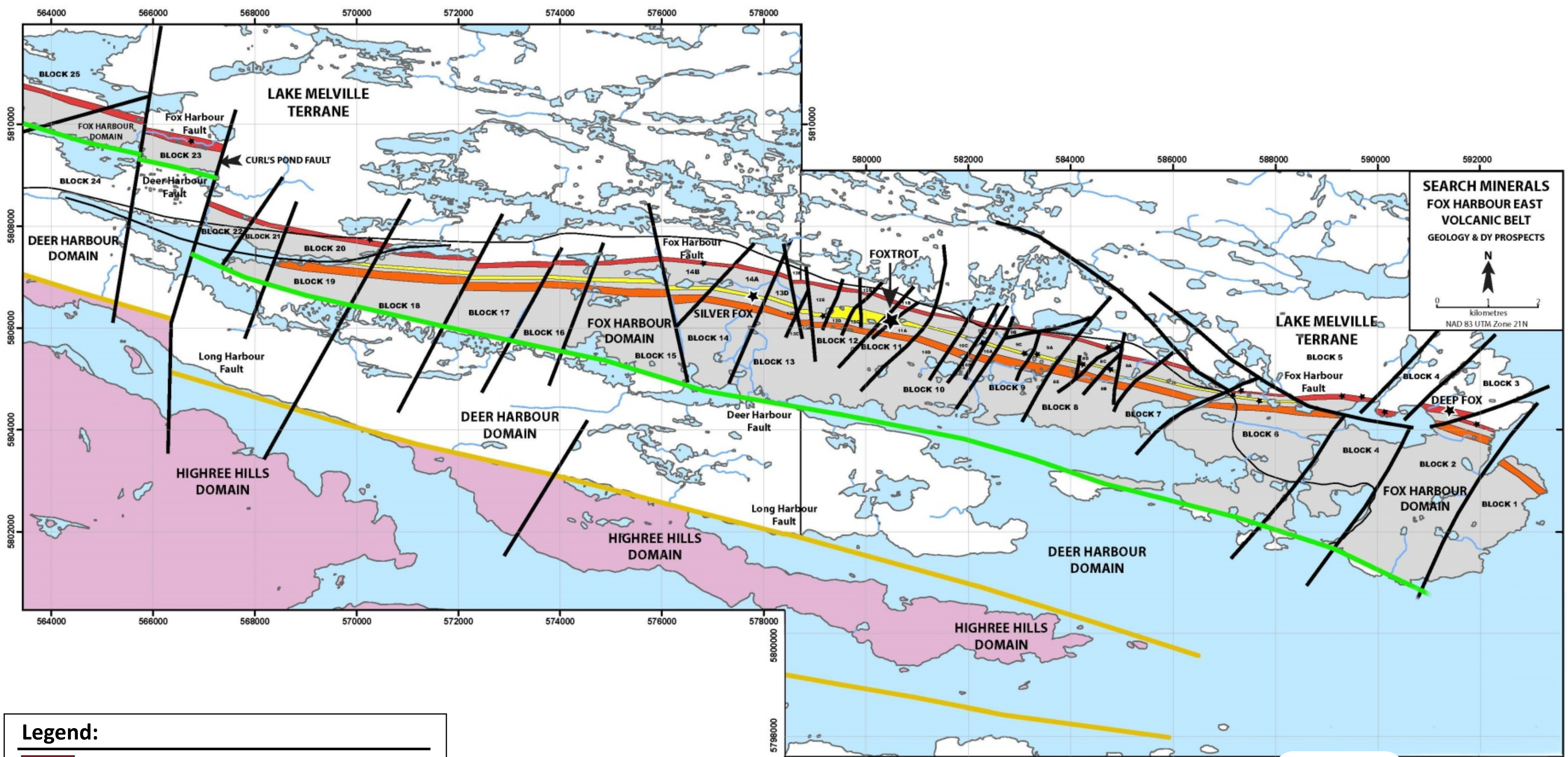


Figure 7-2

Legend:

- *Road Belt (Deep Fox Deposit)*
- *Mt Belt (Foxtrot Deposit)*
- *South Belt*
- *Undifferentiated Fox Harbour Domain*
- *Undifferentiated Highree Hills Domain*
- BLOCK 1 *Fault Block Number*

0 1 2 3 4 5

Kilometres

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Local Geology

July 2022

Source: Search Minerals Inc., 2019.

7.3 Property Geology

Mapping, prospecting, and litho-geochemical sampling throughout the FHVB have identified the widespread occurrence of peralkaline volcanic rocks exhibiting a wide range of major and trace elements including REE, Zr, and niobium (Nb). A litho-geochemical classification system has been developed to help codify the logging of channels and drill holes and to aid in surface mapping; this system has been used to classify all samples in the Deep Fox and Foxtrot databases. Table 7-1 and Table 7-2 present some average concentrations of REE, Zr, and other elements for the felsic rock types observed at Deep Fox and Foxtrot, respectively.

For Deep Fox and Foxtrot, the mineralized rocks mainly classify as either comendite or pantellerite; only one of the major units at Deep Fox and Foxtrot belongs to the family of peralkaline trachytes. The Zr value in each sample is used to subdivide samples as follows:

- Comendite (COM): 800 ppm to 5,000 ppm Zr (Fe-poor, Al-poor)
- Comenditic Trachyte (COMTRA): 800 ppm to 5,000 ppm Zr (Fe-enriched, higher Al)
- Low Zr Pantellerite (LZP): 5,000 ppm to 10,000 ppm Zr
- Pantellerite (PAN): 10,000 ppm to 15,000 ppm Zr
- High Zr Pantellerite (HZP): 15,000 ppm to 25,000 ppm Zr
- Ultrahigh Zr Pantellerite (UZP): >25,000 ppm Zr

REE, Nb, yttrium (Y) and other incompatible elements closely mimic Zr (i.e., high Zr values generally indicate high REE values), as presented in Table 7-1 and Table 7-2. Generally, comendite hosts lower grade REE mineralization, LZP hosts medium grade mineralization, and PAN, HZP, and UZP host higher grade mineralization. The rhyolite-dacite (RHYO-DAC) and other non-peralkaline rocks (NPR) have much lower values.

Table 7-1: Deep Fox Averages for REE and Selected Elements
Search Minerals Inc. –Deep Fox and Foxtrot Project

Element	Non-Peralkaline		Peralkaline				
	NPR	RHYO-DAC	COM	COMTRA	LZP	PAN	HZP
Y (ppm)	75	53	186	175	779	1302	1331
Zr (ppm)	539	349	1895	2010	7147	12570	17240
Nb (ppm)	35	24	100	97	502	664	611
Hf (ppm)	13	8	40	40	154	271	373
La (ppm)	105	75	318	327	1326	2064	1797
Ce (ppm)	215	152	654	697	2625	4208	3870
Pr (ppm)	25	17	77	82	303	489	463
Nd (ppm)	92	64	283	312	1100	1818	1769
Sm (ppm)	17	12	52	56	199	334	340
Eu (ppm)	1	2	4	5	10	17	17
Gd (ppm)	14	9	40	42	154	260	273

Element	Non-Peralkaline			Peralkaline			
	NPR	RHYO-DAC	COM	COMTRA	LZP	PAN	HZP
Tb (ppm)	2	2	6	6	25	42	45
Dy (ppm)	14	9	38	37	145	248	273
Ho (ppm)	3	2	7	7	28	47	53
Er (ppm)	8	6	20	20	78	132	149
Tm (ppm)	1	1	3	3	11	18	21
Yb (ppm)	8	6	18	18	68	113	129
Lu (ppm)	1	1	3	3	10	16	19
LREE[1] (ppm)	454	320	1383	1474	5564	8913	8239
HREE[2] (ppm)	51	37	139	141	529	894	979
HREE + Y (ppm)	126	90	325	316	1308	2196	2310
TREE[3] (ppm)	506	356	1521	1615	6092	9806	9219
TREE + Y (ppm)	580	409	1708	1791	6871	11009	10550
%TREE (%)	0.05	0.04	0.15	0.16	0.61	0.98	0.92
%TREE + Y (%)	0.06	0.04	0.17	0.18	0.69	1.11	1.05
%HREE (%)	0.01	0.00	0.01	0.01	0.05	0.09	0.10
%HREE + Y (%)	0.01	0.01	0.03	0.03	0.13	0.22	0.23
No. of Samples Used for Avg	**615**	**563**	**963**	**513**	**460**	**974**	**356**

Notes:

1. Light Rare Earth Elements (LREEs) – La to Sm inclusive
2. Heavy Rare Earth Elements (HREEs) – Eu to Lu inclusive
3. Total Rare Earth Elements (TREEs) – LREE+HREE

Table 7-2: Foxtrot Averages for REE and Selected Elements
Search Minerals Inc. –Deep Fox and Foxtrot Project

Element	Non-Peralkaline			Peralkaline				
	NPR	RHYO-DAC	COM	COMTRA	LZP	PANT	HZP	UZP
Y (ppm)	70	40	196	170	676	1115	1293	823
Zr (ppm)	533	371	1972	1761	5955	11116	18221	34793
Nb (ppm)	40	20	117	111	517	675	586	300
Hf (ppm)	13	9	46	38	129	238	405	812
La (ppm)	109	83	273	283	1115	1726	1357	462
Ce (ppm)	222	167	538	569	2199	3489	2935	1005
Pr (ppm)	25	19	61	66	250	402	345	115
Nd (ppm)	94	69	221	242	927	1508	1315	403

Element	Non-Peralkaline				Peralkaline			
	NPR	RHYO-DAC	COM	COMTRA	LZP	PANT	HZP	UZP
Sm (ppm)	17	12	44	45	167	274	261	102
Eu (ppm)	1	2	2	4	8	13	11	3
Gd (ppm)	14	9	37	36	132	218	221	103
Tb (ppm)	2	1	6	6	21	35	39	22
Dy (ppm)	13	8	37	34	121	202	239	145
Ho (ppm)	3	2	7	7	23	39	48	31
Er (ppm)	8	4	21	18	66	111	138	97
Tm (ppm)	1	1	3	3	10	16	21	16
Yb (ppm)	8	4	20	17	62	99	131	112
Lu (ppm)	1	1	3	3	9	15	20	19
LREE[1] (ppm)	467	350	1135	1205	4659	7399	6213	2087
HREE[2] (ppm)	50	31	135	127	447	748	869	549
HREE + Y (ppm)	119	70	331	298	1263	1864	2162	1373
TREE[3] (ppm)	517	381	1271	1332	5107	8148	7082	2636
TREE + Y (ppm)	587	420	1467	1503	5783	9263	8374	3459
%TREE (%)	0.05	0.04	0.13	0.13	0.51	0.82	0.71	0.26
%TREE + Y (%)	0.06	0.04	0.15	0.15	0.58	0.93	0.84	0.35
%HREE (%)	0.01	0.00	0.01	0.01	0.05	0.08	0.09	0.06
%HREE + Y (%)	0.01	0.01	0.03	0.03	0.11	0.19	0.22	0.14
No. of Samples Used for Avg	**507**	**1947**	**2579**	**155**	**1263**	**1117**	**84**	**23**

Notes:

1. LREEs – La to Sm inclusive
2. HREEs – Eu to Lu inclusive
3. TREEs – LREE+HREE

7.4 Mineralization

7.4.1 Deep Fox Mineralization

Deep Fox is located approximately 12 km east of Foxtrot and two kilometres northeast of St. Lewis in the RB of the FHVB, as illustrated in Figure 7-1 and Figure 7-2. As presented in Figure 7-3 through Figure 7-5, the RB near Deep Fox consists of, from north to south:

- Northern comendite
- Anorthositic suite rocks consisting of anorthositic gabbro and anorthosite
- Non-peralkaline rhyolite

- Southern comendite
- Mafic and ultramafic volcanic rocks
- Mineralized pantelleritic rocks (mostly LZP, PAN, and HZP) with interbedded non-peralkaline rhyolite and mafic volcanic rocks
- A footwall non-peralkaline rhyolitic ash-flow tuff

Minor units of locally derived volcanogenic sediments, mafic volcanic flows, and related subvolcanic units and pegmatites occur throughout this sequence. Most units generally dip 75° to 85° northerly and drill data indicates that the mineralized zone may overturn at depth to dip steeply towards the south, as presented in Figure 7-5. Drilling indicates that the mineralized zone plunges towards the northeast. The anorthositic suite and mineralized units form a prominent east-west trending ridge in the area.

Table 7-1 and Table 7-2 list average REE and other elemental data for the major geological units within Deep Fox and Foxtrot. The mineralization at Deep Fox displays approximately 20% higher values for Zr and the REEs for each mineralized rock type versus those of Foxtrot. Most of the mineralized samples at Deep Fox are either pantellerite or high Zr pantellerite.

The comendite mineralization, which is approximately 15 m to 30 m in thickness, consists of individual units of massive to poorly layered fine-grained flows that are commonly less than one metre to two metres in thickness. Medium-grained to pegmatitic comendite fragments, commonly up to 10 cm, occur in localized areas. Comendite commonly contains trace to minor magnetite, exhibits radioactivity three to five times higher than background levels, and contains lower amounts of REE (e.g., 38 ppm Dy) and other incompatible elements relative to other mineralized units (Table 7-1).

The pantellerite mineralization (low-Zr pantellerite, pantellerite, and high-Zr pantellerite) is up to 42 m in thickness and consists of individual units of fine-grained, commonly less than one metre to five metres in thickness, poorly to well layered flows. In the western portion of the deposit the pantellerite mineralization is up to 42 m thick but rapidly diminishes to 14 m thick to the western edge of the deposit; medium to higher grade mineralization thicknesses (pantellerite and high-Zr pantellerite) are reduced from 25 m thick to six m thick over this same interval. In the eastern portion of the deposit, the pantellerite mineralization occurs as two to three main units separated by non-mineralized units (mafic volcanic flows, non-peralkaline rhyolite, and pegmatite) that are up to 31 m thick in aggregate. The upper unit is up to nine metres thick but dominated by low-Zr pantellerite. The middle and lower units are respectively up to 14 m and 11 m thick and dominated by more highly mineralized pantellerite and high-Zr pantellerite.

Pantellerite contains up to 10% magnetite and localized amphibole and pyroxene. Magnetite is usually fine-grained but may occur as porphyritic grains up to 4.0 mm across. Pantellerite exhibits radioactivity from five to 40 times background. Layering within the pantellerite units, observed as darker and lighter bands, is commonly defined by varying contents of magnetite. Medium grained to pegmatitic comendite and non-peralkaline rhyolite fragments, commonly up to 10 cm wide, occur in localized areas. Pantellerite units are generally well mineralized, containing potentially economic concentrations of REE (i.e., 60 ppm to 400 ppm Dy) and other incompatible elements. Differences in average Zr values subdivide the pantellerite into three mappable units: Zr-poor pantellerite (5,000 ppm to 10,000 ppm Zr), pantellerite (10,000 ppm to 15,000 ppm Zr), and Zr-enriched pantellerite (>15,000 ppm Zr). Deep Fox comprises predominantly pantellerite and high Zr pantellerite units; comendite units are generally poorly mineralized.

Mafic volcanic units and locally derived sediments, commonly less than 0.5 m in thickness, occur between some individual mineralized units. Thicker mafic units, up to 10 m in thickness, occur within the comendite unit and near the contact between the comendite and pantellerite units. Mafic units commonly contain less than 300 ppm Zr and less than 10 ppm Dy.

Locally derived sediments consist of thin quartzite (<20 cm) interbedded with thinly layered (<30 cm) mafic and felsic bands. Felsic bands consist of non-peralkaline rhyolite, comendite, low Zr pantellerite, or a mix of mafic and felsic volcanic units.

Ultramafic units, up to 25 m thick, occur within all non-peralkaline units and comendite at Deep Fox. An ultramafic, mafic volcanic, and non-peralkaline rhyolite flow mixed unit is commonly found in the hanging wall of the mineralized pantellerite zone. The ultramafic units occur as fine to very fine-grained flows with a distinctive texture. Zr values commonly are less than 100 ppm and Dy values less than 4 ppm.

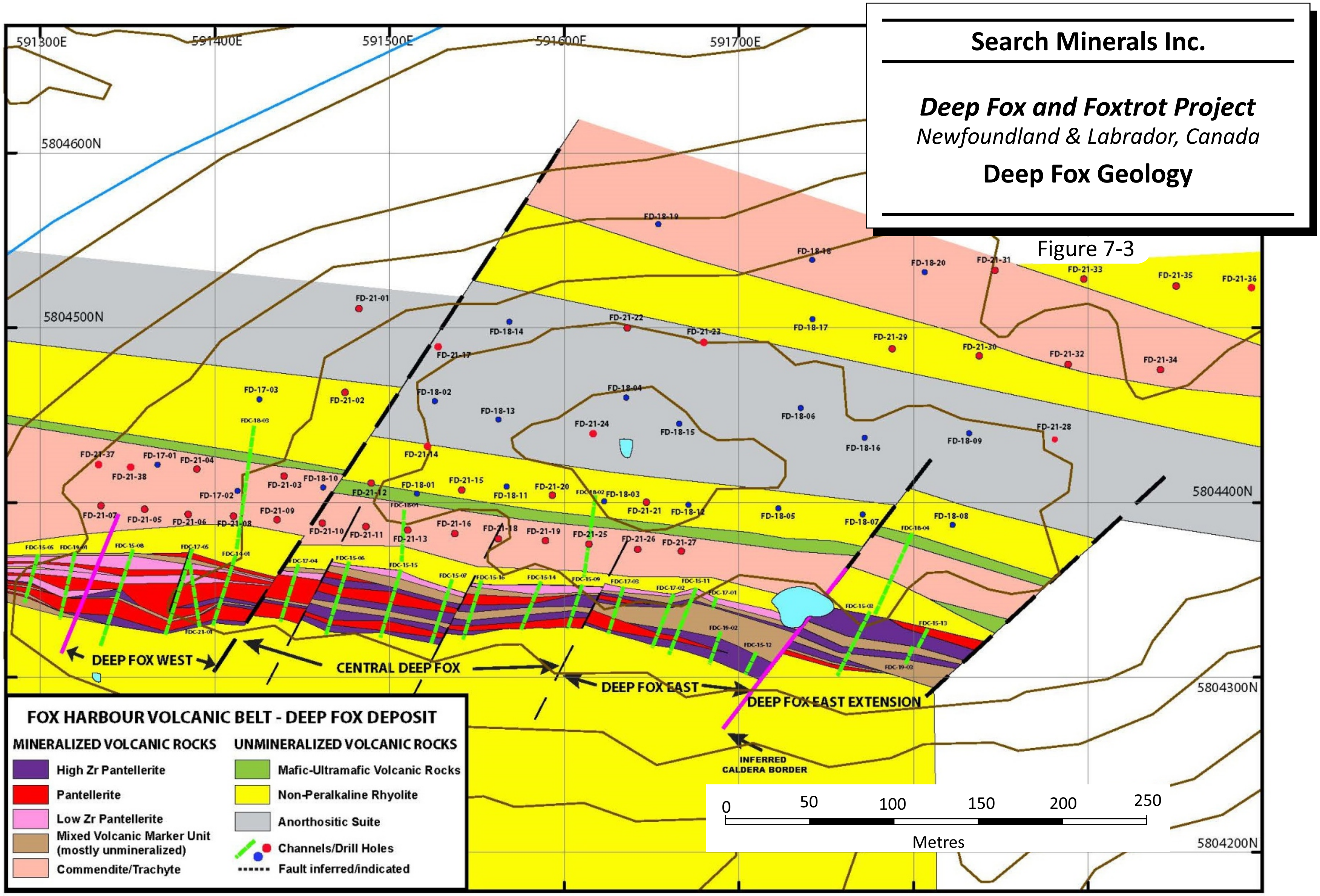
A major non-peralkaline rhyolite unit, up to 60 m thick, occurs in the hanging wall of the deposit. Several units of non-peralkaline rhyolite, one metre to five metres in thickness, occur within the mineralized zones, particularly in the eastern part of the deposit where they commonly separate mineralized units (Figure 7-3 and Figure 7-4). They are commonly associated with low Zr-pantellerite, pegmatite, mafic rocks, and locally derived sediments. Non-peralkaline rhyolite is characterized by low Zr values (300 ppm to 600 ppm Zr), low Dy values (<12 ppm Dy), and low mafic mineral concentrations (commonly less than five percent).

Faults, defined by the geology, magnetic anomaly offsets, and topographic lineaments, divide the deposit into four major blocks: Deep Fox West Block, Deep Fox Central Block, Deep Fox East Block, and Deep Fox East Extension Block. The observed faults are northerly to north-easterly striking, steeply dipping, and display up to 20 m observed horizontal movement and 10 m to 100 m vertical movement observed in drill sections. Additional work with oriented drill core, geotechnical logging, and surficial structural mapping are needed to better understand the structures present at Deep Fox.

The vertical movement on the faults appears to have been partly responsible for changes along strike in the thickness of units, including the mineralization and the presence or absence of specific units. Changes in the thickness of mineralization is observed across all block boundaries (Figure 7-3). The western boundary of the Deep Fox West Block is interpreted to be the western edge of the Deep Fox Caldera; mineralized units diminish in size and wedge out at this boundary. The eastern edge of the Deep Fox Caldera is marked by the eastern edge of the Deep Fox East Extension Block, where the mineralization lenses out.

The peralkaline mineralized units and spatially associated mafic-ultramafic, non-peralkaline rhyolite, and locally derived Deep Fox sedimentary units are interpreted to represent a subaerial bimodal sequence of volcanic and related volcanogenic sediments and subvolcanic sills. The probable mantle derivation of the peralkaline and mafic to ultramafic rocks, the subaerial setting, the non-orogenic age, and the occurrence of these units as a series of calderas in a narrow belt (the FHVB) over at least a 64 km strike-length suggest that these rocks occur in a continental rift setting. Modern analogues include Pantelleria Island, in the Mediterranean Sea, and the East African Rift.

Figure 7-3



July 2022

Source: Search Minerals Inc., 2019.

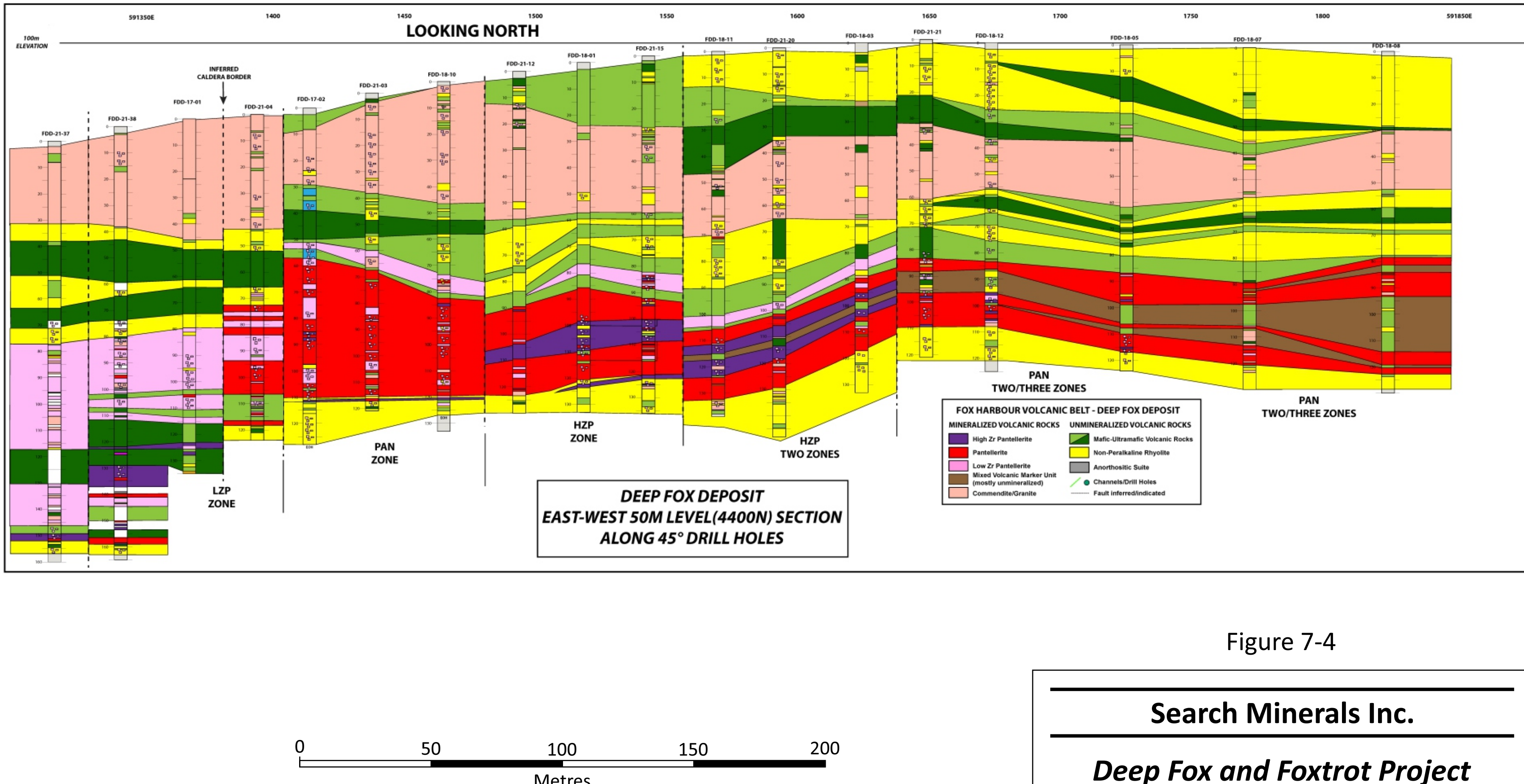


Figure 7-4

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Deposit 50 m Level East-West Section

July 2022

Source: Search Minerals Inc., 2019.

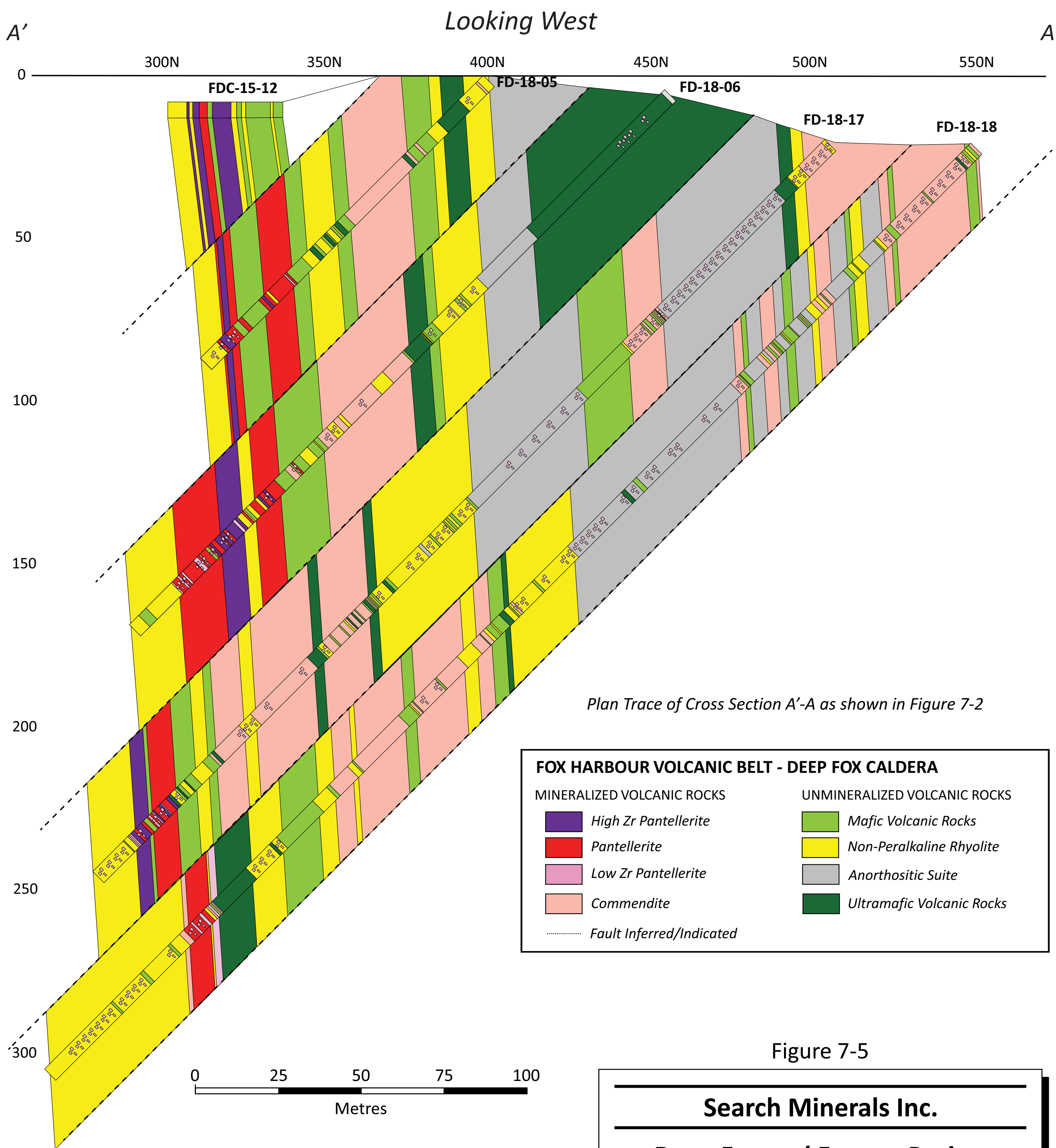


Figure 7-5

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Deposit
North-South Section

July 2022 ***Source: Source: Search Minerals Inc., 2019.***

7.4.2 Foxtrot Mineralization

Foxtrot is located approximately 10 km west of St. Lewis and 0.5 km south of Highway 513 in the MTB of the FHVB (Figure 7-1, Figure 7-2, and Figure 7-6). Near Foxtrot, the MTB consists of, from north to south:

- Comendite
- Pantellerite with interbedded non-peralkaline rhyolite
- A mafic to ultramafic unit with interbedded non-peralkaline rhyolite

Minor units of locally derived volcanogenic sediments, mafic volcanic rocks and related subvolcanic units, and pegmatites occur throughout this sequence. Feldspar porphyry borders the mineralized units to the north and a mafic unit, forming a predominant ridge in the area, occurs to the south. Table 7-2 lists representative REE data for the major felsic units within Foxtrot.

The comenditic mineralization, which is approximately 50 m in thickness, consists of individual units of fine-grained, commonly less than one metre to two metres in thickness, massive to poorly layered comendite flows. Comendites commonly contain trace to minor magnetite, exhibit radioactivity three to five times higher than background levels, and contain lower amounts of REE (i.e., 20 ppm to 60 ppm Dy) and other incompatible elements relative to other mineralized units (Table 7-2).

The pantelleritic mineralization may be up to 30 m in thickness, consists of individual units of fine-grained, commonly less than one metre to five metres in thickness, poorly to well-layered pantellerite. Pantellerites contain up to 10% magnetite and localized amphibole and pyroxene. Magnetite is usually fine-grained but may occur as porphyritic grains up to 4.0 mm across. Pantellerites exhibit radioactivity from five to 40 times background. Layering within the pantellerite units, observed as darker and lighter bands, is commonly defined by varying contents of magnetite. Pantellerite units are generally well mineralized, containing potentially economic concentrations of REE (i.e., 60 ppm to 300 ppm Dy) and other incompatible elements (Table 7-2). Differences in average Zr values subdivide the pantellerites into two mappable units: Zr-poor pantellerite (5,000 ppm to 10,000 ppm Zr) and pantellerite (10,000 ppm to 15,000 ppm Zr). Zr-enriched pantellerite (>15,000 ppm Zr; high Zr pantellerite and ultrahigh Zr pantellerite) is also observed but is commonly less than one metre in thickness and is not depicted in Figure 7-6 or Figure 7-7. Foxtrot comprises predominantly pantelleritic and low Zr pantelleritic units.

Mafic volcanic units and locally derived sediments, commonly less than 0.5 m in thickness, occur between many individual mineralized units. Thicker mafic units, up to 10 m in thickness, occur within the comenditic unit and near the contact between the comenditic and pantelleritic units. Mafic units commonly contain less than 300 ppm Zr and less than 10 ppm Dy.

Locally derived sediments consist of thin quartzite (<20 cm) interbedded with thinly layered (<30 cm) mafic and felsic bands. Felsic bands consist of non-peralkaline rhyolite, comendite, low Zr pantellerite, or a mix of mafic and felsic volcanic units.

Epidote-bearing fragments and a layered appearance characterize the mafic to ultramafic unit. Zr values commonly are less than 100 ppm and Dy values less than 4 ppm. These units mostly occur to the south of the pantelleritic mineralization and are up to 90 m in thickness.

Several units of non-peralkaline rhyolite, one to eight metres in thickness, occur within the mineralized zones, particularly in the eastern part of the deposit (Figure 7-6 and Figure 7-7). They are commonly associated with low Zr-pantellerite, mafic rocks, and locally derived sediments. Non-peralkaline rhyolite is characterized by low Zr values (300 ppm to 600 ppm Zr), low Dy values (<12 ppm Dy) and low mafic mineral concentrations (commonly less than five percent).

Faults, defined by the geology, magnetic survey offsets, and topographic lineaments, divide the deposit into two major blocks: the Central Block and the East Block. The observed faults are northerly to north-easterly striking, steeply dipping faults with up to 15 m observed horizontal movement and an unknown amount of vertical movement.

The vertical movement on the faults appears to have been partly responsible for changes along strike in the thickness of units, including the mineralization, and the presence or absence of specific units. Change in the thickness of mineralization is observed across the western boundary of the Central Block and across the eastern boundary of the East Block (Figure 7- 6). Non-peralkaline rhyolite is prominent in the East Block, where it commonly occurs as two units, and minor in the Central Block, where it occurs as one thinner unit or is absent. Similar changes in thicknesses and absence or presence of specific units also occurs across smaller faults within the East Block and may also occur in the Central Block but other corroborating data is currently absent in this block.

The peralkaline mineralized units and spatially associated mafic-ultramafic, non-peralkaline rhyolite and locally derived Foxtrot sedimentary units are interpreted to represent a subaerial bimodal sequence of volcanic and related volcanogenic sediments and subvolcanic intrusions. The probable mantle derivation of the peralkaline and mafic to ultramafic rocks, the subaerial setting, the non-orogenic age (1300 Ma; Haley, 2014), and the occurrence of these units in a narrow belt (the FHVB) over at least a 64 km strike-length suggest that these rocks occur in a continental rift setting. Modern analogues include Pantelleria Island and the East African Rift.

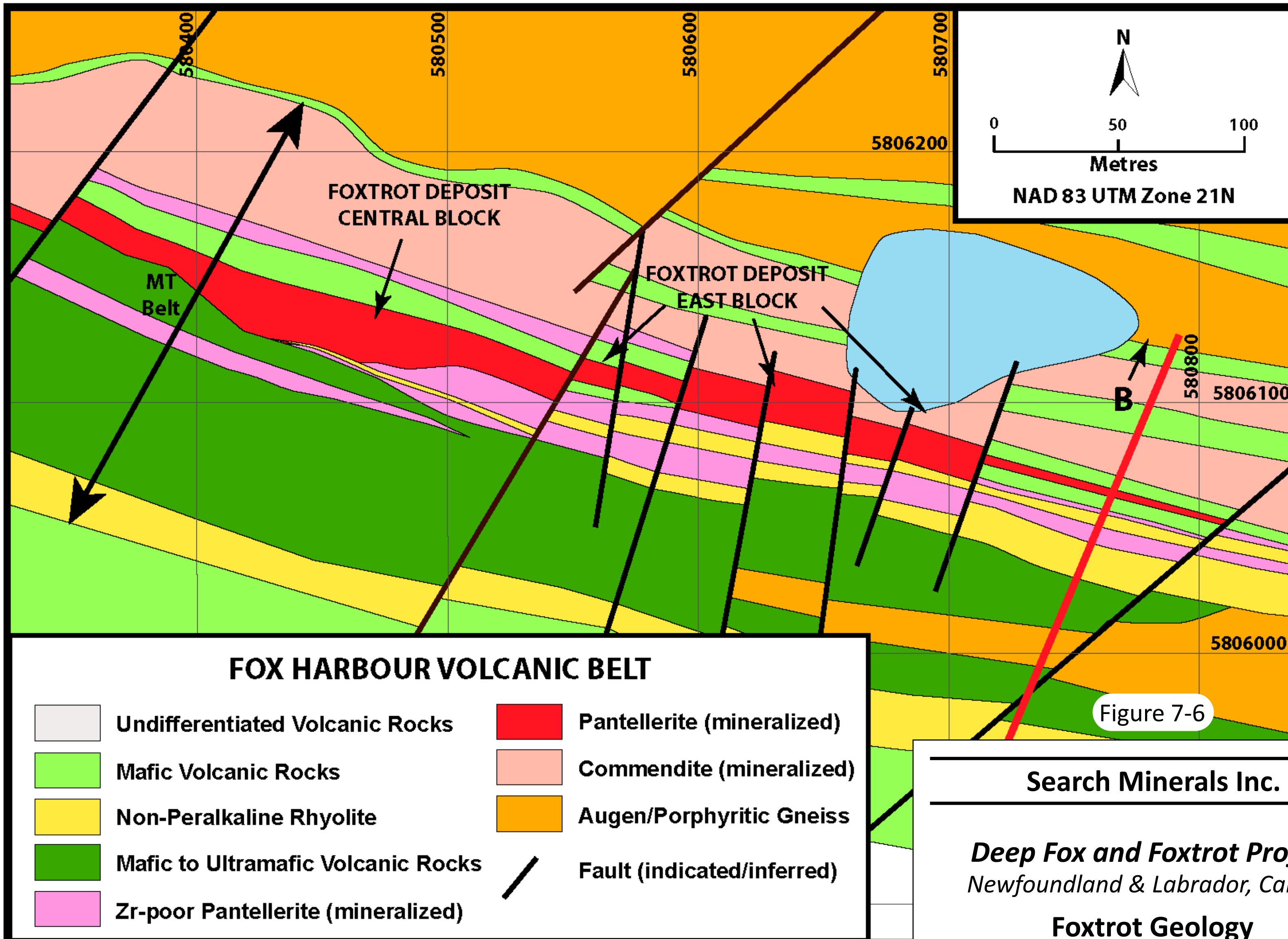


Figure 7-6

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Geology

July 2022

Source: SLR, 2022

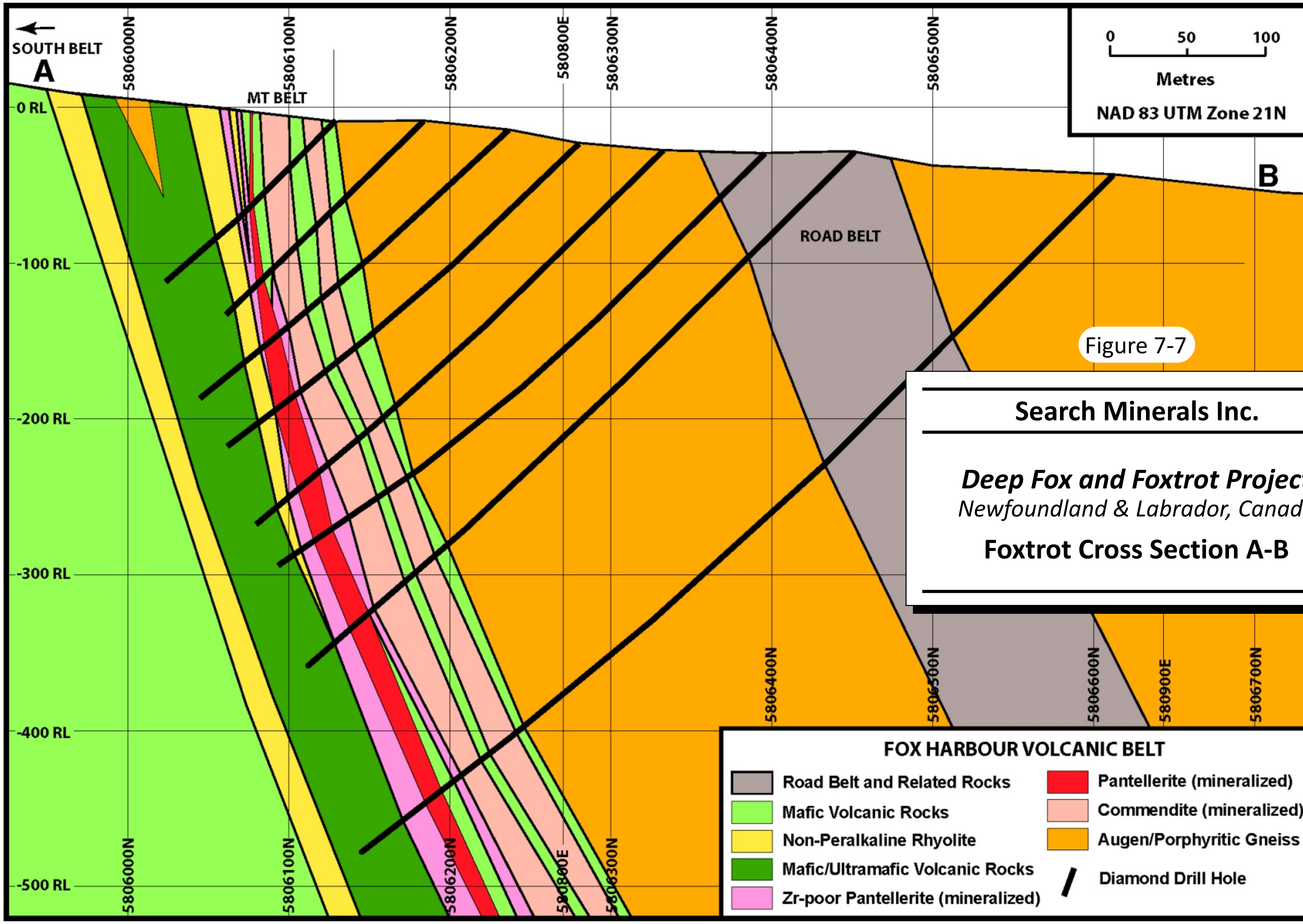


Figure 7-7

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Cross Section A-B

July 2022

Source: SLR, 2022.

7.5 Genetic Model

REE mineralized peralkaline volcanic rocks, mainly pantellerite (Nuiklavik Volcanic Suite; Miller, 1993), and REE mineralized peralkaline intrusive rocks, granites-syenites (Strange Lake; Miller 1996, Miller et al., 1996; Two Tom Lake syenite; Miller 1987, 1988), and undersaturated syenites (Red Wine Suite; Miller 1987 and 1988) occur elsewhere in Labrador and are of similar age (Miller et al., 1996). U-Pb Zircon age determination at Foxtrot indicates the FHVB rocks are contemporaneous (Haley, 2014). In all examples, peralkaline rocks, hosting REE mineralization, represent low volume late differentiates of high-level (crustal) magma chambers. For intrusions, the mineralization occurs in late pegmatites, vein systems, or small volume intrusions at or near the top of the source magma chamber. In the volcanic settings, the mineralization occurs as vent filling or near vent magma flows and/or ash-flow tuffs that tapped the source magma chamber.

The Deep Fox and Foxtrot exploration program reveals the relationship between peralkaline volcanic rocks, vent, or near-vent locations, and significant REE mineralization. The Foxtrot deposit, in the MTB, is being used as a model (Foxtrot-like mineralization) for further exploration throughout the FHVB. Data and field observations at Deep Fox validate the Foxtrot model. Preliminary data at the Fox Meadow, Awesome Fox, and Fox Pond prospects suggest that they also occur in vent or near vent settings in the RB of the FHVB, as shown in Figure 7-1. The Fox Run prospect and Silver Fox prospect, shown in Figure 7-1, likely occupy a similar REE mineralized setting in the MTB of the FHVB. No significant REE prospects are known in the SB.

8.0 DEPOSIT TYPES

REE deposits can be divided into two main classifications: primary magmatic REE deposits and secondary REE deposits. The majority of REE deposits are primary magmatic and many of the secondary ones are proximal to REE-enriched primary magmatic sources. Most magmatic deposits are related to mantle-derived magmas and/or magmatism associated with crustal rifting. Metamorphic equivalents of these main categories are also known but not distinguished in this classification.

8.1 Primary Magmatic REE Deposits

Primary magmatic deposits can be subdivided into peralkaline oversaturated, peralkaline undersaturated, and carbonatite deposits. Peralkaline deposits, both oversaturated (quartz-bearing or quartz normative) and undersaturated (nepheline-bearing or nepheline normative) are mainly HREE-enriched, while carbonatite deposits are commonly LREE-enriched; some carbonatite high-level vein systems are also HREE-enriched. Peralkaline rocks and carbonatites are known to occur in similar geological settings and can be spatially related.

Primary magmatic REE deposits are formed by concentration of REE and other incompatible elements (e.g., Zr, Nb, fluorine (F), U, Th, hafnium (Hf)) in the upper portions of magma chambers. These incompatible element-enriched magmas are either crystallized in place, are transported to locations proximal to the magma chamber, or are transported to surface and deposited as volcanic products.

Peralkaline oversaturated volcanic-hosted deposits are rare but known to occur (e.g., Foxtrot, Deep Fox; Brockman, Australia). No undersaturated volcanic-hosted deposits have been recognized to date.

8.1.1 Peralkaline Oversaturated Deposits

Peralkaline oversaturated deposits are commonly characterized by HREE-enrichment and complex REE-bearing minerals such as fergusonite, allanite, zircon, monazite, and xenotime, and unusual silicates such as gadolinite, kainosite, and gerinite. REE-bearing carbonates (e.g., bastnaesite) are less common in peralkaline-oversaturated deposits.

Peralkaline granites and syenites are the most common host rocks to REE-enriched peralkaline oversaturated deposits. Mineralization is concentrated in the top of magma chambers and is either crystallized in place in cupolas, or as enriched pegmatitic vein systems and related auto-metasomatically-enriched rocks (e.g., part of Strange Lake Main Zone, Quebec/Labrador) or as proximal pegmatites/deposits (e.g., Strange Lake B-Zone and part of Main Zone, Quebec/Labrador). Volcanic-hosted equivalents include deposits in the FHVB (e.g., Foxtrot, Deep Fox), Brockman Volcanic rocks in Australia, and mineralization in the Nuiklavik volcanic rocks of the Flowers River Igneous Suite (Labrador). Volcanic-hosted mineralization occurs as felsic vent filling or near vent ash-flow tuffs/flows and spatially related subvolcanic pegmatitic equivalents.

8.1.2 Peralkaline Undersaturated Deposits

Peralkaline undersaturated deposits are commonly characterized by HREE-enrichment, eudialyte and other complex zirconium-silicates (e.g., Norra Karr, Sweden; Ilimaussaq Complex, Greenland; Red Wine Complex, Labrador), alteration products of eudialyte (e.g., allanite, fergusonite and zircon at Nechalacho, Northwest Territories, Canada) and other unknown complex Ca-Y silicates (e.g., Red Wine Complex, Labrador).

Nepheline- and eudialyte-bearing syenites are common host rocks for this kind of REE mineral deposit; volcanic equivalents have not been identified. Mineralization occurs as pegmatite vein systems and related rocks (e.g., Red Wine Complex; Kipawa, Quebec) and medium-grained zones within the upper portions of large layered nepheline syenite intrusions (e.g., Norra Karr, Sweden; Ilimaussaq, Greenland; Red Wine Complex).

8.1.3 Carbonatite Deposits

Carbonatite hosted deposits contain a combination of REE-bearing carbonates (e.g., bastnaesite at Mountain Pass, California, and Bear Lodge, Wyoming), monazite, xenotime, apatite, and other REE-bearing minerals. The high-level vein systems sometimes associated with carbonatites contain higher concentrations of HREE and mostly contain predominantly phosphates like xenotime and monazite. Vein system mineralization occurs at Lofdal (Namibia), Bear Lodge, Steenkampskraal (South Africa), and Brown's Range (Australia).

The majority of LREE, particularly lanthanum (La), cerium (Ce), praseodymium (Pr), and Nd, are mined from carbonatites in China (Bayan Obo Deposit) and Australia (Mt. Weld Deposit). This mineralization occurs mostly disseminated in low volume magmatic phases of commonly large carbonatite plutons (e.g., Bear Lodge, Ashram).

Carbonatite high-level vein mineralization is commonly associated with large carbonatite plutons (e.g., Loftdal, Bear Lodge). High-grade mineralization, with similar characteristics but with no known associated plutons, is found at Brown's Range and Steenkampskraal. All represent small volume magmas probably originating from carbonatite magma chambers.

8.2 Secondary REE Deposits

Three types of secondary REE deposits have been recognized: 1) beach sands and related sedimentary deposits, 2) ionic clay deposits, and 3) in situ laterites. These deposits are derived from weathering of REE mineral-bearing rocks.

8.2.1 Beach Sand Deposits

REE-enriched heavy minerals, commonly zircon and monazite, are often concentrated in heavy mineral beach deposits. These minerals are separated from the sands and sold as a by-product from beach sand deposits in India and elsewhere. Consolidated beach sands and other clastic sedimentary units such as conglomerates can also contain significant quantities of REE-bearing heavy minerals (e.g., conglomerate in the Pele Mountain deposit, Ontario).

8.2.2 Ionic Clay Deposits

Ionic-clay REE deposits are derived by surficial weathering of REE minerals. Breakdown of REE minerals releases REE-bearing liquid species into the environment where clay particles absorb them. Several regions in southern China (e.g., Jiangxi Province) and Myanmar (Burma) contain HREE-enriched ionic-clay deposits. These are mostly derived from REE-enriched, sometimes peralkaline, granites.

8.2.3 In Situ Laterites

Surface exposed rocks with REE-bearing mineralization can be upgraded by weathering processes. Two carbonatite-hosted REE deposits have been upgraded by surface weathering processes. One is the Bear Lodge Carbonatite (Wyoming) and the other the Araxa Carbonatite (Brazil). Carbonatites weather easily in surface conditions.

8.3 Deep Fox and Foxtrot Deposits

Deep Fox and Foxtrot are examples of primary magmatic REE deposits whereby the mineralization is hosted in peralkaline oversaturated volcanic rocks. Mineralization occurs mainly in zircon, allanite, and fergusonite disseminated throughout the host peralkaline volcanic units.

9.0 EXPLORATION

9.1 Summary

Search Minerals began exploration in the St. Lewis and Port Hope Simpson area in 2009, after acquiring 11 mineral licences via an option agreement with B&A. In the winter of 2009, Search Minerals conducted an Aeroquest airborne radiometric and magnetic survey. Following this survey, anomalous areas of interest were outlined, prioritized, and ground checked during the start of the 2010 field season. An additional 47 mineral licences were staked, covering 864 km^2.

Since the discovery of Foxtrot in 2010, extensive exploration has been completed in the Port Hope Simpson-St. Lewis area for similar styles of mineralization ("Foxtrot-like"). Exploration between 2010 and 2021 consisted of ground and remotely piloted aerial system (RPAS) magnetometer surveys, prospecting, mapping, lithogeochemical grab sampling, clearing, hand trenching, channel sampling with a portable diamond bladed circular saw, and diamond drilling. Exploration has been conducted across the entire FHVB, with the main area of focus being Deep Fox and Foxtrot, followed by the Fox Meadow prospect. Search Minerals has also identified and carried out exploration work on numerous other prospects within the District. The work on Foxtrot-like mineral prospects is summarized in Table 9-1. Figure 9-1 shows the location of the Foxtrot deposit, the Deep Fox deposit, and other exploration prospects within the District.

The detailed exploration program on the Foxtrot property began in 2010, with prospecting and channel sampling. An extensive channel sampling program commenced in 2010 and continued through 2015, consisting of 36 channels in 2010, 36 channels in 2011, five channels in 2012, two channels in 2014, and 25 channels in 2015.

Drilling was conducted in three phases from 2010 to 2012:

- Phase I – October 2010 to February 2011 (24 drill holes)
- Phase II – May 2011 to July 2019 (19 drill holes)
- Phase III – October 2011 to February 2012 (29 drill holes)

The detailed exploration program on the Deep Fox property commenced in 2014 with detailed mapping and prospecting that led to the discovery channel (FDC-14-01) late in the season. This discovery was announced in early 2015. An extensive channel sampling program commenced in 2015 and continued through 2021, consisting of 16 channels in 2015, five channels in 2017, four channels in 2018, three channels in 2019, and one channel in 2021.

Drilling was conducted in three phases from 2017 to 2021:

- Phase I - November 2017 to August 2018 (15 drill holes)
- Phase II – October 2018 to November 2018 (eight drill holes)
- Phase III – June 2021 to August 2021 (38 drill holes)

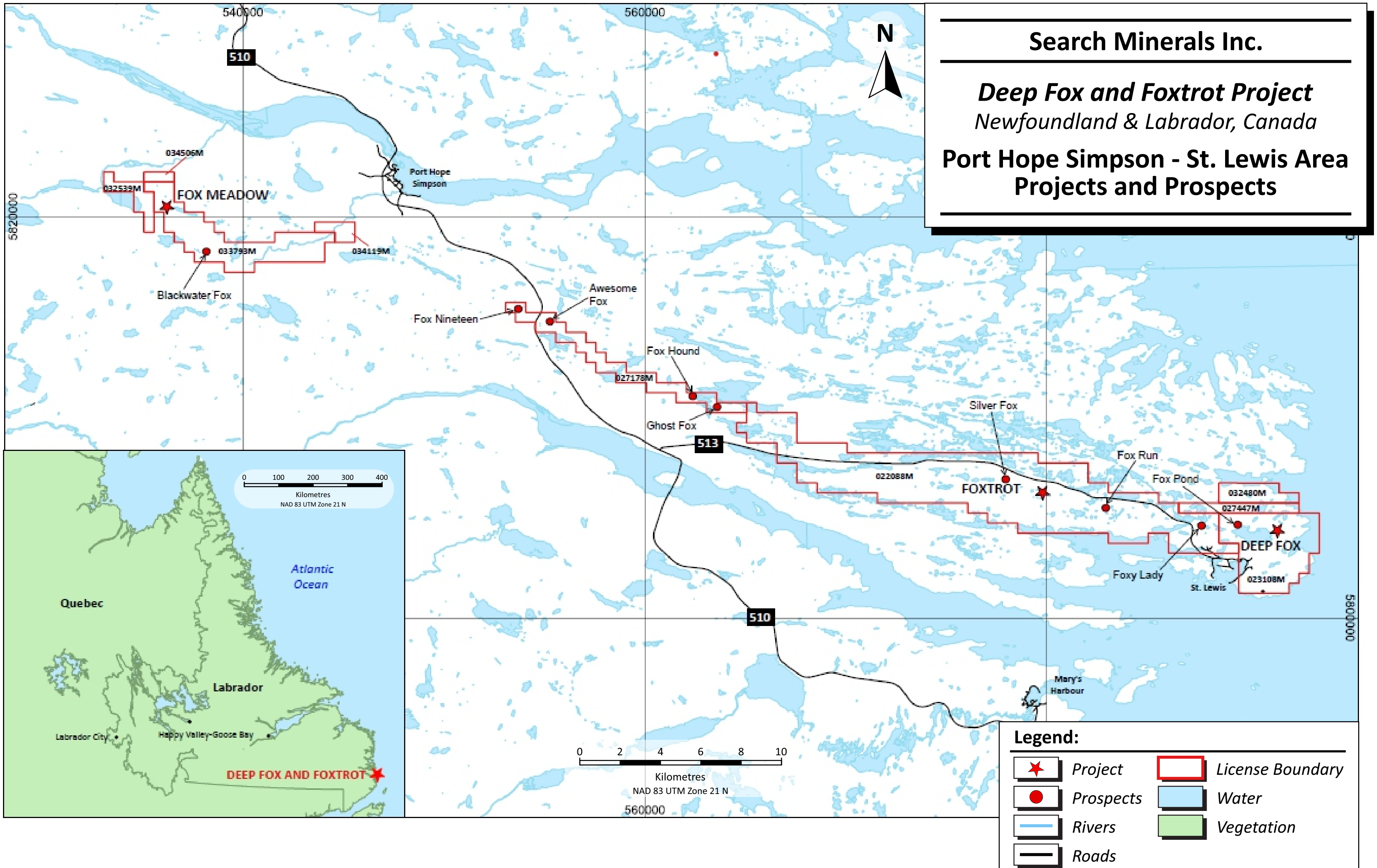
An RPAS detailed magnetometer survey and RPAS Light Detection and Ranging (LIDAR) survey was carried out over the Deep Fox property in 2019.

Table 9-1: Exploration Summary
Search Minerals Inc. –Deep Fox and Foxtrot Project

Deposit/ Prospect	Mineral License	Type of Work Completed	Date	No. of Channel Samples	Total Channel Length (m)	No. of Drill Holes	No. of Core Samples	Total Drilling (m)
Foxtrot	022088M	Prospecting, fixed wing mag, ground mag, lithogeochemical samples, channel sampling, drilling	2010-2015	1,484	1138	72	14,322	18,837
Deep Fox	023108M	Prospecting, ground mag, RPAS mag/LIDAR, lithogeochemical samples, channel sampling, drilling	2014-2021	1,648	993	61	7,923	11,928
Fox Meadow	033793M	Prospecting, fixed wing mag, RPAS mag/LIDAR, lithogeochemical samples, channel sampling	2013-2021	899	672	-	-	-
		Other Foxtrot-Like Prospects						
Awesome Fox	027178M	Prospecting, fixed wing mag, RPAS mag/LIDAR, lithogeochemical samples, channel sampling	2013-2014, 2020	94	40	-	-	-
Blackwater Fox	033793M	Prospecting, fixed wing mag, lithogeochemical samples, channel sampling	2013	33	13	-	-	-
Fox Hound	027178M	Prospecting, fixed wing mag, lithogeochemical samples, channel sampling	2013	30	12	-	-	-
Fox Nineteen	027178M	Prospecting, fixed wing mag, lithogeochemical samples, channel sampling	2014	110	69	-	-	-
Fox Pond	023108M	Prospecting, ground mag, RPAS mag/LIDAR, lithogeochemical samples, channel sampling, drilling	2011-2012	186	106	-	-	-
Fox Run	022088M	Prospecting, fixed wing mag, lithogeochemical samples, channel sampling	2011, 2014	53	49	-	-	-

Deposit/ Prospect	Mineral License	Type of Work Completed	Date	No. of Channel Samples	Total Channel Length (m)	No. of Drill Holes	No. of Core Samples	Total Drilling (m)
Foxy Lady	022088M	Prospecting, fixed wing mag, ground mag, RPAS mag, lithogeochemical samples, channel sampling	2011, 2020	54	39	-	-	-
Ghost Fox	027178M	Prospecting, fixed wing mag, lithogeochemical samples, channel sampling	2013, 2015	65	25	-	-	-
Silver Fox	022088M	Prospecting, fixed wing mag, ground mag, lithogeochemical samples, channel sampling, drilling	2012	101	40	-	-	-
Fox Run	022088M	Prospecting, fixed wing mag, lithogeochemical samples, channel sampling	2011, 2014	53	49	-	-	-

Figure 9-1



July 2022

Source: Search Minerals, 2019.

9.2 Channel Sampling

Search Minerals began surface channel sampling in the area in 2010 and continued through 2021. Channel sampling focused on mineralized outcrops found using visual inspection as well as hand-held spectrometers in the area of the Foxtrot deposit, the Deep Fox deposit, and several other Foxtrot-like prospects in the District.

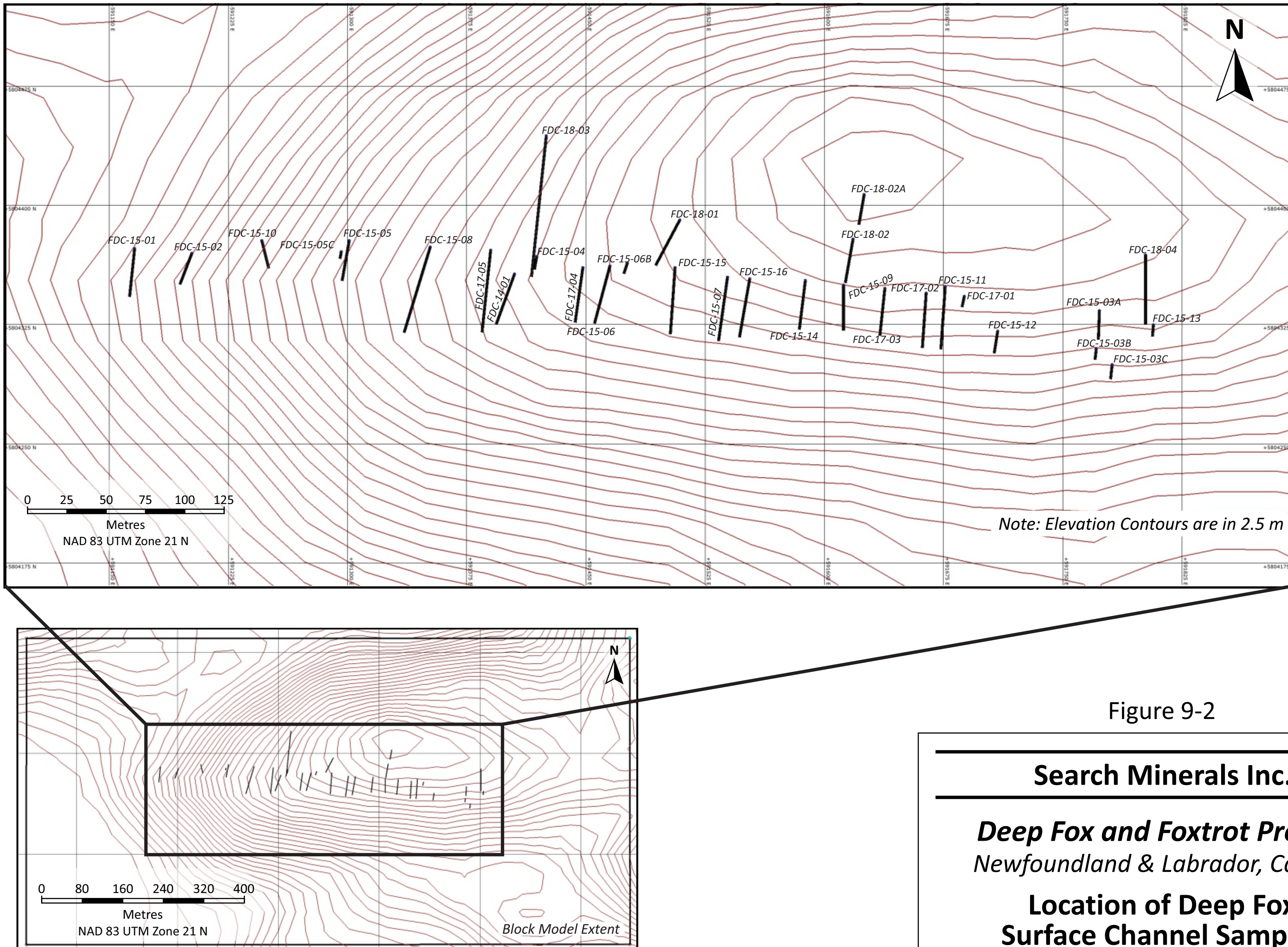
At Deep Fox, Search Minerals collected samples from 39 surface channels, totalling 994 m, in mineralized outcrops from 2014 to 2021, as presented in Figure 9-2. At Foxtrot, Search Minerals collected samples from 105 surface channels, totalling 1,139 m, in mineralized outcrops from 2010 to 2015, as presented in Figure 9-3. Channel sampling procedures are discussed in Section 11. Table 9-2 and Table 9-3 summarize several significant surface channel REE assay intervals taken from Deep Fox and Foxtrot, respectively.

Table 9-2: Deep Fox Channel Sample Weighted Average Assay Data
Search Minerals Inc. –Deep Fox and Foxtrot Project

Channel	Length (m)	From (m)	To (m)	Grade (ppm Nd)	(ppm Pr)	(ppm Dy)
FDC-14-01	17.5	0.0	17.5	1,884	504	240
FDC-15-06	10.2	11.5	21.7	2,049	525	260
FDC-15-07	9.3	18.7	28.0	1,911	504	270
FDC-15-08	6.9	20.5	27.4	1,993	540	262
FDC-15-09	7.1	20.2	27.3	1,682	443	247
FDC-15-11	11.4	25.5	36.9	1,732	461	253

Table 9-3: Foxtrot Channel Sample Weighted Average Assay Data
Search Minerals Inc. –Deep Fox and Foxtrot Project

Channel	Length (m)	From (m)	To (m)	Grade (ppm Nd)	(ppm Pr)	(ppm Dy)
FTC-11-08	13.53	1.47	15	1,517	399	202
FTC-15-01D	14.34	70.92	85.26	1,674	463	208
FTC-15-04A/ FTC-11-32	13.71	0	13.71	1,740	476	225
FTC-12-04	13.2	24.7	37.9	1,535	420	202
FTC-11-10	12.49	19.3	31.79	1,654	443	207
FTC-11-11	11.9	23.44	35.34	1,498	404	204



July 2022

Source: RPA, 2019.

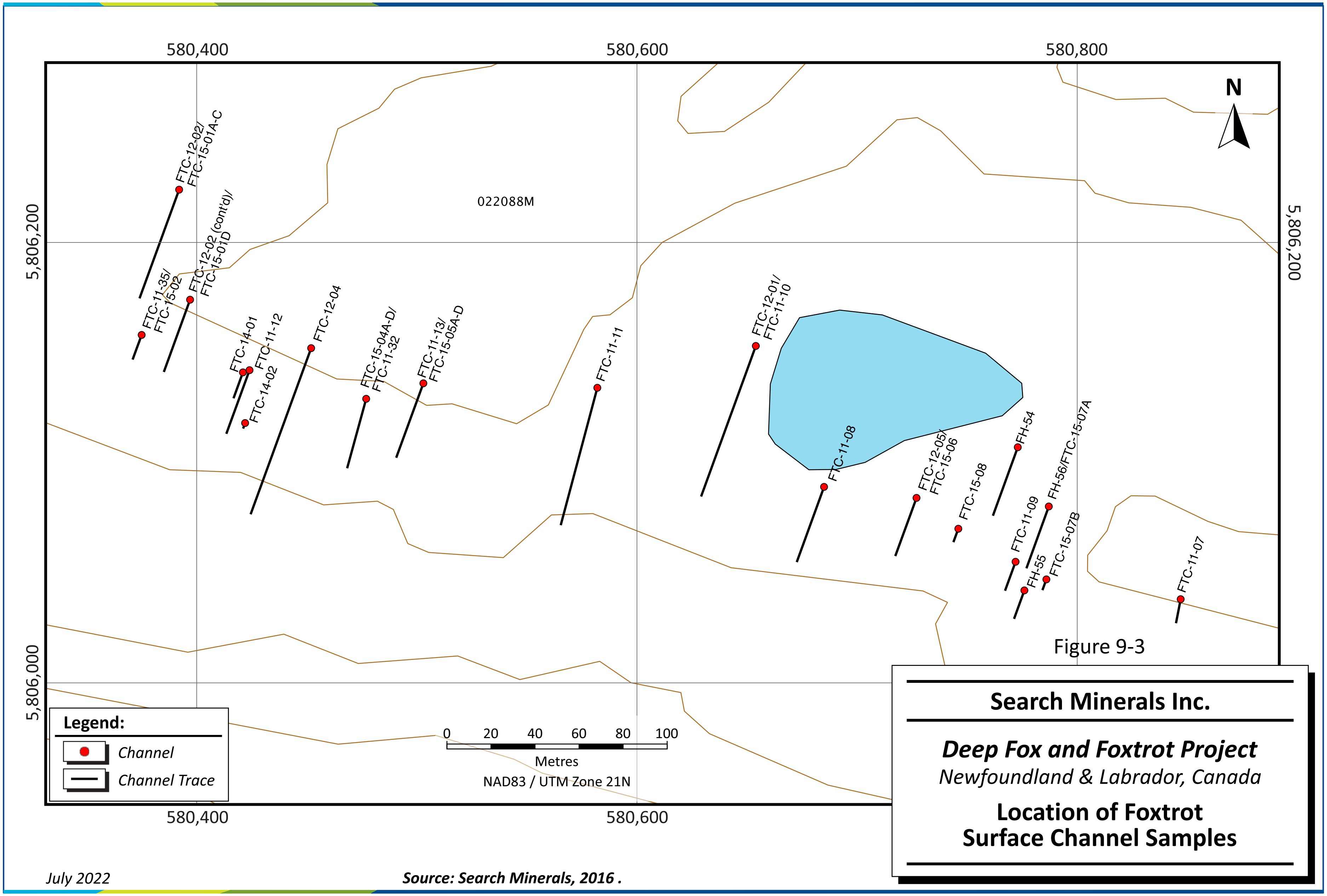
Figure 9-2

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Location of Deep Fox Surface Channel Samples



580,400
580,600
580,800
5,806,200
5,806,000
N
022088M
FTC-12-02/
FTC-15-01A-C
FTC-12-02 (cont'd)/
FTC-15-01D
FTC-11-35/
FTC-15-02
FTC-14-01
FTC-11-12
FTC-14-02
FTC-12-04
FTC-15-04A-D/
FTC-11-32
FTC-11-13/
FTC-15-05A-D
FTC-11-11
FTC-12-01/
FTC-11-10
FTC-11-08
FTC-12-05/
FTC-15-06
FTC-15-08
FH-54
FH-56/FTC-15-07A
FTC-11-09
FH-55
FTC-15-07B
FTC-11-07
Legend:
Channel
Channel Trace
0 20 40 60 80 100
Metres
NAD83 / UTM Zone 21N
Figure 9-3
Search Minerals Inc.
Deep Fox and Foxtrot Project
Newfoundland & Labrador, Canada
Location of Foxtrot Surface Channel Samples
July 2022
Source: Search Minerals, 2016 .

9.3 Ground Magnetometer Surveys (2011)

To better understand and characterize Foxtrot-like REE mineralization at surface, two ground-based magnetometer surveys were conducted throughout the FHVB during the 2011 field season. A detailed 25 m line spacing survey was completed over the main mineralized zone at Foxtrot, and a less-detailed 100 m line spacing survey was completed outside of the main mineralized zone of Foxtrot to trace the location of the mineralized units beyond Foxtrot. These surveys were used to plan diamond drilling and surface channel sampling programs. The combined ground magnetometer surveys are shown in Figure 9-4.

9.4 RPAS Magnetometer and LIDAR Survey (2019)

In 2019 a RPAS magnetometer and LIDAR survey was carried out over the Deep Fox property. The RPAS magnetometer survey was conducted to accompany the ground magnetometer survey carried out in 2011, and informed subsequent drilling and channelling programs at Deep Fox. The results of the RPAS magnetometer survey are shown in Figure 9-5. Concurrently with the magnetometer survey, a LIDAR survey was carried out over the Deep Fox property to have a precise and accurate topographic representation of the area surrounding Deep Fox.

9.5 Deep Fox Bulk Sampling

In 2021, Search Minerals completed a bulk sampling program at Deep Fox, collecting 52.9 t of mineralized material for further metallurgical processing. The selected mineralized surface interval was channel sampled prior to subsequent drilling and blasting, in order to fully characterize the interval. Once blasted, mineralized material was placed in one-tonne polypropylene bulk material bags and transported to Springdale Forest Resources crushing facility in Springdale, Newfoundland and Labrador. The material was then crushed to minus 3”, and a lithogeochemical sample was collected from each bulk material bag. Once crushed, the mineralized material was transported to SGS Canada Inc. (SGS) in Lakefield, Ontario, to be used in the Phase I magnetic separation program.

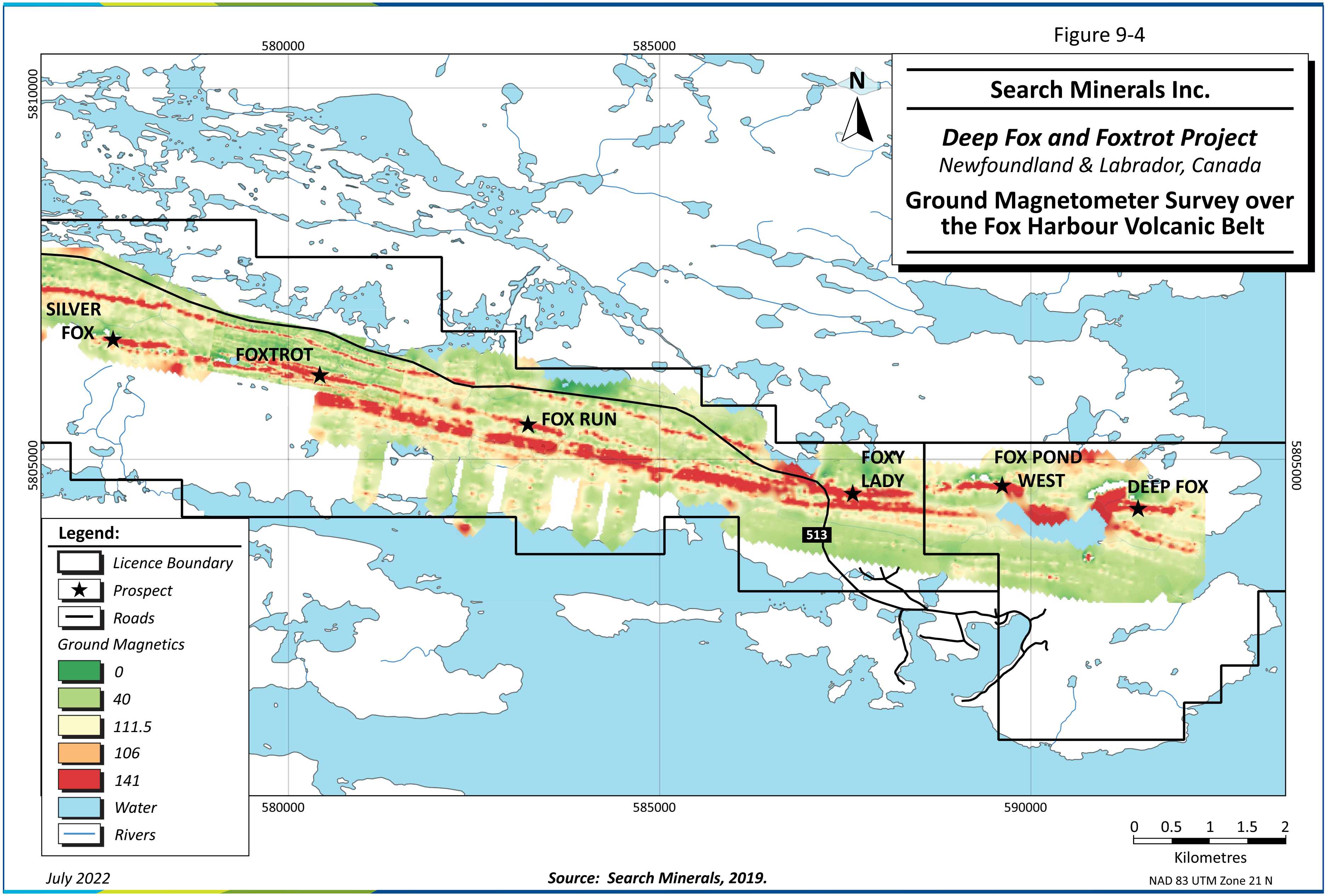
9.6 Exploration Potential

Deep Fox currently has a Mineral Resource to 200 m below surface as reported in Section 14 of this Technical Report. Search plans a 11,000 m program at Deep Fox in 2022 to expand the resource by additional 50 m at depth, down-plunge, and to explore to the east and west along strike. Geological interpretations indicate that the deposit is open at depth and along strike and there is very good potential to increase the resources.

At Foxtrot, drilling and surface data also indicate that there is very good potential to expand the deposit to the east and west along strike, and at depth. The current drilling data reaches to 400 m below surface.

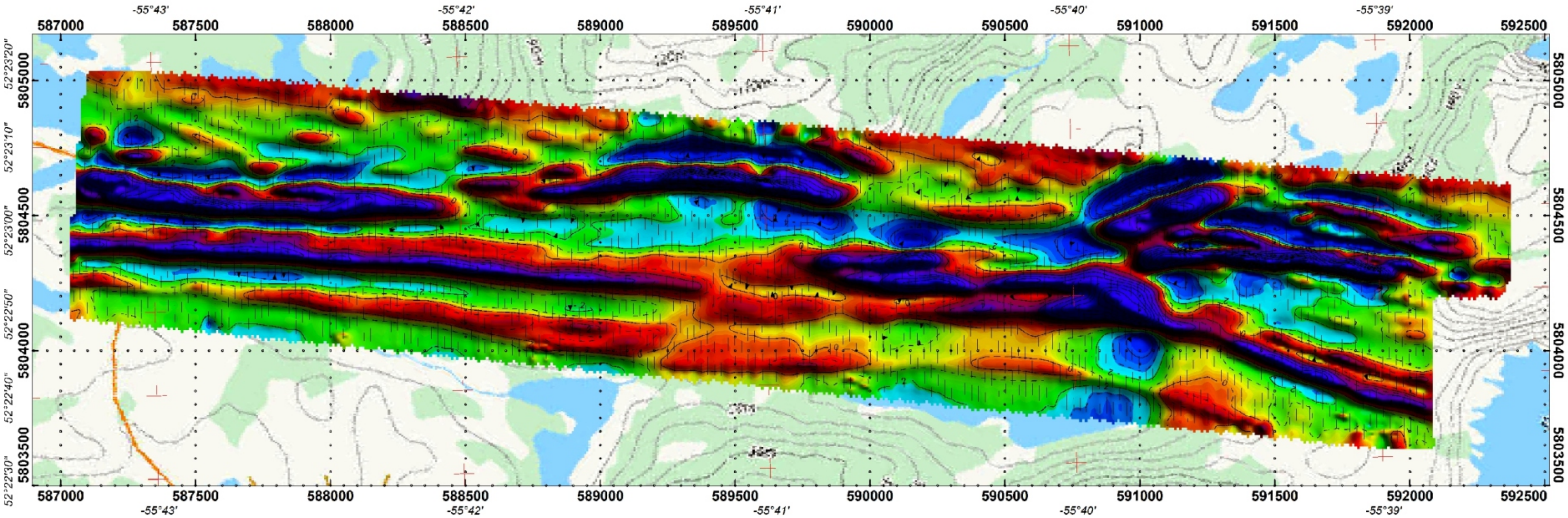
Surface channel sampling throughout the FHVB indicate that there are numerous prospects with REE mineralization, thickness, and geology similar to Deep Fox and Foxtrot. Channel programs executed at Fox Meadow and Silver Fox (Table 9-1) indicate that these prospects have good potential, both of them being considered as drill ready. Search Minerals plans to drill a 6,000 m drill program at Fox Meadow in 2022.

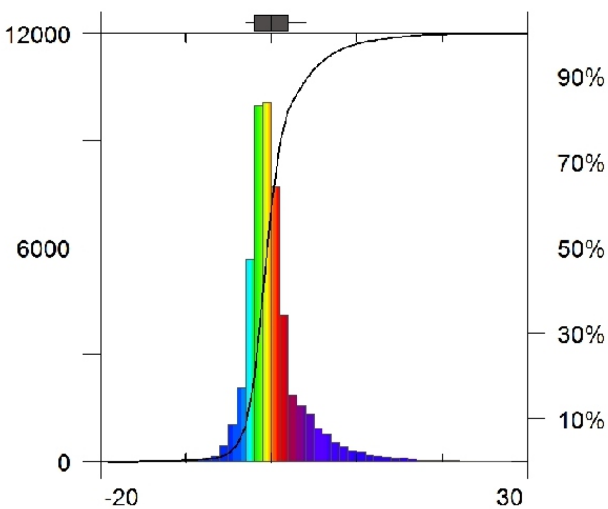
Figure 9-4



July 2022

Source: Search Minerals, 2019.





Data Distribution

Samples:	50587
Minimum:	-18.81
Maximum:	27.92
Mean:	0.2162
Geo.Mean:	1.421
Median:	-0.4391
Mode:	-3.471
Std.Dev.:	3.565
Std.Err.:	0.01585
Skew:	1.747
Kurtosis:	7.157

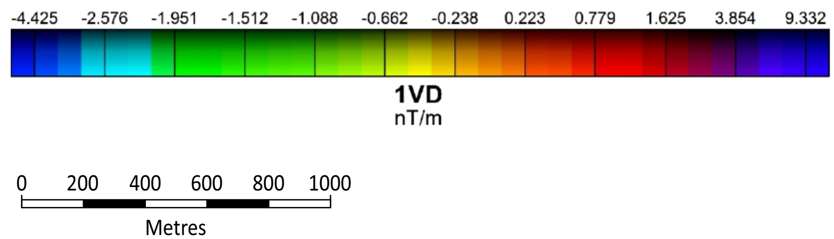


Figure 9-5

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

UAV Magnetometer Survey

July 2022

Source: Search Minerals, 2022.

10.0 DRILLING

10.1 Deep Fox Drilling

Search Minerals commenced drilling at Deep Fox in 2017. The drilling area focused on the down dip extent of the mineralization outlined at surface by channels, with a true thickness of up to 45 m, consisting of a package of felsic and mafic bands. The first three holes were drilled by Cabo Drilling, while Springdale Forest Resources performed the rest of the drilling.

A total of 61 drill holes were completed, with 11,927 m total drilled length. Search Minerals also collected surface samples from 39 channels with a total length of 993.7 m.

Drill hole collar positions were determined by Search Minerals' senior geological personnel and were located in the field by a Search Minerals geologist. Drill holes were initially plotted using ArcGIS, and collar positions were staked using a hand-held global positioning system (GPS) unit. All drill holes at Deep Fox were surveyed after drilling had been completed to within ±0.60 m GPS positional accuracy, and 0.2° to 1.0° azimuth accuracy. Coordinates were recorded in UTM format according to the NAD83 datum, and elevations were recorded in metres above sea level (MASL).

All holes were drilled with an appropriate inclination to intercept a steeply dipping target; the collar azimuth and dip were planned and checked by a Search Minerals geologist. The drill hole was set with an extended foresight from the drill head, and the azimuth of this line direction was measured with a Brunton or Silva type compass. The drill hole collar dip was set and measured with an inclinometer on the drill rods at the drill head.

Drill hole azimuth and dip measurements at varying depths in each drill hole were checked using a Reflex Gyro down-the-hole probe that uses a digital surface referenced microelectromechanical system (MEMS) gyroscope designed for magnetite bearing rocks. Drill hole collar azimuths, GPS coordinates and elevations were obtained using the Reflex Azimuth Pointing System (APS).

No significant deviation problems occurred during the drill programs at Deep Fox, most holes deviated less than five to ten degrees per 100 m from both azimuth and dip.

The QPs are of the opinion that the drilling procedures meet industry standard and there are no drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results.

Figure 10-1 displays the drill hole and channel locations at Deep Fox.

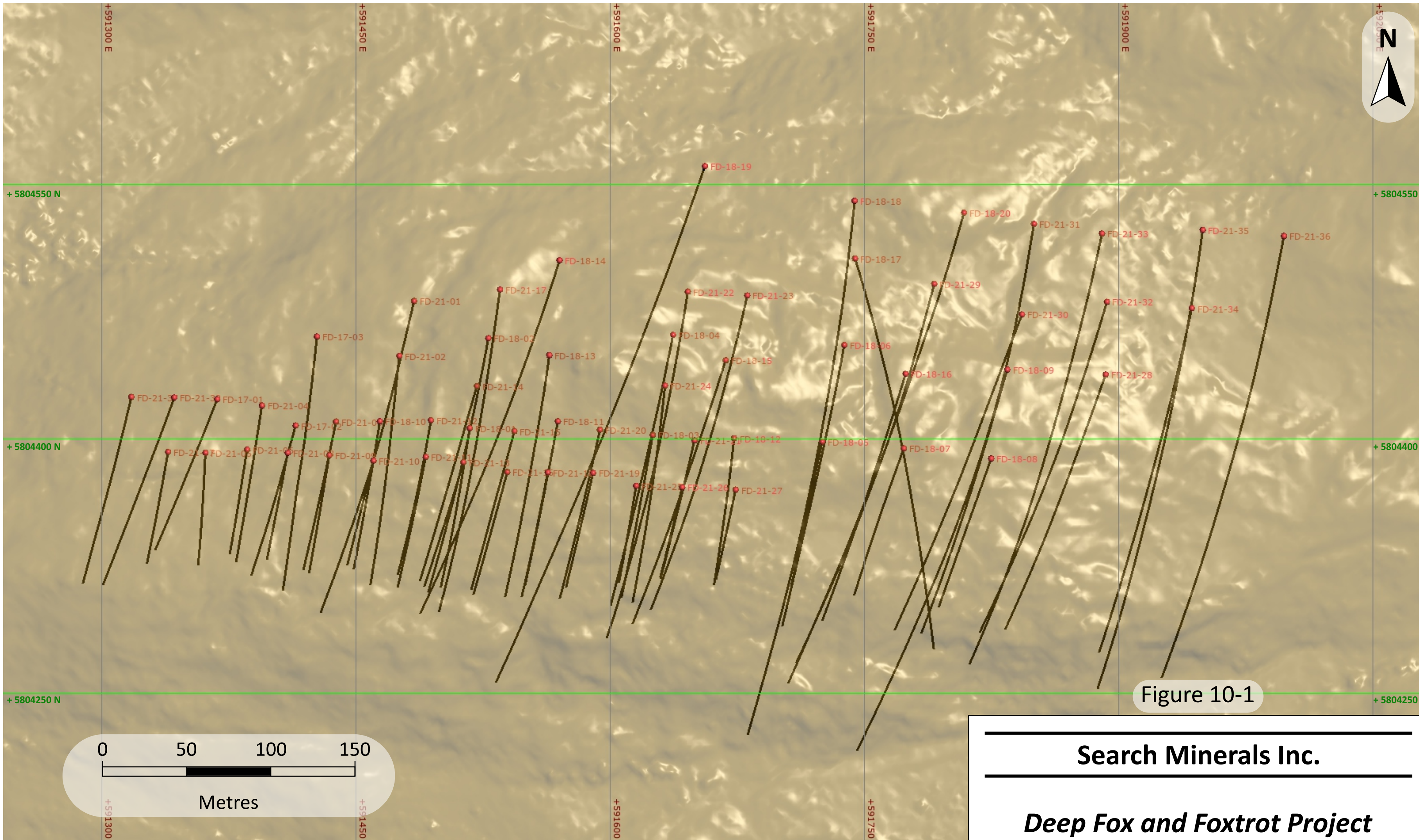


Figure 10-1

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Drilling

July 2022

Source: SLR, 2022.

10.2 Foxtrot Drilling

Search Minerals started exploration drilling at the Foxtrot Project in 2010. The drilling focused on the thicker portion of the pantelleritic mineralization, which is approximately 10 m to 25 m in true width. Three drilling phases were completed at Foxtrot. Two drilling campaigns were awarded to Springdale Forest Resources of Springdale, Newfoundland and Labrador, and one campaign to Logan Drilling Group of Stewiacke, Nova Scotia.

A total of 72 drill holes were completed during the three drilling phases, with 18,616.6 m total drilled length. Search Minerals also collected surface samples from 24 channels with a total length of 486 m.

Drill hole collar positions were determined by Search Minerals' senior geological personnel and were located in the field by a Search Minerals geologist. Drill holes were initially plotted using ArcGIS, and collar positions were staked using a hand-held global positioning system (GPS) unit. All Foxtrot drill holes were surveyed after drilling had been completed to within ±0.60 m GPS positional accuracy, and 0.2° to 1.0° azimuth accuracy. Coordinates were recorded in UTM format according to the NAD83 datum, and elevations were recorded in metres above sea level.

All holes were drilled with an appropriate inclination to intercept a steeply dipping target; the collar azimuth and dip were planned and checked by a Search Minerals geologist. The drill hole was set with an extended foresight from the drill head, and the azimuth of this line direction was measured with a Brunton or Silva type compass. The drill hole collar dip was set and measured with an inclinometer on the drill rods at the drill head. No serious deviation problems have been encountered, with most holes deviating less than 5° to 10° per 100 m from both azimuth and dip.

The QPs are of the opinion that the drilling procedures meet industry standard and there are no drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results.

Figure 10-2 displays the diamond drill hole locations from all phases of drilling.

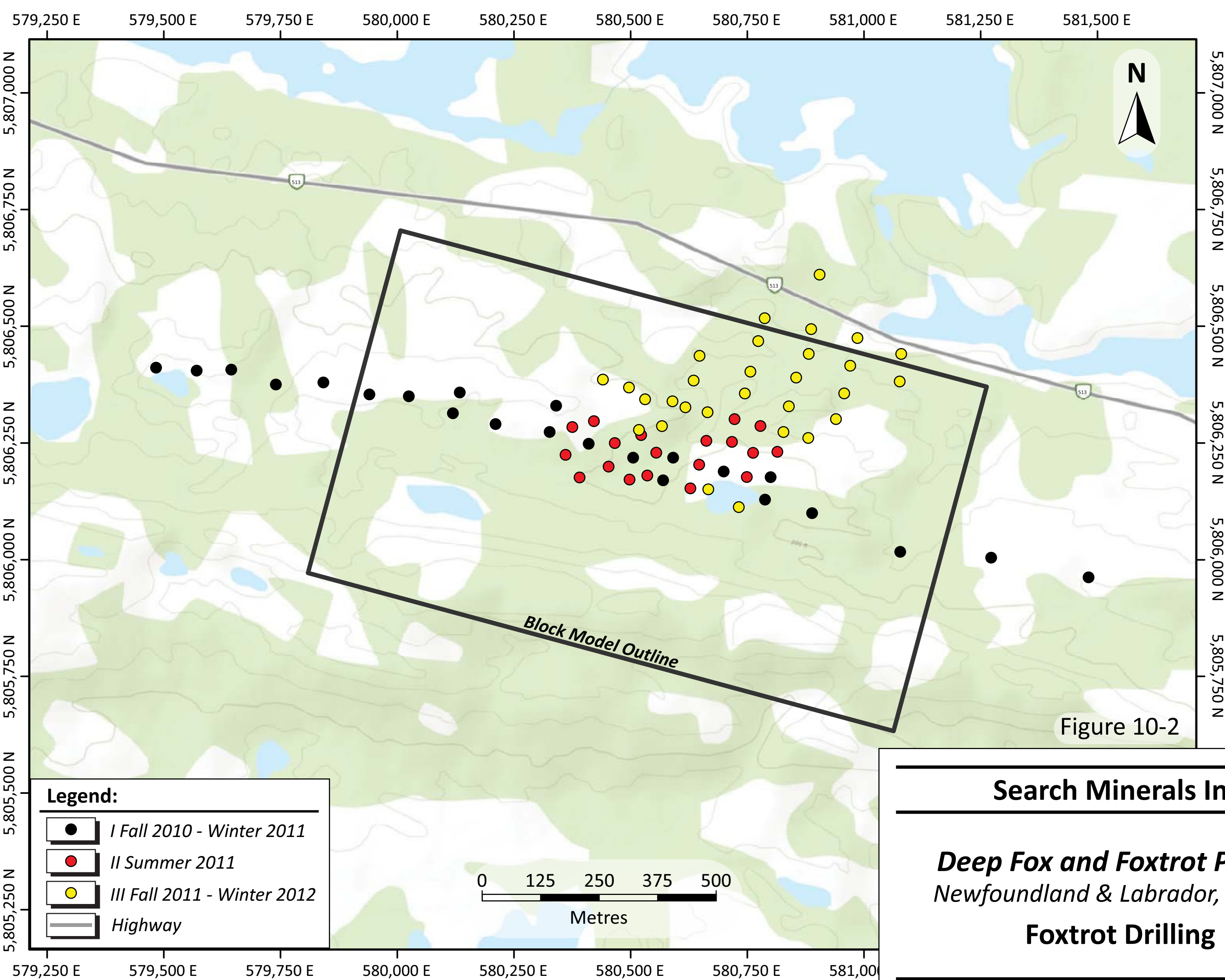


Figure 10-2

Search Minerals Inc.

Deep Fox and Foxtrot Project
Newfoundland & Labrador, Canada
Foxtrot Drilling

July 2022

Source: RPA, 2016.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Deep Fox Sample Preparation and Analysis

11.1.1 Sampling and Sample Preparation

Two sampling methods have been used at Deep Fox: diamond drilling and surface channel sampling. Drilling on the Project occurred in 2017, 2018, and 2021, whilst channel sampling was undertaken in 2014, 2015, 2017, 2018, 2019, and 2021.

All sample preparation and core logging were carried out at the Search Minerals field house, which is located in St. Lewis, approximately 10 minutes by truck from the Deep Fox field area. Drilling, core logging, and sampling operations were supervised by Dr. Randy Miller, P.Geo., VP of Exploration for Search Minerals.

The drilling, logging, and sampling procedures at Deep Fox are similar to those used at Foxtrot. The procedures were previously reviewed by SLR and SLR's contractor Benchmark Six Inc. (Benchmark Six) during site visits to Foxtrot in 2011, and by SLR in 2015 (Ms. Masun) and 2021 (Mr. Ciuculescu). The procedures are summarized below. The quality assurance/quality control (QA/QC) protocols, procedures for ensuring the security of drill core and channel samples, integrity of chain-of-custody for samples, and accuracy of laboratory analyses all met acceptable industry practices.

11.1.1.1 Diamond Drill Core

Diamond drill core was placed into standard wooden core boxes and stacked at the drill site. Core boxes were transported by pick-up truck from the field area to the field house at least once a day where they were organized onto racks in the core storage facility. Geologists log the core and mark assay sample intervals with wax crayon. Intervals averaged one metre but were longer or shorter, at the discretion of the geologist, depending on the structural and lithological features present. In 2017 and 2018, drill core was logged manually, and the logs were subsequently entered into a digital database by Search Minerals staff. All original paper drill logs are kept on file. In 2021 drill core was logged into MX Deposit, a digital drill logging database.

The drill core was split using the marked assay intervals; all splitting was done using a circular saw with a diamond tip blade. One half of the core was placed in a sample bag and sent to the laboratory for chemical analysis and the other half remains in the core box for future reference. For each interval, one sample tag was placed in the sample bag and another sample tag was stapled to the bottom of the core box, under the core. After the core had been split and sampled, the remaining core was placed back into core boxes and kept in the core storage facility. All stored core boxes are affixed with an aluminum plate indicating the hole ID and the Interval contained within. A list was made of all sample numbers and their corresponding hole ID, and from-to (interval) depths.

A selected piece from each mineralized and selected non-mineralized sample interval from the Deep Fox core was tested for magnetic susceptibility and density. The magnetic susceptibility measurements were taken with a portable instrument. Density measurements were determined with the standard gravimetric procedure that involves measuring samples on a scale in air and immersed in water.

The drill rig used during the 2017, 2018, and 2021 sampling programs was a Dura-lite 500 mounted on a tracked carrier and was operated by Springdale Forest Resources. All core drilled during the Deep Fox sampling programs was NQ (47.6 mm) size.

11.1.1.2 Channel Samples

Channel samples were taken from mineralized surface outcrop found using visual inspection as well as hand-held spectrometers. The location of channel sampling was partly dictated by the location of surface outcrop. A hand-held GPS unit was used for precise location control. Channel samples, 10 cm deep and 8 cm wide, were cut by gas-powered diamond-bladed saw from cleaned outcrops, surface weathering is removed, channel cut into two pieces, and placed into channel boxes to be logged and sampled by Search Minerals personnel (Figure 11-1). Six centimetre thick sections were sent to the assay laboratory and a two centimetre thick section was stored in channel boxes for reference (Figure 11-2). The channels were cut perpendicular to strike, pieced together, logged, measured, and photographed to produce geological and geochemical sections.

Channel samples were logged, cut, and sampled according to the same procedure as the diamond drill core, described above.

Figure 11-1: Field Channel Samples

Figure 11-2: Channel Sample Reference Box

11.1.2 Sample Analyses

Deep Fox sample bags were collected in large plastic bags, placed on a pallet, and wrapped with plastic film for transport by Search Minerals staff to Morneau trucking company in Goose Bay. This trucking company transported these sample pallets to Activation Laboratories Ltd. (ActLabs) in Ancaster, Ontario, for sample preparation and analysis. Samples were analyzed using a lithium metaborate/tetraborate fusion with subsequent analysis by inductively coupled plasma (ICP) and ICP mass spectroscopy (ICP-MS).

ActLabs is an independent laboratory accredited according to both the ISO 17025 standard for testing and calibration laboratories, and the CAN-P-1579 standard, specific to mineral analysis laboratories. In 2007, ActLabs became accredited to NELAP, an American laboratory accreditation program specifically for the environmental sector.

11.1.3 Sample Security

Search Minerals employs strict security protocols with the handling of its samples. Core is transported by truck only, both from the drill site to the field house and from the field house to the trucking company in Goose Bay. The core is stored in the core storage facility, part of the Search Minerals' field office (Figure 5-1) with doors and locks, and is organized carefully, facilitating accessibility to all reference core. During logging, cutting, and sampling, drill core is always under the supervision of full-time Search Minerals staff.

In the QPs' opinion, the sample preparation, analysis, and security procedures at Deep Fox are adequate for use in the estimation of Mineral Resources.

11.1.4 Quality Assurance and Quality Control 2015 to 2018

Search Minerals implemented an assay QA/QC monitoring program since the beginning of the exploration activity at Deep Fox and Foxtrot. The QA/QC samples assay data is presented and discussed at length in the Roscoe Postle Associates Inc. (RPA) 2016 report. A summary is presented below.

11.1.4.1 ActLabs Internal QA/QC

Search Minerals instructed ActLabs to introduce in the sample stream three types of samples to monitor the accuracy and precision of their results: standards, blanks, and duplicates.

The QPs reviewed the blanks and standards data and found that nearly 100% of the results were within ±10% of their certified value, which is generally accepted as a good result. The duplicate assays returned results within the expected limits.

11.1.4.2 Search Minerals External QA/QC

All Search Minerals external QA/QC samples were inserted by ActLabs, using the following protocol:

- Blanks and standards were inserted in each batch after the 15th or 35th sample, and every 40th sample thereafter.
- Coarse duplicates were taken every 20th sample per batch.
- Pulp duplicates were taken at a rate of approximately 10%.

Table 11-1 summarizes the insertion rate of QA/QC samples for all work completed on Deep Fox from 2015 to 2018.

Table 11-1: Insertion Rates of QA/QC Samples
Search Minerals Inc. –Deep Fox and Foxtrot Project

QA/QC Sample Type	Insertion Rate
Blanks	2.5%1
Standards	2.5%
Coarse Duplicates	5%
Pulp Duplicates	10%

Note:

1. Includes only batches with blanks.

11.1.4.2.1 Blanks

Blank samples comprised of crushed, pulverized, and homogenized quartz were inserted into the sample stream by ActLabs. A total of 101 blank samples were included in 31 batches, with an insertion rate of approximately 2.5%.

11.1.4.2.2 Reference Standards

Search Minerals inserted two standards in each batch: one high grade, sourced from another Search Minerals' REE project in the Fox Harbour area, and one unmineralized natural blank, sourced from an anorthosite unit found in the Port Hope Simpson area.

11.1.4.2.3 Duplicates

Search Minerals inserted both reject coarse duplicates (coarse duplicates), which were taken immediately after the first crushing and splitting step, and pulp duplicates, which are second splits of final prepared pulverized samples. The coarse and pulp duplicate samples were taken by the laboratory at the request of Search Minerals at a rate of approximately 5% and 10%, respectively.

11.1.4.2.4 QPs Opinion

The QPs have reviewed the results of the 2015-2018 QA/QC programs and are of the opinion that the results are suitable to support the estimation of Mineral Resources.

11.1.5 Quality Assurance and Quality Control Summary 2021

During the 2021 campaign, Search Minerals continued monitoring the performance of the assay results by regular submission of QA/QC material to the assay laboratory. Search Minerals utilized three internal standards, low grade (419491) equivalent to blank values, medium grade (419492), and high grade (419493), and one CRM (REE-3), which were regularly added to the sample stream. The QA/QC material was inserted by the laboratory, and by Search Minerals before shipping the samples to the laboratory. Table 11-2 presents the samples assayed in 2021, including field samples and QA/QC material.

Table 11-2: Assayed Samples in 2021 Campaign
Search Minerals Inc. – Deep Fox and Foxtrot Project

Sample Type	Count	Percent of Total
Field samples	4,635	85%
Standard 419491 (blank grades)	126	2%
Standard 419492	110	2%
Standard 419493	96	2%
REE-3	38	1%
Pulp replicates	213	4%
Coarse reject duplicates	205	4%
Total	5,423	100%

Sample 419491 was inserted as an internal blank standard and processed as a field sample for the 2021 drill program. SLR notes that no external coarse blanks were used in 2021. Blank material is usually inserted in the sample stream as coarse material, with the expectation for it to be processed as a field sample, thus monitoring contamination levels during sample processing, as well as tracking labelling errors or sample switching.

SLR notes that Search Minerals did not submit pulp replicate samples for assaying at a secondary laboratory. While Search Minerals attempted to engage third party laboratories for replicate assaying due to COVID-19 and other challenges it was unable to engage a laboratory in 2021 for a small sample batch. Pulp replicate samples have been collected (2022) and are being assayed by two third party laboratories.

QA/QC samples were inserted into the sample stream by both Search Minerals and ActLabs. Search Minerals' QA/QC protocol involved the insertion of four standards per drill hole (419491, 419492, 419493, and CRM REE-3) directly into the sample stream, one of each standard per drill hole. Search Minerals advised ActLabs to utilize the following QA/QC insertion protocol:

- Coarse duplicates were taken approximately every 20th sample per batch, with an average of 1 in 23.
- Pulp duplicates were taken at a rate of approximately every 20th sample, resulting in a 1 in 23 average.

The internal standards developed by Search Mineral have an acceptable behaviour. Figure 11-3 shows the overall performance of the Pr, Nd, Tb, and Dy assay results. While Pr, Tb, and Dy have a good behaviour, Nd values have a wide spread and may not be reliable for detecting trends or deviations from the nominal value.

The duplicate samples are well behaved, with both pulps (Figure 11-4) and coarse rejects (Figure 11-5) generally withing +/-10%. The coarse rejects display noisier aspect at lower grades, which is normal.

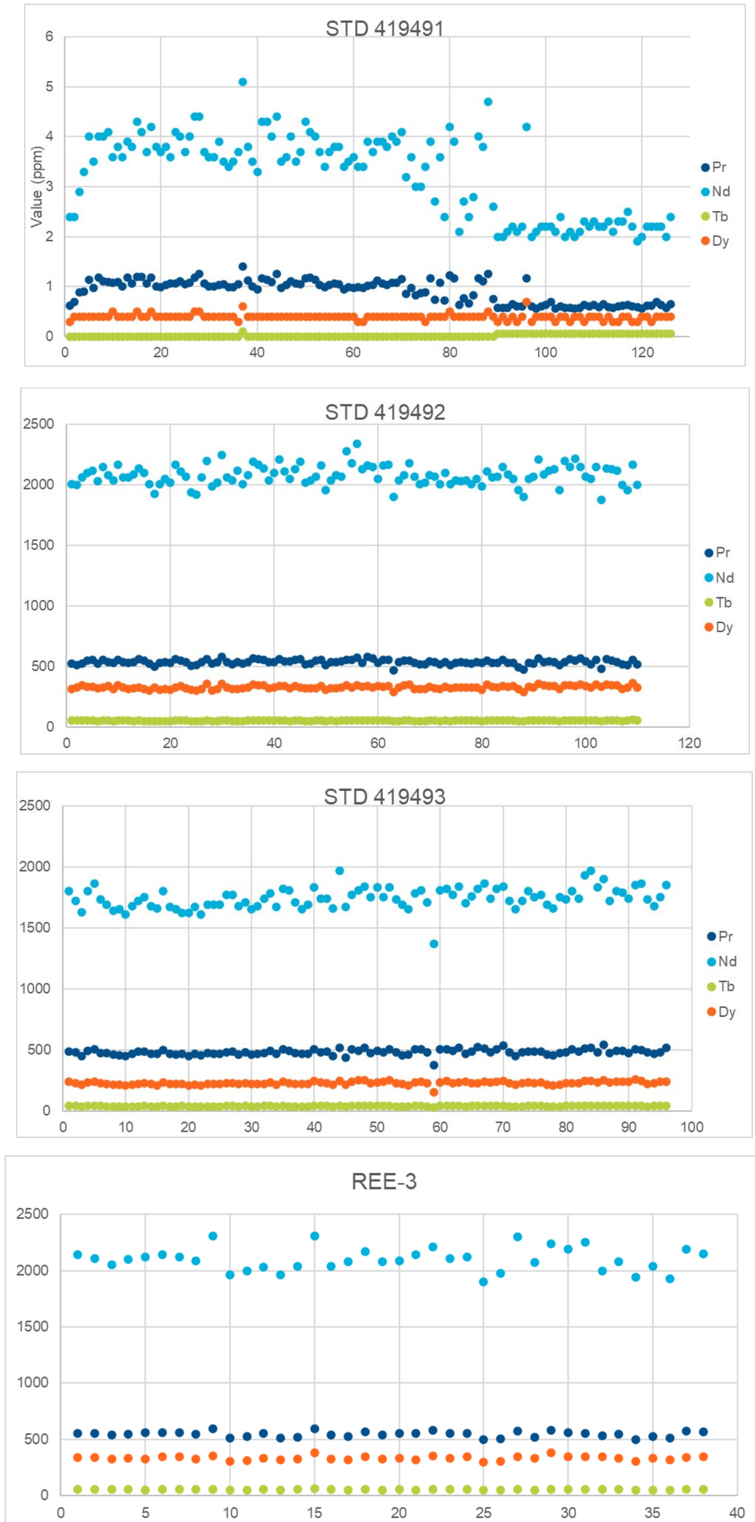


Figure 11-3: Performance of Standards

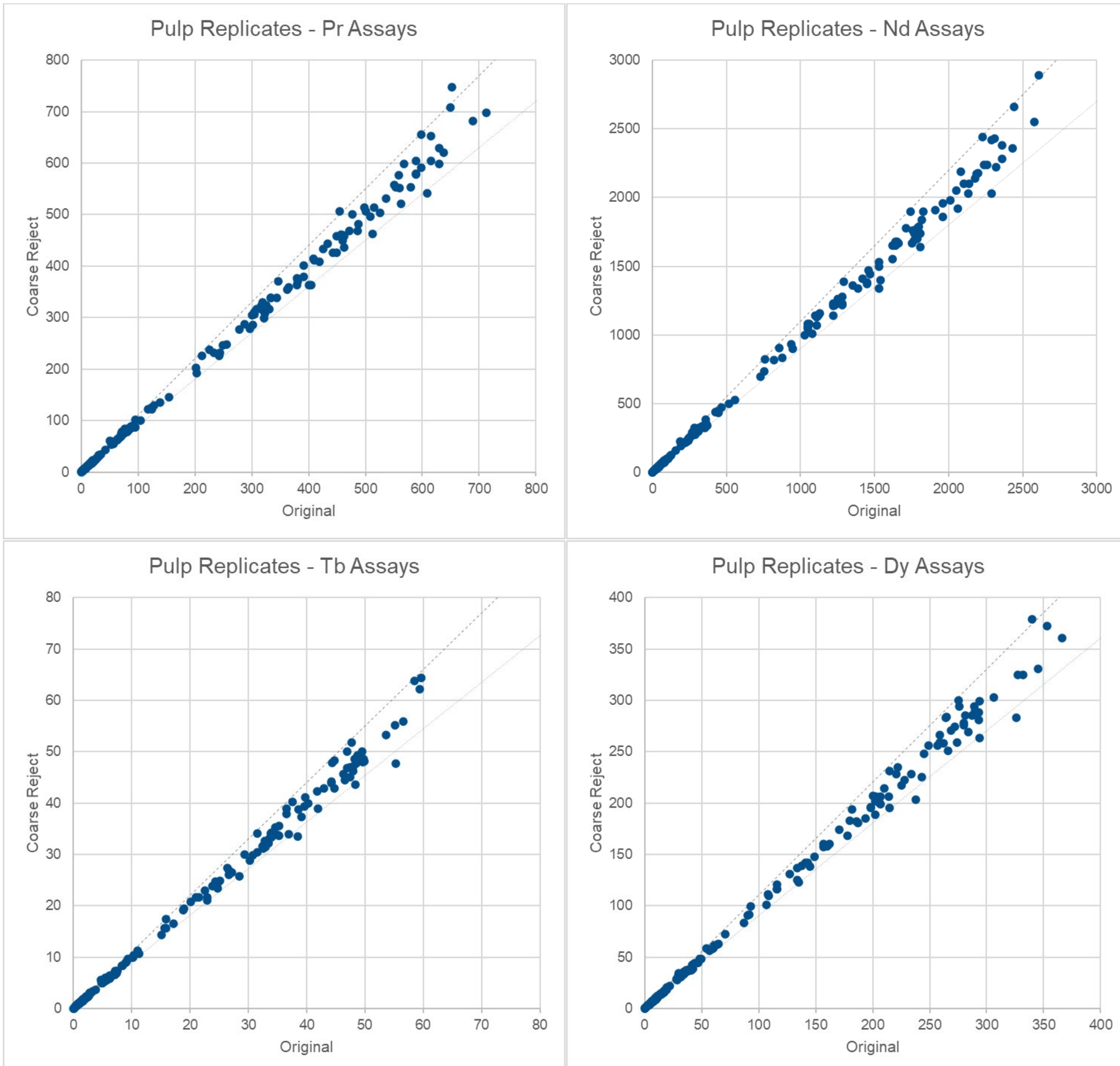


Figure 11-4: Pulp Replicate Samples

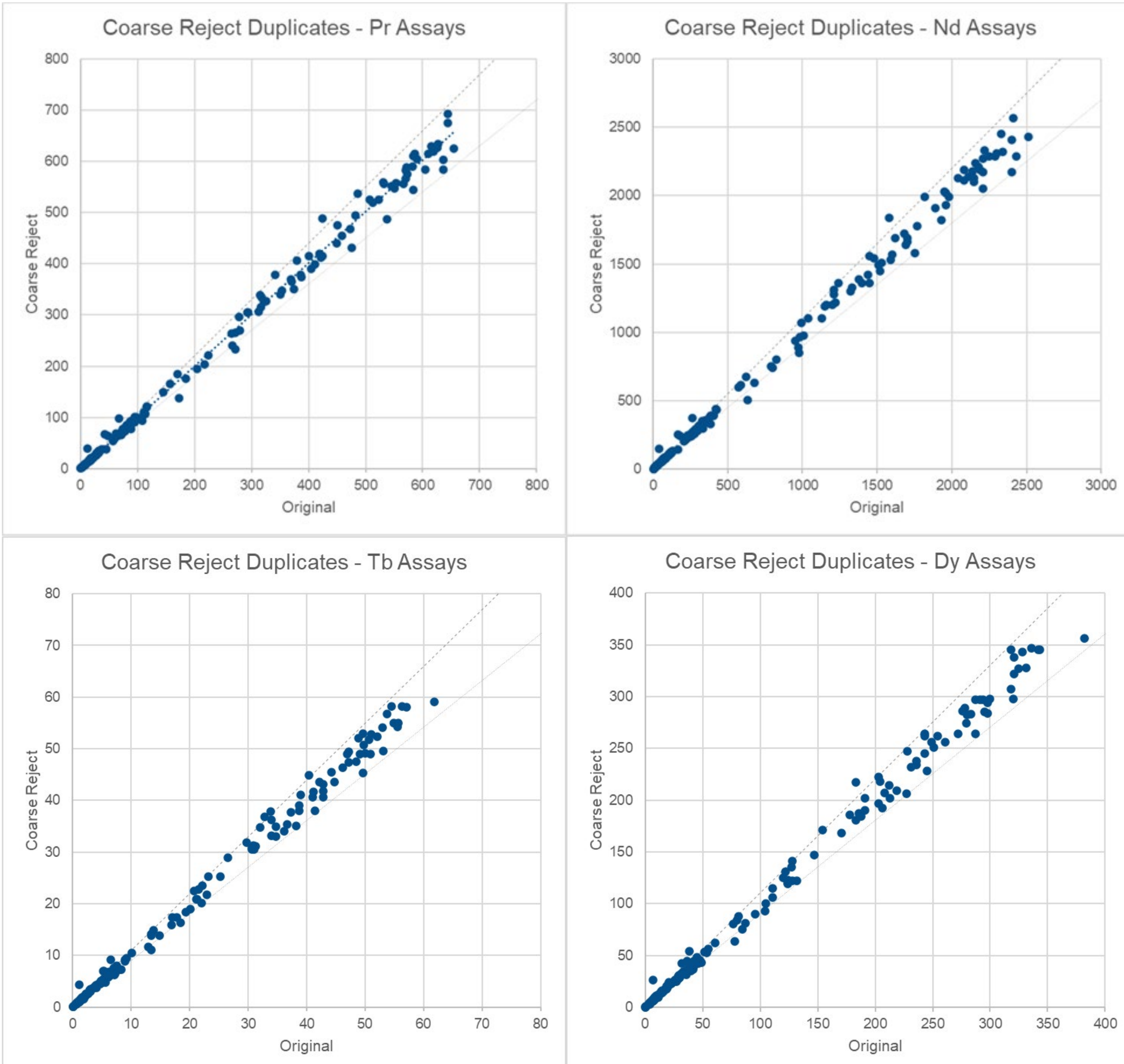


Figure 11-5: Coarse Reject Duplicate Samples

It is the opinion of the QPs that Search Minerals' QA/QC data for the drilling and channel sampling programs at Deep Fox are acceptable and demonstrate that the assay data have the accuracy and precision adequate for Mineral Resource estimation.

The QPs recommend the following:

1. Use multiple CRMs (typically recommended low, medium, and high grade), with at least one at grades similar to typical REE mineralization and a second one with grades similar to the deposit high grade. The QPs also recommends that a third standard with grades typical of mineralization at or near the cut-off grade be considered. This would help identify any systematic bias or uncertainty in the laboratory results. Due to the scarcity of reliable REE CRMs, Search Minerals should work with analytical laboratories to develop additional standards through round robin testing. REE-3 was developed by CanMet using material from Foxtrot.

2. Resume the regular submission of coarse blank material with regular drill core and surface channel samples.
3. Include selected half core samples (field duplicates) in a check assay sampling protocol.
4. Review the analytical laboratory's internal and Search Minerals' field QC results for each sample batch submitted.
5. Revisit the failure criteria and follow-up actions.

11.2 Foxtrot Sample Preparation and Analysis

11.2.1 Sampling and Sample Preparation

Two sampling methods have been used at Foxtrot: diamond drilling and channel sampling. No new drilling, however, has occurred on the Project since 2012.

All sample preparation and core logging were carried out at the Search Minerals field house, which was located in Port Hope Simpson, approximately 45 minutes by truck from the Foxtrot field area. Drilling, core logging, and sampling operations were supervised by Dr. Randy Miller, P.Geo., VP of Exploration for Search Minerals.

All drilling, logging, and sampling procedures were reviewed by Benchmark Six and RPA (a predecessor company to SLR) during their site visit in 2011 (RPA, 2013). The QA/QC protocols, procedures for ensuring the security of drill core and channel samples, integrity of chain-of-custody for samples, and accuracy of laboratory analyses all met acceptable industry practices.

11.2.1.1 Diamond Drill Core

Diamond drill core was placed into standard wooden core boxes and stacked at the drill site. Core boxes were transported by pick-up truck from the field area to the field house at least once a day where they were organized onto racks in the core shed. Geologists log the core and mark assay sample intervals with wax crayon. Intervals averaged one metre but were longer or shorter, at the discretion of the geologist, depending on the structural and lithological features present. Drill core was logged manually and the logs were subsequently entered into a digital database by Search Minerals staff. All original paper drill logs are kept on file.

The core was split by technicians according to the marked assay intervals; all splitting was done using a circular saw with a diamond tip blade. One half of the core was placed in a sample bag and sent to the laboratory for chemical analyses and the other half remains in the core box for future reference. For each interval, one sample tag was placed in the sample bag and another sample tag was stapled to the bottom of the core box, under the core. After the core had been split and sampled, the remaining core was placed back into core boxes and kept in the core shed, currently stored in Search Minerals' core storage facility in St. Lewis. All stored core boxes are affixed with an aluminum plate indicating the hole ID and the interval contained within. A list was made of all sample numbers and their corresponding hole ID, and from-to depths.

The drill rig used during the 2010 sampling program was a Dura-lite 500 and was operated by Springdale Forest Resources. The 2011 sampling program made use of two different drill rigs: a Longyear Super 38 that was fully enclosed and mounted on skids as well as a Longyear Fly 38 that was not enclosed, also mounted on skids and was suitable to be moved by helicopter. These two drill rigs were operated by Logan Drilling Group. All core drilled during the 2010 and 2011 sampling programs was NQ size.

11.2.1.2 Channel Samples

Channel samples were taken from mineralized surface outcrop found using visual inspection as well as hand-held spectrometers. The location of channel sampling was partly dictated by the location of surface outcrop. A hand-held GPS unit was used for precise location control. Channel samples, 10 cm deep and 8 cm wide, were cut by gas-powered diamond-bladed saw from cleaned outcrops (surface weathering is removed) and placed into channel boxes to be logged and sampled for assay by Search Minerals personnel. Six centimetre sections were sent to the assay laboratory and a two centimetre section was stored in channel boxes for reference. The channels were cut perpendicular to strike, pieced together, logged, and photographed to produce geological and geochemical sections.

Channel samples were logged, cut, measured, and sampled according to the same procedure as the diamond drill core, described above.

11.2.2 Sample Analyses

Sample bags were transported by Search Minerals staff to ActLabs in Goose Bay, Labrador, where they were crushed to a minus 10 mesh, riffle split to obtain a representative sample, pulverized to at least 95% passing minus 150 mesh, and then sent to ActLabs Ancaster, Ontario for analysis. Samples were analyzed using a lithium metaborate/tetraborate fusion with subsequent analysis by ICP and ICP-MS.

ActLabs is an independent laboratory accredited according to both the ISO 17025 standard for testing and calibration laboratories, and the CAN-P-1579 standard, specific to mineral analysis laboratories. In 2007, ActLabs became accredited to NELAP, an American laboratory accreditation program specifically for the environmental sector.

11.2.3 Sample Security

Search Minerals employs strict security protocols with the handling of its samples. Core is transported by truck only, both from the drill site to the field house and from the field house to the laboratory in Goose Bay. The core was stored in the core shed, currently stored in Search Minerals' core storage facility in St. Lewis, a detached structure with doors and locks, and is organized carefully, facilitating accessibility to all reference core. During logging, cutting, and sampling, drill core is always under the supervision of full-time Search Minerals staff.

11.2.4 Quality Assurance and Quality Control

11.2.4.1 ActLabs Internal QA/QC

The resource estimate included in this Technical Report incorporates analytical results from 69 batches that were submitted to ActLabs from November 2010 to August 2011, six batches from 2012 to 2014, and one batch in 2015. With each batch, ActLabs used three types of samples to monitor the accuracy and precision of their results: standards, blanks, and duplicates.

The standards allow the laboratory to monitor the accuracy of their results. There was a total of 22 different standards that were used to test the accuracy of the REE data and no one standard alone covered the complete set of potentially economic elements. Fifteen of these standards monitored Pr, Nd, or Dy, the most important Foxtrot REEs. RPA reviewed the results of the various certified reference materials (CRMs) subsequent to the 2013 PEA Update (RPA, 2013), and all Pr and Nd results fell within ±10% of their certified value and more than 98% of the Dy results were within ±10% of their certified value. While this is generally accepted as a good result, the QPs recommend that Search Minerals review the internal standards of the laboratories, failure criteria, and re-assay procedure for batches that do not meet pre-set passing conditions.

Blank control samples allow the laboratory to monitor cross contamination between the samples. While contamination can occur during the sample preparation and analysis stages, these blank control samples were limited to monitoring only the analysis stage. It is normal industry practice to reject any batch whose results are more than five times the detection limit. Of the 113 blanks tested, including nine subsequent to the 2012 PEA update, no blank control sample had more than twice the detection limit. In the QP's opinion, cross contamination was not an issue for analyses at Foxtrot.

Duplicates allow the laboratory to monitor precision of its analytical results. As with standards, it is normal industry practice to accept batches if 95% of duplicate samples fall within ±10% of their average. In the 69 batches analyzed in 2010 and 2011, 98.8% of internal duplicate assays for Dy and Nd fell within the ±10% band. Subsequent to the 2013 PEA, 33 duplicate pairs from seven batches were analyzed by the laboratory, and the internal duplicate assay results for Pr, Nd, and Dy were within acceptable limits. All Pr and Nd duplicate assays fell within ±10% of their average, and 97% of Dy internal duplicates fell within ±10% of their average.

In the QPs' opinion, the internal QA/QC results demonstrate that the assay data have acceptable accuracy and precision.

The QPs recommend that Search Minerals review the laboratory's internal QA/QC results and that batches that do not meet pre-set protocols be re-assayed.

11.2.4.2 Search Minerals External QA/QC

In addition to ActLabs' internal QA/QC efforts, the reliability of the analytical data was also monitored by Search Minerals' own external QA/QC program, using reference standards and pulp duplicates. Rather than using CRMs, Search Minerals used material sourced locally for which no certified value had been established by round-robin analyses from multiple laboratories. In this case, the average of all available results was used as the reference value and percent error was calculated.

2010 to 2011: Phase I and II

In Phase I and II of work at Foxtrot, Search Minerals used two high grade standards and one low grade standard chosen to effectively act as a blank to monitor possible contamination. The two high grade standards include one from a eudialyte-rich zone in one of Search Minerals' other REE projects in Labrador, a peralkaline complex known as "Red Wine" (RW), and one from a mineralized felsic volcanic gneiss unit found in Fox Harbour (FHG). The third standard, a very low grade standard, is from an anorthosite unit also found in Port Hope Simpson area (FHA).

The material for each standard was delivered to ActLabs in bulk and ActLabs was instructed to crush, pulverize, homogenize, store, and insert pulp reference standards into the sample sequence during sample preparation. Throughout the 2010 drilling program, laboratory staff inserted one pulp reference standard every 50 samples, however, this procedure was changed in 2011 to include at least one standard with every batch to account for smaller batches of less than 50 samples where standards were previously not being included.

The vast majority of results for the RW and FHG standards plot within the ±10% range. The results for FHA, the very low-grade standard, were not within ±10% of the average value but rather ranged from -50% to 150%, which is an acceptable range for a blank control sample. Due to the nature of the sample used, the values for each of the elements were very close to detection limit. Figure 11-6 presents the percent error of Dy and Nd for the high grade RW and FHG standards only.

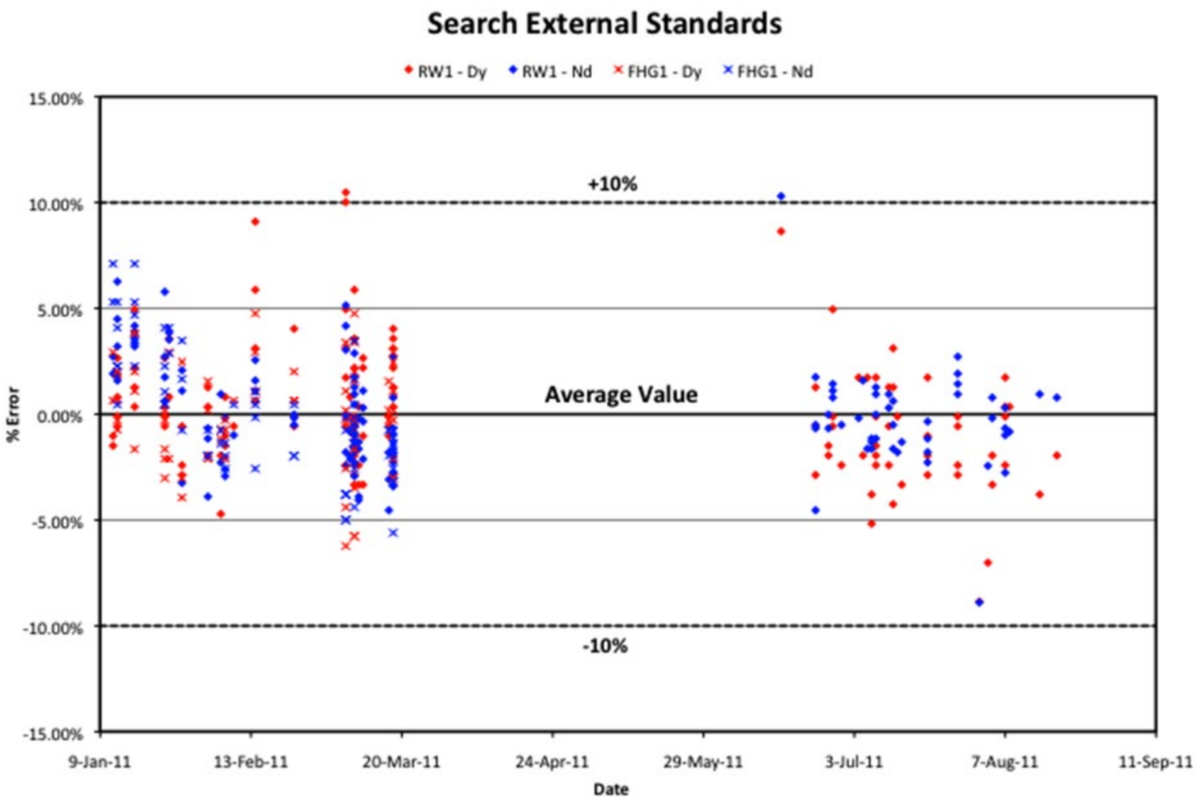


Figure 11-6: Selected Results for Search Minerals' External Quality Control for Standards

Search Minerals' implementation of duplicate samples as part of its QA/QC program was similar to that of the standards. ActLabs was instructed to duplicate every 25th sample and report the results as the original sample number appended with a 'B' in the Certificate of Analysis.

In all, there were 167 samples duplicated in the 69 batches. Of these, only six samples, or less than 4%, did not fall within a ±10% band. Figure 11-7 shows the percent difference of Dy and Nd of the sample duplicates.

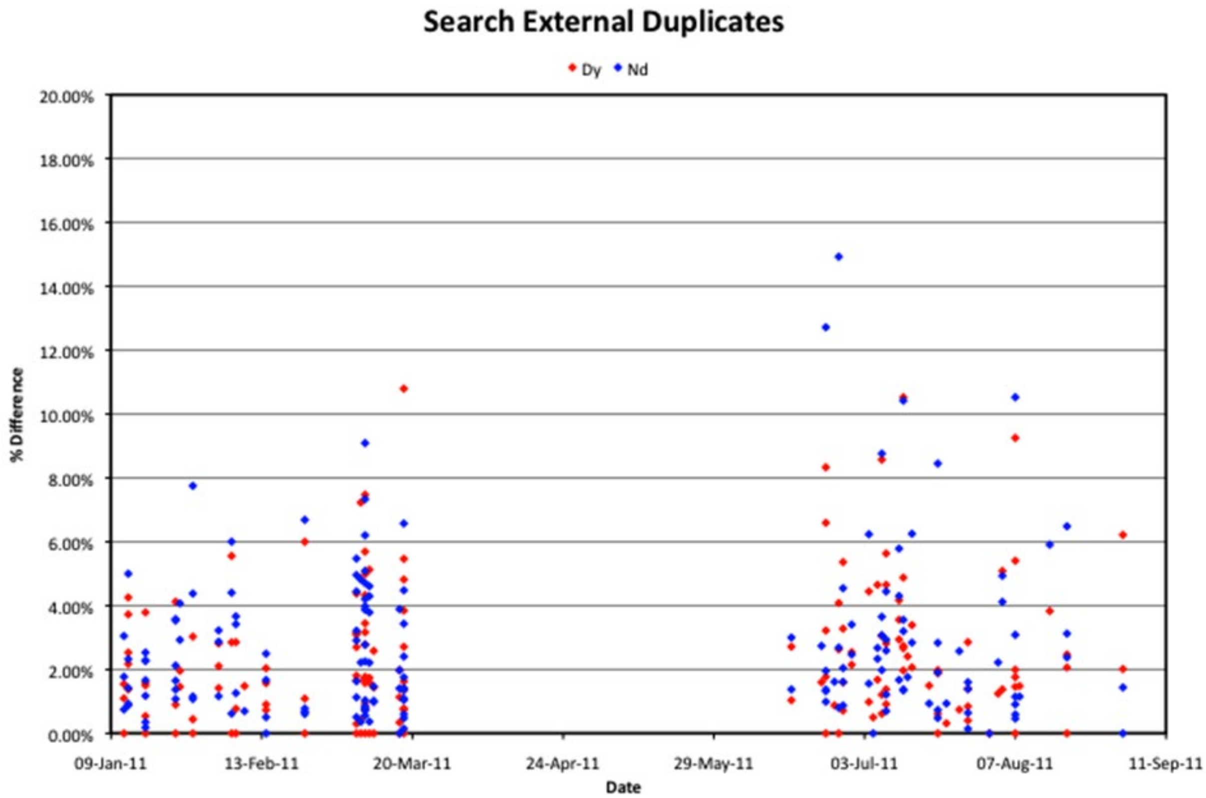


Figure 11-7: Selected Results for Search Minerals' External Quality Control for Duplicates

11.2.4.2.1 2012: Phase III QA/QC

The Phase III drilling campaign at Foxtrot used a QA/QC program similar to the one described above for Phases I and II. In addition to the internal QA/QC checks performed by ActLabs, Search Minerals included reference material in most batches. Three batches of reference material were used, and all three were usually submitted together. One essentially functioned as a blank, with very low REE concentrations (Dy<1 ppm, Nd<10 ppm). The other two served as high grade reference material that enabled monitoring of the laboratory's ability to accurately assay samples with strong REE mineralization. One of these had Dy grades of approximately 300 ppm and Nd grades of approximately 2,400 ppm; the other had Dy grades of approximately 700 ppm and Nd grades of approximately 2,000 ppm. Although there was no pre-established reference value for these external reference materials, they do document that the laboratory was able to stay within ±10% of the average grade. SLR notes that the external reference material had Dy and Nd grades that are higher than typical mineralization at Foxtrot, where most of the strong mineralization is 200 ppm to 250 ppm Dy and 1,000 ppm to 2,000 ppm Nd.

The QA/QC program for the Phase III samples included duplicates inserted as described for Phase I and II, that is, typically one or two in each batch of samples submitted to the laboratory. These duplicates confirm the precision of the laboratory's analytical results. More than 90% of the duplicates produced REE assays within ±10% of the original assay.

11.2.4.2.2 2012 to 2014: Channel Sample QA/QC

Channel samples were collected at Foxtrot in late 2012 and 2014 and were submitted to the laboratory in six batches.

Search Minerals included two different grades of reference material that were submitted in pairs, in two of the six batches. The very low grade reference standard served essentially as a blank sample, and the higher grade reference standard had REE values similar to the highest grades found at Foxtrot. The low grade reference standard had Dy grades of less than 1 ppm and Nd grades of approximately 7 ppm. The high grade reference standard had Dy grades of approximately 300 ppm and Nd grades of approximately 2,400 ppm. These reference standards were sourced from the same material as one of the high grade reference samples used in Phase III.

As with Phase III, no certified value had been established by round-robin analyses from multiple laboratories for the standards and the average of all available results was used as the reference value. SLR reviewed the results, and Dy and Nd assay results for both reference standards were within acceptable limits.

ActLabs was instructed to duplicate every 25th sample and report the results as the original sample number appended with a 'B' in the Certificate of Analysis. Four sets of duplicates were analyzed from four batches. Two batches did not include duplicate sample analyses.

SLR reviewed the QC program results and noted that the reference standard assay results were within appropriate limits and that all Nd and Dy duplicate analyses fell within a ±5% band.

SLR considers the reference standards and duplicate results for the 2012 and 2014 Foxtrot program acceptable.

11.2.4.2.3 2015: Channel Sampling QA/QC

All channel samples taken in 2015 at Foxtrot were submitted to the laboratory as a single batch. This fifth phase of work at Foxtrot used a QA/QC program similar to the one described for 2012-2014, however, no duplicate pulp samples were submitted for analysis. Search Minerals included two different grades of reference material, but the source of the reference standards was not the same as previous phases of work. The very low grade reference standard served essentially as a blank sample, and the higher grade reference standard included a high grade source of material, with REE values similar to the highest grades found at Foxtrot. The low grade reference standard had Dy grades of less than 0.5 ppm and Nd grades of approximately 3 ppm. The high grade reference standard had Dy grades of approximately 265 ppm and Nd grades of approximately 2,100 ppm, similar to high grade mineralization at Foxtrot. SLR recommends including a reference standard that has a similar grade to typical Foxtrot mineralization.

In total, 14 reference standards were included in the 2015 batch: seven low grade and seven high grade. As with previous phases of work, no certified value had been established by round-robin analyses from multiple laboratories for the reference standards and the average of all available results was used as the reference value from which a percent error was calculated. Figure 11-8 and Figure 11-9 illustrate the analytical results of the reference standards. The results for the high grade reference standard are all within ±5% of the average and although there is some degree of spread in the low grade reference standard results, the grades are near detection limit and the results are within an acceptable range.

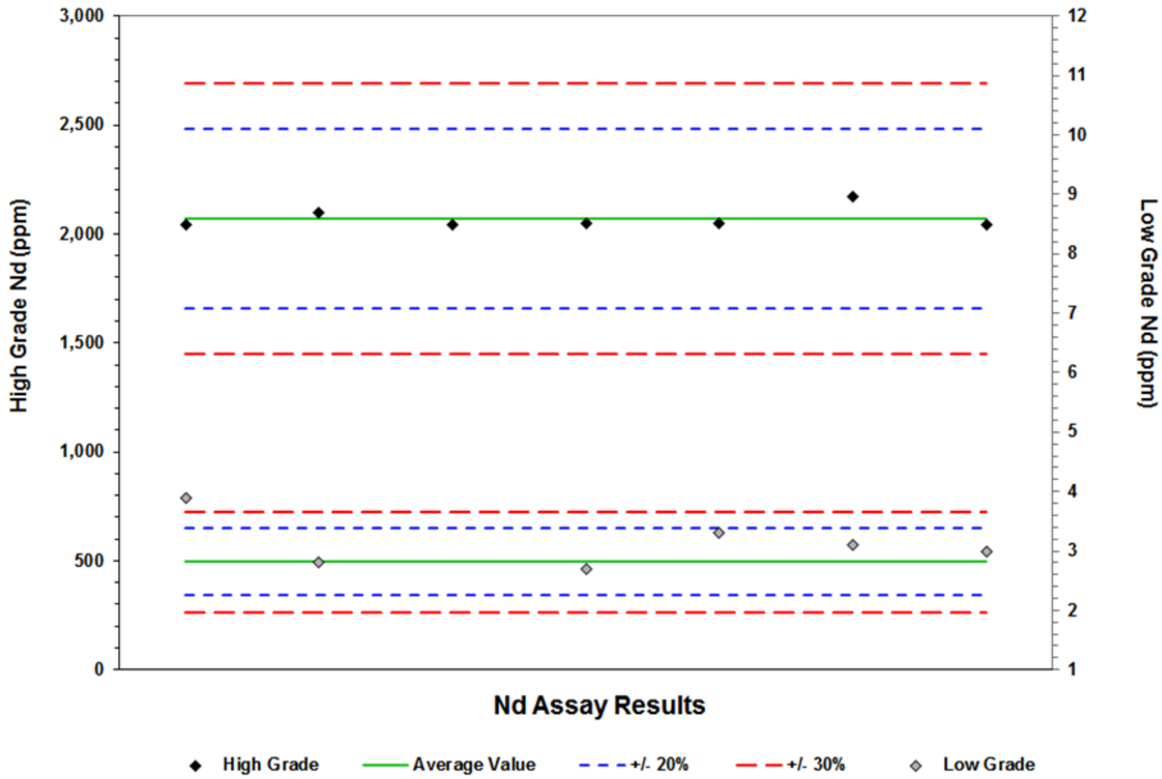


Figure 11-8: Neodymium Results for Search Minerals' Reference Standards

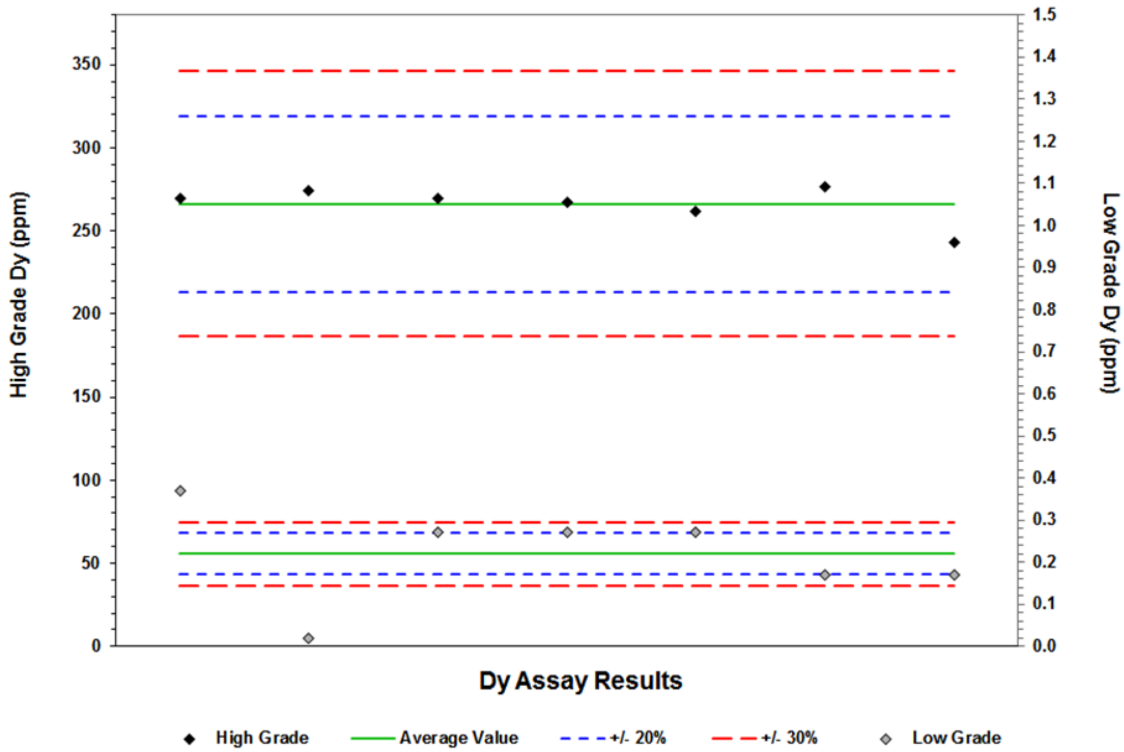


Figure 11-9: Dysprosium Results for Search Minerals' Reference Standards

11.2.5 QA/QC Summary

The QPs are of the opinion that Search Minerals' QA/QC data for drilling and channel sampling programs are acceptable and demonstrate that the assay data have the accuracy and precision for Mineral Resource estimation.

The QPs recommend that:

1. For future sampling programs at Foxtrot, Search Minerals work with the analytical laboratory to develop CRM through round robin testing for which the grade has been established prior to its use. Although three difference certified reference standards are recommended, at least one should have grades similar to typical REE mineralization at Foxtrot and another should have approximately the same grade as high grade mineralization. This would help identify any systematic bias or uncertainty in the laboratory results.
2. Certified reference standards be included with each batch, and for large batches, at a 1/20 rate of insertion.
3. Preparation duplicate samples be included with each batch submitted to the laboratory, and for large batches, at a 1/20 rate of insertion.
4. Coarse, hard "blank" samples be incorporated prior to the analytical stream.
5. The analytical laboratory's internal and Search Minerals' field QC results be reviewed for each sample batch submitted.
6. Search Minerals establish what constitutes a QC failure and document appropriate follow-up actions.

12.0 DATA VERIFICATION

SLR reviewed the resource database that formed the basis for the Mineral Resource estimates presented in this Technical Report. This includes results from the QA/QC program and assay certificates for drill hole and channel samples to a cut-off date of November 30, 2021. In the opinion of the QPs, the database is acceptable for Mineral Resource estimation.

12.1 Site Visits

Tudorel Ciuculescu, P.Geo., SLR Consulting Geologist, visited the Search Minerals premises in St. Lewis, Newfoundland and Labrador, Deep Fox, and Foxtrot from November 9 to November 12, 2021. Mr. Ciuculescu toured the office space, core logging and storage area, and core cutting shack. At the time of the visit, no logging or sampling activities were being conducted on the Foxtrot property. The location of drilling collars and channel start and end points were checked with a handheld GPS. Mr. Ciuculescu did not collect check samples during the site visit.

Katharine M. Masun, M.Sc., MSA, P.Geo., SLR Consulting Geologist, visited the site on August 27, 2015. The site visit consisted of a complete tour of the premises, including the field office, core logging shack, core cutting shack, and core storage facilities. No logging, cutting, or sampling was occurring on the Project at the time, so the procedures could not be observed first hand. The Property visit, which focused on Foxtrot, included a tour of Deep Fox. Ms. Masun inspected surface mineralization along most of the strike length, including the location of the 2014 and 2015 channel sampling at Deep Fox. Several old drill hole collars were observed at Foxtrot, which were well marked with drill casing and capped with an aluminum tag marked with the hole ID.

Field sampling procedures were verified by RPA and Rick Breger of Benchmark Six during a site visit to both the field house and Foxtrot site in October 2011. Field sampling procedures have not been modified for Deep Fox. During the visit, logging, cutting of core, and sampling procedures were observed first hand and the site visit included observations of surface mineralization, including the location of the trenching and old drill hole collars. Both RPA and Benchmark Six concluded that Search Minerals staff conducted their exploration and drilling activities to a standard that met or exceeded normal industry practices (RPA, 2013 and 2016).

12.2 Database Verification

SLR received the Deep Fox and Foxtrot resource databases as csv files. Collar, survey, lithology, assay, and density data were reviewed. Database verification was performed using tools provided within the Leapfrog Geo software and Microsoft Excel to check for potential issues including:

- Sample length and overlap issues
- Maximum and minimum lengths and assay grades
- Negative assay values
- Drill hole deviations
- Gaps in assays/unsampled intervals
- Assay and density outliers

SLR verified that the drill hole database matched the original assay certificates. The resource database content was compared against independently compiled laboratory certificates of analysis. No inconsistencies were identified.

A visual check of the drill hole collar elevations and drill hole traces with respect to the updated topographic surface was completed. A similar exercise was conducted for channels, which have a less accurate location information. Currently, channel location data does not allow draping the channels along the sloping topographical surface, hence the channels appear above or below the topography; however, this does not affect the geological interpretation and the channel data. The drilling deviation survey was reviewed, and no sudden bends or kinks were observed.

12.3 Independent Assays of Drill Core

SLR did not collect samples from channels for independent assay during the 2015 or 2021 site visits.

In 2011, Rick Breger, Director of Operations for Benchmark Six, on behalf of RPA, collected 28 Foxtrot samples (22 drill core and 6 channel samples) for independent analyses at SGS in Toronto. REE analyses were performed using lithium metaborate fusion and analyzed via ICP-MS. SGS uses a quality management system that meets, at a minimum, the requirements for both ISO 9001 and ISO 17025. Analyses were performed on the 22 drill core samples to check the accuracy of the REE analyses performed by ActLabs, and all 28 samples were used to determine density. The REE check samples included were chosen according to the distribution of Dy seen on the Project across the three main lithological units, and ranged in Dy grade from 2.3 ppm to 360 ppm. Quality control samples were also collected on two Search Minerals' pulp reference standards.

The agreement between analyses for Dy and Nd was shown to be acceptable and confirmed the presence of significant REE mineralization in the samples. Samples were collected from the three major lithological units on Foxtrot, and the average bulk density measurements were used for resource estimation (RPA, 2013).

As mineralization at Deep Fox is Foxtrot-like, in the opinion of the QPs, the independent sample check noted above is relevant for Deep Fox as well.

The QPs are of the opinion that database verification procedures comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Dr. David Dreisinger, Director & Vice President Metallurgy of Search Minerals, provided SLR with all available metallurgical test reports and a summary of the test work that supports the design of the proposed primary and hydrometallurgical plants. After review of the test reports and summary, the QP made minor modifications to the summary as provided. The resulting text forms Section 13 of this Technical Report. SLR has provided a commentary at the end of this section

13.1 General

The majority of mineral processing and metallurgical testing on mineralized material from the Port Hope Simpson area deposits has been conducted at SGS's Lakefield facility. The list of the main reports is provided in Table 13-1.

Table 13-1: Summary of Metallurgical Test Work
Search Minerals Inc. –Deep Fox and Foxtrot Project

SGS Project No	Title	Date
13004-001 (MI5104-Sep11)	The Mineralogical Characteristics of a Variability Sample from the Port Hope Simpson REE Prospect	June 11, 2012
13004-001 (MI5013-Jan11)	The Mineralogical Characteristics of Three Variability Samples from the Port Hope Simpson REE Prospects in SE Labrador	September 27, 2012
13004-001	Beneficiation Test Work on Samples from the Port Hope Simpson Prospects in SE Labrador	November 20, 2012
13004-001 Report #2	Hydrometallurgical Test Work on Samples from the Port Hope Simpson Prospects	November 29, 2012
13004-001 (M5043-Sep12)	The Mineralogical Characteristics of One Metallurgical Sample from the Pesky Hill REE Prospect in SE Labrador	January 3, 2013
13004-002 PR#1	Whole mineral Processing for Recovery of REE from Foxtrot	December 16, 2014
13004-002 PR#2	Bulk Whole mineral Processing for Recovery of REE from Foxtrot	January 23, 2015
13004-003 PR#1	Foxtrot Pre-Pilot Bench Test Work	May 15, 2017
13004-003 PR#2	An Investigation of Extraction of REEs from Foxtrot– Bench and Pilot Plant Test Work	June 27, 2017
13004-004	An Investigation into Environmental Characterization of Hydrometallurgical Tailings from Foxtrot	February 23, 2018
13004-05 Rep #1	An Investigation into Optimization Testing of Search Minerals REE Flowsheet	March 23, 2020
13004-05 Rep #2	An Investigation into Optimization Pilot Plant Testing of Search Minerals REE Flowsheet	March 10, 2020
13004-06	An Investigation into the Preliminary Metallurgical Test Work on a Zircon Bearing Samples from the Silver Fox Deposit	December 17, 2020

In addition, recent work has focused on bench and pilot plant magnetic separation along with mineralogy on Deep Fox under Project 13004-07. The bench testing work is complete but the pilot plant separation is still in progress and a report will only be issued upon completion of the work.

13.2 Mineralogy Studies – Foxtrot

A metallurgical sample obtained from a Foxtrot channel sample was submitted to SGS. The sample was stage crushed to K80 of 150 µm (80% passing 150 µm), then screened into two size fractions: +38 µm and -38 µm for the mineralogical study, and submitted for QEMSCAN analysis.

The minerals identified in the sample are listed in Table 13-2.

Table 13-2: Mineral List and Formulas
Search Minerals Inc. –Deep Fox and Foxtrot Project

Mineral	Mineral Formula
Columbite(Fe)	$(Fe,Mn)(Nb,Ta)_2O_6$
Bastnaesite	$(Ce,La)CO_3F$
Synchysite	$Ca(Ce,La)(CO_3)_2F$
Monazite	$(Ce,La,Pr,Nd,Th,Y)PO_4$
Chevkinite	$(Ce,La,Ca,Th)_4(Fe^{2+},Mg)(Fe^{2+},Ti,Fe^{3+})$-$(Ti,Fe^{3+})_2(Si_2O_7)_2O_8$
Muscovites/Clays	$Kal_2(AlSi_3O_{10})(OH)_2$
Fergusonite	$(Y,Er,Ce,Fe)NbO_4$
Plagioclase	$(NaSi,CaAl)AlSi_2O_8$
K-Feldspar	$KAlSi_3O_8$
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$
Quartz	SiO_2
Amphibole/ Pyroxene	$(Ca,Na)(Mg,Fe,Al,Ti)(Si,Al)_2O_6$
Allanite	$(Ca,Ce)_2(Fe^2,Fe^{3+})Al_2O$-$(SiO_4)(Si_2O_7)(OH)$
Carbonates	$CaCO_3$
Zircon	$ZrSiO_4$
Fluorite	CaF_2
Apatite	$(Ca,Ce,Y)_5(PO_4,SiO_4)_3(F,Cl,OH)$
Hematite	Fe_2O_3
Ilmenite	$FeTiO_3$
Magnetite	Fe_3O_4

13.2.1 Mineral Abundance

Figure 13-1 illustrates the normalized mass % of the REE minerals (excluding zircon). It is apparent that allanite is the primary REE phase. The sample is dominated by quartz (35.8%) and K-feldspar (21.0%), moderate amounts of amphibole/pyroxene (13.7%), plagioclase (12.3%), minor Fe-oxides (4.4%), biotite (3.9%) and muscovite/clays (1.6%), and trace amounts of other silicates, carbonates, fluorite, other oxides, and sulphides. REE-Zr minerals include mainly allanite (2.6%), zircon (2.5%), chevkinite (0.3%), fergusonite (0.2%), bastnaesite/synchysite (0.1%), monazite (0.1%), and rare columbite. Most of the allanite (2.2%) occurs in the +38 µm, but most of zircon (1.5%) in the -38 µm fraction.

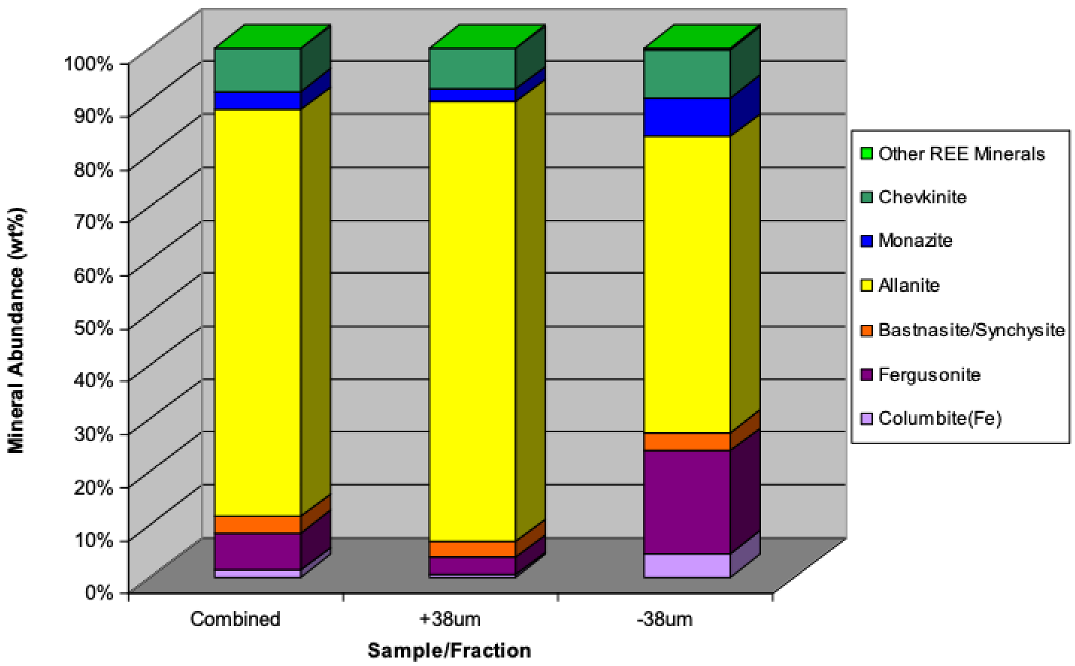


Figure 13-1: Normalized Mineral Abundance of REE Minerals

13.2.2 Grain Size Distribution

Figure 13-2 summarizes the D50 (50% passing size) from the cumulative grain size distribution of the fergusonite, bastnaesite/synchysite, allanite, monazite, chevkinite, zircon, quartz/feldspars, muscovite, other silicates, oxides, and overall particle size distribution (PSD) for the Fox HBR Aug-11 sample. The approximate D50 values are as follows:

- Fergusonite 22 µm
- Bastnaesite/Synchysite 51 µm
- Allanite 65 µm
- Monazite 24 µm
- Chevkinite 53 µm
- Zircon 24 µm
- Quartz/Feldspars 98 µm
- Muscovite 24 µm
- Other Silicates 83 µm

- Oxides 141 µm
- Overall Particle 98 µm

The grain size data indicates that it should be possible to liberate the REE minerals from the barren gangue minerals using a moderate grind size.

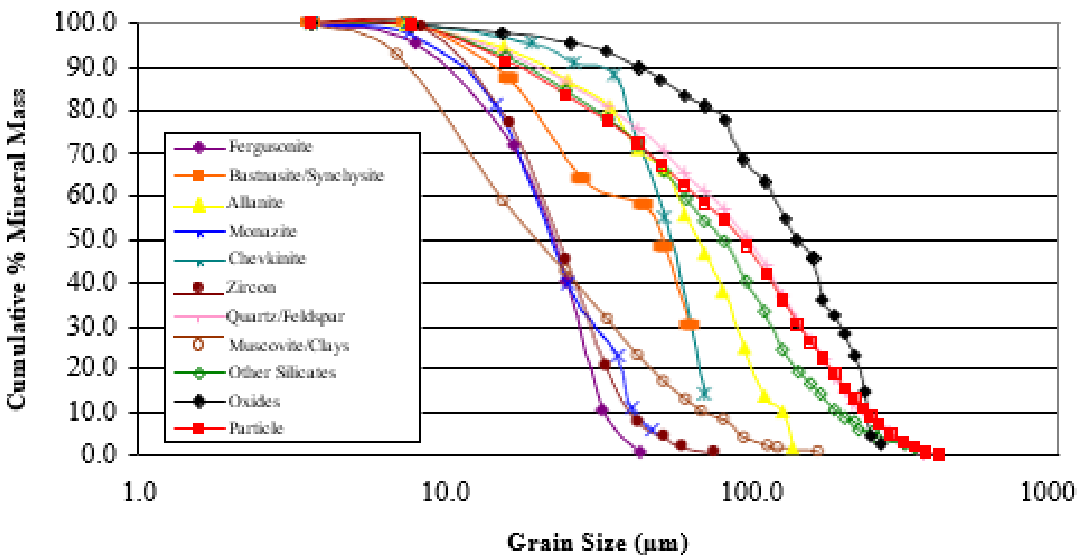


Figure 13-2: Cumulative Grain Size Distribution

13.2.3 Mineral Chemistry

Electron microprobe analyses (EMPA) were conducted on chevkinite, allanite, fergusonite, bastnaesite/synchysite, zircon, and an undefined Si/Y/Ca REE phase.

- Allanite averages Ce 11.07 wt%, La 5.18 wt%, and Nd 3.66 wt%, and minor Dy 0.40 wt%, Pr 0.92 wt%, Sm 0.24 wt%, Th 0.18%, and Y 0.30 wt%.
- Fergusonite carries mainly HREE and minor LREE. It averages Y 17.76%, Nb 29.20%, and minor Dy 3.63%, Gd 3.42%, Er 2.17%, Nd 1.76%, Ce 1.47%, Yb 1.27%, Sm 1.16%, La 0.44%, Ho 0.85%, Pr 0.25%, Tb 0.68%, Tm 0.38%, U 0.37 %, and Th 0.61%.
- A Si-Y-Ca phase consists of Y 14.45%, Nd 8.07%, Ce 7.70%, Gd 3.99%, Dy 3.22%, Sm 2.94%, La 2.01%, Pr 1.42%, Yb 1.01% and Tb 0.58%, Tm 0.54%, and Th 0.27%. This phase is tentatively identified as a Y-britholite.
- Bastnaesite/Synchysite consists of, in average, Ce 27.42%, La 15.27%, Nd 10.92%, Pr 3.06%, Sm 1.44%, Gd 0.90%, Tm 0.33%, Dy 0.28%, Tb 0.24%, Yb 0.18%, Th 0.17%, and Y 0.68%.
- Chevkinite consists of Ce 16.74%, La 6.84%, Nd 6.69%, Pr 1.87%, Nb 1.28%, Gd 0.73%, Dy 0.68%, Sm 0.98%, Yb 0.15%, Th 0.56%, and Y 1.72%.
- Although based on a limited number of analyses, there are two populations of zircon grains, with Y-bearing and Y-barren. Y ranges from nil to 0.66% and averages 0.15%.

13.2.4 Liberation and Association

The liberation and association characteristics of allanite, fergusonite, bastnaesite/synchysite, monazite, chevkinite, and zircon were examined.

- Free and liberated allanite account for 66.8%. The main association of allanite is as complex particles (25.8%), and minor middlings with zircon (3.8%) and quartz/feldspars (1.6%), and trace associations (<1%) with other minerals. Free and liberated allanite increases from 59.1% to 86.0% with decreasing size, while complex particles decrease from 33.4% in the +38 µm to 6.7% in the -38 µm fraction.
- Free and liberated fergusonite accounts for 31.4%. The main association of fergusonite is as complex particles (30.8%), followed by middlings with zircon (21.4%), quartz/feldspars (11.4%), and less with allanite (1.6%) and other silicates (1.5%), while other associations are insignificant (<1%). Liberation increases from 12.5% in the +38 µm fraction to 42.6% in the -38 µm fraction. Complex particles decrease from 48.5% to 20.3%, with quartz/feldspars from 26.2% to 2.6%, but those with zircon increase from 8.9% to 28.8%.

13.2.5 Beneficiation of Ground Foxtrot Sample (2012)

SGS studied three beneficiation techniques during the 2012 programs in an attempt to concentrate the REE in the Foxtrot sample.

Gravity concentration of the REE minerals with magnetic separation to remove magnetite recovered 71% of the Ce, 71% of the Nd, and 71% of the Y into a concentrate amounting to 22% of the mass of feed to the test.

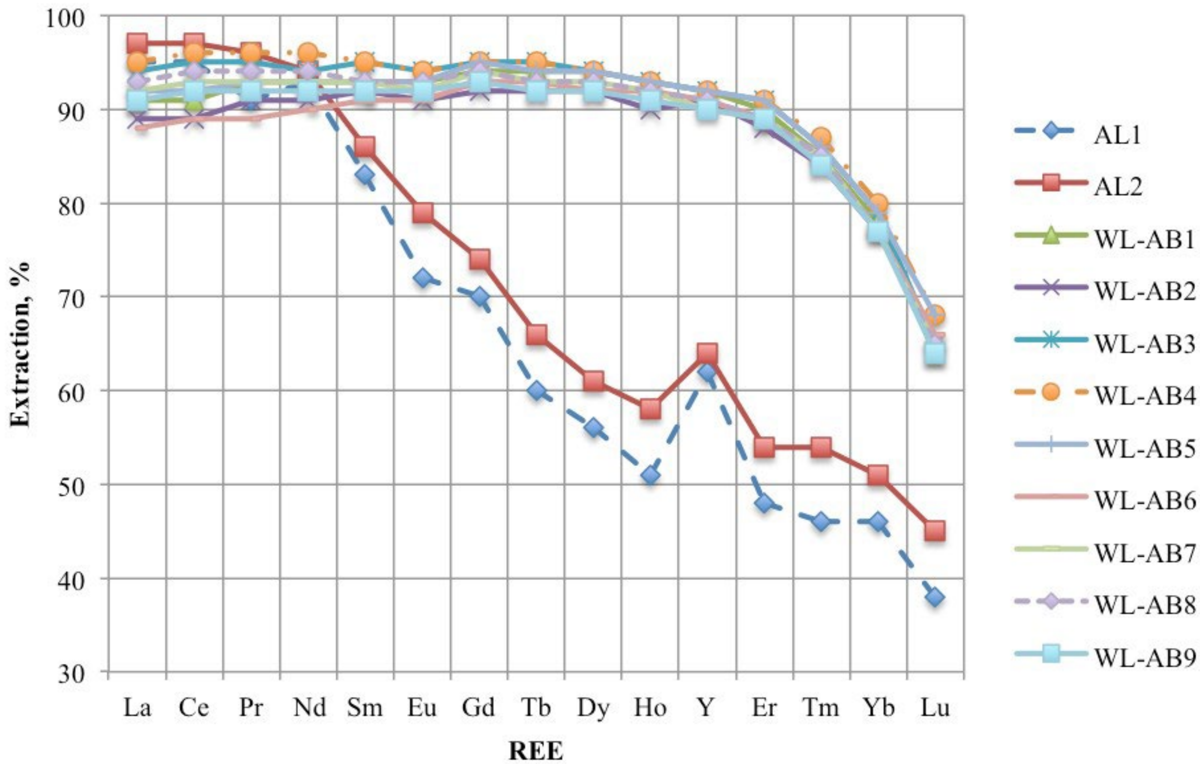
In an attempt to improve overall recovery, the gravity tailings were subjected to flotation processing. As expected, the flotation process improved the overall REE recovery, however, the mass of concentrate increased significantly. Specifically, the combined gravity-magnetic separation-flotation flowsheet recovered 83% of the Ce, 83% of the Nd, and 84% of the Y into a concentrate amounting to 35% of the mass of feed to the test.

Flotation testing on a head sample produced a concentrate containing 71% of the Ce, 74% of the Nd, and 82% of the Y in a concentrate with a mass of 27% of the feed mass.

13.2.6 Hydrometallurgical Extraction of REE from Foxtrot Concentrate

13.2.6.1 Leaching

The concentrates from the gravity concentration and the combined gravity/flotation tests were subjected to acid leaching (tests AL1 and AL2) or acid baking at 200°C to 250°C followed by water leaching (test WL-AB1 to WL-AB9). The results of the testing are summarized in Figure 13-3.



Source: RPA, 2013

Figure 13-3: Extraction of REE for Acid Leach and Acid Bake – Water Leach Tests

As illustrated in Figure 13-3, direct acid leaching of the concentrate is quite successful for the magnet making elements (Nd/Pr/Dy/Tb) but becomes progressively less effective with the heavier REE.

It was observed that Zr extraction in all acid leach and acid bake tests was essentially zero. Nb extraction varied from approximately 4% to 18% depending on detailed test conditions. Acid additions were liberal at 250 kg/t to 1,000 kg/t of concentrate.

Early work was performed on metal recovery by direct oxalate addition after pH adjustment (to 3.0) to remove Fe/Al. The precipitation of REEs was approaching 100% but the product still contained U and Th and would not be suitable for separation by conventional solvent extraction methods. The losses of REEs in the beneficiation step and the low purity of the REE product (oxalate) were then addressed by the development of the Search Minerals Direct Extraction Process.

13.2.6.2 Direct Extraction Process

The Direct Extraction Process was developed to address the REE losses in beneficiation identified in the early work on gravity, flotation, and magnetic separation and to refine the purification processes to ensure a high quality mixed rare earth product for refining. The evolution of the process development is covered in Dreisinger et al. (2012), Dreisinger et al. (2014), Dreisinger et al. (2016a), Dreisinger et al. (2016b), Dreisinger and Andrews (2017), Dreisinger et al. (2018), and Dreisinger et al. (2022).

The Direct Extraction Process flow sheet is shown in Figure 13-4. The circuit involves a primary circuit for feed preparation, mixing of acid and mineral or concentrate and baking at approximately 200°C to allow the acid to convert the rare earth minerals to water-soluble rare-earth sulfate salts, pH adjustment with $MgCO_3$ to remove iron, aluminum and thorium as stable hydroxide precipitates and sodium carbonate precipitation of an impure mixed rare earth carbonate. The secondary circuit redissolves the mixed rare earth carbonate with sulfuric acid to form a concentrated rare-earth sulfate solution. The pH is adjusted again to remove small amounts of residual iron and aluminum and this solid is recycled back to the primary leach to ensure minimal losses of rare earth values. Small amounts of uranium are removed as an impurity from solution using ion exchange. The eluant is precipitated into the final dry stackable residue material for stable storage. The latest innovation in the direct extraction development is the inclusion of a thorium removal step using solvent extraction. The strip solution content of thorium and any minor amounts of rare earths is recycled back to the primary leach circuit to permit rare earth recovery and thorium precipitation into the dry stackable residue. Zinc is then removed from solution using hydrogen sulfide precipitation. The process then has the option of mixed carbonate precipitation as the final purified mixed-rare earth product or oxalate precipitation and calcination to make a mixed-rare earth oxide product to forward to separation. The mixed rare earth carbonate precipitate is favoured due to the ease of redissolving in acid before solvent extraction separation.

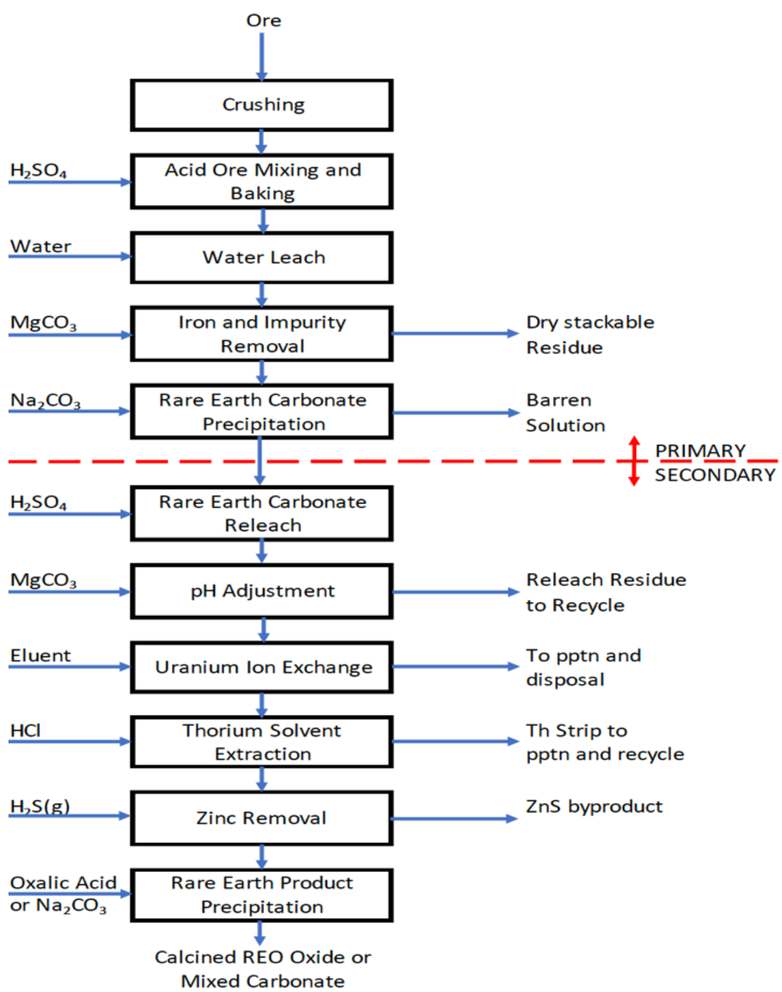


Figure 13-4: Search Minerals Direct Extraction Process

13.3 Mineralogy Studies – Deep Fox

SGS Study 13004-006 MI5002-FEB21 reported on the mineralogy of a sample of Deep Fox mineralization taken from a channel sample of the exposed surface. The mineralogy of the sample was of the same type as Foxtrot with rare earth values contained primarily in fergusonite and allanite with minor monazite.

13.4 Magnetic Separation Beneficiation of Deep Fox and Foxtrot Samples

Magnetic separation of a rare earth mineral concentrate from various deposits was studied at SGS and reported in Search Minerals news releases on January 12, 2021, and April 12, 2021. The first deposit to be tested was Silver Fox. A channel sample was selected with 4.26% ZrO_2, 0.08% HfO_2 and 1.02% TREO. The sample was treated by low-intensity magnetic separation (LIMS) to recover an iron oxide rich material followed by wet high-intensity magnetic separation (WHIMS) up to 15,000 Gauss to recover a rare earth concentrate. The WHIMS nonmagnetic fraction was then tested for zircon flotation. The results (SGS Report for Project 13004-06) are summarized in Table 13-3.

Table 13-3: Magnetic Separation Results for Silver Fox
Search Minerals Inc. – Deep Fox and Foxtrot Project

Product	Mass (%)	Assays			Distribution		
		(% Ce_2O_3)	(% Nd_2O_3)	(% Y_2O_3)	(% Ce_2O_3)	(% Nd_2O_3)	(% Y_2O_3)
LIMS Mags	8.9	0.16	0.07	0.03	2.8	2.9	2.9
WHIMS Mags	10.3	4.42	1.80	0.52	86.5	88.1	70.4
WHIMS Non-Mags	80.8	0.07	0.02	0.03	10.7	8.9	26.7
Feed (CALC)	100	0.53	0.21	0.08	100	100	100

The combined grade of the WHIMS concentrate was re-analyzed and reported at 8.42% TREO+Y. The results demonstrated that the mass of the rare earth containing concentrate was only approximately 10% and the recovery of indicative elements (Ce, Nd for the LREE, and Y for HREE) was between 70% and 88%. This was a superior result compared with the earlier work (2012) and hence further work was performed on Foxtrot, Deep Fox, and the Fox Meadow deposits. These results were reported on April 12, 2021.

The Deep Fox, Foxtrot, and Fox Meadow results for WHIMS concentration of REEs are summarized in Table 13-4.

- A sample of Deep Fox mineralization containing 1.15% TREO/Y was treated sequentially by LIMS and WHIMS. The WHIMS concentrate was enriched to 5.55% TREO/Y containing enriched levels of the key magnet making elements (Nd/Pr/Tb/Dy). The overall recovery of TREO/Y to the WHIMS Concentrate was 78.3%
- A sample of Foxtrot mineralization containing 1.13% TREO/Y enriched to 4.81% TREO/Y in the WHIMS concentrate with an overall recovery of 78.3%.
- A sample of Fox Meadow mineralization containing 0.92% TREO/Y enriched to 3.91% TREO/Y in the WHIMS concentrate with an overall recovery of 81.8%.

Table 13-4: Magnetic Separation Results for Deep Fox, Foxtrot, and Fox Meadow
Search Minerals Inc. – Deep Fox and Foxtrot Project

	Grades				
	(g/t Nd)	**(g/t Pr)**	**(g/t Tb)**	**(g/t Dy)**	**TREO+Y (%)**
			Deep Fox		
Mineral Sample	1633	419	44	266	1.15
WHIMS Concentrate (16.0% mass)	8061	2097	204	1183	5.55
Recovery (%)	80.3	81.0	73.1	71.7	78.3
			Foxtrot		
Mineral Sample	1553	418	35	223	1.13
WHIMS Concentrate (19.3% mass)	6760	1830	132	824	4.81
Recovery (%)	80.1	80.9	70.3	69.4	78.3
			Fox Meadow		
Mineral Sample	1480	381	33	184	0.92
WHIMS Concentrate (18.2% mass)	6163	1623	115	663	3.91
Recovery (%)	82.6	85.9	65.9	64.6	81.8

Further testing was completed on the combination of LIMS and WHIMS on a sample of Foxtrot material. The results for test LIMS + SLON-2/WHIMS (LIMS followed by SLON and WHIMS testing up to 15,000 G) are shown in Table 13-5. The combination of the SLON and WHIMS system increased the mass pull compared with the results in Table 13-4. At the same time, the overall recovery of individual light elements also increased along with LREO, HREO, and TREO values. These results highlight the normal trade off of grade and recovery in mineral processing operations and can be extrapolated to Deep Fox and other similar deposits, such as Fox Meadow, in setting expectations for metallurgical recovery and mass pull in the magnetic separation circuit.

Table 13-5: Magnetic Separation Results (Test LIMS+SLON-2/WHIMS)
Search Minerals Inc. – Deep Fox and Foxtrot Project

Foxtrot	(g/t Nd)	(g/t Pr)	(g/t Tb)	(g/t Dy)	LREO (%)	HREO (%)	TREO (%)
Mineral Sample	1,607	421	37	226	0.91	0.24	1.14
SLON-2/WHIMS Conc (27.7% mass)	6,155	1,797	139	843	3.63	0.90	4.52
Recovery (%)	95.9	96.3	92.5	92	94.7	88.2	93.4

Two bulk samples of Deep Fox and Foxtrot material were sent to SGS for further testing. The Foxtrot sample consisted of 19.8 t of surface material recovered in 2015 and stored at Fox Harbour House. The Deep Fox sample consisted of 52.9 t of surface material recovered in 2021. SGS has performed batch LIMS and WHIMS testing of these two materials at different grind size. The results showed over 90% TREO+Y recovery at a grade of between 4% to 6% TREO+Y. These results, summarized in Table 13-6, showed improved recovery compared to the earlier study.

Table 13-6: Magnetic Separation Results – Bulk Samples
Search Minerals Inc.. – Deep Fox and Foxtrot Project

Sample	Notes	LIMS Feed			Wt	Assay				Distribution			
		K80 µm	-38 µm %	-20 µm %	%	LREO %	HREO %	TREO+Y %	TREE+Y %	LREO %	HREO %	TREO+Y %	TREE+Y %
Deep Fox	-53 µm	46	65	38	25.2	3.61	0.76	4.37	3.70	88.2	81.0	86.9	86.9
	-75 µm	59	50	29	26.4	3.41	0.71	4.12	3.49	93.7	83.6	91.8	91.8
	-106 µm	79	36	-	28.0	3.22	0.67	3.89	3.30	94.2	81.7	91.8	91.9
Foxtrot	-53 µm	49	59	34	20.0	4.62	0.96	5.58	4.72	90.4	78.9	88.2	88.3
	-75 µm	62	46	28	20.0	4.88	0.99	5.87	4.97	93.1	79.5	90.5	90.6
	-106 µm	82	35	-	21.8	4.40	0.75	5.15	4.46	92.7	79.4	90.5	90.3

The combined results of the magnetic separation work indicate 94% recovery of rare earths and have established a new base case for use of the Direct Extraction Process. A rare earth mineral concentrate will be produced in Labrador. The concentrate may then be sold or optionally transhipped to a Direct Extraction Process plant for recovery of a mixed rare earth carbonate material for refining. All the same chemistry for rare earth extraction and recovery of a mixed rare earth carbonate material for refining can be applied to the magnetic concentrate containing rare earth minerals.

13.5 Direct Extraction Process Optimization

The 2020 SGS program (13004-05) consisted of batch and pilot plant testing of the Direct Extraction Process. This work is the "state of the art" for the Direct Extraction Process.

The sample tested was from Foxtrot. The composition is provided in Table 13-7.

Table 13-7: Foxtrot Bulk Sample Analysis
Search Minerals Inc.. – Deep Fox and Foxtrot Project

Element	Unit	Amount	Element	Unit	Amount
La	g/t	1600	Si	%	31.9
Ce	g/t	3410	Al	%	3.92
Pr	g/t	408	Fe	%	7.42
Nd	g/t	1500	Mg	%	0.3
Sm	g/t	270	Ca	%	2.05
Eu	g/t	14.1	Na	%	1.78
Gd	g/t	280	K	%	2.85
Tb	g/t	40.5	Ti	%	0.31
Dy	g/t	238	P	%	0.03

Element	Unit	Amount	Element	Unit	Amount
Ho	g/t	47	Mn	%	0.26
Y	g/t	1180	Cr	%	0.02
Er	g/t	131	V	%	<0.01
Tm	g/t	17.8			
Yb	g/t	111			
Lu	g/t	15.7			
Sc	g/t	<25			
Th	g/t	151			
U	g/t	31.9			

A batch test program was conducted to optimize the acid baking and water leaching process. An acid baking temperature of 190°C was selected with an acid addition of 145 kg/t H_2SO_4 for four hours. The particle size, water leach temperature, and % solids were studied. Test parameters and results are provided in Table 13-8. The best results were achieved for test 2 with crush to -0.5 mm and 10% solids in the water leach at 90 °C for 24 hours. The extraction values for test 2 were 89% Pr, 90% Nd, 78% Tb, and 77% Dy.

Table 13-8: Foxtrot Bulk Acid Bake/Water Leach Bench Scale Tests
Search Minerals Inc. – Deep Fox and Foxtrot Project

Test	0 (Baseline)	1	2	3	4
Particle Size	-1.7 mm	-0.5 mm	-0.5 mm	-0.5 mm	-0.5 mm
Water Leach % Solids	10	10	10	20	20
Water Leach Time (h)	36	24	24	24	24
Temperature (°C)	90	80	90	80	90
Extraction (%)					
La	86	85	89	88	90
Ce	88	85	89	87	90
Pr	87	85	89	86	89
Nd	87	87	90	87	90
Sm	85	83	86	80	83
Eu	83	81	83	76	78
Gd	78	79	81	74	76
Tb	77	77	78	69	71
Dy	74	76	77	67	69
Ho	73	74	75	63	65
Y	74	74	76	68	68

Test	0 (Baseline)	1	2	3	4
Er	72	72	73	61	62
Tm	72	69	71	58	60
Yb	65	64	65	55	57
Lu	57	57	58	48	51
Th	79	77	74	87	87
U	52	53	53	53	52

A pilot acid bake process was tested. Pre-crushed mineral (-1.7 mm) was fed to a screw furnace to heat to temperature and then blended with preheated H_2SO_4 (190°C) in a SS pug mill and then held at temperature (190°C) for four hours. The water leach was then conducted at 90°C for 36 hours at 10% solids. The impurity removal was performed by addition of H_2O_2 to oxidize reduced iron species and then adjusted to pH 3.2 for 2 hours to precipitate iron, aluminum, and thorium. A portion of the recovered solution was treated by ion exchange for uranium removal. Uranium was removed from 2 mg/L to <0.02 mg/L U using a lead-lag configuration of Purolite A660 strong base resin. A total of 3000 L (1/2 of the total) was treated at 12 BV/h over a 48-hour period. The uranium ion exchange process was highly selective.

The uranium-free and uranium-containing portions of the solution were then separately treated at 50°C at pH 6.5 with addition of 150 g/L Na_2CO_3 solution in a series of three agitated tanks discharging to a thickener. The recovered underflow solids were filtered and washed. The precipitation was virtually 100% for the REE+Th, U, Al, Fe, Zn, Mg, Ca. Mn recovery was controlled to approximately 10%. Results are provided in Table 13-9.

Table 13-9: Mixed Carbonate Product Recovered from the Water Leach Solutions
Search Minerals Inc. – Deep Fox and Foxtrot Project

	Solution Analysis (%)														
	La	**Ce**	**Pr**	**Nd**	**Sm**	**Eu**	**Gd**	**Tb**	**Dy**	**Ho**	**Y**	**Er**	**Tm**	**Yb**	**Lu**
U-Cont. RE Carbonate	4.14	9.01	1.11	4.07	0.72	0.04	0.60	0.09	0.54	0.10	2.53	0.28	0.04	0.21	0.03
	Th	**U**	**Al**	**Fe**	**Mg**	**Ca**	**Na**	**Mn**	**Zn**	**Si**					
	0.032	0.040	7.52	0.44	0.85	1.91	0.24	0.40	3.39	4.98					
	La	**Ce**	**Pr**	**Nd**	**Sm**	**Eu**	**Gd**	**Tb**	**Dy**	**Ho**	**Y**	**Er**	**Tm**	**Yb**	**Lu**
U-Free RE Carbonate	3.95	8.57	1.10	4.04	0.70	0.04	0.57	0.08	0.50	0.10	2.40	0.27	0.04	0.21	0.03
	Th	**U**	**Al**	**Fe**	**Mg**	**Ca**	**Na**	**Mn**	**Zn**	**Si**					
	0.036	0.002	8.24	0.50	0.09	2.04	0.25	0.41	3.14	5.00					

The rare earth carbonate precipitates were leached to pH 1 with sulfuric solution to produce a solution containing approximately 25 g/L REE content. The pH was then adjusted to between 3.0 and 3.5 with magnesium carbonate slurry. Importantly, silica rejection was 99%. Uranium ion exchange was demonstrated on the portion of leach solution still containing uranium. The removal was again excellent (from 32 mg/L U to < 0.02 mg/L U). Results are provided in Table 13-10.

Table 13-10: Bulk Releach Solution Analysis
Search Minerals Inc. – Deep Fox and Foxtrot Project

	Solution Analysis (mg/L)														
Element	**La**	**Ce**	**Pr**	**Nd**	**Sm**	**Eu**	**Gd**	**Tb**	**Dy**	**Ho**	**Y**	**Er**	**Tm**	**Yb**	**Lu**
U-Cont RE Carbonate	3170	7060	819	3040	542	29	444	66	384	73	2020	203	27	168	21
U-Free RE Carbonate	3110	6950	810	3000	533	27	419	62	363	68	1970	191	26	163	20
Element	**Th**	**U**	**Si**	**Al**	**Fe**	**Mg**	**Ca**	**Na**	**Mn**	**Zn**					
U-Cont RE Carbonate	2.96	32[1]	28	1630	6	9720	1610	253	330	2500					
U-Free RE Carbonate	7.32	0.05	46	2790	16	11600	1810	334	321	2390					

Note:

1. Analysis before Uranium Ion Exchange

The next step in treatment was the use of thorium solvent extraction. A solvent containing 1.0% Primene JMT (a primary amine), 2.5% isodecanol and 96.5% Aromatic 150ND was used in the following configuration (5 day pilot plant operated continuously).

- Aqueous Solution: Combined U-free releach solution adjusted to pH 1.5.
- Extraction: 2 stages at A/O advance ratio of 5:1, 45°C, aqueous continuous
- Scrubbing: 2 stages at A/O advance ratio of 0.5:1 and A/O mixer-settler ratio of 1:1, ambient temperature, aqueous continuous.
- The scrub solution was 24 g/L H_2SO_4. Scrub solution was added to the extraction feed.
- Stripping: 2 stages at A/O advance ratio of 1.25:1 and A/O mixer-settler ratio of 1:1 at ambient temperature. Aqueous Continuous. The strip solution was 18 g/L HCl.

The results of the testing are summarized in Table 13-11. The thorium removal was excellent (4.72 mg/L Th to < 0.03 mg/L Th in the raffinate). The circuit was stable and well-behaved through the pilot plant. The organic solution was repeatedly recycled with no indication of degradation or chemical fouling. Rare earth deportment to the strip solution was always < 1%.

Table 13-11: Thorium Solvent Extraction Pilot Plant Results
Search Minerals Inc. – Deep Fox and Foxtrot Project

Elem.	Aqueous Concentration (mg/L)							Organic Solution (mg/L)						Fraction to Strip
	Ext Feed	**Ext 1**	**Ext 2**	**Scr 1**	**Scr2**	**Str 1**	**Str 2**	**Ext 1**	**Ext 2**	**Scr 1**	**Scr 2**	**Str 1**	**Str 2**	
La	3060	2670	2660	62.2	15.4	70.1	0.26	76	74	47	40	<3	<3	0.32%
Ce	6550	5670	5720	152	41.5	329	1.3	363	261	198	182	<3	<3	0.70%
Pr	758	658	663	18.5	5.12	43.2	0.16	35	34	26	24	<3	<3	0.79%
Nd	2730	2400	2420	68	19	135	0.48	119	117	88	80	<9	<9	0.69%

Elem.	Aqueous Concentration (mg/L)							Organic Solution (mg/L)						Fraction to Strip
	Ext Feed	Ext 1	Ext 2	Scr 1	Scr2	Str 1	Str 2	Ext 1	Ext 2	Scr 1	Scr 2	Str 1	Str 2	
Sm	459	468	463	11	2.99	20.2	0.07	18	18	13	11	<4	<4	0.61%
Eu	27.2	23	23.3	0.52	0.14	0.74	<0.03	<3	<3	<3	<3	<3	<3	0.38%
Gd	464	420	426	8.8	2.17	7.4	<0.03	8	8	4	3	<3	<3	0.22%
Tb	71.1	64.6	64.9	1.36	0.33	1.08	<0.03	<3	<3	<3	<3	<3	<3	0.21%
Dy	412	371	376	7.47	1.77	4.96	<0.05	6	6	<4	<4	<4	<4	0.17%
Ho	79.3	71.5	72.1	1.36	0.3	0.62	<0.02	<2	<2	<2	<2	<2	<2	0.11%
Y	1750	1610	1540	27	5.3	6.48	0.03	18	18	6	3	<1	<1	0.05%
Er	214	191	193	3.53	0.74	1.28	<0.04	<4	<4	<4	<3	<4	<4	0.08%
Tm	29.6	26	25.9	0.49	0.1	0.16	<0.04	<4	<4	<4	<3	<4	<4	0.08%
Yb	164	149	147	2.85	0.58	0.91	<0.02	2	2	<2	<2	<2	<2	0.08%
Lu	21	18.8	18.9	0.34	0.06	0.08	<0.03	<3	<3	<3	<3	<3	<3	0.05%
Th	4.72	0.04	<0.03	<0.03	<0.07	34	0.8	<3	20	20	21	<3	<3	100 %
U	0.03	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<2	<2	<2	<2	<2	<2	
Al	2080	1910	1910	<0.8	<0.8	<0.8	<0.8	31	32	29	31	25	27	
Fe	9	8.2	8.3	0.3	<0.2	0.8	<0.2	2	<1	<1	<1	<1	<1	
Mg	10500	9640	9640	2.23	0.72	0.26	0.29	<1	<1	<1	<1	<1	<1	
Ca	1290	1240	1210	<9	<9	<9	<9	9	10	9	10	9	9	
Na	290	257	260	<2	<2	<2	<2							
Mn	319	289	290	0.12	<0.04	<0.04	<0.04	<0.4	<0.4	<0.4	<0.3	<0.4	<0.4	
Zn	2450	2280	2270	<0.7	<0.8	<0.9	<0.10	<6	<6	<6	<6	<6	<6	

Zinc precipitation was performed using H_2S gas at pH 2 and 50°C. The final solution was < 1 mg/L Zn (starting at +2,000 mg/L Zn). There were negligible losses of REE elements with the zinc sulfide precipitate.

The zinc free solution was treated by two methods to make a mixed oxide and a mixed carbonate product.

The first method was to add oxalic acid (125% stoichiometric addition) to form a mixed rare earth oxalate. The rare earth oxalate was filtered, washed, and calcined at 1,200°C. The composition of the mixed oxide after calcination is presented in Table 13-12. The grade of the mixed oxide was approximately 99% REO with <1g/t Th and <0.5 g/t U. The low U/Th content of the final product is a further validation of the uranium ion exchange and thorium solvent extraction technology selection.

Table 13-12: Mixed Rare Earth Oxide Product
Search Minerals Inc. – Deep Fox and Foxtrot Project

Element	Units	Assay
La	%	12.0
Ce	%	32.4
Pr	%	4.05
Nd	%	15.9
Sm	%	2.27
Eu	%	0.135
Gd	%	2.03
Tb	%	0.304
Dy	%	1.67
Ho	%	0.32
Y	%	7.52
Er	%	0.86
Tm	%	0.11
Yb	%	0.69
Lu	%	0.08
Sc	g/t	<40
Th	g/t	1
U	g/t	<0.5
Si	g/t	500
Al	g/t	<100
Fe	g/t	<100
Mg	g/t	1400
Ca	g/t	600
K	g/t	<100
Ti	g/t	<100
P	g/t	<100
Mn	g/t	<100
Zn	g/t	<40
S	%	0.27
C	%	<0.01
F	%	0.018
TREO	%	99

The mixed carbonate was produced in two steps. First, the pH was adjusted to 5.0 using sodium carbonate at 50 °C to remove aluminum (for recycle to the primary circuit to recover any rare earth values). The pH was then adjusted to 6.5 to precipitate the rare earths. The high purity mixed rare earth carbonate product analyzed 58% TREO with only 1.1 g/t U and 0.7 g/t Th. This was once again a validation of the U and Th ion exchange and solvent extraction purification technologies. The full analysis is summarized in Table 13-13.

Table 13-13: Mixed Rare Earth Carbonate Product
Search Minerals Inc.Search Minerals Inc. – Deep Fox and Foxtrot Project

Element	Unit	Value	Element	Unit	Value
La	%	10.7	La_2O_3	%	12.6
Ce	%	16.0	CeO_2	%	19.6
Pr	%	2.24	Pr_6O_{11}	%	2.71
Nd	%	8.21	Nd_2O_3	%	9.58
Sm	%	1.31	Sm_2O_3	%	1.52
Eu	%	0.07	Eu_2O_3	%	0.08
Gd	%	1.23	Gd_2O_3	%	1.42
Tb	%	0.19	Tb_4O_7	%	0.22
Dy	%	1.06	Dy_2O_3	%	1.22
Ho	%	0.22	Ho_2O_3	%	0.25
Y	%	6.03	Y_2O_3	%	7.66
Er	%	0.57	Er_2O_3	%	0.66
Tm	%	0.07	Tm_2O_3	%	0.08
Yb	%	0.36	Yb_2O_3	%	0.41
Lu	%	0.04	Lu_2O_3	%	0.05
TREE	%	48.29	TREO	%	58.0
Sc	g/t	<40			
Th	g/t	0.7			
U	g/t	1.1			
Si	%	<0.07			
Al	%	0.06			
Fe	%	<0.0004			
Mg	%	0.62			
Ca	%	0.58			
Na	%	0.1			
K	%	<0.02			

Element	Unit	Value	Element	Unit	Value
Ti	%	0.003			
P	%	<0.004			
Mn	%	0.22			
Zn	%	0.007			
S	%	1.52			
F	%	0.72			

The foregoing description of the Direct Extraction process and the results of experimental work were generated on coarsely crushed samples of mineral from Foxtrot. The presently proposed processing plant, as described in Section 17, includes processing Deep Fox (and later Foxtrot ore) by grinding to 80% passing 53 µm, magnetic concentration to increase the mineral grade by a factor of approximately five, followed by application of the Direct Extraction process. This is somewhat different to the coarse Foxtrot processing described in this section.

It is expected that the acid bake and water leach portions of the Direct Extraction process will be effective on the WHIMS concentrates from Deep Fox and Foxtrot and allow 91% rare earth recovery from concentrate for the following reasons:

- The rare earth minerals (allanite and fergusonite) are reactive toward acid baking and water leaching whether found in magnetic or flotation concentrate material.
- The particle size of the magnetic concentrate is fine at 80% passing 53 µm. Early work (2012) showed high extractions (+90%) were achievable on similarly sized flotation and gravity concentrates, as presented in Figure 13-3.

Test work to confirm the suitability of the Direct Extraction process on Deep Fox and Foxtrot concentrates are in process but not yet completed. The overall recovery data used to support the current Mineral Resource is based on available test work and is summarized in Table 13-14.

Table 13-14: Recovery of Individual REE
Search Minerals Inc. – Deep Fox and Foxtrot Project

Rare Earth Element		Recovery (%)		
		Magnetic Separation	Hydrometallurgy	Overall
Lanthanum	La	96.4	91.2	87.9
Cerium	Ce	93.2	91.6	85.3
Praseodymium	Pr	96.3	91.9	88.5
Neodymium	Nd	95.9	89.8	86.1
Samarium	Sm	94.8	89.7	85.0
Europium	Eu	93.9	89.1	83.7
Yttrium	Y	86.5	89.5	77.3
Gadolinium	Gd	93.1	92.6	86.1

Rare Earth Element		Recovery (%)		
		Magnetic Separation	Hydrometallurgy	Overall
Terbium	Tb	92.4	90.8	83.9
Dysprosium	Dy	91.9	91.3	83.9
Holmium	Ho	90.5	89.2	80.7
Erbium	Er	89.1	84.8	75.5
Thulium	Tm	87.7	80.3	70.4
Ytterbium	Yb	85.1	58.5	49.8
Lutetium	Lu	81.3	61.6	50.1
Overall	**-**	**93.5**	**90.5**	**84.7**

13.6 SLR Comments on Mineral Processing and Metallurgical Testing

SLR has reviewed the reports on metallurgical test work and the summary of the test work provided by Search Minerals. The test work has been performed by SGS which is a highly experienced and competent laboratory. The interpretation of the test work appears to be quite reasonable.

Consistent with Search Minerals' plans, SLR recommends that additional laboratory test work needs to be continued to confirm, or improve upon, present recovery and reagent consumption values and to examine the response of the beneficiation and hydrometallurgical processes to mineral variability. Future test work must also include pilot-scale operations, the determination of engineering parameters such as liquid-solid-separation requirements, and the characteristics of effluents and residues to allow the design of suitable handling, storage, and disposal facilities.

Although additional test work is needed, the QP is of the opinion that the available test work is sufficient to define the design of recovery methods that are adequate for a PEA.

14.0 MINERAL RESOURCE ESTIMATE

SLR estimated Mineral Resources for the Project using all drill hole and channel sample data available as of December 31, 2021. Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource classification. Table 14-1 summarizes the estimated Mineral Resources potentially mineable by open pit and underground methods as of December 31, 2021. The cut-off value has been expressed as Net Value (value net of process recoveries, payability terms, and separation charges). No Mineral Reserves have been estimated for the Project.

Table 14-1: Summary of Mineral Resources as of December 31, 2021
Search Minerals Inc. – Deep Fox and Foxtrot Project

Classification	Tonnage (000 t)	Grade			
		(ppm Pr)	(ppm Nd)	(ppm Dy)	(ppm Tb)
		Open Pit			
Indicated	8,483	381	1,422	187	32
Inferred	1,441	329	1,231	179	30
		Underground			
Indicated	6,611	368	1,376	182	31
Inferred	4,862	380	1,427	191	33
		Totals			
Total Indicated	15,094	375	1,402	185	32
Total Inferred	6,303	369	1,382	188	32

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Open Pit Mineral Resources were reported inside a resource shell at pit discard Net Value cut-off value of $260/t. Underground Mineral Resources were constrained with mineralization wireframes below the resource shell and validated using underground mining solids based on a Net Value cut-off value of $335/t. Both cut-off values account for all processing, General and Administration (G&A), refining, and transportation charges. Mining costs were assumed at $6.50/t ore mined and $5.00/t waste mined for open pit and $75.00/t for underground.
3. Net Value was assigned to blocks using metal prices, metallurgical recoveries, payables (as shown in their respective sections of this Technical Report) for each individual element.
4. A minimum mining width two metres was used for both open pit and underground.
5. Bulk density varies from 2.71 t/m^3 to 2.92 t/m^3.
6. Revenue attributable to Pr, Nd, Dy, and Tb represents 92% of the total revenue.
7. The estimate is of Mineral Resources only and because these do not constitute Mineral Reserves, they do not have demonstrated economic viability.
8. Totals may not add or multiply accurately due to rounding.

The QPs are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

14.1 Deep Fox

SLR estimated Deep Fox Mineral Resources using all drill hole and channel sample data available as of December 31, 2021. Table 14-2 summarizes the estimated Mineral Resources potentially mineable by open pit and underground methods as of December 31, 2021. The cut-off value has been expressed as Net Value. No Mineral Reserves have been estimated at the Project.

Table 14-2: Summary of Deep Fox Mineral Resources as of December 31, 2021
Search Minerals Inc. – Deep Fox and Foxtrot Project

Classification	Tonnage (000 t)	Grade			
		(ppm Pr)	(ppm Nd)	(ppm Dy)	(ppm Tb)
Open Pit					
Indicated	3,906	399	1,482	201	34
Inferred	1,028	332	1,243	181	30
Underground					
Indicated	1,148	378	1,426	203	34
Inferred	2,269	382	1,443	206	35
Totals					
Total Indicated	5,054	394	1,469	202	34
Total Inferred	3,297	366	1,381	198	33

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Open Pit Mineral Resources were reported inside a resource shell at pit discard Net Value cut-off value of \$260/t. Underground Mineral Resources were constrained with mineralization wireframes below the resource shell and validated using underground mining solids based on a Net Value cut-off value of \$335/t. Both cut-off values account for all processing, G&A, refining, and transportation charges. Mining costs were assumed at \$6.50/t ore mined and \$5.00/t waste mined for open pit and \$75.00/t for underground.
3. Net Value was assigned to blocks using metal prices, metallurgical recoveries, payables (as shown in their respective sections of this Technical Report) for each individual element.
4. A minimum mining width two metres was used for both open pit and underground.
5. Bulk density varies from 2.71 t/m^3 to 2.92 t/m^3.
6. Revenue attributable to Pr, Nd, Dy, and Tb represent 92% of the total revenue.
7. The estimate is of Mineral Resources only and because these do not constitute Mineral Reserves, they do not have demonstrated economic viability.
8. Totals may not add or multiply accurately due to rounding.

The QPs are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

14.1.1 Resource Database

SLR was provided with a drill hole database consisting of 61 drill holes with a total length of 11,927 m and combined sampled length of 6,526.2 m, and 38 surface channels with a total length of 993.7 m and combined sampled length of 879.7 m. Figure 14-1 shows the drill hole and channel traces in plan view.

SLR received data from Search Minerals in csv format. Data, consisting of collar location, deviation survey, sample assays, lithology, and density measurements, were amalgamated and parsed as required, and then imported in Leapfrog Geo for modelling.

Section 12 Data Verification describes the database verification steps undertaken by SLR. In summary, no discrepancies were identified and the QPs are of the opinion that the drill hole database is valid and suitable to estimate Mineral Resources for Deep Fox.

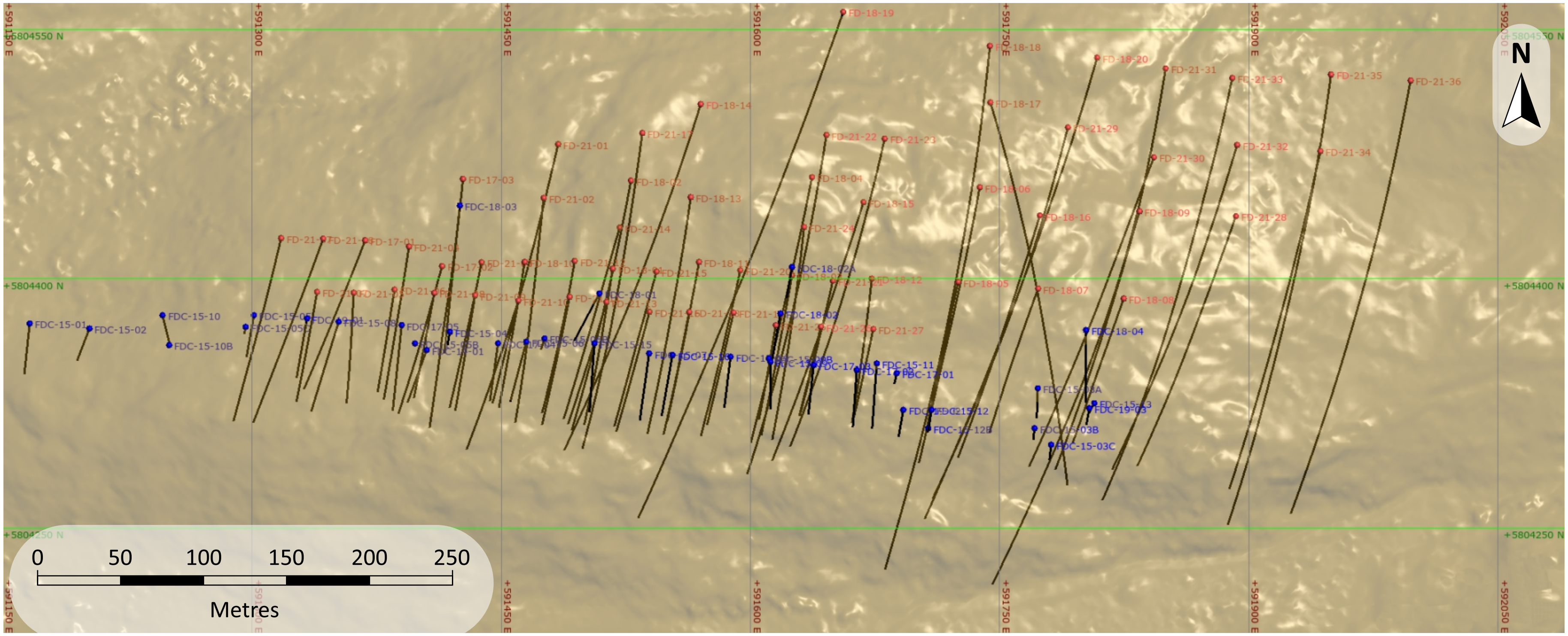


Figure 14-1

Legend:

Drill Hole

Channel Sample

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Drill Hole and Channel Locations

July 2022

Source: SLR, 2022.

14.1.2 Geological Interpretation and 3D Solids

Resource wireframes were built to investigate geological and grade continuity and to constrain grade interpolation within the block model. Mineralization wireframes were modelled in Leapfrog Geo software, at a nominal Net Value cut-off of $260/t.

Two mineralized wireframes were defined for Deep Fox: Hanging Wall (HW) Zone, and Footwall (FW) Zone as presented in Figure 14-2. A minimum thickness of two metres was applied. The zones of interpreted mineralization were contiguous, with rare exceptions where narrow intercepts were expanded to achieve a minimum thickness where required, and assays below the minimum Net Value modelling value were included to maintain continuity. At model extremities, the wireframes were extrapolated to approximately 50 m beyond the last channel or drill hole intersection. Continuity was checked using the level plans and in vertical cross sections. The wireframes are steeply dipping (80° to 85°), at an azimuth of approximately 275°. The strike length of the HW and FW zones are approximately 750 m and 1,000 m, and have been modelled to a depth of -200 MASL and -250 MASL, respectively.

The FW Zone is comprised predominantly of mineralized pantellerite, with an average thickness of 25 m. The width ranges from 5 m to 40 m. The central portion of the FW Zone reaches a thickness of nearly 30 m. The wireframe narrows to approximately 10 m or less to the east and west. Small lenses of mainly non-peralkaline rhyolite (NPR), mafic and ultra mafic rock, and weakly mineralized comendite and pegmatite intermingle with the pantellerite. Comendite is lower grade than pantellerite. The FW Zone is the main zone of mineralization.

The HW Zone is narrower than and parallels the FW Zone. The HW Zone comprises a single wireframe of predominantly mineralized pantellerite and low Zr-pantellerite. Similar to the FW Zone, small lenses of NPR, mafic and ultramafic rock, and weakly mineralized comendite and pegmatite intermingle with the pantellerite. Approximately two metres to 10 m of mafic and NPR rocks separate the HW Zone from the FW Zone.

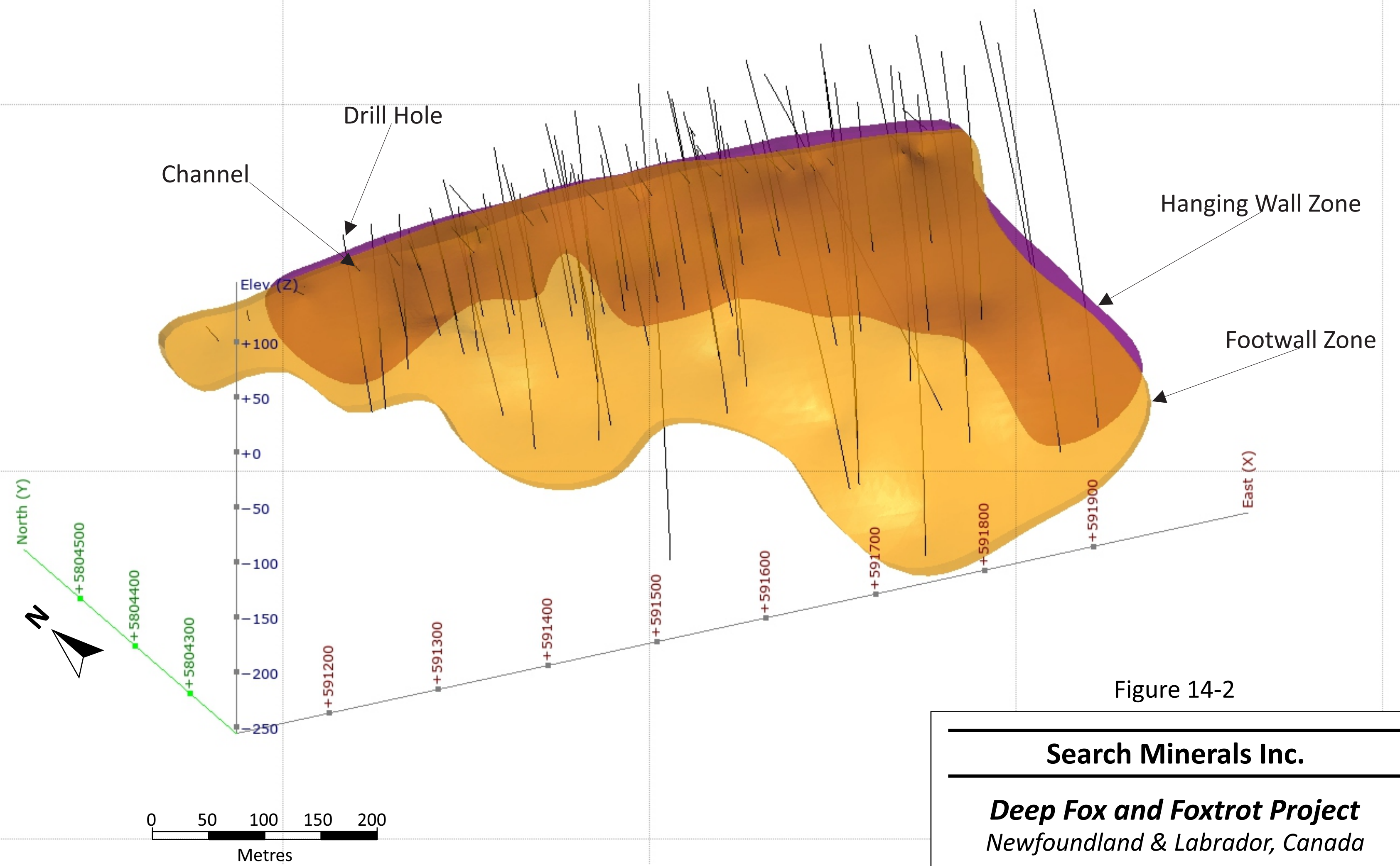


Figure 14-2

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Mineralized Wireframes - 3D View

July 2022

Source: SLR, 2022.

14.1.3 Resource Assays

There are 15 elements that normally are classified as REEs:

- All of the lanthanoids – La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), and lutetium (Lu) –with the exception of promethium (Pm), which does not occur in nature.
- Yttrium (Y)

HREE include Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, and Y. LREE include La, Ce, Pr, Nd, and Sm. TREE is the sum of HREE and LREE. All the REEs, along with U and Th have been estimated into the block model

The REE elements at Deep Fox present a very good correlation. The behaviour of any of the LREE or HREE is directly reflected in the behaviour of the rest of the elements in the group.

Some of the following discussion of statistical analysis focuses on four of these elements: Nd, Pr, Dy, and Tb. The chosen elements represent approximately 92% of the in situ REE value at Deep Fox. Dy is the HREE with the greatest in situ value (approximately 27% of total REE value), and Nd is the LREE with the greatest in situ value (approximately 41% of total REE value).

Assay values located inside the wireframes, or resource assays, were tagged with mineralized zone domain identifiers and exported for statistical analysis. Results assisted in verifying the modelling process. SLR compiled and reviewed the basic statistics for all the resource elements at Deep Fox. Table 14-3 presents a summary for Nd, Pr, Dy, and Tb.

Table 14-3: Descriptive Statistics of Resource Assay Values for Deep Fox
Search Minerals Inc. – Deep Fox and Foxtrot Project

Zone/ Element	Count	Sampled Length (m)	Mean (ppm)	SD	CV	Minimum (ppm)	Maximum (ppm)
			FW				
Dy_ppm	3,087	2,234.6	203.4	95.8	0.47	0.05	433
Nd_ppm	3,087	2,234.6	1492.4	704.3	0.47	0.05	3,380
Pr_ppm	3,087	2,234.6	400.4	188.9	0.47	0.025	918
Tb_ppm	3,087	2,234.6	34.5	16.2	0.47	0.05	73.9
			HW				
Dy_ppm	730	475.6	156.3	85.2	0.54	0.05	815
Nd_ppm	730	475.6	1059.6	604.9	0.57	0.05	7,570
Pr_ppm	730	475.6	281.2	163.9	0.58	0.025	2,300
Tb_ppm	730	475.6	26.1	14.2	0.54	0.05	129

Figure 14-3 presents histograms of Nd, Pr, Dy, and Tb for all of the assays used in the resource estimate. The distributions show three prominent modes that correspond to two main rock types. The lowest mode belongs to samples from the mafic volcanic units. The medium grade mode consists of low-Zr pantellerite, and pantellerite-mafic mixed intervals. The higher grade mode is characteristic of pantellerite samples.

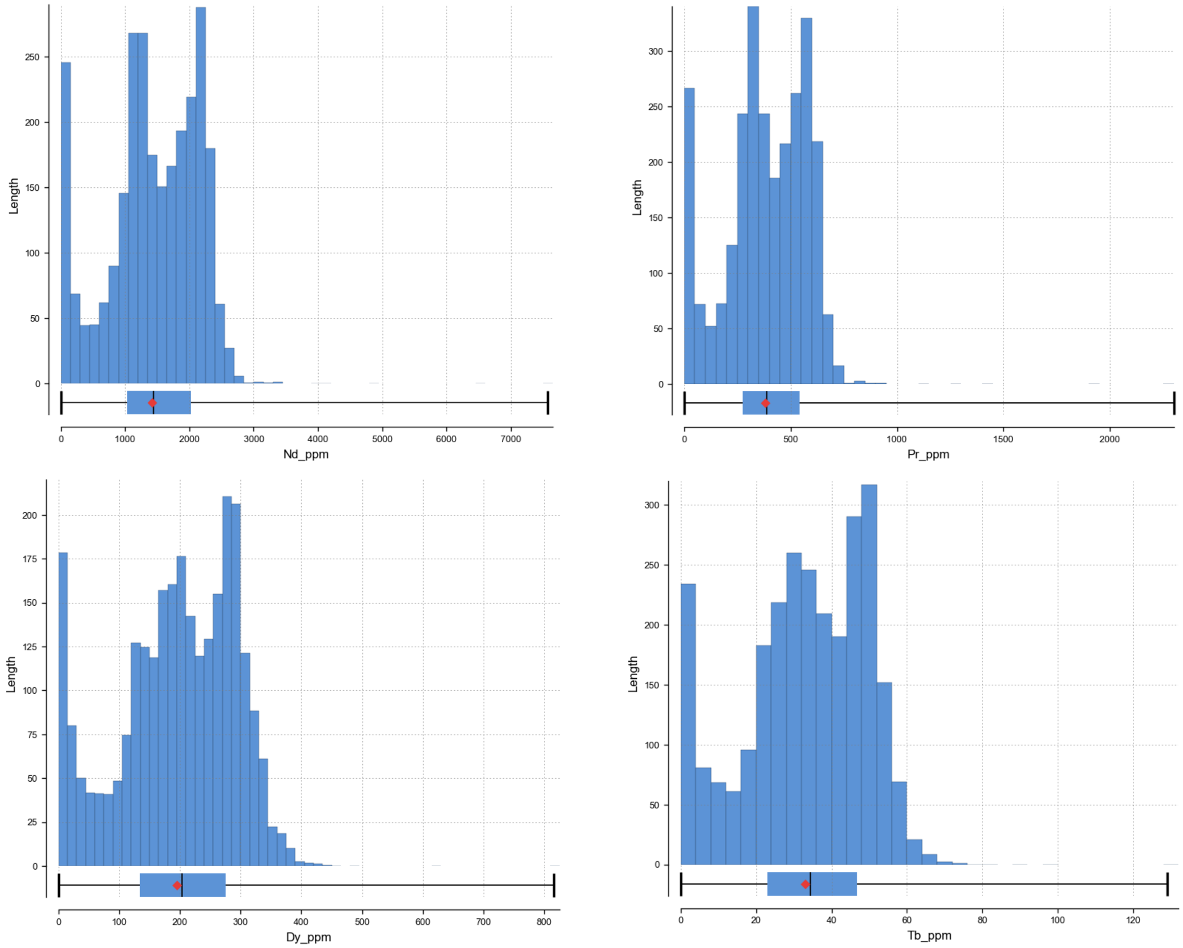


Figure 14-3: Resource Assay Histograms for Nd, Pr, Dy, and Tb

14.1.4 Treatment of High Grade Assays

SLR investigated the necessity for capping of high grade resource assays. Based on observations from resource assay histograms, top decile analysis, and probability plots, it is the opinion of the QPs that capping was not necessary. The low coefficients of variation (CV) in the descriptive statistics of the composites, summarized in Table 14-4, support this decision.

14.1.5 Compositing

Resource sample lengths range from 0.03 m to 1.71 m, with the majority of the samples at one metre as presented in Figure 14-4. Considering the average sample length and the mineralization wireframes width, SLR decided to composite to 2.0 m long intervals. The resource assays were composited inside the mineralized wireframes. Orphan composites less than 1.0 m long (50% of the nominal composite length) were added to the previous composite.

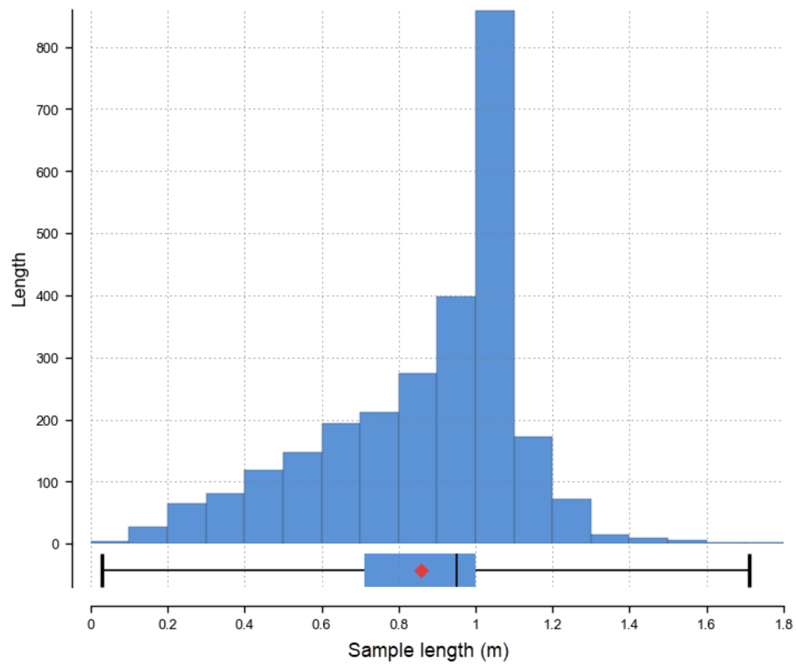


Figure 14-4: Sample Length Histogram

Table 14-4 summarizes the Nd, Pr, Dy, and Tb statistics of the composites. Compared to resource assays (Table 14-3) the average grades are similar, while the CV values are lower.

Table 14-4: Descriptive Statistics of Composites for Deep Fox
Search Minerals Inc. – Deep Fox and Foxtrot Project

Zone/ Element	Count	Sampled Length (m)	Mean (ppm)	SD	CV	Minimum (ppm)	Maximum (ppm)
			FW				
Dy_ppm	1,117	2,234.5	203.4	74.7	0.37	0.05	389.2
Nd_ppm	1,117	2,234.5	1,492.4	548.6	0.37	0.05	2,742.5
Pr_ppm	1,117	2,234.5	400.4	146.7	0.37	0.025	734.5
Tb_ppm	1,117	2,234.54	34.5	12.6	0.37	0.05	67.2
			HW				
Dy_ppm	239	475.6	156.3	56.1	0.36	0.05	325.4
Nd_ppm	239	475.6	1,059.6	395.1	0.37	0.05	2596.9
Pr_ppm	239	475.6	281.2	106.3	0.38	0.025	677.3
Tb_ppm	239	475.6	26.1	9.3	0.36	0.05	53.9

14.1.6 Variography and Interpolation Parameters

The mineralization at Deep Fox shows a strong correlation among the REEs, as presented in Table 14-5. Given the similar behaviour for the LREEs and the HREEs, variograms modelled for Nd were used to support LREEs estimation parameters, while Dy variogram models were used for HREEs.

Table 14-5: Composites Correlation Matrix for Deep Fox
Search Minerals Inc. – Deep Fox and Foxtrot Project

	Ce	Dy	Er	Eu	Gd	La	Lu	Nd	Pr	Sm	Tb	Y	Yb
Ce		0.852	0.804	0.947	0.933	0.994	0.782	0.991	0.996	0.966	0.887	0.880	0.778
Dy	0.852		0.996	0.960	0.978	0.803	0.985	0.909	0.885	0.953	0.998	0.978	0.985
Er	0.804	0.996		0.932	0.951	0.752	0.996	0.866	0.840	0.919	0.983	0.973	0.998
Eu	0.947	0.960	0.932		0.990	0.910	0.913	0.976	0.961	0.995	0.978	0.960	0.912
Gd	0.933	0.978	0.951	0.990		0.893	0.936	0.970	0.952	0.992	0.992	0.964	0.931
La	0.994	0.803	0.752	0.910	0.893		0.724	0.971	0.984	0.932	0.841	0.845	0.721
Lu	0.782	0.985	0.996	0.913	0.936	0.724		0.845	0.816	0.902	0.969	0.955	1.001
Nd	0.991	0.909	0.866	0.976	0.970	0.971	0.845		0.999	0.993	0.938	0.918	0.840
Pr	0.996	0.885	0.840	0.961	0.952	0.984	0.816	0.999		0.979	0.916	0.902	0.813
Sm	0.966	0.953	0.919	0.995	0.992	0.932	0.902	0.993	0.979		0.973	0.949	0.898
Tb	0.887	0.998	0.983	0.978	0.992	0.841	0.969	0.938	0.916	0.973		0.976	0.968
Y	0.880	0.978	0.973	0.960	0.964	0.845	0.955	0.918	0.902	0.949	0.976		0.959
Yb	0.778	0.985	0.998	0.912	0.931	0.721	1.001	0.840	0.813	0.898	0.968	0.959	

Composites from the FW Zone were used in the variography study. Variogram models for Nd and Dy are shown in Figure 14-5 and Figure 14-6, respectively. Table 14-6 summarizes the variography parameters.

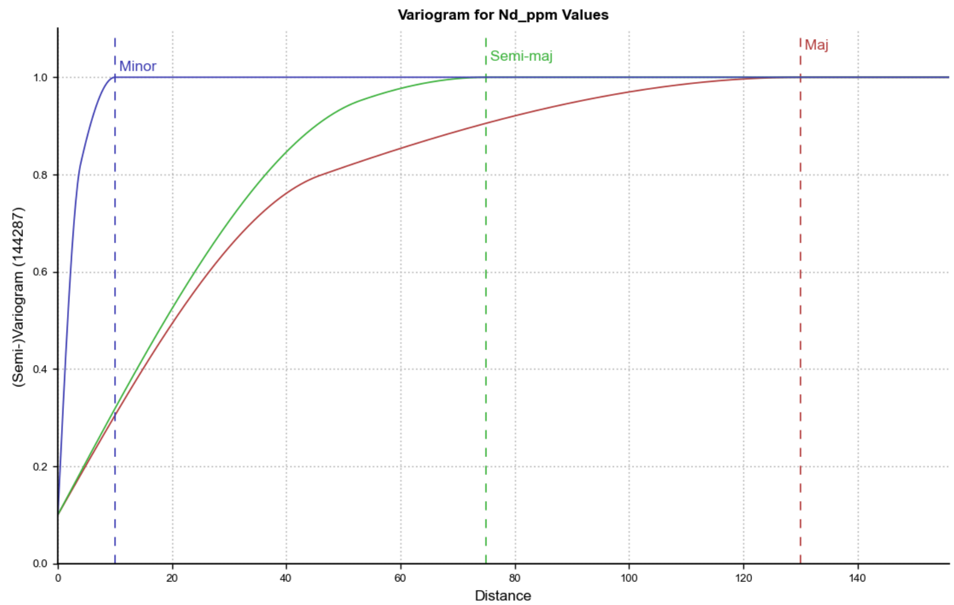


Figure 14-5: FW Zone Nd Variogram Model

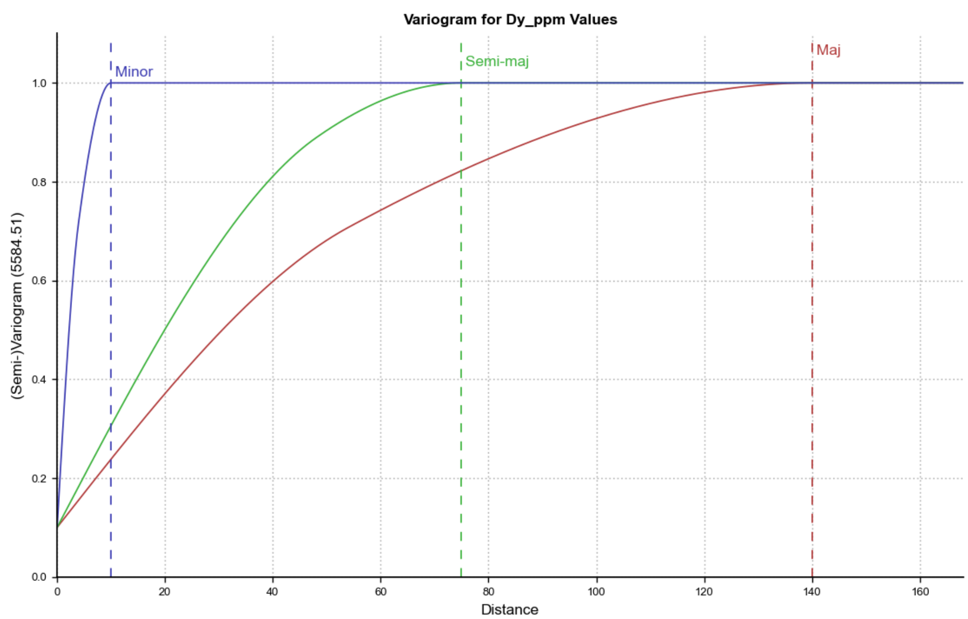


Figure 14-6: FW Zone Dy Variogram Model

Table 14-6: Variography Parameters for the Deep Fox FW Zone
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	LREEs	HREEs
Nugget (C_0)	0.10	0.10
Trend		
Dip (°)	85	85
Dip Azimuth (°)	185	185
Pitch (°)	40	60
C_1	0.49	0.25
Model	Spherical	Spherical
Range X (m)	46	54
Range Y (m)	53	48
Range Z (m)	4	10
C_2	0.41	0.65
Model	Spherical	Spherical
Range X (m)	130	140
Range Y (m)	75	75
Range Z (m)	10	10
Total Sill	1.0	1.0

REE grades were interpolated using ordinary kriging (OK). Variography was used to determine the search ellipsoid dimensions and global plunge, and variable orientation was applied using the resource domain wireframe. The interpolation and search parameters used for block estimation are summarized in Table 14-7.

Table 14-7: Deep Fox Block Estimate Estimation Parameters
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter		LREEs	HREEs
Method		OK	OK
Boundary Type		Hard	Hard
Min. No. Comps.		1	1
Max. No. Comps.		8	8
Max. Comps. Per Drill Hole		2	2
Search Anisotropy[1]	Dip (°)	85	85
	Dip Azimuth (°)	185	185
	Pitch (°)	40	60

Parameter		LREEs	HREEs
Search Ellipse	Range X (m)	170	125
	Range Y (m)	120	85
	Range Z (m)	8	12

A single pass was used to interpolate LREE and HREE block grades for all resource domains. Interpolation was restricted by the mineralized wireframe models, which were used as hard boundaries, preventing the use of composites outside of the intended estimation domain. The single pass used 100% of the variogram ranges. A minimum of one and a maximum of eight composites were used, with a maximum limit of two composites per drill hole. Identical search ellipses were used for all LREEs and HREEs in both FW and HW Zone.

14.1.7 Net Value Cut-off Value

The depth and geometry of the interpreted mineralized domains at Deep Fox make it amenable to open pit methods near surface and to underground mining methods at deeper levels. Net Value factors were developed by SLR for the purposes of resource reporting. Net Value is the estimated value per tonne of mineralized material after allowance for metallurgical recovery and consideration of terms for third-party separation and refining, including payability and charges. These assumptions are based on the current processing scenario and results from metallurgical test work.

The net revenue of payable REEs was calculated and then divided by grade to generate a Net Value factor for resource reporting. These Net Value factors represent revenue per oxide grade unit (US$/kg Dy_2O_3, for example), and are independent of grade. Key assumptions are summarized in Table 14-8 and Table 14-9.

Table 14-8: Cut-off Value Assumptions for Deep Fox
Search Minerals Inc. – Deep Fox and Foxtrot Project

Element	Oxide Price (US$/kg)	Element to Oxide Conversion Factor	Recoveries (%)	Net Value Factor (C$/ppm)
Praseodymium	108	1.17	88.6	0.137
Neodymium	110	1.17	86.2	0.135
Dysprosium	614	1.15	84.0	0.703
Terbium	1,535	1.15	84.0	1.763

Notes:

1. An exchange rate of C$1.00:US$0.80 was used to convert oxide prices.
2. Off-site treatment charges of US$5.00/kg for TREO plus US$20.00/kg for heavy rare earth oxides (HREO) were assumed and are included in the operating costs.
3. Recoveries to a mixed REO concentrate are based on test-work and a further recovery loss for separation has been assumed (2% for Neodymium and Praseodymium, and 5% for all HREO).

Table 14-9: Operating Cost Assumptions by Mining Scenario
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Unit	Input
Additional Haulage to Port	$/tonne	2.00
Magnetic Separation	$/tonne	36.40
G&A (mine site)	$/tonne	10.97
Transport to Hydrometallurgical Processing Plant	$/tonne	5.07
Hydrometallurgical Processing Plant	$/tonne	88.10
G&A (Hydrometallurgical Processing Plant)	$/tonne	2.74
Separation Plant (Full feed)	$/tonne	60.71
Separation Plant (HREO)	$/tonne	52.04
Net Value Cut-Off	**$/tonne**	**258**

Notes:

1. Open pit mining is reported at pit discard cut-off, which excludes mining costs. Mining costs of $75/t were assumed for underground mining.

These Net Value factors were applied to assay grades to help interpret the mineralized zone outlines on drill sections, which were used to generate the mineralized zone wireframes. A minimum Net Value of $260/t was used to select drill hole intercepts. These intercepts were then interpreted on drill sections.

The Net Value factors were used to calculate a Net Value ($ per tonne) for each block in the block model, which was compared directly to unit operating costs required to mine that block. All classified resource blocks located within the mineralized wireframe domains and above the design pit shell with Net Value greater than $260/t were included in the open pit resource estimate. All classified resource blocks located within the underground reporting mineralized wireframe domains and below the pit shell with Net Values greater than $335/t were included in the underground resource estimate. Both open pit and underground resource blocks exhibited good continuity.

In the opinion of the QPs, a Net Value cut-off of $260/t is suitable for an open pit mining scenario, and a Net Value of $335/t is suitable for an underground mining scenario.

14.1.8 Bulk Density

An updated lithological model was created in Leapfrog (Figure 14-7) to allow better control of the bulk density factors. The fine scale density readings were averaged inside the modelled units of the lithological model.

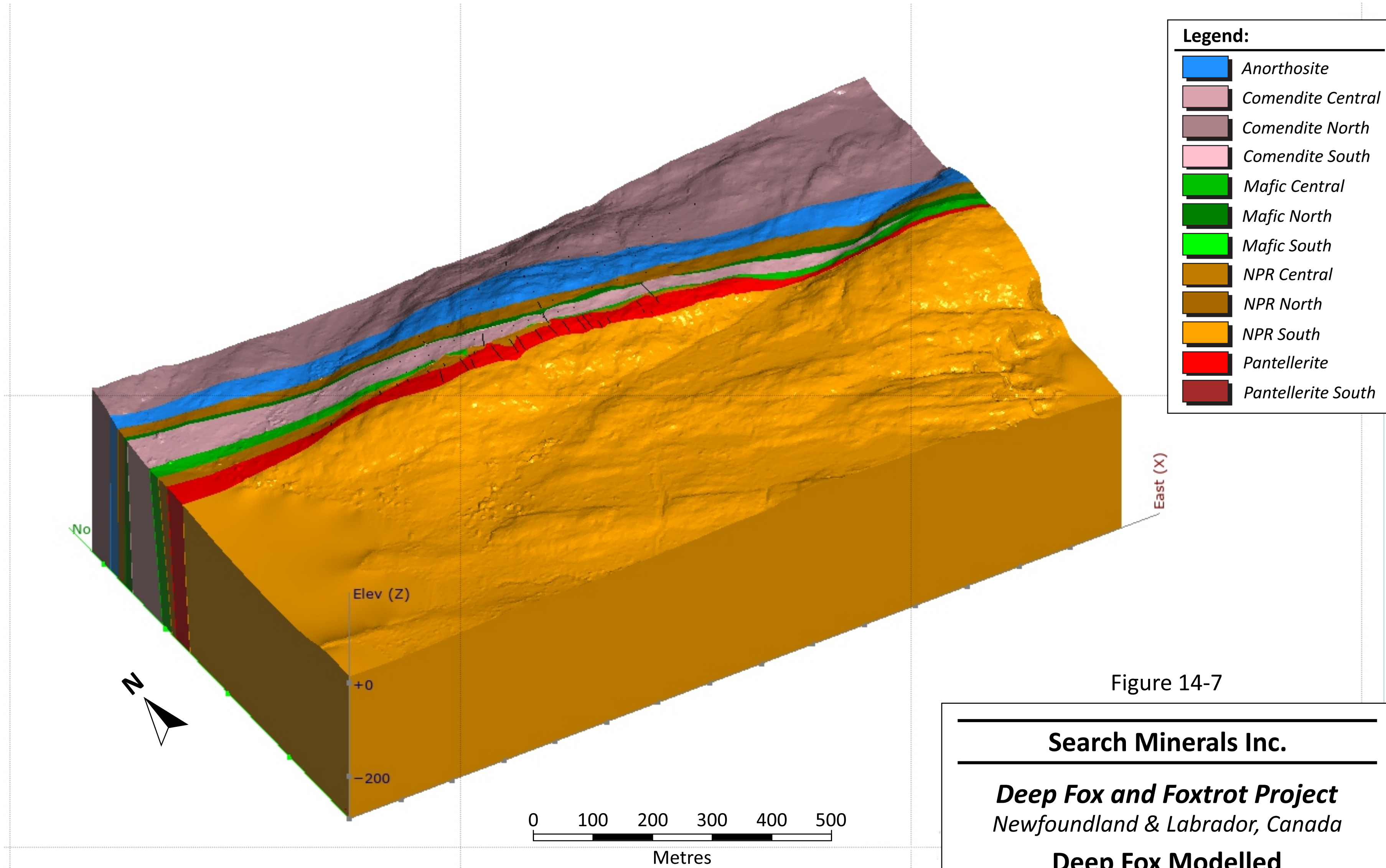


Figure 14-7

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Modelled Lithological Units

July 2022

Source: SLR, 2022.

The block model was flagged with the modelled lithological units. Each of the resulting lithologic domains was then assigned the corresponding average density value, as provided in Table 14-10.

Table 14-10: Bulk Density by Lithological Units
Search Minerals Inc. – Deep Fox and Foxtrot Project

Modelled Lithologic Unit	Bulk Density (g/cm^3)
Anorthosite	2.90
Comendite Central	2.73
Comendite North	2.76
Comendite South	2.87
Mafic Central	2.92
Mafic North	2.91
Mafic South	2.92
NPR Central	2.71
NPR North	2.73
NPR South	2.74
Pantellerite	2.80
Pantellerite South	2.83

14.1.9 Block Model

The Leapfrog block model comprised of 250 columns (along easting), 300 rows (along northing), and 80 levels for 6,000,000 blocks. The model origin (lower-left corner at highest elevation) is at UTM Grid Zone 21N, NAD83 591,000 mE, 5,803,850 mN and 135 m elevation. The block model is not rotated, and each block is 5 m (x) by 2.5 m (y) by 5 m (z). A whole block model is used, and resource domains and other geology codes are assigned by centroid location. The block model contains the following information:

- Domain identifiers with mineralized zone and lithology
- Estimated grades of seven payable REEs inside the resource domain wireframes
- Net Value estimates calculated from block grades and related economic and metallurgical assumptions
- Tonnage factors, in t/m^3, specific to each rock type
- The distance to the closest composite used to interpolate the block grade
- The number of composites used to interpolate the block grade
- The average distance to composite used to interpolate the block grade
- The resource classification of each block

14.1.10 Classification

Definitions for resource categories used in this Technical Report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction." Mineral Resources are classified into Measured, Indicated, and Inferred categories, according to the confidence level in the estimated blocks.

SLR classified the Deep Fox Mineral Resource as Indicated and Inferred, as illustrated in Figure 14-8, based on drill hole and surface channel spacing, the reliability of data, and geological confidence in the continuity of grade. The overall geological continuity of Deep Fox is consistent in the plane of the mineralization. The grade continuity is also consistent, with high grades confined to the pantellerite units, moderate grades in comendite and pegmatite, and low grade within mafic/ultramafic rocks. The consistent nature of the mineralization, for both the grade and geological continuity, would normally provide sufficient confidence to allow classification of most of the Mineral Resources as Indicated.

Composites located within the wireframes were plotted on an inclined south-looking section in the dip plane of the mineralized wireframes and reviewed for their spatial distribution and spacing. Where SLR deemed that the spacing was insufficient to establish grade and geological continuity with confidence (generally >50 m), the Mineral Resource was classified as Inferred.

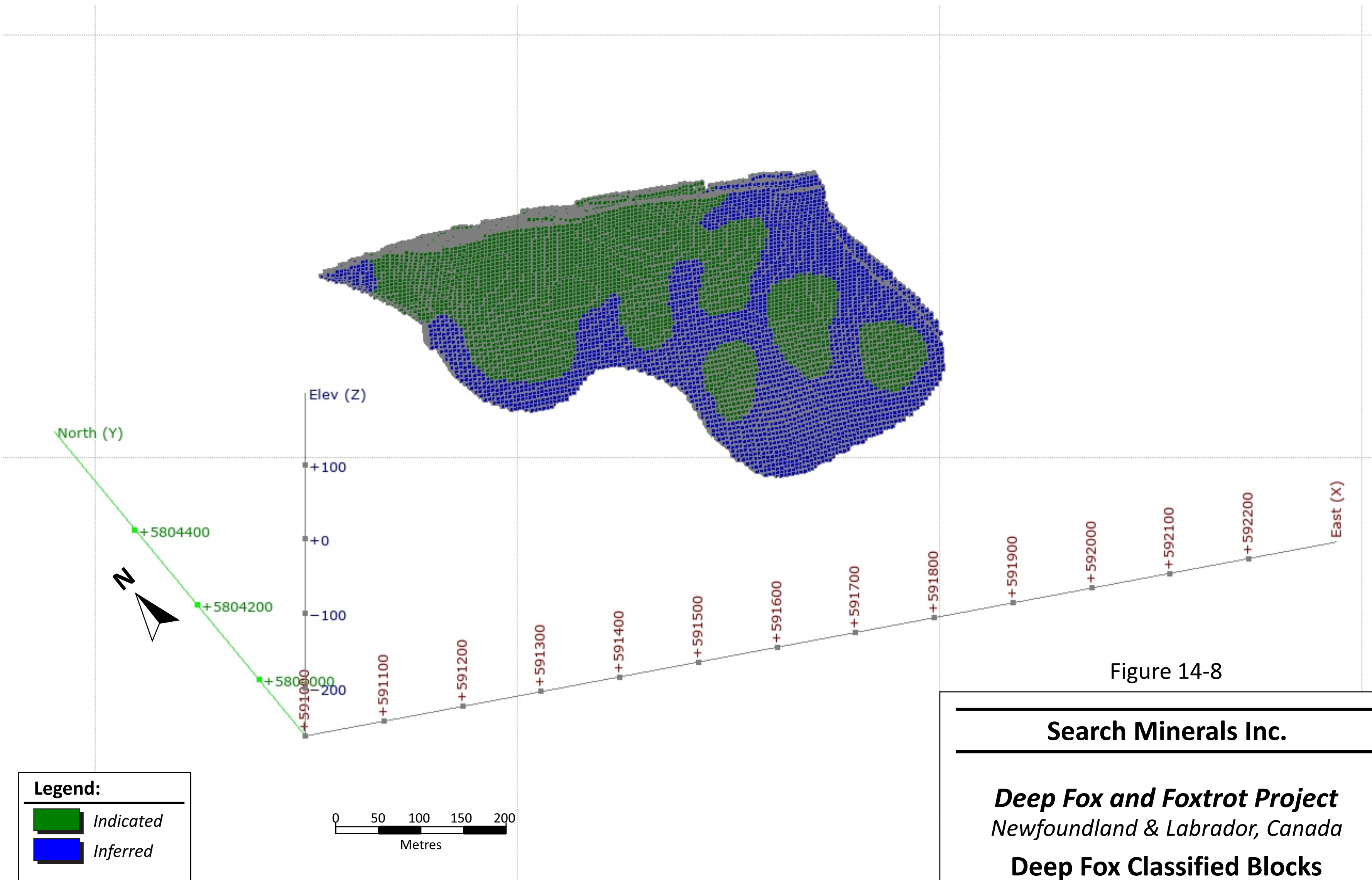


Figure 14-8

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Classified Blocks

July 2022

Source: SLR, 2022.

14.1.11 Block Model Validation

SLR carried out a number of block model validation procedures including:

- Visual comparisons of block Net Value, Pr, Nd, Tb, and Dy versus composite grades
- Statistical comparisons of Pr, Nd, Dy, and Tb
- Comparison of Pr, Nd, Dy, and Tb block and composite grades in blocks containing composites
- Grade estimation by alternate methods

Block model grades were visually examined and compared with composite grades in cross sections and on plan views. SLR found grade continuity to be reasonable and confirmed that the block grades were reasonably consistent with local drill hole and channel sample assay and composite grades. Figure 14-9 shows a plan view with composites and estimated block values for Net Value at +25 m elevation. Figure 14-10 shows a cross section, looking east, with composites and estimated block values for Net Value at 591,495 m E.

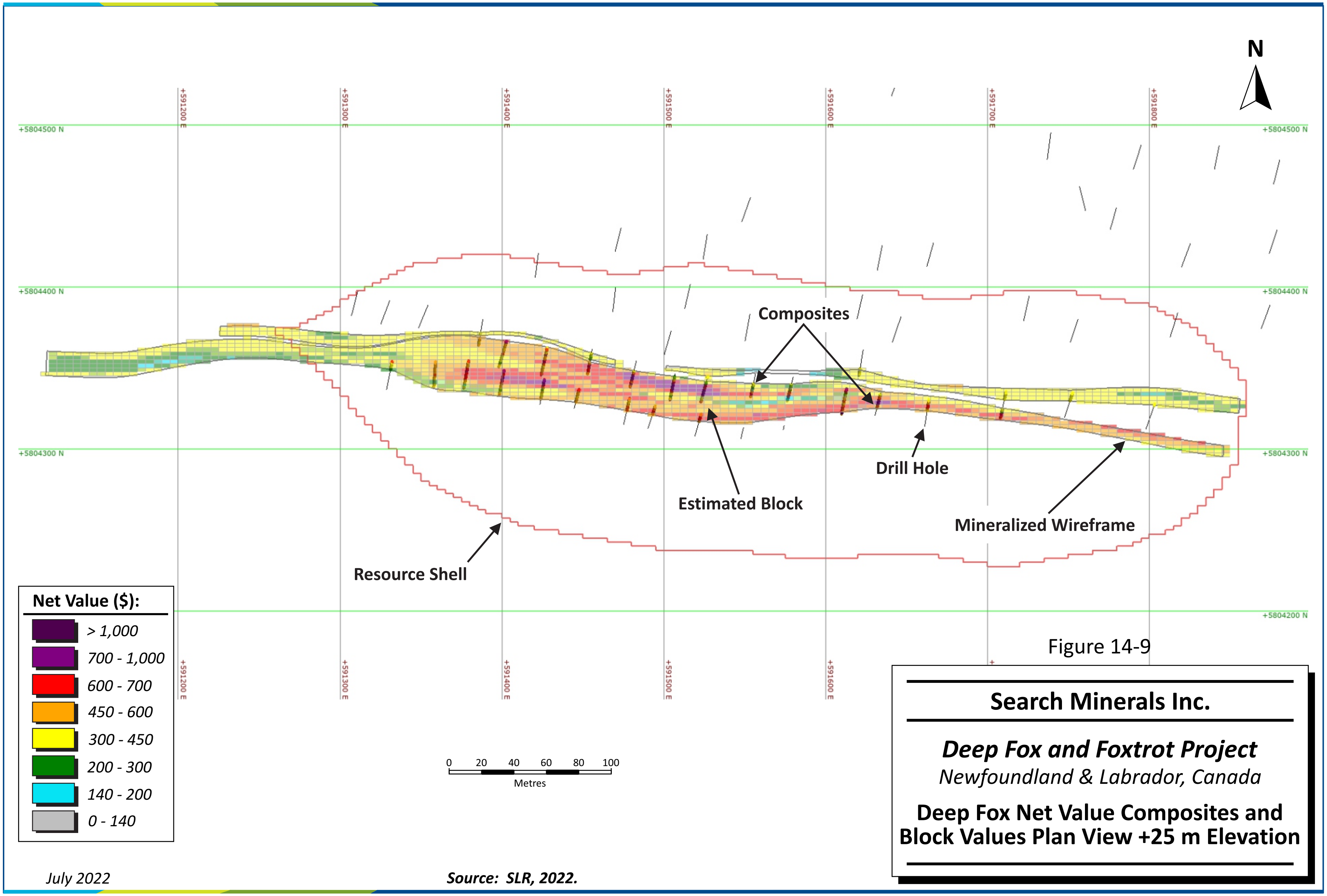


Figure 14-9

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Net Value Composites and Block Values Plan View +25 m Elevation

July 2022

Source: SLR, 2022.

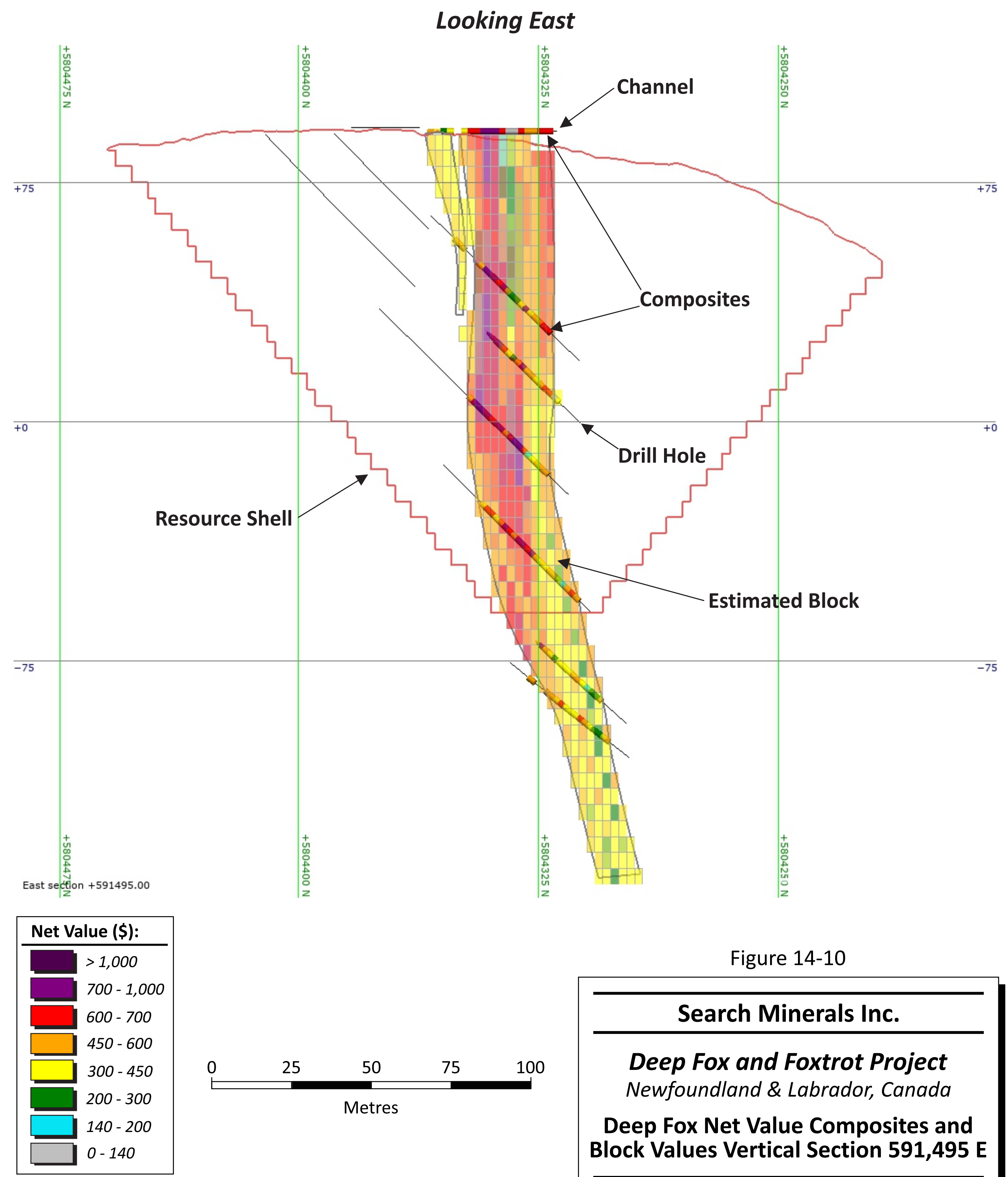


Figure 14-10

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Net Value Composites and Block Values Vertical Section 591,495 E

July 2022

Source: SLR, 2022.

Grade statistics for Dy, Pr, and Nd assays, composites, and resource blocks were examined and compared for the mineralized wireframe models as shown in Table 14-11. The comparisons of average grades of length weighted assays, composites, and blocks are reasonable in the opinion of the QPs.

Table 14-11: Comparison of Pr, Nd, Dy, and Tb Grade Statistics for Assays, Composites, and Resource Blocks for Deep Fox
Search Minerals Inc. – Deep Fox and Foxtrot Project

Zone	Assays			2.0 m Composites			Block Model Grades		
	Pr (ppm)	Dy (ppm)	Nd (ppm)	Pr (ppm)	Dy (ppm)	Nd (ppm)	Pr (ppm)	Dy (ppm)	Nd (ppm)
FW									
Number of Cases	3087	3087	3087	1117	1117	1117	1591	1591	1591
Minimum	0.025	0.05	0.05	0.025	0.05	0.05	53.31	38.11	210.25
Maximum	918	433	3380	734.53	389.165	2742.45	635.93	336.67	2396.66
Median	430	220	1610	414.62	208.23	1551.28	413.59	204.01	1528.25
Length Weighted Mean	400.37	203.39	1492.40	400.37	203.39	1492.40	401.18	201.44	1490.69
Standard Deviation	188.90	95.84	704.30	146.68	74.69	548.62	115.71	58.39	432.15
Coefficient of Variation	0.47	0.47	0.47	0.37	0.37	0.37	0.29	0.29	0.29
HW									
Number of Cases	730	730	730	239	239	239	325	325	325
Minimum	0.025	0.05	0.05	0.025	0.05	0.05	45.63	24.58	171.43
Maximum	2300	815	7570	677.30	325.36	2596.85	489.84	293.04	1893.95
Median	295	168	1120	287.45	155.74	1085	281.60	155.17	1054.89
Length Weighted Mean	281.23	156.33	1059.55	281.23	156.33	1059.55	279.65	154.59	1052.27
Standard Deviation	163.93	85.16	604.94	106.34	56.09	395.12	77.80	41.77	289.96
Coefficient of Variation	0.58	0.54	0.57	0.38	0.36	0.37	0.28	0.27	0.28

As part of the block model validation process, SLR ran check grade estimates using inverse distance cubed (ID^3) and nearest neighbour (NN) methods. A swath plot with slices every 25 m (five blocks) oriented along easting shows the agreement between the three estimation methods (Figure 14-11).

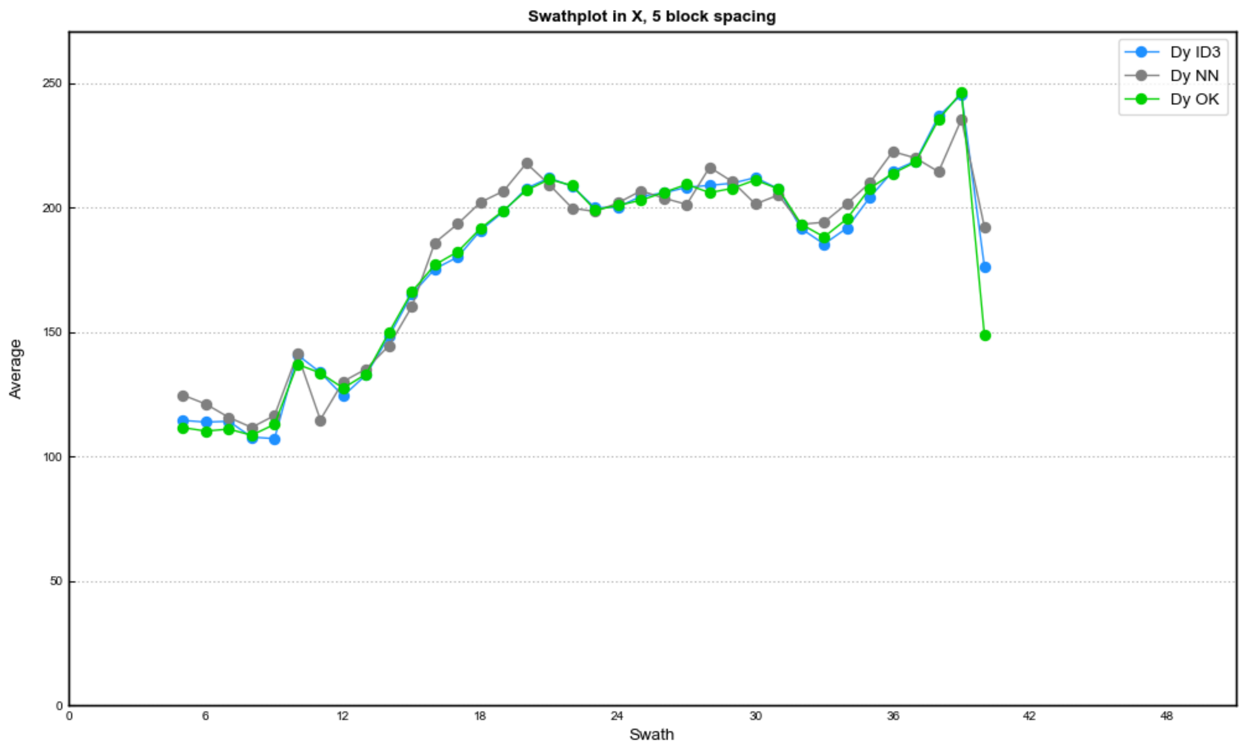


Figure 14-11: Swath plot by Easting – 25 m Swaths

14.1.12 Mineral Resource Reporting

SLR estimated Mineral Resources for Deep Fox using drill hole and channel sample data available as of December 31, 2021. Table 14-12 summarizes estimated grades of all REEs and REOs in the Deep Fox Mineral Resource potentially mineable by open pit and underground methods as of December 31, 2021. Net Value cut-off values differ for open pit and for underground Mineral Resources. No Mineral Reserves have been estimated at the project.

Table 14-12: Mineral Resources at Deep Fox – Effective Date December 31, 2021
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Units	Indicated			Inferred		
		Open Pit	Underground	Total	Open Pit	Underground	Total
Tonnage	000 t	3,906	1,148	5,054	1,028	2,269	3,297
				Element			
La	ppm	1,685	1,561	1,657	1,363	1,573	1,507
Ce	ppm	3,446	3,241	3,399	2,855	3,262	3,135
Pr	ppm	3,99	378	394	332	382	366
Nd	ppm	1,482	1,426	1,469	1,243	1,443	1,381
Sm	ppm	273	266	272	235	270	259
Eu	ppm	14	14	14	12	14	13
Gd	ppm	212	212	212	186	215	206

Parameter	Units	Indicated			Inferred		
		Open Pit	Underground	Total	Open Pit	Underground	Total
Tb	ppm	34	34	34	30	35	33
Dy	ppm	201	203	202	181	206	198
Ho	ppm	38	39	38	35	39	38
Er	ppm	108	109	108	98	111	107
Tm	ppm	15	15	15	14	15	15
Yb	ppm	92	94	93	87	95	92
Lu	ppm	13	14	13	13	14	13
Y	ppm	1,052	1,039	1,049	919	1,050	1,009
Oxide							
La_2O_3	ppm	1,976	1,830	1,943	1,598	1,845	1,768
Ce_2O_3	ppm	4,036	3,796	3,982	3,344	3,821	3,672
Pr_2O_3	ppm	466	443	461	389	447	429
Nd_2O_3	ppm	1,728	1,663	1,714	1,450	1,683	1,610
Sm_2O_3	ppm	317	309	315	273	313	300
Eu_2O_3	ppm	16	16	16	14	16	15
Gd_2O_3	ppm	245	244	245	214	248	238
Tb_2O_3	ppm	39	39	39	35	40	38
Dy_2O_3	ppm	231	233	231	207	237	228
Ho_2O_3	ppm	44	44	44	40	45	43
Er_2O_3	ppm	123	124	123	112	127	122
Tm_2O_3	ppm	17	17	17	16	18	17
Lu_2O_3	ppm	15	15	15	14	16	15
Yb_2O_3	ppm	105	107	106	99	108	105
Y_2O_3	ppm	1,336	1,320	1,332	1,167	1,333	1,281

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Open Pit Mineral Resources were reported inside a resource shell at pit discard Net Value cut-off value of $260/t. Underground Mineral Resources were constrained with mineralization wireframes below the resource shell and validated using underground mining solids based on a Net Value cut-off value of $335/t. Both cut-off values account for all processing, G&A, refining, and transportation charges. Mining costs were assumed at $6.50/t ore mined and $5.00/t waste mined for open pit and $75.00/t for underground.
3. Net Value was assigned to blocks using metal prices, metallurgical recoveries, payables (as shown in their respective sections of this Technical Report) for each individual element.
4. A minimum mining width two metres was used for both open pit and underground.
5. Bulk density varies from 2.71 t/m^3 to 2.92 t/m^3.
6. Revenue attributable to Pr, Nd, Dy, and Tb represent 92% of the total revenue.
7. The estimate is of Mineral Resources only and because these do not constitute Mineral Reserves, they do not have demonstrated economic viability.
8. Totals may not add or multiply accurately due to rounding.

14.1.13 Comparison with Previous Estimate

The Mineral Resource estimates for Deep Fox reported in the RPA (2019) and in this Technical Report are compared in Table 14-13. The 2021 Deep Fox Mineral Resource estimate included 5.1 million tonnes (Mt) classified as Indicated at average grades of 394 ppm Pr, 1,469 ppm Nd, and 202 ppm Dy, and 3.3 Mt classified as Inferred at average grades of 366 ppm Pr, 1,381 ppm Nd, and 198 ppm Dy.

Table 14-13: Comparison with Previous Mineral Resource Estimates for Deep Fox
Search Minerals Inc. – Deep Fox and Foxtrot Project

Year	Class	Mineral Resource				% Change			
		Tonnage (000 t)	Grade			Tonnage (000 t)	Grade		
			(ppm Pr)	(ppm Nd)	(ppm Dy)		(ppm Pr)	(ppm Nd)	(ppm Dy)
2019	Indicated	2,329	403	1,486	206	-	-	-	-
	Inferred	3,902	357	1,323	181	-	-	-	-
2021	Indicated	5,054	394	1,469	202	117%	-2%	-1%	-2%
	Inferred	3,297	366	1,381	198	-16%	3%	4%	9%

The 2021 Mineral Resource estimate for Deep Fox reflects the expansion of the interpreted mineralized wireframes based on the 2021 drilling, along with updated metal prices, revised open pit parameters, and the addition of underground resources. The Indicated Resources tonnage increased by 117%, accompanied by decrease of grades of 1% to 2% for Pr, Nd, and Dy, while the Inferred Resources tonnage decreased by 16%, with increase of the grades of 3% for Pr, 4% for Nd, and 9% for Dy.

14.2 Foxtrot Deposit

SLR estimated Mineral Resources for Foxtrot using all drill hole and channel sample data available as of December 31, 2021. Table 14-14 summarizes the estimated Mineral Resources potentially mineable by open pit and underground methods as of December 31, 2021.

Table 14-14: Summary of Foxtrot Mineral Resources as of December 31, 2021
Search Minerals Inc. – Deep Fox and Foxtrot Project

Classification	Tonnage (000 t)	Grade			
		(ppm Pr)	(ppm Nd)	(ppm Dy)	(ppm Tb)
Open Pit					
Indicated	4,577	366	1,372	175	30
Inferred	413	322	1,202	173	29
Underground					
Indicated	5,462	365	1,366	177	30
Inferred	2,593	379	1,413	177	31
Totals					
Total Indicated	10,040	366	1,368	176	30
Total Inferred	3,006	371	1,384	177	30

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Open Pit Mineral Resources were reported inside a resource shell at pit discard Net Value cut-off value of $260/t. Underground Mineral Resources were constrained with mineralization wireframes below the resource shell and validated using underground mining solids based on a Net Value cut-off value of $335/t. Both cut-off values account for all processing, G&A, refining, and transportation charges. Mining costs were assumed at $6.50/t ore mined and $5.00/t waste mined for open pit and $75.00/t for underground.
3. Net Value values were assigned to blocks using metal prices, metallurgical recoveries, payables (as shown in their respective sections of this Technical Report) for each individual element.
4. A minimum mining width two metres was used for both open pit and underground.
5. A bulk density of 2.71 t/m^3 was used.
6. Revenue attributable to Pr, Nd, Dy, and Tb represent 92% of the total revenue.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
8. Totals may not add or multiply accurately due to rounding.

SLR is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

14.2.1 Resource Database

SLR was provided with a drill hole database consisting of 119 drill holes and channel samples, totaling 19,399 m, with 93 of the holes/channels (16,107 m) located within the estimated Mineral Resources. Figure 14-12 shows the drill hole and channels traces in plan.

SLR received data from Search Minerals in Microsoft Excel format. Data were amalgamated and parsed as required and imported in the GEMS project database, then used for modelling.

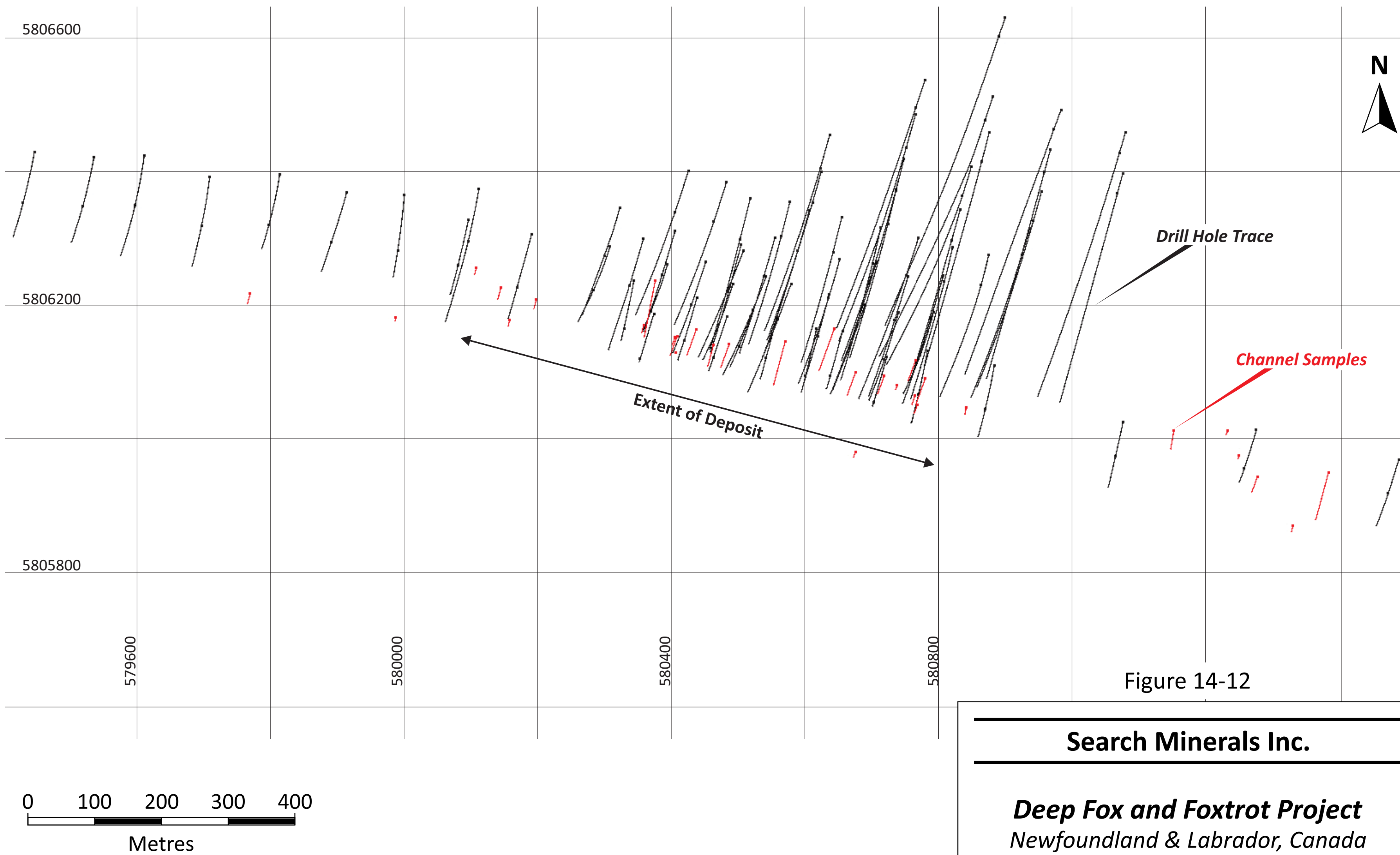


Figure 14-12

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Drill Holes and Channels

July 2022

Source: RPA, 2016.

Twenty-four channels were combined into seven composite channels. The original channel names and final composited channel names are summarized in Table 14-15.

Table 14-15: Composited Channels and Original Channel Segments for Foxtrot
Search Minerals Inc. – Deep Fox and Foxtrot Project

Composited Channel Name	Number of Channel Segments	Original Channel Names
CCH-1	5	FTC-12-02, FTC-15-01A, FTC-15-01B, FTC-15-01C, FTC-15-01D
CCH-2	2	FTC-11-35, FTC-15-02
CCH-3	5	FTC-15-04A, FTC-11-32, FTC-15-04B, FTC-15-04C, FTC-15-04D
CCH-4	5	FTC-11-13, FTC-15-05A, FTC-15-05B, FTC-15-05C, FTC-15-05D
CCH-5	2	FTC-12-05, FTC-15-06
CCH-6	3	FH-56, FTC-15-07A, FTC-15-07B
CCH-7	2	FTC-12-01, FTC-11-10

Section 12 Data Verification describes the verification steps undertaken by SLR. In summary, no discrepancies were identified and the QPs are of the opinion that the GEMS drill hole database is valid and suitable to estimate Foxtrot Mineral Resources.

14.2.2 Geological Interpretation

Wireframes of the mineralized zones were built to investigate geological and grade continuity and to constrain grade interpolation within the block model.

SLR created northeast-southwest vertical sections spaced at 50 m perpendicular to the strike of the mineralization at an azimuth of 285°, and plan sections spaced at 20 m. Mineralized zones were interpreted on vertical section and snapped to drill holes to generate a set of 3D wobbly polylines on each section. At model extremities, polylines were extrapolated approximately 25 m beyond the last drill section. A minimum number of nodes were used to simplify updates. Polylines were joined together in 3D using tie lines and the continuity was checked using the level plans.

Foxtrot comprises three mineralized wireframes: Core, Hanging Wall (HW), and Footwall (FW), as illustrated in Figure 14-13 and Figure 14-14. Wireframes are summarized in Table 14-16. The wireframes were interpreted in 2015 using a minimum Net Value of $140/t, and a minimum mining width of two metres. Narrow intercepts were widened to achieve a minimum thickness where required. All three wireframes have been modelled as single steeply dipping (70° to 80°) solids, with a strike length of approximately 765 m at an azimuth of approximately 285°. The wireframes have been extended no more than 25 m below the deepest drill hole intercept to a maximum of -395 MASL, and the upper surfaces have been clipped to the topography. A description of each modelled wireframe follows:

Core Zone: A steeply dipping (70° to 80°) single wireframe solid comprised predominantly of mineralized pantellerite, with a strike length of 765 m at an azimuth of approximately 285°. The unit has been modelled to a depth of -395 m, with an average thickness of 15 m, but ranges from 2 m to 25 m. The central portion of the Core Zone reaches a thickness of nearly 30 m, at a depth of approximately -50 MASL. The wireframe model narrows to approximately 10 m to southeast and 5 m to the northwest. The top of the Core Zone wireframe solid has been clipped to topography. The Core Zone is the main zone of mineralization.

Hanging Wall Zone: A thin zone of mineralization located above the Core Zone, the HW Zone is a steeply dipping (70° to 80°) single wireframe solid comprised predominantly of mineralized pantellerite and low Zr-pantellerite, with a strike length of 765 m at an azimuth of approximately 285°. Small lenses of mafic rock locally intermingle with the mineralized pantellerite within the HW Zone. Mafic lenses are typically less than 40 cm to 50 cm in thickness. Approximately five to seven metres of predominantly mafic rock separate the HW Zone from the Core Zone.

Footwall Zone: A thin zone of mineralization located below the Core Zone, the FW Zone is a steeply dipping (70° to 80°) single wireframe solid comprised predominantly of mineralized pantellerite and low Zr-pantellerite, with a strike length of 765 m at an azimuth of approximately 285°. As with the HW Zone, small lenses of mafic rock locally intermingle with the mineralized pantellerite within the FW Zone. Approximately five metres to nearly 15 m of mafic and non-peralkaline rhyolitic rocks separate the FW Zone from the Core Zone.

Table 14-16: Foxtrot Wireframe Attributes and Volumes
Search Minerals Inc. – Deep Fox and Foxtrot Project

Mineralization	Solid Name	Rock Code	Volume (m^3)	Density (t/m^3)
Core Zone	NSR_CORE/101/final	101	3,450,695	2.71
Hanging Wall Zone	NSR_HW/201/final	201	1,217,632	2.71
Footwall Zone	NSR_FW/202/final	202	890,187	2.71

Looking Northwest

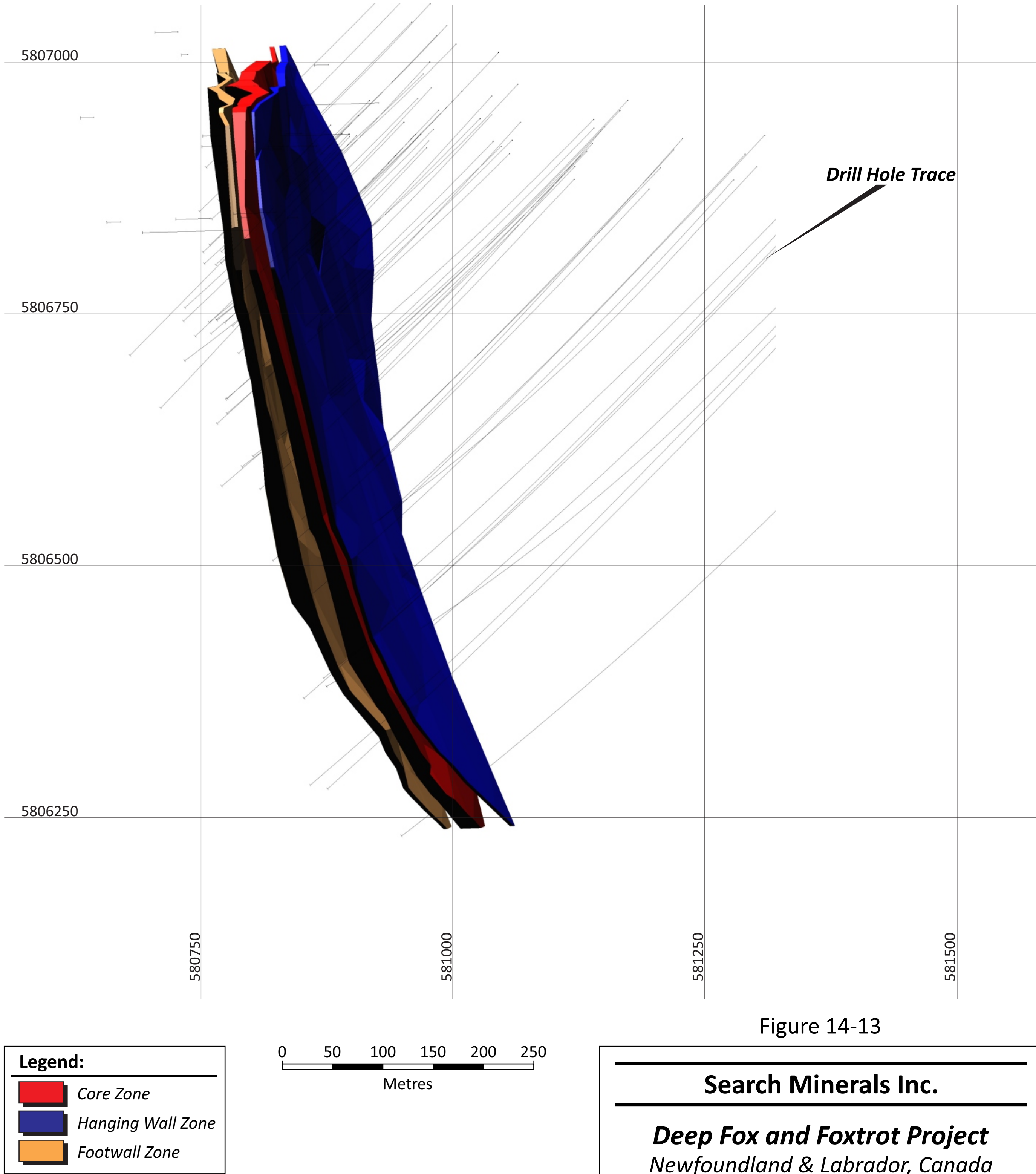


Figure 14-13

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Mineralized Wireframes - Vertical Section

July 2022

Source: RPA, 2016.

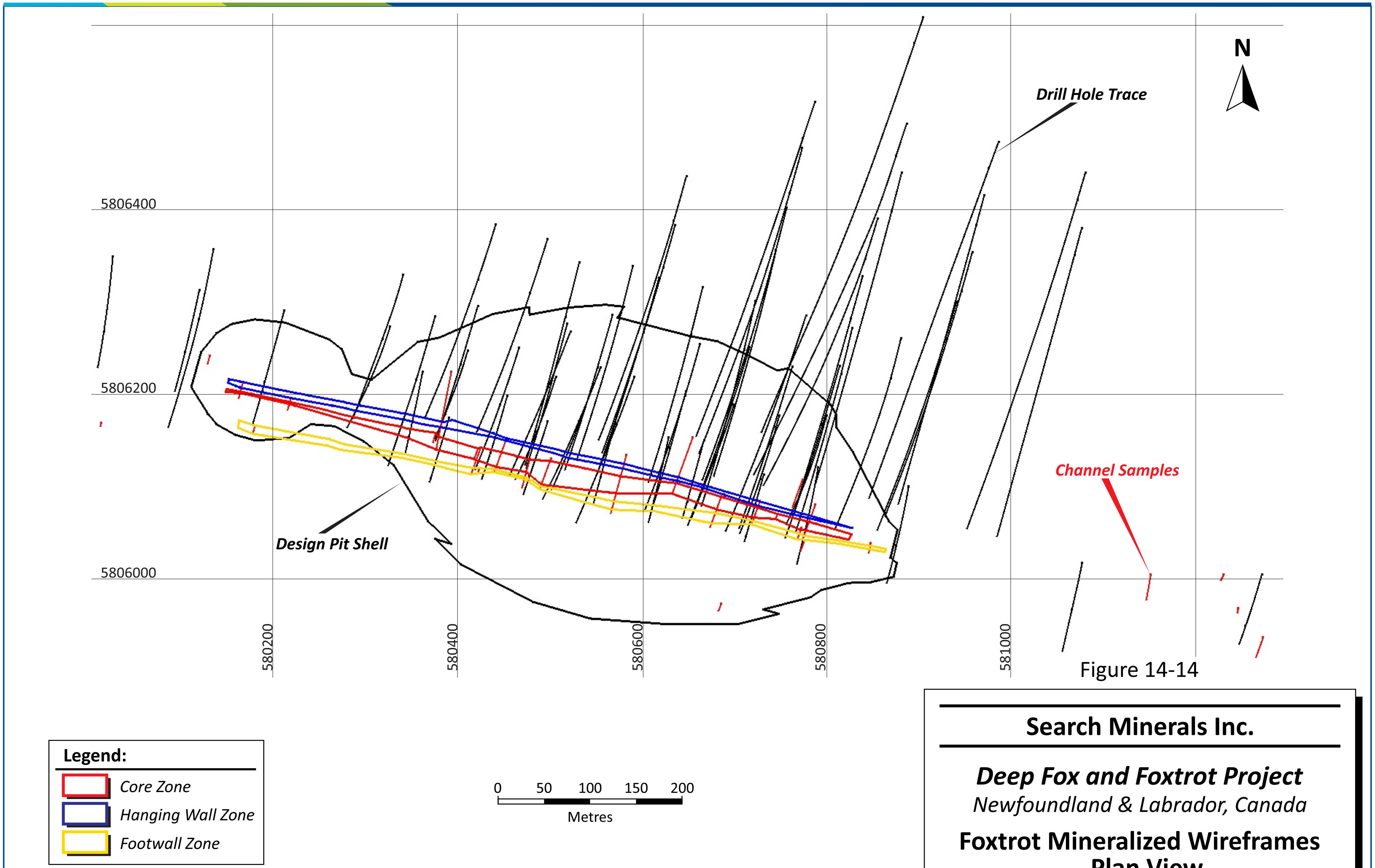


Figure 14-14

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Mineralized Wireframes - Plan View

July 2022

Source: RPA, 2016.

All Mineral Resources estimated at Foxtrot are located within the mineralized zone wireframes.

For the current estimate, SLR updated the Net Value values, resulting in a mineralization wireframe cut-off value of $260/t. SLR revisited the 2015 mineralized wireframes interpretation in order to update the wireframes. A thorough review of the interpretation led to the conclusion that using the updated Net Value, insignificant changes would be made to the resource wireframes. As such, the mineralization wireframes remained unchanged, and the block grades estimated for 2015 estimate remained current. The changes for the current model consisted in recalculating the Net Value attribute. The updated model was then subjected to open pit and underground optimization routines to generate resource constraining surfaces or volumes.

14.2.3 Resource Assays

The Foxtrot resource block model includes the following elements and calculated attributes:

- All of the lanthanoids –La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu – with the exception of promethium (Pm), which does not occur in nature
- Yttrium (Y), which is usually classified as a REE
- Combinations of the 15 REEs: the TREEs, LREEs, including La, Ce, Pr, Nd, and Sm, and HREEs, including Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, and Y
- Net Value

The REE elements at Foxtrot exhibit very good correlation, such following the behaviour of a LREE or a HREE gives indications about the general behaviour of the rest of the elements in the group. The three elements carrying the greatest in situ value, Pr, Dy, and Nd, were the focus of the statistical analysis.

Assay values located inside the mineralization wireframes, the resource assays, were tagged with mineralized zone domain identifiers and exported for statistical analysis. Results assisted in verifying the modeling process. SLR compiled and reviewed the basic statistics for Pr, Dy, and Nd, which are summarized in Table 14-17.

Table 14-17: Descriptive Statistics of Resource Assay Values for Foxtrot
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Length (m)	Pr (ppm)	Dy (ppm)	Nd (ppm)
Core Zone (Rock Code 101)				
No. of Cases	1,525	1,525	1,525	1,525
Minimum	0.04	-	-	-
Maximum	2.90	1,190.00	391.00	3,890.00
Median	0.99	412.00	199.50	1,540.00
Arithmetic Mean	0.83	369.56	175.94	1,375.07
Length Weighted Mean	-	386.10	183.72	1,436.56
Standard Deviation	0.28	168.90	77.33	622.72
Coefficient of Variation	0.34	0.46	0.44	0.45

Parameter	Length (m)	Pr (ppm)	Dy (ppm)	Nd (ppm)
Hanging Wall Zone (Rock Code 201)				
No. of Cases	388	388	388	388
Minimum	0.02	-	-	-
Maximum	2.95	1,210.00	458.00	4,360.00
Median	0.80	277	141.00	1,070.00
Arithmetic Mean	0.75	295.48	152.32	1,134.80
Length Weighted Mean	-	310.81	159.48	1,191.05
Standard Deviation	0.33	190.00	92.83	724.37
Coefficient of Variation	0.43	0.64	0.61	0.64
Footwall Zone (Rock Code 202)				
No. of Cases	460	460	460	460
Minimum	0.08	-	-	-
Maximum	2.25	754.00	476.00	2,630.00
Median	0.99	282.00	127.00	1,040.00
Arithmetic Mean	0.85	261.26	127.51	965.02
Length Weighted Mean	-	270.96	131.19	1,000.91
Standard Deviation	0.29	146.92	67.89	545.43
Coefficient of Variation	0.34	0.56	0.53	0.57
Total				
No. of Cases	2,373	2,373	2,373	2,373
Minimum	0.02	-	-	-
Maximum	2.95	1,210.00	476.00	4,360.00
Median	0.98	356.00	170.00	1,330.00
Arithmetic Mean	0.82	336.46	162.69	1,256.30
Length Weighted Mean	-	351.84	169.60	1,312.82
Standard Deviation	0.29	174.56	80.69	648.27
Coefficient of Variation	0.36	0.52	0.50	0.52

Figure 14-15, Figure 14-16, and Figure 14-17 show histograms of Pr, Dy, and Nd, respectively, for all assays used in the resource estimate. The distributions show three prominent modes that correspond to two main rock types. The lowest mode belongs to samples from the mafic volcanic units. The two high grade modes belong to low-Zr pantellerite, and pantellerite-mafic mixed intervals (lower grade) and pantellerite (higher grade).

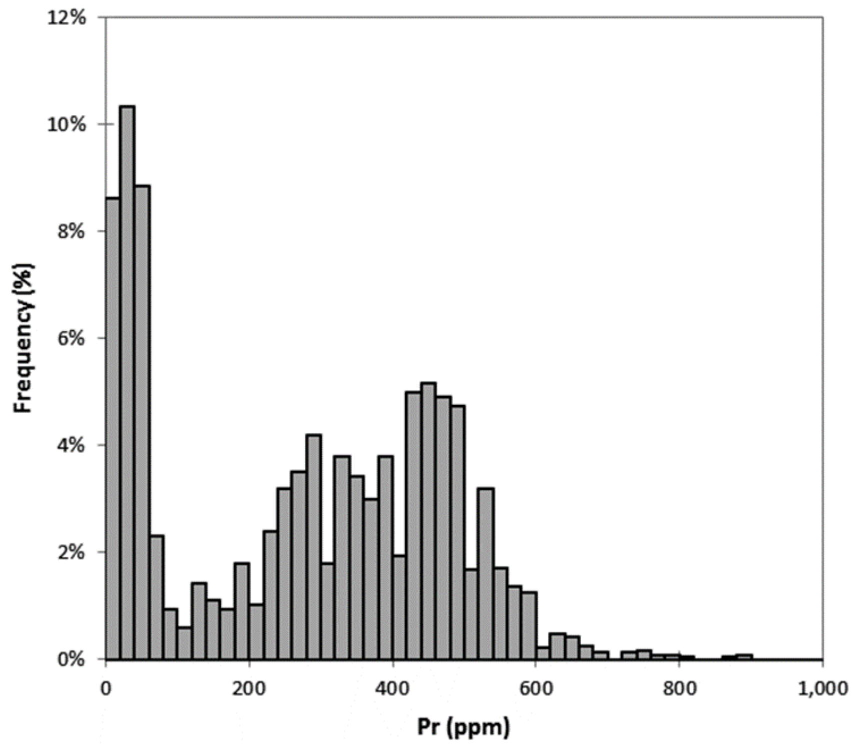


Figure 14-15: Pr Resource Assay Sample Histogram

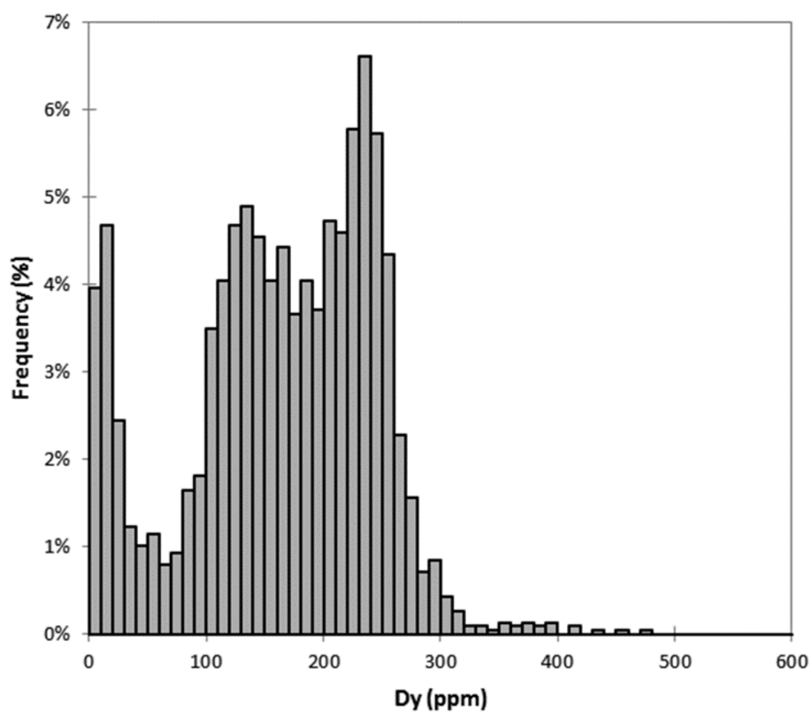


Figure 14-16: Dy Resource Assay Sample Histogram

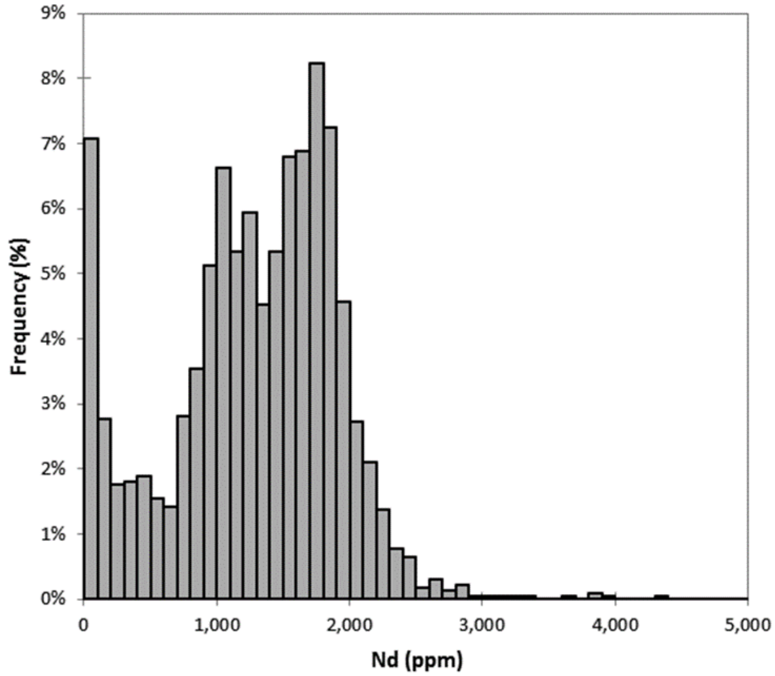


Figure 14-17: Nd Resource Assay Sample Histogram

Table 14-18 summarizes the basic statistics for all 15 REEs as well as LREE, HREE, and TREE for all resource assays within the mineralized wireframe domains.

Table 14-18: All REE Descriptive Statistics of Resource Assay
Search Minerals Inc. – Deep Fox and Foxtrot Project

Statistic	No. of Cases	Minimum	Maximum	Mean	Length Weighted Mean	SD	CV
Y (ppm)	2,373	-	3,399.00	894.23	932.81	455.18	0.51
La (ppm)	2,373	-	5,460.00	1,451.64	1,518.46	811.65	0.56
Ce (ppm)	2,373	-	10,800.00	2,947.76	3,082.93	1,551.70	0.53
Pr (ppm)	2,373	-	1,210.00	336.46	351.84	174.56	0.52
Nd (ppm)	2,373	-	4,360.00	1,256.30	1,312.82	648.27	0.52
Sm (ppm)	2,373	-	681.00	225.77	235.93	113.93	0.50
Eu (ppm)	2,373	-	33.10	11.49	11.94	5.42	0.47
Gd (ppm)	2,373	-	519.00	177.25	185.03	88.20	0.50
Tb (ppm)	2,373	-	80.00	27.97	29.17	13.85	0.50
Dy (ppm)	2,373	-	476.00	162.69	169.60	80.69	0.50
Ho (ppm)	2,373	-	99.00	31.31	32.65	15.58	0.50
Er (ppm)	2,373	-	293.00	88.53	92.34	44.05	0.50

Statistic	No. of Cases	Minimum	Maximum	Mean	Length Weighted Mean	SD	CV
Tm (ppm)	2,373	-	42.00	12.73	13.28	6.35	0.50
Yb (ppm)	2,373	-	269.00	78.70	82.07	39.13	0.50
Lu (ppm)	2,373	-	44.00	11.72	12.22	5.83	0.50
LREE (ppm)	2,373	-	22,411.00	6,217.89	6,501.96	3,266.01	0.53
HREE (ppm)	2,373	-	4,201.40	1,482.42	1,546.26	741.11	0.50
TREE (ppm)	2,373	-	40,715.00	8,191.92	8,443.15	5,347.75	0.65

14.2.4 Treatment of High Grade Assays

SLR investigated the necessity for capping of high grade resource assays. A review of the resource assay histograms, and top decile analysis performed for Nd, Pr, Eu, Dy, Er, Lu, and Tb showed that capping was not necessary. This is confirmed by low coefficients of variations in the resource assay values, as summarized in Table 14-17.

14.2.5 Compositing

Sample lengths range from 0.04 m to 2.95 m within the wireframe models. Approximately 83% of samples were taken at 0.5 m to 1.5 m intervals (Figure 14-18). Less than 1% have lengths greater than 2.0 m. Given these distributions and considering the width of mineralization, SLR chose to composite to 2.0 m lengths. The resource assays were composited starting at the first mineralized wireframe boundary from the collar and resetting at each new wireframe boundary. Orphan composites with a length less than 0.5 m, representing 25% of the nominal composite length, were discarded.

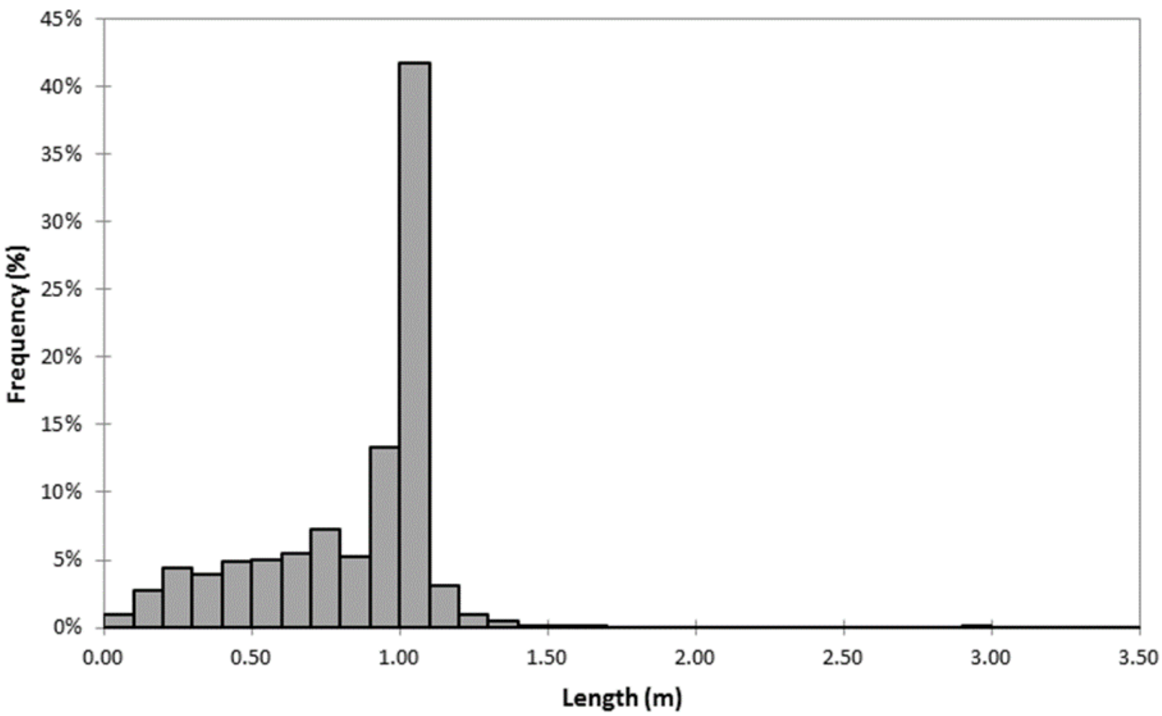


Figure 14-18: Histogram of Resource Assay Sample Lengths

Table 14-19 summarizes the Pr, Dy, and Nd statistics of the composite resource assay values. When compared to Table 14-17, the average grades are nearly the same and the coefficient of variation (CV) values have been reduced.

Table 14-19: Descriptive Statistics of Composited Resource Assay Values
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Pr (ppm)	Dy (ppm)	Nd (ppm)
Core Zone (Rock Code 101)			
No. of Cases	667	667	667
Minimum	4	4.76	18.93
Maximum	737.00	327.80	2,837.08
Median	409.00	194.94	1,542.25
Arithmetic Mean	386.07	184.06	1,436.42
SD	120.25	55.87	445.07
CV	0.31	0.30	0.31
Hanging Wall Zone (Rock Code 201)			
No. of Cases	160	160	160
Minimum	-	-	-

Parameter	Pr (ppm)	Dy (ppm)	Nd (ppm)
Maximum	1,090.00	392.61	3,973.75
Median	298.00	152.97	1,151.91
Arithmetic Mean	308.60	157.89	1,181.80
SD	145.34	70.36	548.59
CV	0.47	0.45	0.46
Footwall Zone (Rock Code 202)			
No. of Cases	215	215	215
Minimum	-	-	-
Maximum	647.00	292.00	2,309.95
Median	284.00	127.16	1,046.12
Arithmetic Mean	273.91	132.47	1,012.18
SD	114.35	49.50	426.89
CV	0.42	0.37	0.42
Total			
No. of Cases	1,042	1,042	1,042
Minimum	-	-	-
Maximum	1,090.00	392.61	3,973.75
Median	357.00	169.79	1,326.64
Arithmetic Mean	351.03	169.40	1,309.79
SD	132.12	60.80	491.17
CV	0.38	0.36	0.37

14.2.6 Variography and Interpolation Parameters

Initial variography studies were completed in 2012 (RPA, 2012), and demonstrated very strong correlations among all elements, and used a single variogram model for grade interpolation. Variography analysis was completed by SLR on the current database with the GEMS geostatistics module using all available 2.0 m composite samples, confirming the direction of maximum continuity along strike (Y) at 285°, with a range of 280 m. In the down-dip direction (X), the range is 140 m, and perpendicular to the strike direction (Z) the range is approximately 10 m.

Variography parameters were used for interpolation of all REE 2.0 m composites by ID^3 for all mineralized zones. The interpolation and search parameters are summarized in Table 14-20.

Table 14-20: Block Estimate Estimation Parameters for Foxtrot
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter			All Rare Earth Elements
Method			ID^3
Boundary Type			Hard
Min. No. Comps.		Pass 1	2
		Pass 2	5
Max. No. Comps.		Pass 1	1
		Pass 2	6
Max. Comps. Per Drill Hole		Pass 1	3
		Pass 2	-
Search Anisotropy[1]		Z	195°
		Y	75°
		Z	105°
Search Ellipse	Range X (m)	Pass 1	70
		Pass 2	140
	Range Y (m)	Pass 1	140
		Pass 2	280
	Range Z (m)	Pass 1	5
		Pass 2	10

Note:

1. Rotation around each axis (positive is counter-clockwise).

A two-pass approach was used to interpolate REE block grades for all domains. Interpolation was restricted by the mineralized wireframe models, which were used as hard boundaries to prevent the use of composite samples outside of the zones to interpolate block grades. The first pass used an X search distance of 70 m, a Y search distance of 140 m, and a Z search distance of 5 m, and was limited to a minimum of two and a maximum of five composites per block, with a limit of two composites used per drill hole. The second pass used an X search distance of 140 m, a Y search distance of 280 m, and a Z search distance of 10 m (i.e., the search distances were doubled), and was limited to a minimum of one and a maximum of six composites per block with no limit to the number of composites used per drill hole. Identical search ellipses were used for all REEs in all three mineralized zones.

14.2.7 Net Value Cut-off Value

The depth and geometry of the interpreted Foxtrot mineralized domains make it amenable to open pit methods near surface and to underground mining methods at deeper levels. Net Value factors were developed by SLR for the purposes of resource reporting. Net Value is the estimated value per tonne of mineralized material after allowance for metallurgical recovery and consideration of terms for third-party separation and refining, including payability and charges. These assumptions are based on the current processing scenario and results from metallurgical test work.

The net revenue of seven payable REEs was calculated and then divided by grade to generate a Net Value factor for resource reporting. These Net Value factors represent revenue per oxide grade unit (US$/kg Dy_2O_3, for example), and are independent of grade. Key assumptions are summarized in Table 14-21 and Table 14-22.

Table 14-21: Cut-Off Value Assumptions for Deep Fox and Foxtrot
Search Minerals Inc. – Deep Fox and Foxtrot Project

Element	Oxide Price (US$/kg)	Element to Oxide Conversion Factor	Recoveries (%)	Net Value Factor (C$/ppm)
Praseodymium	108	1.17	88.6	0.137
Neodymium	110	1.17	86.2	0.135
Dysprosium	614	1.15	84.0	0.703
Terbium	1,535	1.15	84.0	1.763

Notes:
1. An exchange rate of C$1.00:US$0.80 was used to convert oxide prices.
2. Off-site treatment charges of US$5.00/kg for TREO plus US$20.00/kg for HREO were assumed and are included in the operating costs.
3. Recoveries to a mixed REO concentrate are based on test-work and a further recovery loss for separation has been assumed (2% for Neodymium and Praseodymium, and 5% for all HREO).

Table 14-22: Operating Cost Assumptions for Deep Fox and Foxtrot to Determine Cut-off Value
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Unit	Input
Additional Haulage to Port	$/tonne	2.00
Magnetic Separation	$/tonne	36.40
G&A (mine site)	$/tonne	10.97
Transport to Hydrometallurgical Processing Plant	$/tonne	5.07
Hydrometallurgical Processing Plant	$/tonne	88.10
G&A (Hydrometallurgical Processing Plant)	$/tonne	2.74
Separation Plant (Full feed)	$/tonne	60.71
Separation Plant (HREO)	$/tonne	52.04
Net Value Cut-Off	**$/tonne**	**258**

Notes:
1. Open pit mining is reported at pit discard cut-off, which excludes mining costs. Mining costs of $75/t were assumed for underground mining.

These Net Value factors were applied to assay grades to help interpret the mineralized zone outlines on drill sections, which were used to generate the mineralized zone wireframes. A minimum Net Value of $260/t was used to select drill hole intercepts. These intercepts were then interpreted on drill sections.

The Net Value factors were used to calculate a Net Value ($ per tonne) for each block in the block model, which was compared directly to unit operating costs required to mine that block (Table 14-22). All classified resource blocks located within the mineralized wireframe domains and above the design pit shell with Net Values greater than $260/t were included in the open pit resource estimate. All classified resource blocks located within the underground reporting mineralized wireframe domains and below the pit shell with Net Values greater than $335/t were included in the underground resource estimate. Both open pit and underground resource blocks exhibited good continuity.

14.2.8 Bulk Density

To convert volumes to tonnes, a bulk density factor of 2.71 t/m3 was assigned to all blocks within the mineralization wireframes. The factor is based on 28 samples collected from the three major Foxtrot rock types by SLR and Benchmark Six during the 2011 site visit. Five augen gneiss samples had an average dry bulk density of 2.53 t/m3, 12 felsic extrusive rock samples had an average dry bulk density of 2.71 t/m3, and 11 mafic extrusive rock samples had an average dry bulk density of 2.88 t/m3. Because there is insufficient density test work completed for Foxtrot, SLR applied the average dry bulk density of the three rock types, 2.71 t/m3, which is also the average bulk density of the felsic extrusive rock samples, until more data are generated. This value is slightly lower than the average bulk density of 2.77 t/m^3 used in the 2012 PEA block model. In the opinion of the QPs, this is reasonable given that the new mineralized wireframe models incorporated significantly less mafic rock.

14.2.9 Block Model

The GEMS block model is made up of 260 columns, 305 rows, and 130 levels for 10,309,000 blocks. The model origin (lower-left corner at highest elevation) is at UTM Grid Zone 21N, NAD83 579,809.22 mE, 5,805,971.66 mN and 125 m elevation. The block model is oriented N75°W and each block is 5 m (x) by 2.5 m (y) by 5 m (z). A percent block model is used to manage blocks partially filled by mineralized rock types, including blocks along the edges of the deposit. A percent model uses the percentage of a mineralized zone contained within each block. The block model contains the following information:

- Domain identifiers with mineralized zone
- Estimated grades of all REEs, LREE, HREE, and TREE inside the wireframe models
- Net Value estimates calculated from block grades and related economic and metallurgical assumptions
- Percentage volume of each block within the mineralization wireframes
- Tonnage factors, in tonnes per cubic metre, specific to each rock type
- Number of samples within the search ellipse
- Distance to the closest composite used to interpolate the block grade
- Number of composites used to interpolate the block grade
- Number of drill holes used to interpolate the block grade
- Resource classification of each block

14.2.10 Classification

Definitions for resource categories used in this Technical Report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction." Mineral Resources are classified into Measured, Indicated, and Inferred categories, according to the confidence level in the estimated blocks.

SLR classified the Foxtrot Resource as Indicated and Inferred based on drill hole and surface channel spacing, the reliability of data, and geological confidence in the continuity of grade (Figure 14-19). The overall geological continuity of Foxtrot is consistent in the plane of the mineralization. The grade continuity is also quite consistent, with moderate to high grades confined to pantellerite units versus low REE values within the mafic rocks. The consistent nature of the mineralization, for both the grade and geological continuity, provides sufficient confidence to allow classification of most of the Mineral Resources as Indicated. Composites located within the wireframes were plotted on an inclined south-looking section in the dip plane of the mineralized wireframes and reviewed for their spatial distribution and spacing. Where SLR deemed that the spacing was insufficient to establish grade and geological continuity with confidence (generally >50 m), the Mineral Resource was classified as Inferred.

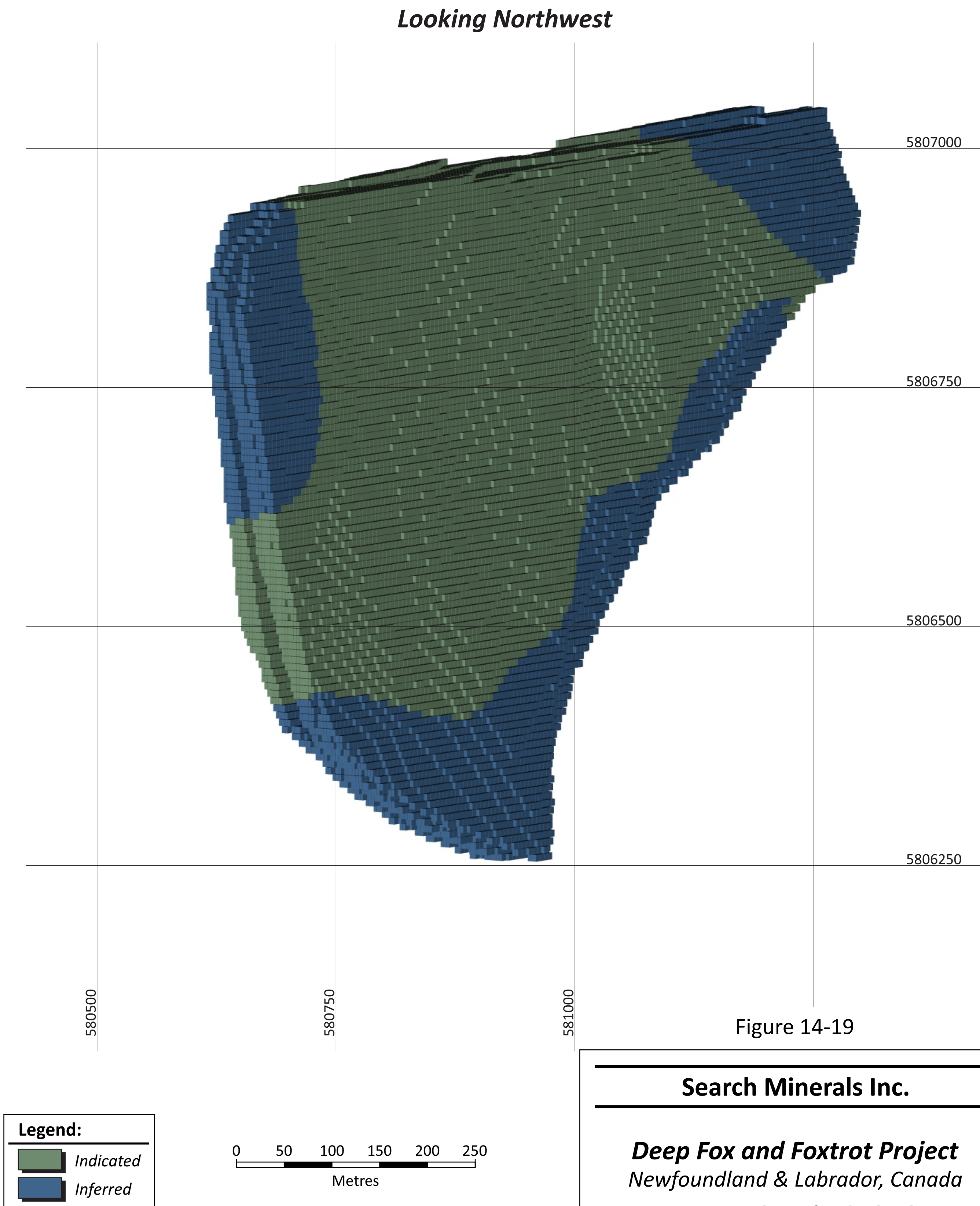


Figure 14-19

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Classified Blocks

July 2022

Source: RPA, 2016.

14.2.11 Block Model Validation

SLR carried out a number of block model validation procedures including:

- Visual comparisons of block Net Value, Pr, Nd, Eu, Tb, Dy, Er, and Lu versus composite grades
- Statistical comparisons of Dy, Pr, and Nd
- Comparison of Dy, Pr, and Nd block and composite grades in blocks containing composites

Block model grades were visually examined and compared with composite grades in cross section and in elevation plans. SLR found grade continuity to be reasonable and confirmed that the block grades were reasonably consistent with local drill hole and channel sample assay and composite grades. Figure 14-20 shows a plan view with composites and estimated block values for Net Value at -35 m elevation. Figure 14-21 shows a cross section, looking west, with composites and estimated block values for Net Value at 580,500 m E.

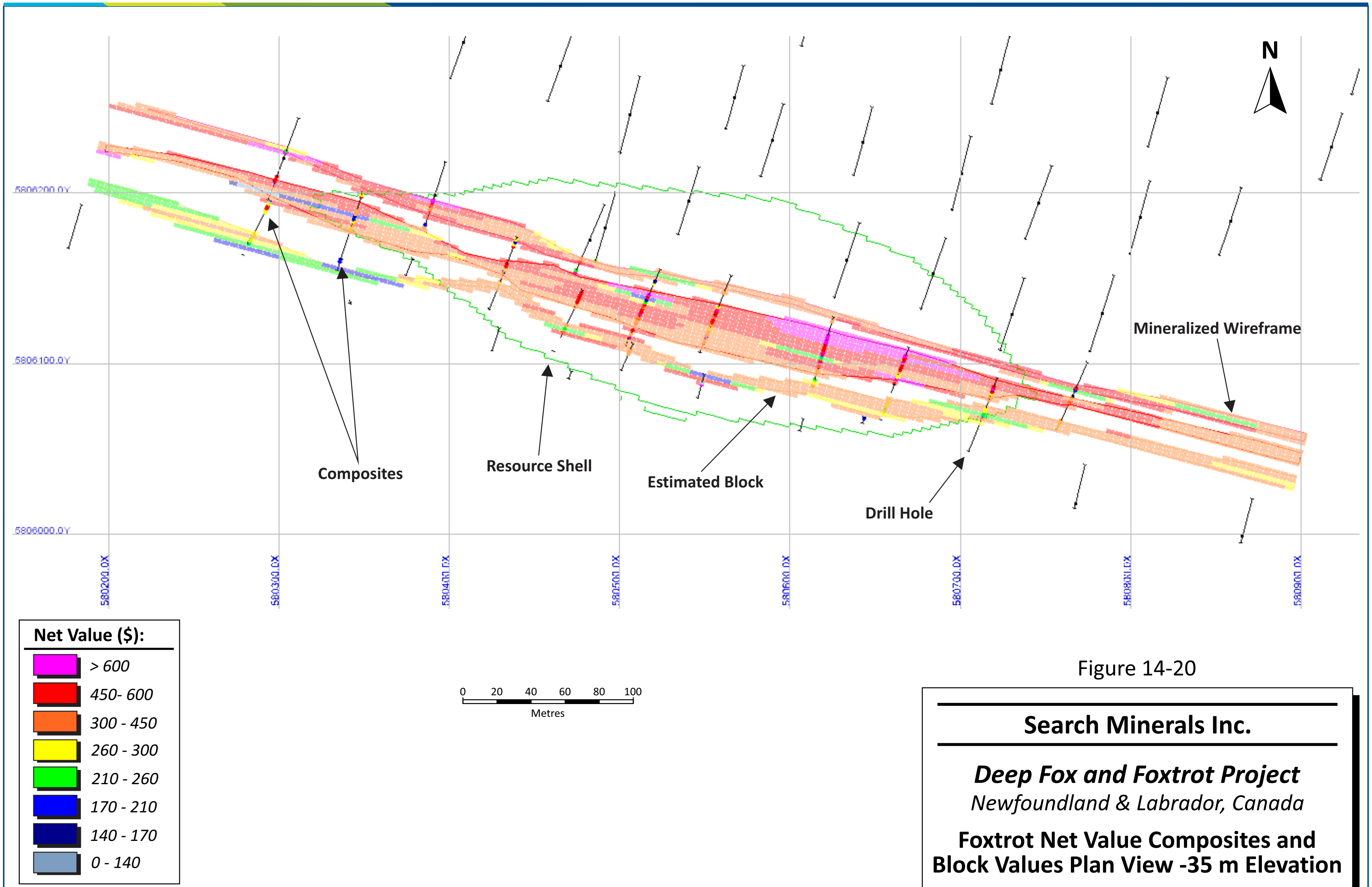


Figure 14-20

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Net Value Composites and Block Values Plan View -35 m Elevation

July 2022

Source: SLR, 2022.

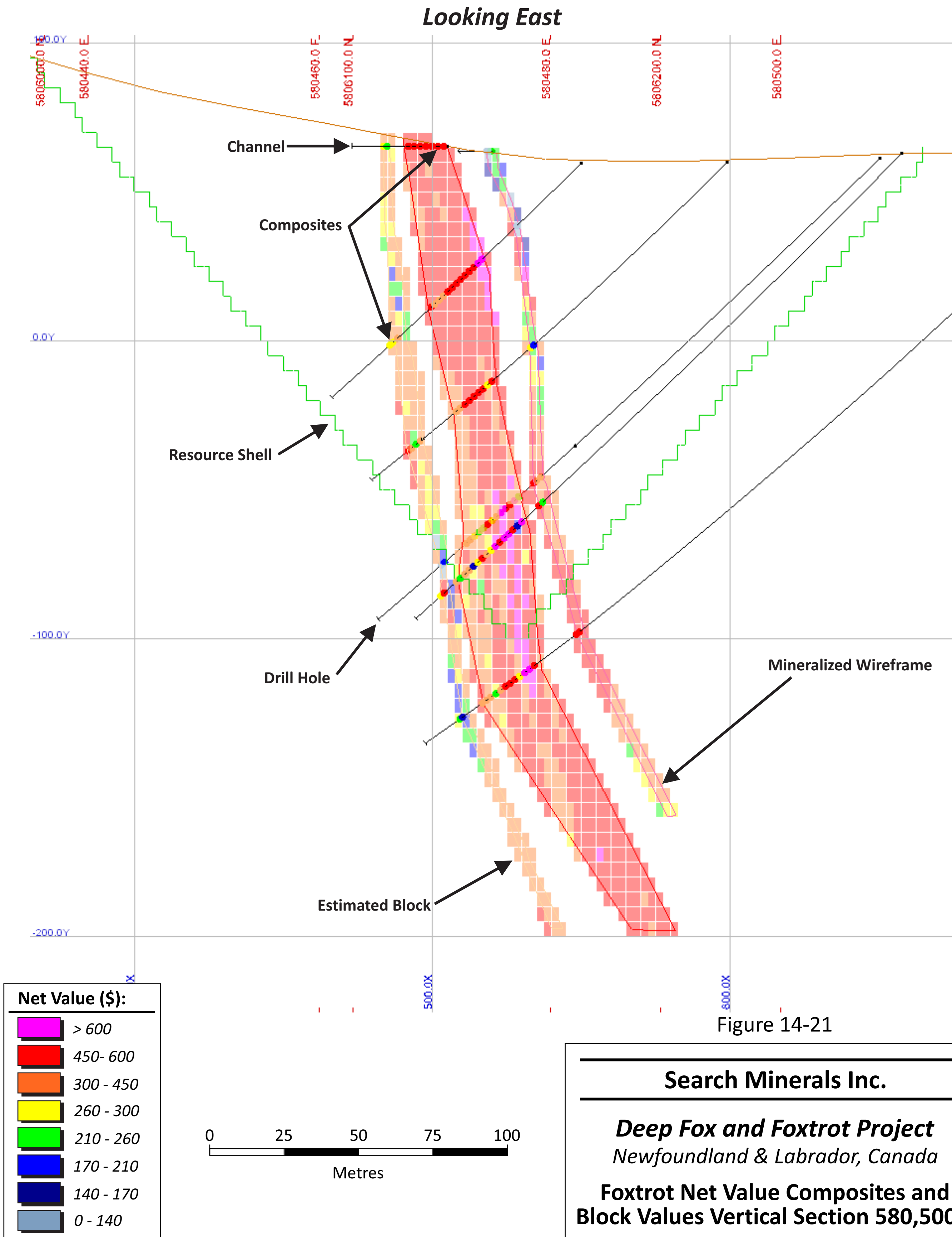


Figure 14-21

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Net Value Composites and Block Values Vertical Section 580,500 E

July 2022

Source: SLR, 2022.

Grade statistics for Dy, Pr, and Nd assays, composites, and resource blocks were examined and compared for the mineralized wireframe models, as shown in Table 14-23. The comparisons of average grades of length weighted assays, composites, and blocks are reasonable in SLR's opinion.

Table 14-23: Comparison of Praesodymium, Dysprosium, and Neodymium Grade Statistics for Assays, Composites, and Resource Blocks for Foxtrot
Search Minerals Inc. – Deep Fox and Foxtrot Project

Zone	Assays			2.0 m Composites			Block Model Grades		
	Pr (ppm)	Dy (ppm)	Nd (ppm)	Pr (ppm)	Dy (ppm)	Nd (ppm)	Pr (ppm)	Dy (ppm)	Nd (ppm)
Core (101)									
Number of Cases	1,525	1,525	1,525	667	667	667	68,208	68,208	68,208
Minimum	-	-	-	4	4.76	18.93	35	19	133.57
Maximum	1,190	391.00	3,890.00	737	327.8	2,837.08	731	323.49	2,806.87
Median	412	199.50	1,540.00	409	194.94	1,542.25	395	186.29	1,478.30
Arithmetic Mean	369.56	175.94	1,375.07	386.07	184.06	1,436.42	386.31	183.44	1,436.87
Length Weighted Mean	386.10	183.72	1,436.56	-	-	-	-	-	-
Standard Deviation	168.90	77.33	622.72	120.25	55.87	445.07	90.07	41.69	334.96
Coefficient of Variation	0.46	0.44	0.45	0.31	0.3	0.31	0.23	0.23	0.23
Hanging Wall (201)									
Number of Cases	388	388	388	160	160	160	25,700	25,700	25,700
Minimum	-	-	-	-	-	-	-	-	-
Maximum	1,210	458	4,360.00	1,090	392.61	3,973.75	1,019	378.54	3,715.19
Median	277	141	1,070.00	298	152.97	1,151.91	305	155.37	1,167.00
Arithmetic Mean	295.48	152.32	1,134.80	308.60	157.89	1,181.80	301.94	154.77	1,156.40
Length Weighted Mean	310.81	159.48	1,191.05	-	-	-	-	-	-
Standard Deviation	190.00	92.83	724.37	145.34	70.36	548.59	101.50	52.65	385.92
Coefficient of Variation	0.64	0.61	0.64	0.47	0.45	0.46	0.34	0.34	0.33
Footwall (202)									
Number of Cases	460	460	460	215	215	215	32,105	32,105	32,105
Minimum	-	-	-	-	-	-	-	-	-
Maximum	754	476	2,630.00	647	292	2,309.95	597	291.69	2,307.55
Median	282	127	1,040.00	284	127.16	1,046.12	265	124.37	988.54
Arithmetic Mean	261.26	127.51	965.02	273.91	132.47	1,012.18	246.82	125.99	916.09
Length Weighted Mean	270.96	131.19	1,000.91	-	-	-	-	-	-
Standard Deviation	146.92	67.89	545.43	114.35	49.5	426.89	95.26	39.94	359.74

Zone	Assays Pr (ppm)	Assays Dy (ppm)	Assays Nd (ppm)	2.0 m Composites Pr (ppm)	2.0 m Composites Dy (ppm)	2.0 m Composites Nd (ppm)	Block Model Grades Pr (ppm)	Block Model Grades Dy (ppm)	Block Model Grades Nd (ppm)
Coefficient of Variation	0.56	0.53	0.57	0.42	0.37	0.42	0.39	0.32	0.39
All									
Number of Cases	2,373	2,373	2,373	1,042	1,042	1,042	126,013	126,013	126,013
Minimum	-	-	-	-	-	-	-	-	-
Maximum	1,210	476	4,360.00	1,090	392.61	3,973.75	1,019	378.54	3,715.19
Median	356	170	1,330.00	357	169.79	1,326.64	333	163.02	1,254.91
Arithmetic Mean	336.46	162.69	1,256.30	351.03	169.4	1,309.79	333.56	162.96	1,246.99
Length Weighted Mean	351.84	169.6	1,312.82	-	-	-	-	-	-
Standard Deviation	174.56	80.69	648.27	132.12	60.8	491.17	111.49	50.02	416.12
Coefficient of Variation	0.52	0.5	0.52	0.38	0.36	0.37	0.33	0.31	0.33

14.2.12 Mineral Resource Reporting

SLR estimated Mineral Resources for Foxtrot using drill hole and channel sample data available as of December 31, 2021. Table 14-24 summarizes estimated grades of all REEs and REOs in the Foxtrot Mineral Resource potentially mineable by open pit and underground methods as of December 31, 2021. Different Net Value cut-offs have been used for potential open pit and underground Mineral Resources. No Mineral Reserves have been estimated at the project.

Table 14-24: Estimated Mineral Resources for Foxtrot as of December 31, 2021
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Unit	Indicated Open Pit	Indicated Underground	Indicated Total	Inferred Open Pit	Inferred Underground	Inferred Total
Tonnage	000t	4,577	5,462	10,040	413	2,593	3,006
Element							
La	ppm	1,579	1,553	1,565	1,379	1,681	1,639
Ce	ppm	3,224	3,164	3,191	2,807	3,318	3,248
Pr	ppm	366	365	366	322	379	371
Nd	ppm	1,372	1,366	1,368	1,202	1,413	1,384
Sm	ppm	244	248	246	217	254	249
Eu	ppm	12	13	13	11	13	12
Gd	ppm	192	193	192	179	197	195
Tb	ppm	30	30	30	29	31	30
Dy	ppm	175	177	176	173	177	177

Parameter	Unit	Indicated			Inferred		
		Open Pit	Underground	Total	Open Pit	Underground	Total
Ho	ppm	33	34	34	33	34	34
Er	ppm	94	97	96	93	97	96
Tm	ppm	14	14	14	13	14	14
Yb	ppm	84	86	85	85	85	85
Lu	ppm	12	13	13	13	13	13
Y	ppm	968	952	959	974	977	977
Oxide							
La_2O_3	ppm	1,852	1,822	1,835	1,618	1,971	1,923
Ce_2O_3	ppm	3,776	3,706	3,738	3,288	3,886	3,804
Pr_2O_3	ppm	429	427	428	376	444	435
Nd_2O_3	ppm	1,600	1,593	1,596	1,402	1,649	1,615
Sm_2O_3	ppm	283	288	286	251	295	289
Eu_2O_3	ppm	14	15	14	12	15	14
Gd_2O_3	ppm	221	222	222	207	227	224
Tb_2O_3	ppm	35	35	35	34	35	35
Dy_2O_3	ppm	200	203	202	199	204	203
Ho_2O_3	ppm	38	39	39	38	39	39
Er_2O_3	ppm	108	111	109	106	111	110
Tm_2O_3	ppm	15	16	16	15	16	16
Yb_2O_3	ppm	95	97	96	97	97	97
Lu_2O_3	ppm	14	15	14	15	14	14
Y_2O_3	ppm	1,229	1,210	1,218	1,237	1,241	1,240

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Open Pit Mineral Resources were reported inside a resource shell at pit discard Net Value cut-off value of $260/t. Underground Mineral Resources were constrained with mineralization wireframes below the resource shell and validated using underground mining solids based on a Net Value cut-off value of $335/t. Both cut-off values account for all processing, G&A, refining, and transportation charges. Mining costs were assumed at $6.50/t ore mined and $5.00/t waste mined for open pit and $75.00/t for underground
3. Net Value values were assigned to blocks using metal prices, metallurgical recoveries, payables (as shown in their respective sections of this Technical Report) for each individual element.
4. A minimum mining width of two metres was used for both open pit and underground.
5. A bulk density of 2.71 t/m^3 was used.
6. Revenue attributable to Pr, Nd, Dy, and Tb represent 92% of the total revenue.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
8. Totals may not add or multiply accurately due to rounding.

14.2.13 Comparison to Previous Estimates

The Mineral Resource estimates for Foxtrot reported in the RPA (2016) and in this Technical Report are compared in Table 14-25.

The 2021 Foxtrot Mineral Resource estimate included 10.0 Mt classified as Indicated at average grades of 366 ppm Pr, 1,368 ppm Nd, and 176 ppm Dy, and 3.0 Mt classified as Inferred at average grades of 371 ppm Pr, 1,384 ppm Nd, and 177 ppm Dy.

Table 14-25: Comparison of 2015 Mineral Resource Estimate to 2021 Mineral Resource Estimate for Foxtrot
Search Minerals Inc. – Deep Fox and Foxtrot Project

Year	Class	Mineral Resource				Change			
		Tonnage (000 t)	Grade			Tonnage (000 t)	Grade		
			(ppm Pr)	(ppm Nd)	(ppm Dy)		(ppm Pr)	(ppm Nd)	(ppm Dy)
2015	Indicated	7,392	397	1,485	191	-	-	-	-
	Inferred	1,958	423	1,576	199	-	-	-	-
2021	Indicated	10,040	366	1,368	176	36%	-8%	-8%	-8%
	Inferred	3,006	371	1,384	177	54%	-12%	-12%	-11%p

The 2021 Mineral Resource estimate for Foxtrot reflects changes induced by updated metal prices and the revised open pit and underground mining scenarios. The mineralized wireframes and grade estimations were preserved, while the Net Value factors, open pit and underground parameters, and cut-off values have been revised. The Indicated Resources tonnage increased by 36%, accompanied by a decrease of grades of 8% for Nd, Pr, and Dy, while the Inferred Resources tonnage increased by 54%, with a decrease of the grades of 11% to 12%.

15.0 MINERAL RESERVE ESTIMATE

A technical and economic assessment to permit a Mineral Reserve estimate on the Project has not yet been completed.

16.0 MINING METHODS

Mining is proposed to be carried out at Deep Fox and Foxtrot using a combination of open pit and underground methods. Mining will first take place at Deep Fox using open pit and underground methods over a period of approximately 11 years. Open pit operations at Foxtrot will commence in the last two years of the Deep Fox underground operation. Once mining is completed at Deep Fox, mining will transition completely to Foxtrot to extend the mine life an additional 15 years (six years open pit and nine years underground) for an overall mine life of approximately 26 years.

16.1 Open Pit Mining

16.1.1 Mining Method

The open pit mining production rate is assumed to be 720,000 tpa, or 2,000 tpd, of REE bearing material. For the purposes of this Technical Report, it is assumed that mining would be carried out year-round, however, given the relatively low production rate, there is the possibility of carrying out mining over a condensed period (six months) to avoid harsher conditions during the winter season.

Run of mine (ROM) mineralized material will be placed in a stockpile adjacent to the Primary Production Plant located near Deep Fox. ROM material will be fed to the concentrator using a front-end loader (FEL).

Mining will be carried out by a contractor using conventional truck and shovel open pit methods consisting of the following activities:

- Drilling performed by conventional production drills
- Blasting using ammonium nitrate fuel oil (ANFO) and a down-hole delay initiation system
- Loading and hauling operations performed with hydraulic shovel, FEL, and rigid frame haulage trucks

The production equipment will be supported by bulldozers, graders, and water trucks. Search Minerals will supervise the overall mining operation with its own employees including mining engineers, geologists, surveyors, and support staff.

16.1.2 Mine Design

16.1.2.1 Whittle Optimization

Open pit optimization analyses were run on the Mineral Resources at Deep Fox and Foxtrot to determine the economics of extraction by open pit methods. All categories of resource (Measured, Indicated, and Inferred) were considered in the evaluation. In order to simplify the optimization, a Net Value attribute was built into the model, which accounts for the metal prices and recoveries of each of the REE. The metal price forecasts were estimated by AI and expressed in terms of metal oxides. Other pit optimization economic parameters include costs for mining (waste and mineralized material), processing (beneficiation and hydrometallurgy), G&A, transportation, and REE separation. Input parameters for pit optimization are presented in Table 16-1. The same parameters were applied to both Deep Fox and Foxtrot.

Table 16-1: Whittle Parameters
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Unit	Input
Pit Slopes	degrees	50
Mining Waste Cost	$/tonne	5.00
Mining Mineralized Material Cost	$/tonne	6.50
Additional Haulage to Port	$/tonne	2.00
Magnetic Separation	$/tonne	36.40
G&A (mine site)	$/tonne	10.97
Transport to Hydrometallurgical Processing Plant	$/tonne	5.07
Hydrometallurgical Processing Plant	$/tonne	88.10
G&A (Hydrometallurgical Processing Plant)	$/tonne	2.74
Separation Plant (Full feed)	$/tonne	60.71
Separation Plant (HREO)	$/tonne	52.04
Net Value Cut-off	$/tonne	258
Mining Extraction	%	100
Mining Dilution	%	5
Exchange Rate	C$:US$	0.80
Net Value Factor	$/ppm	Varies per element
Block Size	m	5 x 2.5 x 5

Note:

1. Pit slope angle was estimated by SLR using the benchmark standard of similar hard rock operations.
2. Mining unit cost was estimated by SLR at $5.00/t waste and $6.50/t mineralized, based on a quote from local contractor, escalated to 2022. The mineralized cost is higher to cover mining overheads (geology, engineering, etc.).
3. Processing cost is estimated by NewPro and includes labour, maintenance, consumable costs, power, and tailings disposal.
4. G&A cost is estimated by NewPro.
5. Separation Plant costs are based on an assumption of US$5.00/kg (applied to TREO) and US$20.00/kg (applied to HREO). The numbers in the above table are based on the average resource grades.
6. Dilution and mining loss estimates were taken from the April 2016 NI 43-101 Technical Report on the Foxtrot Project, Newfoundland and Labrador, Canada (RPA, 2016).
7. Exchange rate was estimated by SLR at C$1.00:US$0.80 using long term financial projections.
8. Value was applied to Measured, Indicated, and Inferred Mineral Resources in the optimization process. Revenue is generated from REE mineralization.
9. The REE price forecast was provided by AI (October 2021). Their forecast from 2022 to 2030 was used to reflect a long term price outlook. An average price from 2025 to 2030 for each element established value for the Net Value calculation.
10. Recovery is estimated by NewPro.
11. Process throughput assumed 2,000 tpd or 720,000 tpa at the Primary Production Plant.
12. Costs used in the final cashflow vary slightly from costs used in Whittle parameters as more information was made available at the time of the cash flow evaluation.

A cut-off value of $258/t, based on the operating costs in Table 16-1, was used to determine the cut off between mineral and waste.

A simple underground trade-off study was carried out using Whittle to determine the optimal pit size in conjunction with the transition to underground mining. As the pits deepen, the incremental stripping ratio increases. As this strip ratio increases, Whittle compares the increased stripping costs against the cost of underground mining. SLR assumed an underground mining cost of $75/t based on similar projects and includes consideration for some capital costs for development.

The resource model contains blocks with dimensions of 5 m x 2.5 m x 5 m. This block size was considered reasonable to achieve an adequate selective mining unit (SMU) and was not reblocked for mine design.

A secondary constraint was applied to maintain minimum open pit mining distance of 150 m from the waterline west of Deep Fox. Applying this constraint excluded economic material from the trade-off pit for Deep Fox which was then captured in the UG optimization analysis. No constraints were applied at Foxtrot.

16.1.2.2 Pit Design

16.1.2.2.1 Deep Fox

A mine design for Deep Fox was carried out with the objective of minimizing strip ratios early in the mine life to achieve a short payback period. The mine design takes advantage of the shape of the deposit and utilizes "trench" shaped pushbacks to quickly gain access to the orebody. A total of three pushbacks are used to access the Deep Fox REE bearing material.

Each phase was analyzed in relation to its strip ratio results during Whittle optimization within Deep Fox. Pit phases were selected based on the minimum amount of material needed to accrue value. Significant changes between pit shells were investigated to determine if the succeeding pit shell satisfies the minimum mining width of 75 m from the preceding pit shell. Keeping to the minimum mining width for each phase optimized the Project's NPV while avoiding congestion and safety concerns. In general, the objective of pit phasing is to improve economics by feeding the highest grade mineral during the earlier years and deferring waste stripping towards the latter years.

A cross section view of the open pit pushbacks for Deep Fox is presented in Figure 16-1.

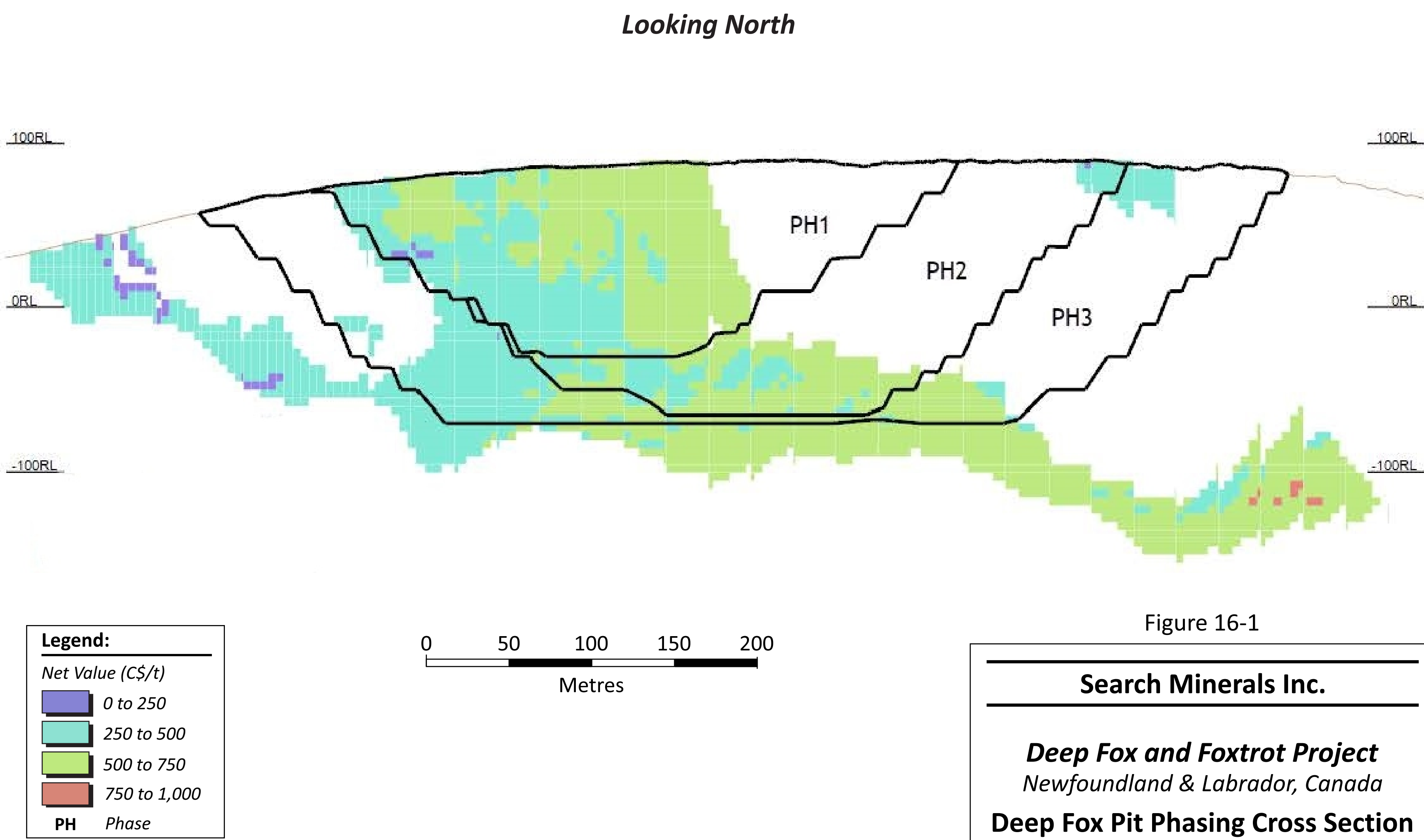


Figure 16-1

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Pit Phasing Cross Section

July 2022

Source: SLR, 2022.

16.1.2.2.2 Foxtrot

The same pit design parameters were used for the Foxtrot Whittle optimization as were used for Deep Fox. The ultimate pit design for Foxtrot followed the revenue factor (RF) 1 pit shell outline from the Whittle optimization results based on the underground trade-off study using the $75/t underground mining cost. Foxtrot open pit pre-stripping of approximately 5.0 Mt will commence in the final year of operations at Deep Fox, with regular mining operations scheduled once both open pit and underground mining has been completed at Deep Fox. The Foxtrot open pit uses a simple bench-by-bench sequence.

A cross section view of the open pit ultimate pit design for Foxtrot is presented in Figure 16-2.

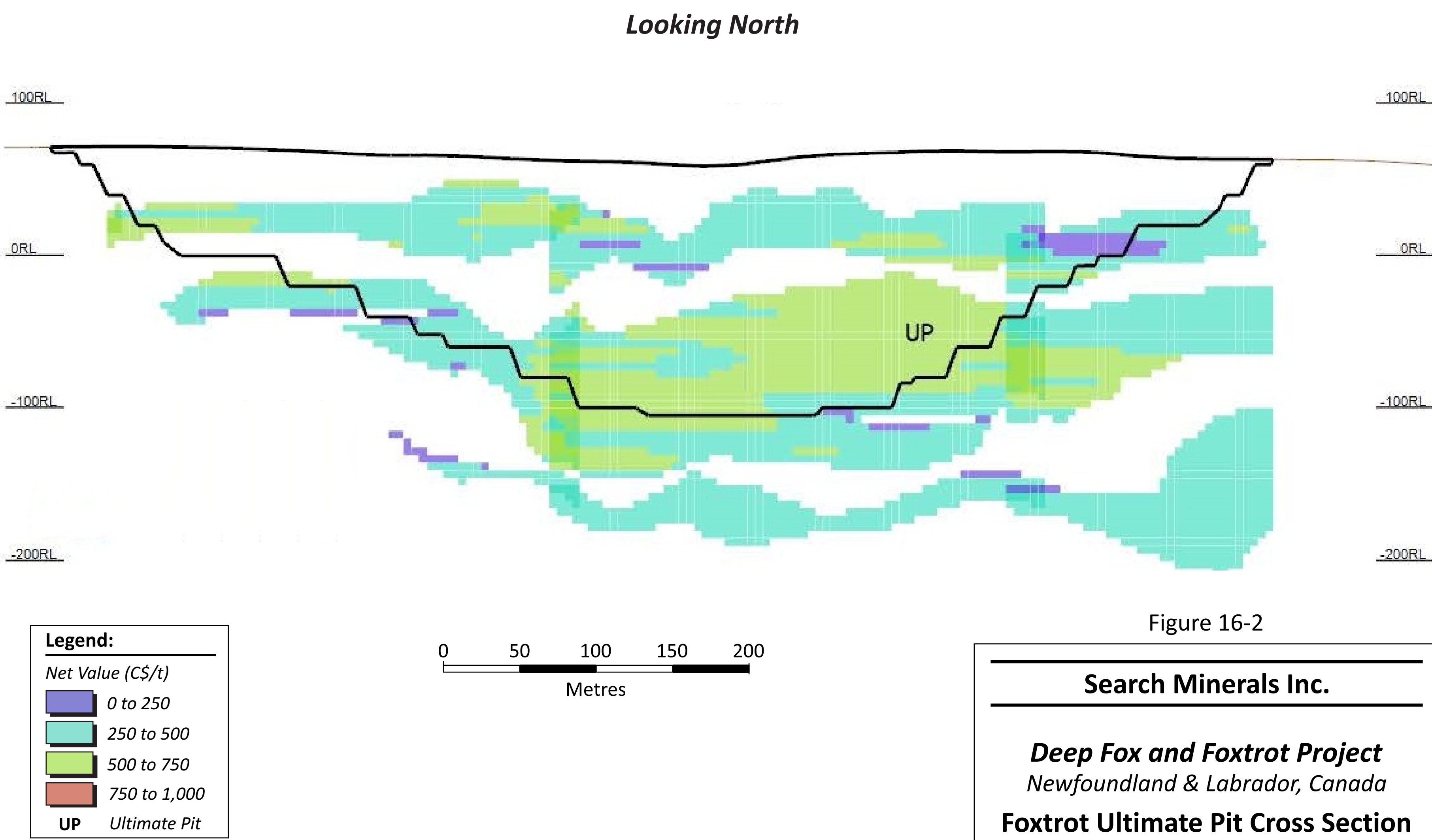


Figure 16-2

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Ultimate Pit Cross Section

July 2022

Source: SLR, 2022.

Each pit ramp design for both Deep Fox and Foxtrot exit near the waste storage facility (WSF) and mine stockpile locations to minimize haul distance. Deep Fox was designed to provide access to all pit phases at all times, which satisfies the need for concurrent phase pit mining. Both pits utilize single-lane traffic at the bottom four benches to maintain access to high-grade material.

Pit design characteristics for both Deep Fox and Foxtrot along with WSF design characteristics are presented in Table 16-2.

Table 16-2: Deep Fox and Foxtrot Open Pit Design Parameters
Search Minerals Inc. – Deep Fox and Foxtrot Project

Design Characteristic Description	Unit	Value
Ramp Width for 2-lane traffic	m	12
Ramp Width for 1-lane traffic	m	7.5
Maximum Ramp Grade	%	10
Inter-Ramp Angle	degrees	52
Overall Slope Angle	degrees	47
Bench Face Angle	degrees	70
Single Benching Arrangement	m	5
Quadruple Stacked Benches	m	20
Berm Width	m	8
WSF Lift Height	m	20
WSF Face Angle	degrees	35
WSF Berm Width	m	8

16.1.3 Geotechnical

Pit slope angles were selected based on comparable projects with similar rock characteristics. Pit optimizations were carried out using inter-ramp and overall pit slopes of 52° and 47°, respectively.

Design parameters for the WSFs and the overburden pile were also selected based on industry averages.

16.1.4 Life of Mine Plan

The life of mine (LOM) plan envisages mining Deep Fox open pit, Deep Fox underground, Foxtrot open pit, and Foxtrot underground sequentially. The production transition from open pit to underground is scheduled for Year 7 and Year 18 for Deep Fox and Foxtrot, respectively.

The schedule assumes mining in stages within Deep Fox and to the full pit outline line bench by bench in Foxtrot. Mining in the succeeding stage within Deep Fox is scheduled only after over 90% of material in the preceding stage has been depleted. Access to succeeding stages is accommodated through the ramp access design where pre-schedule stripping is required. The minimum mining distance of 75 m for each pushback is designed to maintain productivity with two 374F L production excavators and seven 745 haul trucks.

Approximately 5.0 Mt of waste is planned to be stripped in the Foxtrot open pit during year 10 while Deep Fox underground production concludes. This brings down the strip ratio for year 11 by approximately 40% as the concentrator feed shifts to Foxtrot open pit reliance.

Construction on the portal and decline to access the Deep Fox underground mine will start mid Year 7 and mineral production is planned to start by Q2 of Year 8. The portal will be located on bench -50 m of the Deep Fox open pit mine. The Foxtrot underground mine portal and development will be constructed starting in Q3 of Year 17 and mineral production will begin in Q3 of Year 18. The portal will be located on Bench -60 m of the open pit mine.

The LOM open pit production schedules for Deep Fox and Foxtrot are presented in Table 16-3 and Table 16-4, respectively.

Table 16-3: Deep Fox Open Pit Production Schedule
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Units	Total/ Avg.	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Target Mineral to Plant	000 t	**4,860**	540	720	720	720	720	720	720
Mineral Mined	000 t	**5,096**	658	759	981	372	848	562	915
Mined Mineral to Plant	000 t	**4,354**	540	720	720	372	720	562	720
Mineral to Stockpile	000 t	**742**	118	39	261	-	128	-	195
Yttrium	ppm	**1,026**	1,061	1,112	1,096	973	1,061	838	962
Lanthanum	ppm	**1,624**	1,673	1,768	1,757	1,370	1,688	1,342	1,544
Cerium	ppm	**3,334**	3,472	3,593	3,592	2,904	3,476	2,733	3,157
Praseodymium	ppm	**386**	394	419	417	340	402	317	366
Neodymium	ppm	**1,436**	1,486	1,563	1,544	1,289	1,484	1,177	1,356
Samarium	ppm	**266**	277	287	285	248	274	216	251
Europium	ppm	**14**	14	15	15	13	14	11	13
Gadolinium	ppm	**207**	216	223	221	197	213	170	196
Terbium	ppm	**33**	35	36	35	32	34	27	31
Dysprosium	ppm	**197**	204	211	210	194	203	162	185
Holmium	ppm	**38**	39	40	40	37	39	31	35
Erbium	ppm	**106**	110	113	112	106	109	87	99
Thulium	ppm	**15**	15	16	16	15	15	12	14
Ytterbium	ppm	**91**	94	96	96	92	94	76	86
Lutetium	ppm	**13**	14	14	14	13	13	11	12
Mined Waste	000 t	**24,723**	2,536	2,901	2,990	5,093	4,567	4,928	1,707
Total Material Moved	000 t	**29,819**	3,195	3,660	3,971	5,466	5,415	5,490	2,622
Waste to Mineral Ratio	W:O	**4.85**	3.85	3.82	3.05	13.69	5.39	8.77	1.87

Table 16-4: Foxtrot Open Pit Production Schedule
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Units	Total/ Avg.	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17
Target Mineral to Plant	000 t	**4,044**	-	49	720	720	720	720	720	396
Mineral Mined	000 t	**4,932**	-	729	750	724	728	778	827	396
Mined Mineral to Plant	000 t	**4,044**	-	49	720	720	720	720	720	396
Mineral to Stockpile	000 t	**887**	-	680	30	4	8	58	107	-
Yttrium	ppm	**959**	-	930	941	972	966	906	978	1,072
Lanthanum	ppm	**1,557**	-	1,468	1,527	1,569	1,566	1,479	1,627	1,753
Cerium	ppm	**3,180**	-	2,973	3,085	3,153	3,159	3,214	3,329	3,447
Praseodymium	ppm	**362**	-	338	351	357	361	364	377	398
Neodymium	ppm	**1,353**	-	1,251	1,310	1,341	1,351	1,370	1,419	1,476
Samarium	ppm	**241**	-	226	235	240	239	241	250	263
Europium	ppm	**12**	-	11	12	12	12	12	13	13
Gadolinium	ppm	**190**	-	179	185	191	189	189	195	206
Terbium	ppm	**30**	-	28	29	30	30	30	31	32
Dysprosium	ppm	**173**	-	166	169	172	171	174	176	188
Holmium	ppm	**33**	-	32	32	33	33	33	33	36
Erbium	ppm	**93**	-	90	90	93	93	93	95	102
Thulium	ppm	**13**	-	13	13	13	13	13	14	15
Ytterbium	ppm	**83**	-	80	80	83	83	82	83	90
Lutetium	ppm	**12**	-	12	12	12	12	12	12	14
Mined Waste	000 t	**29,024**	5,000	5,021	4,657	5,002	3,965	3,049	1,944	386
Total Material Moved	000 t	**33,956**	5,000	5,750	5,407	5,726	4,694	3,827	2,771	782
Waste to Mineral Ratio	W:O	5.89	-	11.69	8.21	6.91	5.44	3.92	2.35	0.98
Adjusted Waste to Mineral Ratio	W:O	5.89	-	6.89	6.21	6.91	5.44	3.92	2.35	0.98

16.1.5 Mine Equipment

The open pit will be mined using a local mining contractor that will supply its own equipment. The following equipment list shown in Table 16-5 is an estimate of the type and quantities of equipment that will be required to carry out operations at Deep Fox and Foxtrot.

Table 16-5: Deep Fox and Foxtrot Open Pit Contractor Mine Equipment
Search Minerals Inc. – Deep Fox and Foxtrot Project

Equipment Type	Units
Trucks (Art 745)	7
Shovel (374F L)	2
Shovel (PC 130) or PC 240	1
Loader (Yard Handling)	1
Dozer (D85EX)	3
Production drill (DM30 II 5-9 in)	3
ANFO truck	1
Explosive truck (cap)	1
Service truck (for maintenance)	2
Water truck	1
Lube truck	1
Grader (GD655-5)	1

16.1.6 Open Pit Mining Personnel

It is envisaged that the Project will use a mine contractor for operations and supervision. Search Minerals will provide management, engineering, geology, and grade control. SLR assumes an additional \$1.50/t for mineralized material to cover the costs for the owner's engineering and grade control. It is assumed that mining will take place during day shifts only.

It is estimated that a small owner's team of approximately 10 to 15 people will be required for the open pit mining operations including a mine manager, production supervisor, mining engineer, geologist, and grade control personnel. All other personnel (operators and supervisors) will be provided by the mining contractor and the estimated workforce of 62 people is based on a preliminary estimate of equipment requirements. The estimated personnel for both contractors and owners' team are shown in Table 16-6.

Table 16-6: Deep Fox and Foxtrot Open Pit Contractor and Owner Personnel
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Position	Shift Type	Positions
	Contractors		
Mine	Truck Operator	Shift (D)	14
	Shovel Operator	Shift (D)	6
	Loader Operator	Shift (D)	2
	Dozer Operator	Shift (D)	6
	Grader Operator	Shift (D)	2
	Drilling Operator	Shift (D)	6
	Blasting Crew	Shift (D)	4
	Auxiliary Operator	Shift (D)	4
Maintenance	Mechanical Supervisor	Shift (D)	2
	Mechanic	Shift (D)	8
	Surface labour	Shift (D)	4
	Electrotechnician	Shift (D)	2
Supervision	Mine Supervisor	Day	1
	Shift Foreman	Day	1
Subtotal			**62**
	Owners		
Supervision	Mine Manager	Day	1
	Mine Superintendent	Day	1
	Shift Foreman	Shift (D)	2
Engineering	Chief Engineer	Day	1
	Mining Engineer	Day	1
	Technician	Day	1
	Surveyor	Day	1
	Survey Assistant	Day	1
Geology	Chief Geologist	Day	1
	Geologists	Day	2
	Grade Control Geologist	Day	1
Subtotal			**13**
Total			**75**

16.1.7 Mine Infrastructure

16.1.7.1 Access Roads

Mineralized material will be hauled out of Deep Fox and Foxtrot using off-highway equipment. Material deemed as waste rock will be hauled to the appropriate WSF, located either east of the Deep Fox pit or west of the Foxtrot pit. Mineralized material will be hauled to stockpile locations south-west of the Deep Fox pit or north-west of the Foxtrot pit. The mineralized material from the mine stockpiles will be delivered to the ROM stockpile that is adjacent to the plant within the Deep Fox site layout.

Access road construction will be 7.2 km in length, providing access to highway 513 for both deposits and direct access to the port from Deep Fox. The road width is designed to 15 m, providing operating space for both haul trucks and transport trucks. The access roads are shown in Section 18 of this Technical Report (Figure 18-3).

16.1.7.2 Waste Storage Facilities and Stockpiles

Material below the Net Value cut-off of $258/t is sent to the WSF. The WSF design parameters are provided in Table 16-2. Deep Fox's waste storage capacity is approximately 27 Mt, leaving additional capacity for contingencies in the schedule, and reaches a maximum height of 90 m. The waste storage capacity for Foxtrot is approximately 25 Mt with a similar accounting for contingency and reaches a maximum height of 155 m.

A stockpile at each mine site is used for storage of mineralized material when mining of mineral exceeds the 720 ktpa processing capacity. The ROM stockpile capacity is between 375 kt and 400 kt, excluding harbour storage capacity.

16.1.7.3 Dewatering

For each open pit, a pumping network will be installed to pump run-off water from the open pits. Pumped water will be directed through water treatment systems, comprising settling/polishing ponds, prior to release into the environment.

16.1.7.4 Explosives and Detonators

Explosives product will consist of ANFO and emulsion explosives coupled with a downhole delay initiation system. It will be the contractor's responsibility to store explosives a safe distance away from the operation and provide appropriate facilities for containment.

All applications for permits required for the transportation, storage, and use of explosives are submitted directly by the designated explosives contractor for the Project directly to Natural Resources Canada (NRCAN).

16.2 Underground Mining

16.2.1 Mining Method

Transverse longhole stopes will be mined using primary and secondary stopes and mining will progress from the lowest level of each mining panel and progress in a bottom-up fashion. Each mining panel consists of three to four stoping levels. Primary stopes will be mined first, starting from the bottom level and progressing vertically to the top. Once a vertical column of primary stopes has been mined the secondary stopes on either side will be mined. Transverse longhole mining allows for greater flexibility with the number of stopes that can be mined at any given time.

Longitudinal longhole stopes will be mined using a drive on each sublevel driven along the strike of the orebody. Mining will progress in a bottom-up sequence where stopes on the first level of each mining panel will be mined first before progressing to the next level.

A crown pillar of 25 m in height will be left under the bottom of the pit, which can be recovered by drilling upward from the first level of mining at the end of the LOM.

Cemented rock fill (CRF) and unconsolidated rock fill (URF) will be used to satisfy backfill requirements at Deep Fox and Foxtrot. CRF with a binder content of 6% will be used in all stopes on the first level of each mining panel so as to provide a competent back for stopes on the level below. CRF will be placed in transverse primary stopes and every 20 m for longitudinal stopes. The remaining secondary and longitudinal stopes will be filled with URF. The rock fill will come from both underground development waste and open pit waste material.

Ramp and lateral development will be undertaken using twin boom hydraulic jumbos and mechanical bolters for installation of ground support. Vertical development such as ventilation raises will be developed with Alimaks.

Stope production drilling will be carried out using longhole top hammer drills and slot raises will be drilled using V-30 ITH drills. Loading and hauling operations will be performed with load-haul-dump (LHD) units and underground trucks for waste and mineral material up to surface. Stopes will be backfilled using waste material from both underground and open pit operations and will be trucked to the appropriate locations.

16.2.2 Mine Design

Underground mining operations have been envisaged for mineralization not captured by open pit mining for both Deep Fox and Foxtrot. The production rate for the underground mines is assumed to be 720,000 tpa, or 2,000 tpd, of REE bearing material and will operate year-round. The underground mines will be owner operated.

Longitudinal and isometric views of the Deep Fox and Foxtrot underground mines are illustrated in Figure 16-3 to Figure 16-6.

16.2.2.1 Stope Design

Deep Fox has a general dip of 75° to the south while Foxtrot generally dips at 70° the north. The deposits consist of a main core zone flanked by two smaller hanging and footwall zones. The core zone average widths for Deep Fox and Foxtrot are 13 m and 15 m, respectively, while the hanging wall and footwall zones average five metres.

Considering the geometry, continuity, and average width of the mineralized zones, both deposits are amenable to longhole mining methods. Sublevel stoping using transverse accesses will be used for areas where stope widths exceed ten metres while narrower stopes will be accessed using a longitudinal access.

Stope design was completed using Deswik Stope Optimizer (DSO). DSO uses parameters such as minimum stope dimensions, cut-off grade, and dip and strike ranges to determine the optimum stope size. Table 16-7 shows the parameters used to create the stopes.

Table 16-7: DSO Stope Parameters
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Unit	Transverse	Longitudinal
Mining Cost	$/tonne	60	60
Mining Mineralized Material Cost	$/tonne	6.50	6.50
Additional Haulage to Port	$/tonne	2.00	2.00
Magnetic Separation	$/tonne	36.40	36.40
G&A (mine site)	$/tonne	10.97	10.97
Transport to Hydrometallurgical Processing Plant	$/tonne	5.07	5.07
Hydrometallurgical Processing Plant	$/tonne	88.10	88.10
G&A (Hydrometallurgical Processing Plant)	$/tonne	2.74	2.74
Separation Plant (Full feed)	$/tonne	60.71	60.71
Separation Plant (HREO)	$/tonne	52.04	52.04
Net Value Cut-off (rounded)	$/tonne	320	320
Stope Height	m	20	20
Strike Length	m	10	20
Minimum Mining Width	m	2.5	2.5
HW/FW Dilution	m	0.75/0.75	0.75/0.75

16.2.2.2 Dilution

Dilution assumptions of 0.75 m were added to the hanging wall and footwall individually during the optimization process. The HW and FW dilution will be at grade depending on how the resulting shapes intersect the block model. An additional 5% dilution factor at zero grade was added to stopes that are planned to be mined adjacent to mined out and backfilled stopes to account for backfill dilution.

16.2.2.3 Extraction

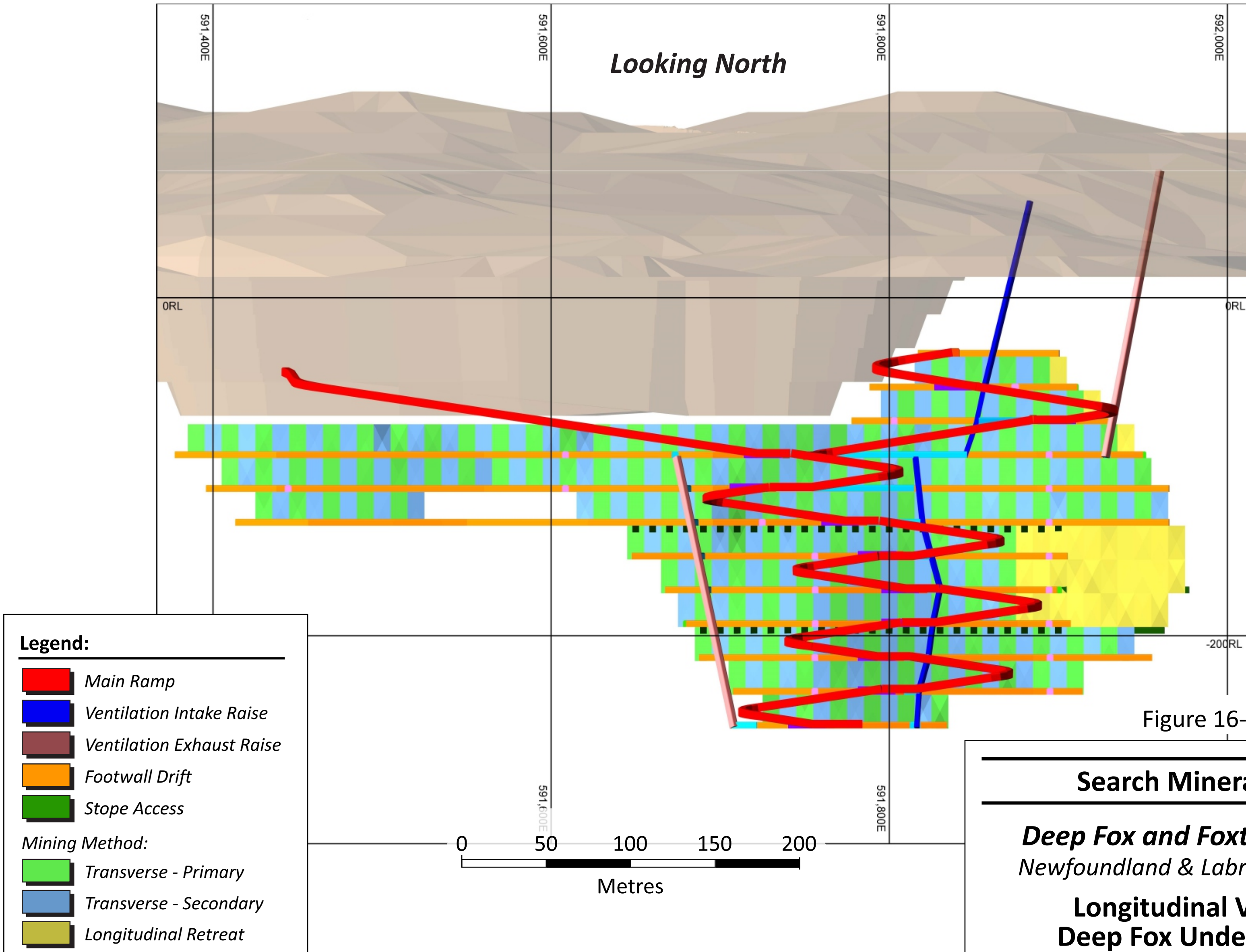
An extraction factor of 95% was assumed for all stopes.

16.2.2.4 Development Design

The underground access portals for both mines will be located within the open pits. Ramps will be driven at a gradient of 15%. Level accesses will be driven from the ramps, approximately in the middle of the level, and will accommodate truck loading stations and ventilation drifts. Footwall drifts will be driven on either side of the level access and extend to the ends of the mineralized zone. Drawpoints will be driven from the footwall drifts to the stopes for mucking. Where mining progresses below a mined out level, once the stopes are completely mined out and backfilled, transverse accesses will be driven from the same footwall drifts downwards for drilling off stopes on the lower level.

16.2.2.5 Backfill

CRF and URF will be used for backfill requirements at Deep Fox and Foxtrot. CRF with a binder content of 6% will be used in all stopes on the first level of each mining panel so as to provide a competent back for stopes on the level below. CRF will be placed in transverse primary stopes and every 20 m for longitudinal stopes. The remaining secondary and longitudinal stopes will be filled with URF. The rock fill will come from both underground development waste and open pit waste.



July 2022

Source: SLR, 2022.

Figure 16-3

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Longitudinal View of Deep Fox Underground

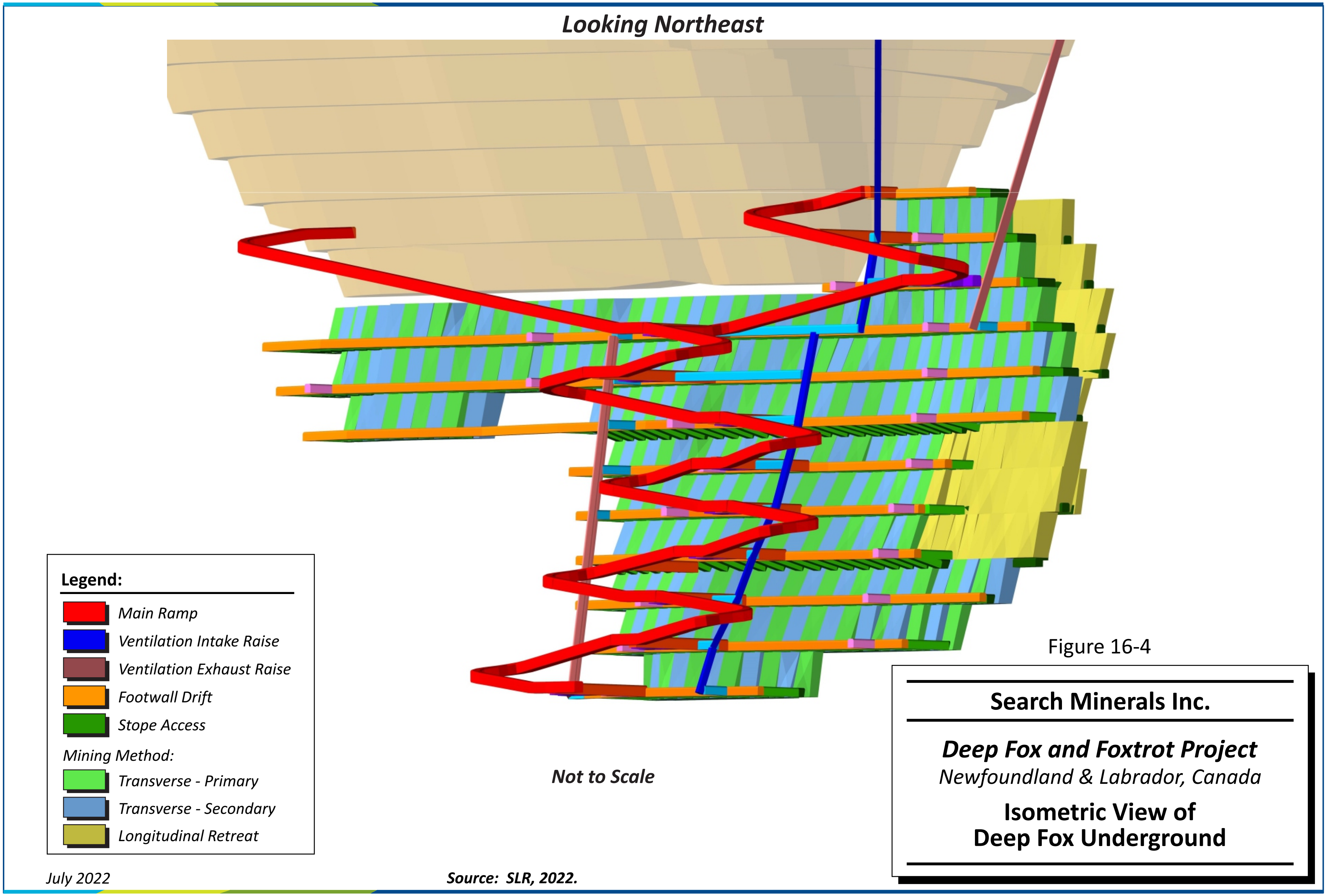


Figure 16-4

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Isometric View of Deep Fox Underground

Looking North

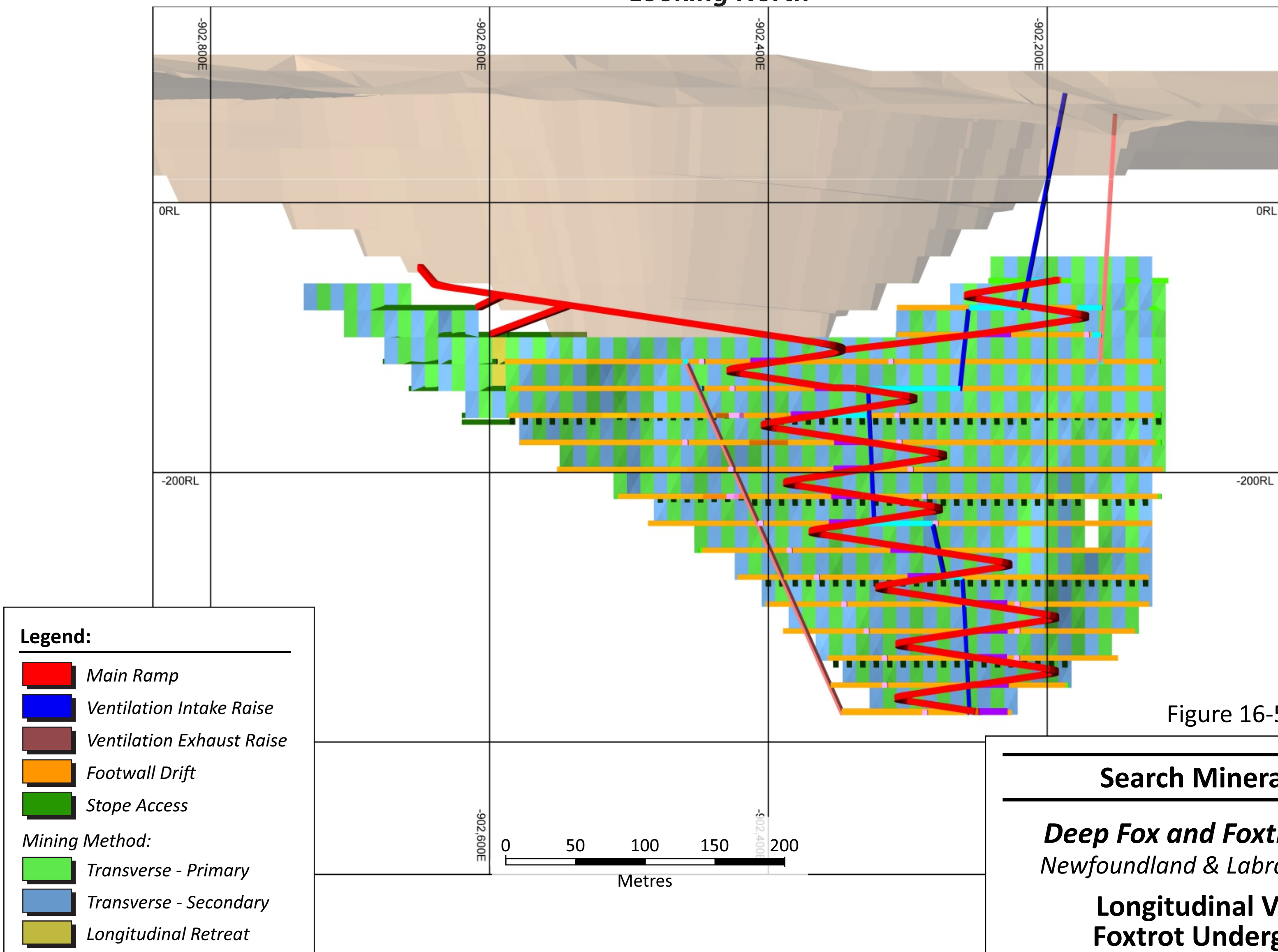


Figure 16-5

Search Minerals Inc.

Deep Fox and Foxtrot Project

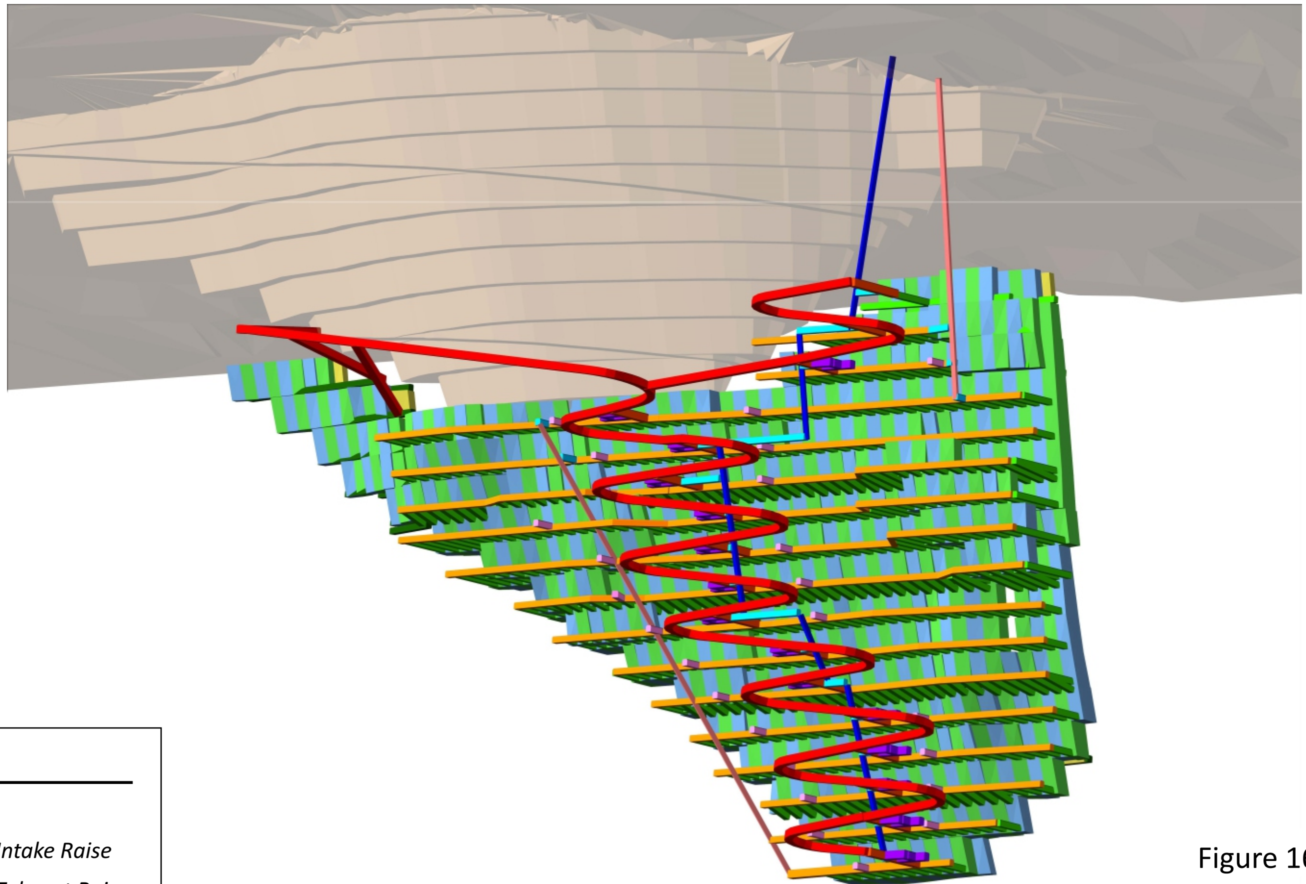
Newfoundland & Labrador, Canada

Longitudinal View of Foxtrot Underground

July 2022

Source: SLR, 2022.

Looking Northeast



Legend:

Main Ramp

Ventilation Intake Raise

Ventilation Exhaust Raise

Footwall Drift

Stope Access

Mining Method:

Transverse - Primary

Transverse - Secondary

Longitudinal Retreat

Not to Scale

Figure 16-6

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Isometric View of Foxtrot Underground

July 2022

Source: SLR, 2022.

16.2.3 Geomechanics

No geomechanical information was available for review for Deep Fox and Foxtrot.

Industry average geotechnical conditions for the underground mine were assumed relative to stope dimensions, minimum distance of drifts to the stope hanging wall, and ground support.

16.2.4 Life of Mine Plan

The LOM envisages mining Deep Fox open pit, Deep Fox underground, Foxtrot open pit, and Foxtrot underground sequentially. The production transition from open pit to underground is scheduled for Year 7 and Year 18 for Deep Fox and Foxtrot, respectively.

Construction on the portal and decline to access the Deep Fox underground mine will start mid Year 7 and mineral production is planned to start by Q2 of Year 8. The portal will be located on bench -50 m of the Deep Fox open pit mine. The Foxtrot underground mine portal and development will be constructed starting in Q3 of Year 17 and mineral production will begin in Q3 of Year 18. The portal will be located on Bench -60 m of the open pit mine.

Pre-production development for both Deep Fox and Foxtrot will be undertaken using contractor services. Once development has reached production levels, underground mining will be owner operated. Mining operations will be carried out in two 12 hour shifts, seven days a week. The LOM underground production schedule for Deep Fox and Foxtrot are presented in Table 16-8 and Table 16-9, respectively.

Table 16-8: Deep Fox Underground Production Schedule
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Unit	Total/Avg	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
Mineralized Tonnage	000 t	2,597	-	486	720	720	671
Yttrium	ppm	3,037	-	968	994	976	978
Lanthanum	ppm	193	-	1,468	1,461	1,440	1,475
Cerium	ppm	103	-	3,050	3,041	3,025	3,037
Praseodymium	ppm	13	-	353	357	357	355
Neodymium	ppm	201	-	1,337	1,351	1,360	1,333
Samarium	ppm	37	-	249	254	253	250
Europium	ppm	1,460	-	13	13	13	13
Gadolinium	ppm	13	-	198	205	204	197
Terbium	ppm	1,346	-	32	33	33	32
Dysprosium	ppm	355	-	188	196	197	189
Holmium	ppm	252	-	36	37	38	36
Erbium	ppm	32	-	101	105	106	101
Thulium	ppm	14	-	14	15	15	14
Ytterbium	ppm	980	-	86	90	90	87
Lutetium	ppm	88	-	12	13	13	12

Parameter	Unit	Total/Avg	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
Capitalized Development	m	7,562	1,116	2,397	1,575	2,336	138
Operating Development	m	13,110	-	3,786	4,774	4,016	534
Vertical Development	m	620	63	297	132	128	63

Table 16-9: Foxtrot Underground Production Schedule
Search Minerals Inc. – Deep Fox and Foxtrot Project

Parameter	Unit	Total/ Avg	Yr 17	Yr 18	Yr 19	Yr 20	Yr 21	Yr 22	Yr 23	Yr 24	Yr 25	Yr 26
Mineralized Tonnage	000 t	5,512	-	156	720	720	720	720	720	720	720	316
Yttrium	ppm	3,477	-	975	964	1,292	836	1,045	992	1,170	1,191	685
Lanthanum	ppm	191	-	1,709	1,599	2,110	1,461	1,788	1,688	1,957	1,951	1,005
Cerium	ppm	105	-	3,342	3,184	4,201	2,883	3,543	3,326	3,876	3,945	2,129
Praseodymium	ppm	14	-	376	364	485	330	404	382	445	454	251
Neodymium	ppm	209	-	1,399	1,364	1,805	1,225	1,513	1,409	1,646	1,692	960
Samarium	ppm	37	-	253	248	327	220	274	257	301	310	173
Europium	ppm	1,746	-	13	13	17	11	14	13	15	16	9
Gadolinium	ppm	14	-	193	192	257	169	207	198	236	243	135
Terbium	ppm	1,486	-	30	30	40	26	32	31	36	38	22
Dysprosium	ppm	399	-	177	177	235	151	192	182	211	222	126
Holmium	ppm	270	-	34	34	45	29	37	36	41	44	25
Erbium	ppm	33	-	97	97	129	82	104	100	117	122	70
Thulium	ppm	15	-	14	14	19	12	15	14	17	18	10
Ytterbium	ppm	1,045	-	86	86	114	72	91	88	104	108	62
Lutetium	ppm	92	-	13	13	17	11	14	13	15	16	9
Capitalized Development	m	10,274	1,002	1,228	1,359	1,102	896	1,259	1,195	1,652	582	-
Operating Development	m	28,710	444	3,892	3,783	4,019	4,216	3,839	3,865	3,403	1,694	-
Vertical Development	m	789	42	64	42	63	72	87	124	129	164	-

16.2.5 Mine Equipment

The owner-operated mine equipment fleet for the underground operation, listed in Table 16-10, was selected based on comparison to operations of similar size and in-house database. The underground equipment for Deep Fox will be acquired in Year 7 and 8. An overhaul of major mining equipment is planned for Year 18 and Year 19, representing four years of mining at the Deep Fox underground mine and two years at the Foxtrot underground mine.

Table 16-10: Deep Fox and Foxtrot Underground Mine Equipment
Search Minerals Inc. – Deep Fox and Foxtrot Project

Equipment Type	Year 7	Year 8	Year 18	Year 19
2 Boom Jumbo	1	2	1	2
6 yd LHD	2	4	2	4
32t Haul Truck	3	3	3	3
Rock Bolter	1	1	1	1
Flat Deck Truck w. Crane	1	1		
Personnel Carrier	2	2		
Scissor Lift	1			
Grader	1		-	
LH Drill	-	2	2	
Shotcrete Machine	-	1		
Lube Truck	1			
ANFO Loader Truck	1			

16.2.6 Underground Mining Personnel

The underground owner operated mining operations will be carried out in two 12-hour shifts. The personnel requirements are listed in Table 16-11.

Table 16-11: Deep Fox and Foxtrot Underground Manpower Requirement
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Position	Shift Type	Number of People
Mine	Jumbo operator	Shift (D/N)	8
	Scoop Operator	Shift (D/N)	24
	Haul Truck Operator	Shift (D/N)	16
	Bolter	Shift (D/N)	8
	Service Miner and Shotcrete	Shift (D/N)	8
	Production Driller	Shift (D/N)	8
	Loader/Blaster	Shift (D/N)	8
	Serviceman	Shift (D/N)	16
Maintenance	Mechanical Supervisor	Shift (D/N)	4
	Mechanic	Shift (D/N)	16
	Surface labour	Shift (D/N)	8

Area	Position	Shift Type	Number of People
	Dryman	Shift (D/N)	4
	Carpenter	Shift (D/N)	8
	Welder	Shift (D/N)	8
	Chief Electrician	Shift (D/N)	8
	Electrician Class	Shift (D/N)	12
	Electrotechnician	Shift (D/N)	8
Supervision	Mine Superintendent	Day	1
	Mine Captain	Day	1
	Shift Bosses	Shift (D/N)	4
Engineering	Chief Engineer	Day	1
	Planning Engineer	Day	1
	Mining Engineer	Day	3
	Ventilation Engineer	Day	1
	Ground Control Engineer	Day	1
	Technician	Day	1
	Surveyor	Day	1
	Survey Assistant	Day	1
	Clerk	Day	1
Geology	Chief Geologist	Day	1
	Assistant Chief Geologist	Day	1
	Geologists	Day	2
	Grade Control Geologist	Day	1
	Technician	Day	1
	Clerk	Day	1
Total			196

16.2.7 Mine Infrastructure

16.2.7.1 Material Handling

The mucking, loading, and hauling operations out of the underground mine, for both mineral material and waste, will be done with the underground mobile equipment. From stopes or development faces, mineral and waste will be loaded with LHDs into underground trucks at dedicated loading set-ups and will be hauled to surface via the main ramp into the process feed stockpile or on the WSF.

16.2.7.2 Ventilation

The main ventilation system will be located at surface beside the ventilation raise. The ventilation network will be in positive pressure. A variable drive motor will be used to adjust the rate of the air flow to suit the ventilation needs during the various phases of the Project. A heating system using propane will be installed as part of the ventilation system.

A 2.8 m x 2.8 m Alimak raise will connect at each production level down to the bottom of the underground mine. This ventilation raise, equipped with a manway, will be required to start production work, because it will also serve as a second emergency egress.

Fresh air intake will circulate via the main raise and supply the active levels with fresh air through secondary ventilation ducting and booster fans. Air will exhaust via a ventilation raise to surface and the main ramp.

Prior to the main ventilation system being ready, an appropriate temporary ventilation system will be installed at the entrance of the ramp to meet the development work requirements.

16.2.7.3 Power Distribution

The underground main power will be at 4.16 kV, 3 phases, 60 Hz. Primary electric power will be distributed underground via the main ramp and from boreholes. This approach is advisable because of the long distances to cover.

As required, portable substations on skids will be used to transform the 4,160 V to 600 V for local use before permanent substations will be strategically located within the underground mine. From there, the reticulation network to end-uses will be resistor-grounded for more safety.

16.2.7.4 Dewatering

Main water pumping stations will be installed underground at every five to six levels to keep the mine dry. The pumping stations will be fitted with identical pumps resulting in a flexible network and be made of portable modules on skids equipped with enough pumps to meet pressure and flow rate requirements.

Sumps will be located in the level accesses and linked by drainage holes with one another. The pumped water will be directed through the water treatment system at surface via borehole raises prior its release into the environment.

16.2.7.5 Compressed Air

A compressor for the underground operations will be located in a dedicated building annexed to the processing plant. Compressed air will be brought underground through pipes via the main ramp. Underground levels will be serviced by smaller compressed air pipes.

16.2.7.6 Explosives and Detonators

During the underground pre-production period, the open pit mine explosives magazines located at surface will be used for underground mining operations. Once the underground mine has been appropriately developed, permanent storage magazines will be built underground.

Suppliers will deliver explosives and detonators to the mine portal where they will be immediately transferred into the underground mine service truck. Explosives and detonators will then be immediately hauled underground for storage until use.

16.2.7.7 Communications

The main communication system will combine the use of data networking (Ethernet for computer and automation network), voice (portable radio), and video (IP camera). For emergency phone service, a separate cable will be installed from the foreman's office at surface to the refuge stations underground.

16.2.7.8 Refuge Station

The refuge stations will be located on level accesses to ensure the safety of the personnel and to accommodate lunch breaks. Two portable refuge stations will be used throughout the mine and will be moved accordingly as mining progresses.

16.3 Life of Mine Plan

The LOM production plan considers a ramp-up in Year 1 at 75% of capacity (540,000 tpa) and reaching full production of 720,000 tpa in Year 2. Total REE-bearing material mined in the open pit and underground is 10.0 Mt and 8.1 Mt, respectively, for a total of 18.1 Mt over the 26-year mine life. The average Net Value over this period is $756/t.

The combined LOM plan for open pit and underground is shown in Table 16-12.

Table 16-12: LOM Production Plan
Search Minerals Inc. – Deep Fox and Foxtrot Project

Deposit-Method	Period	OP Mineral (000 t)	To SP (000 t)	From SP (000 t)	Waste (000 t)	UG Mineral (000 t)	Total Mined (000 t)	Total Processed (000 t)	Net Value (C$/t)
DF-OP	Year 1	658	118	-	2,536	-	3,195	540	798
DF-OP	Year 2	759	39	-	2,901	-	3,699	720	839
DF-OP	Year 3	981	261	-	2,990	-	4,232	720	831
DF-OP	Year 4	372	-	348	5,093	-	5,813	720	769
DF-OP	Year 5	848	128	-	4,567	-	5,543	720	800
DF-OP	Year 6	562	-	158	4,928	-	5,648	720	673
DF-OP	Year 7	915	195	-	1,707	-	2,818	720	730
DF-UG	Year 8	-	-	234	-	486	720	720	732
DF-UG	Year 9	-	-	-	-	720	720	720	742
DF-UG/FT-OP	Year 10	-	-	-	5,000	720	5,720	720	745
DF-UG/FT-OP	Year 11	729	680	-	5,021	671	7,101	720	723
FT-OP	Year 12	750	30	-	4,657	-	5,437	720	693
FT-OP	Year 13	724	4	-	5,002	-	5,730	720	710
FT-OP	Year 14	728	8	-	3,965	-	4,702	720	712
FT-OP	Year 15	778	58	-	3,049	-	3,885	720	721
FT-OP	Year 16	827	107	-	1,944	-	2,878	720	742

Deposit-Method	Period	OP Mineral (000 t)	To SP (000 t)	From SP (000 t)	Waste (000 t)	UG Mineral (000 t)	Total Mined (000 t)	Total Processed (000 t)	Net Value (C$/t)
FT-OP	Year 17	396	-	324	386	-	1,106	720	737
FT-UG	Year 18	-	-	565	-	156	721	721	695
FT-UG	Year 19	-	-	-	-	720	720	720	723
FT-UG	Year 20	-	-	-	-	720	720	720	960
FT-UG	Year 21	-	-	-	-	720	720	720	639
FT-UG	Year 22	-	-	-	-	720	720	720	793
FT-UG	Year 23	-	-	-	-	720	720	720	747
FT-UG	Year 24	-	-	-	-	720	720	720	873
FT-UG	Year 25	-	-	-	-	720	720	720	903
FT-UG	Year 26	-	-	-	-	316	316	316	510
Total/Avg.		10,028	1,629	1,629	53,747	8,109	75,024	18,137	756

Notes:

1. OP = Open Pit; UG = Underground

17.0 RECOVERY METHODS

NewPro Consulting & Engineering Services Pty Ltd. (NewPro) provided Search Minerals with a report entitled "Search Minerals Inc., Fox Harbour Rare Earths Project, Processing Plant Scoping Study Update" identified as Revision C and Issued on January 25, 2022 (NewPro Report). The NewPro Report has formed the basis for this Section with only minor edits or summarizing of the NewPro Report. SLR has provided a commentary at the end of this section.

The NewPro Report discusses two processing facilities. The first facility is a physical separation plant that is located in Labrador, which NewPro refers to as the "Port Marnham Concentrator Facility" in its report. Search Minerals is currently undertaking an assessment of port alternatives in Labrador, and SLR has been asked to assume that the existing dock in Fox Harbour (St. Lewis) would be upgraded to meet the needs of the Project. This processing facility will be referred throughout this Technical Report as the "Primary Production Plant".

The second process plant in the NewPro Report was based on a location at Argentia, Newfoundland. Search Minerals is currently reviewing alternative brownfield locations on the island of Newfoundland and SLR will refer to this plant as the "Hydrometallurgical Processing Plant".

17.1 Key Process Design Criteria

Mineralized material from Deep Fox and Foxtrot will be processed through a beneficiation system using physical means followed by hydrometallurgical processing to form a marketable precipitate of mixed REE carbonate. The beneficiation operation will take place in a plant constructed near the deposits in Labrador – the Primary Production Plant. Mineral concentrates will be transported to a plant at a brownfield site on the island of Newfoundland located close to a source of reagents and power for hydrometallurgical processing. As previously mentioned, the exact location of the Hydrometallurgical Processing Plant has not yet been selected.

The key process design criteria are presented in Table 17-1.

Table 17-1: Key Process Design Criteria
Search Minerals Inc. –Deep Fox and Foxtrot Project

Area	Parameter	Unit	Nominal
Overall	Process Plant Operating Schedule	d/a	365
		h/d	24
	Operating Availability	%	92.2
	Operating Time	h/a	8,072
	Ore Throughput Rate	tpa	730,000
		tpd	2,000
		tph	103
Primary Production Plant	Ore Considered		Deep Fox/ Foxtrot
	Ore Grade	% REE	1.238

Area	Parameter	Unit	Nominal
	Ground Mineral Target Size	P_{80} µm	53
	WHIMS Concentrate Mass Yield	%	25
	WHIMS Concentrate Mass Flow	tpa	180,998
	REE Recovery to WHIMS Concentrate	%	94.7
Hydrometallurgical Processing Plant	Acid Bake Kiln Feed Rate	tpa	180,998
		tph	22.42
	Sulphuric Acid Addition in Acid Baking	kg/t conc.	256
	REE Recovery to Carbonate Precipitate	%	91
	Overall REE Recovery	%	86

17.2 Primary Production Plant

A block diagram illustrating the beneficiation operation is provided as Figure 17-1.

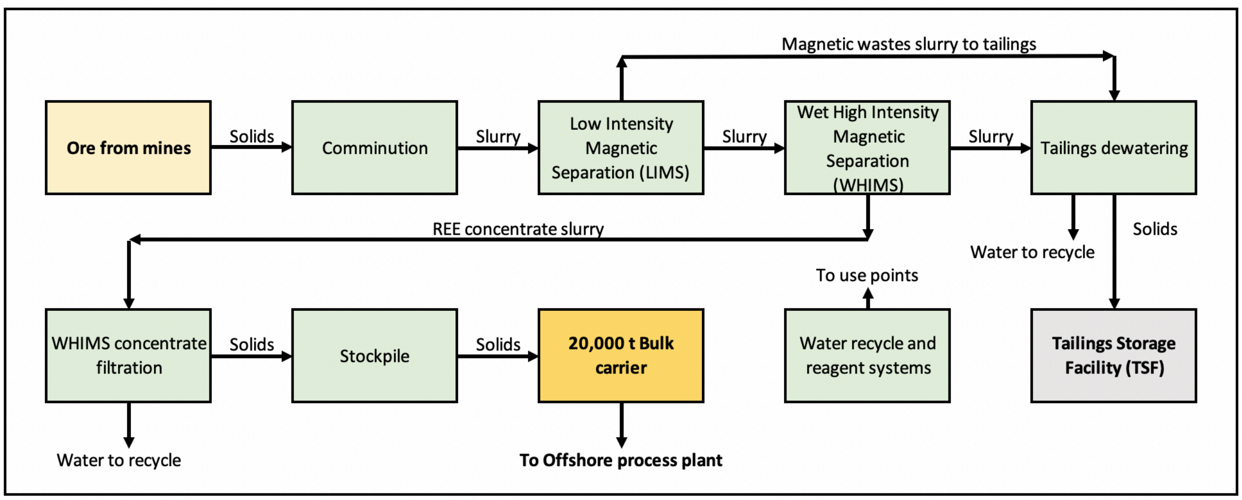


Figure 17-1: Block Diagram of Primary Production Plant

17.2.1 Comminution

The objective of the Primary Crushing Area will be to reduce ROM mineral in one stage of crushing to a size suitable for further size reduction in the milling circuit. Operating approximately 19.4 h/d, the Primary Crushing circuit will deliver crushed mineral at 80% passing (P_{80}) of 210 mm directly to the subsequent milling circuit. The primary crusher has been designed to process the plant capacity with a design availability of 95% and a utilisation of 97% for an overall utilisation of 92.2%.

Open pit mineral will be loaded at the mine onto trucks and hauled to a ROM mineral pad situated close to the crushing facility. Mineral will then be loaded into the ROM bin by a FEL. The primary crusher will be in building and serviced by an overhead traversing service crane of 10 t capacity.

Loading of mineral to the ROM bin will be controlled by the crusher operator who will activate tipping light indicators from the crusher control room. Live capacity of the ROM bin will be approximately 100 t, providing a maximum of 66 minutes of surge capacity at normal crusher throughput.

Ore in the ROM bin will be fed to a 1060 mm x 700 mm Jaw Crusher via a vibrating grizzly feeder. Grizzly undersize will pass directly to the Primary Crushed mineral Conveyer. Grizzly oversize will roll into the primary jaw crusher. The crusher is to be capable of crushing mineral at a maximum design rate of 110 t/h with an average feed rate of 90 t/h. The Primary Crusher will discharge onto the Primary Crushed mineral Conveyer which will then discharge to the Semi-Autogenous Grinding (SAG) Mill Feed Conveyer. The SAG Mill Feed Conveyor will feature a belt magnet to remove tramp metal that may be potentially damaging to downstream equipment.

The SAG mill will be five metres in diameter, have an effective grinding length of 3.7 m and be equipped with an 1,120 kW motor. SAG mill discharge will be further ground in a ball mill that will be 4.2 m diameter with an effective grinding length of 6.2 m and equipped with a 1,700 kW motor. Ball mill discharge will be classified to 80% passing 53 µm in hydrocyclones with the underflow returned to the mill and the overflow sent to magnetic separation.

Dust emission control in the crushing and mill feed area will be provided by a fan forced dust extraction system consisting of a single dry bag house. Captured dust will be fed onto the SAG mill feed conveyor.

Sump pumps will be provided in the basement level of the crushing building and milling building to remove dust collected by washdown of the respective areas and any spillage.

17.2.2 Wet Magnetic Separation

REE concentrate will be produced by a two-stage magnetic separation process. A Low Intensity Magnetic Separation (LIMS) rougher-cleaner circuit will first remove magnetite and maghemite from the mineral to produce an intermediate ferromagnetic concentrate which may have the potential for resale (not currently considered in this PEA). LIMS tailings containing the REE minerals will then be fed to a Wet High Intensity Magnetic Separation (WHIMS) system to produce a concentrate containing the bulk of the REE's.

17.2.3 WHIMS Concentrate Solid/Liquid Separation

WHIMS concentrate will be thickened and filtered. The filter cake will be stockpiled in a concentrate storage shed with a capacity of 100,000 t (sufficient for 202 days of production). During the spring-summer-fall months (8-month window), the concentrate will be loaded into up to 15,000 t capacity bulk carriers for ocean transport to the site of the Hydrometallurgical Processing Plant on the island of Newfoundland.

Ship loading will be done by loading concentrate in the storage shed into "bulking-in bins" which in turn discharge onto a conveying system connected to a ship-loader. The ship-loader will sit on a fixed barge and discharge into ships holds as directed by the captain.

17.2.4 Tailings Separation

Tailings will be thickened and filtered. The filter cake will be transported by truck and placed in a Tailings Storage Facility (TSF).

17.2.5 Tailings Disposal

Tailings will be thickened and filtered. The filter cake will be transported by truck and placed in a TSF located adjacent to the process plant. The process concept is to stockpile plant tailings on the ROM pad for back-loading removal by truck to a tailings disposal area. A suitable FEL will be provided in process plant mobile equipment list to load tailings. No detailed designs were carried out at this level of study. Further design work will be required to determine the geotechnical parameters for the TSF as well as any other design criteria.

SLR has made an allowance in the capital and operating costs to manage tailings at the Primary Production Plant.

17.2.6 Reagents

Flocculant will be mixed and stored in a flocculant mixing system. Flocculant will be pumped to the various addition points in the circuit by dedicated flocculant dosing pumps. Duty and standby pumps are provided for each duty point. Further work is required to test different flocculant types, particularly for low pH duties compared with more neutral pH duties.

17.2.7 Labour

The estimated labour force for the Primary Production Plant is based on a combination of shift work (12-hour shifts) and a regular 5x2 schedule for certain positions as indicated by "Shift (D/N)" and "Day" in Table 17-2. A total of 53 people is expected to be employed for the Primary Production Plant.

Table 17-2: Primary Production Plant Labour Force
Search Minerals Inc. –Deep Fox and Foxtrot Project

Area	Position	Shift Type	Number of People
Production	Shift Supervisor	Shift (D/N)	4
	Control Room Operator	Shift (D/N)	4
	Process Technicians		
	Crushing	Shift (D/N)	4
	Millings	Shift (D/N)	4
	Magnetic Separation	Shift (D/N)	4
	Solid/Liquid Separation	Shift (D/N)	4
	Product Handling	Day	2
	Reagents & Utilities	Day	2
Process (Technical)	Process Superintendent	Day	1
	Senior Metallurgist	Day	1
	Metallurgist Technicians	Day	1
Engineering and Maintenance	Maintenance Superintendent	Day	1
	Maintenance Planner	Day	1

Area	Position	Shift Type	Number of People
	Electrical and Inst Trades	Shift (D/N)	4
	Mechanical Trades	Shift (D/N)	4
	Trade Assistants	Shift (D/N)	4
Laboratory	Senior Chemist	Day	1
	Laboratory Assistants	Shift (D/N)	4
Management and Administration	Stores Manager	Day	1
	Stores Assistants	Day	1
	Environmental Officer	Day	1
Total			**53**

17.3 Hydrometallurgical Processing Plant

A block diagram illustrating the proposed flowsheet for the Hydrometallurgical Processing Plant is provided as Figure 17-2.

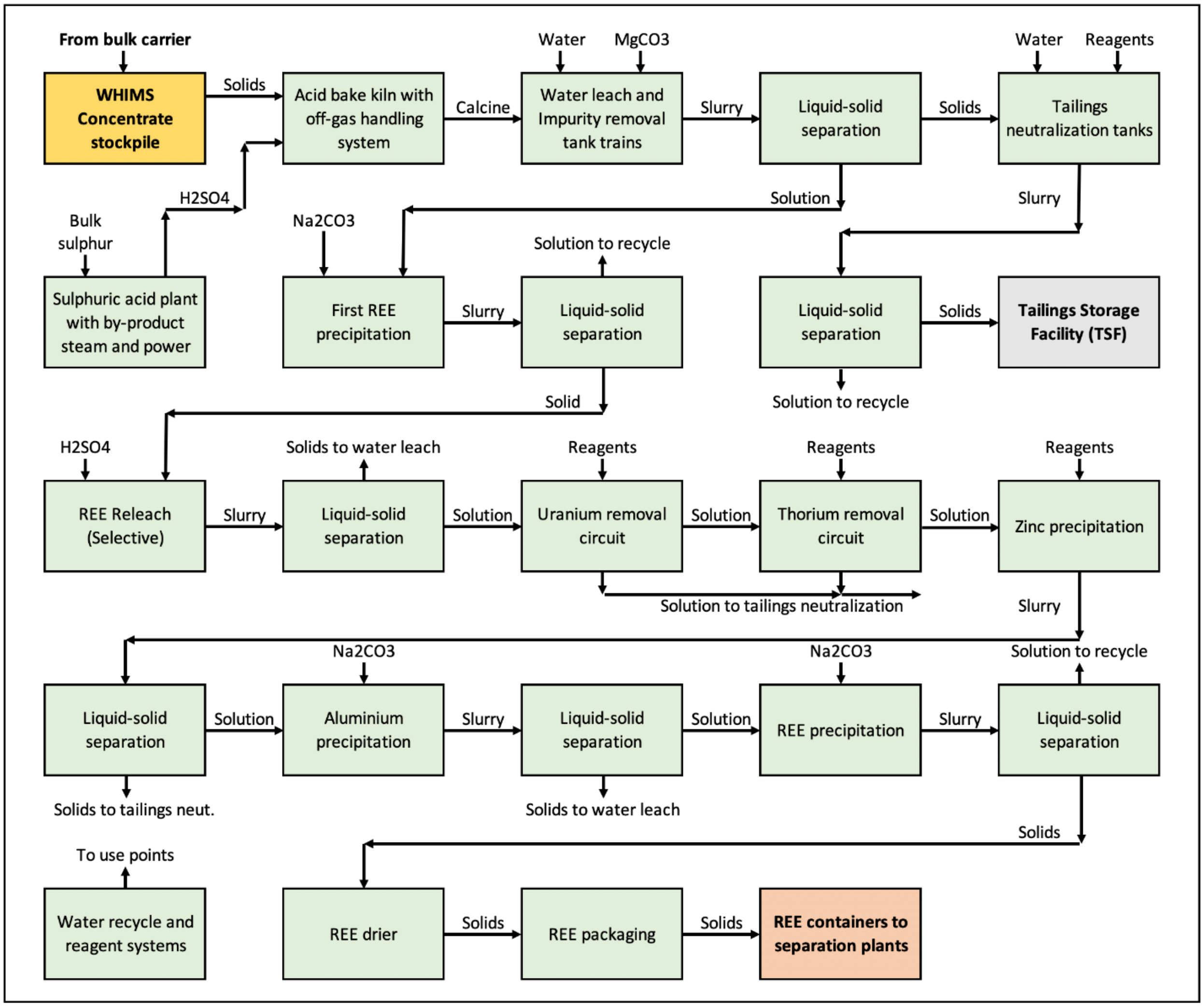


Figure 17-2: Block Diagram of Hydrometallurgical Processing Plant

17.3.1 Concentrate Handling

WHIMS concentrate will be delivered to a port proximate to the Hydrometallurgical Processing Plant in bulk carriers with capacity up to 15,000 t. The concentrate will be unloaded and stored in a shed with a capacity of 100,000 t.

17.3.2 Acid Bake

The WHIMS concentrate will be conveyed to the inlet feed of the duty Paddle Mixer (pug mill) where it will be mixed with 256 kg/t of sulphuric acid. Because of the high wear characteristics of the ore, a standby pug mill will be provided.

The discharge of the duty pug mill will gravitate to the feed chute of the acid bake kiln, where the concentrate mineral will be heated to 215°C for a period of 150 minutes. The kiln will be indirectly fired with diesel to minimize dusting from the kiln. The cooled kiln off-gas will be treated in a wet scrubber where the gas is to be scrubbed with magnesium carbonate slurry (which is then to be recirculated to the impurity removal step).

The kiln will discharge to an agitated repulp tank where the kiln product is quenched and slurried in water. The slurried feed will be pumped to the water leach circuit. Test work has indicated that key REE-bearings minerals will be sulphated such that 93% of the Pr and Nd and other LREE, as well as Tb and Dy, will be rendered water soluble. Solubilization of the HREE will be progressively rather lower with Lu sulphation at approximately 65%.

The repulped solids will then be pumped to Water Leach Tank 1 by the duty Water Leach Feed Pump.

17.3.3 Water Leach & Impurity Removal

17.3.3.1 Water Leach

The repulped acid bake discharge will be leached in a single train of cascaded agitated leach reactors, consisting of six tanks that operate at approximately 20% w/w solids and 90°C with a leach residence time of 24 hr. Rare earth extractions will be as noted above in the acid bake area reaction extents.

The concentration of the remaining sulphuric acid in the water leach discharge will be controlled to 8 g/L with the objective of minimising the magnesium carbonate consumption in the subsequent impurity removal stage.

17.3.3.2 Impurity Removal

The water leach discharge will be further treated in a single train of cascaded agitated reactors for the purpose of impurity removal consisting of four tanks that operate at approximately 20% w/w solids and 90°C, these will provide a reactor residence time of two hours. The recycle stream from a downstream aluminium precipitation step will consume part of the sulphuric acid to re-leach aluminium and coprecipitated REOs. The remaining sulphuric acid will be consumed by magnesium carbonate that is to be added to the impurity removal tanks to raise the pH to 3.9.

It is expected that the impurity removal circuit will precipitate 100% of the Fe, 92% of the Th, 60% of the Al, 16% of the U, along with approximately 2% of the key REE such as Nd.

17.3.3.3 Leach Residue Solid/Liquid Separation

Leach residue slurry from the final Impurity Removal Tank will gravitate to the Impurity Removal Thickener. The contained solids will then settle with the aid of flocculant and the thickener will produce an underflow of approximately 65% w/w solids.

The underflow will then be pumped to the Impurity Removal Filter Surge Tank, which will have a retention time of 8 hr to allow for filter maintenance. The Impurity Removal Filter proposed is a horizontal belt filter which will separate the residue solids from the process liquor containing the REE metal values of economic interest. Residual entrained (dissolved) metal values will be recovered by washing the solids residue with wash water in three countercurrent stages.

A solids residue filter cake at 20 % w/w moisture is targeted from the belt filter. The solids residue will fall onto the Filter Cake Transfer Conveyor, and the cake is transported to the Tailings Treatment System.

The Impurity Removal Thickener overflow, which will contain the leached REEs, will gravitate to the Thickener Overflow Tank, from where it will be pumped at a controlled rate to the first REE Precipitation circuit.

17.3.4 First REE Precipitation

The impurity removal thickener overflow will be further treated in a single train of cascaded agitated reactors, consisting of six tanks that will operate at approximately 1% w/w solids and 50 ºC, and provide a reactor residence time of 1.5 hr. The rare earths will be precipitated by the addition of sodium carbonate into the REE precipitation tanks where the pH will be raised to 6.5.

The first REE Precipitation circuit will result in very close to 100% of the REE, Al, and Fe being precipitated into a high-grade REE precipitate.

Slurry from the final REE Precipitation Tank will gravitate to the REE Precipitation Thickener. The contained solids will then settle with the aid of flocculant; and the thickener will produce an underflow containing approximately 7.5% w/w solids.

The thickener underflow will then be pumped to the REE Precipitation Filter Surge Tank, which will have a retention time of 8 hr. The REE Precipitation Filter will separate the precipitated solids from the process liquor; with the solids containing the REE metal values of interest. Entrained gangue metal values will be removed by washing the REE Precipitate with wash water. The filtered solids will be washed to limit transfer of soluble gangue components to downstream processing.

An REE Filter Cake at 78% w/w moisture is targeted from a plate and frame filter. The filter cake will be periodically discharged and then fed at a controlled rate into a repulp tank where the filter cake will be repulped with demineralised water and pumped to the REE re-leach feed box. Wash liquor and primary filtrate from the REE Precipitate Filter will be recycled back to the REE Precipitate Thickener. The REE Precipitate Thickener overflow, that will contain minor amounts of REEs, will gravitate to the Thickener Overflow Tank from where it will be pumped at a controlled rate to the Demineralised water circuit. In this circuit the process water will be treated and the majority of the water recycled to the water leach.

17.3.5 REE Releaching

In the next process step, the washed REE Precipitate will be leached in a single train of cascaded agitated reactors, consisting of four tanks that operate at approximately 1% w/w solids, 50 ºC and provide a leach residence time of 1.6 hr. The rare earths will be releached using sulphuric acid. The objective of this circuit is to dissolve the REE in a high-grade solution to allow further purification. Some silica (approximately 90%) will report to the leach residue solids. The releach circuit will operate at a target pH of 1.0.

Following REE re-leach, the slurry pH will be raised to 3.5 with magnesium carbonate to precipitate residual silica, iron and to a minor extent aluminium.

Slurry from the final REE Releach Tank will gravitate to the REE Releach Thickener. The contained solids will then settle with the aid of flocculant to produce an underflow containing approximately 30% w/w solids.

The underflow will then be pumped to the REE Releach Filter Surge Tank, which will have a retention time of 8 hr. The REE Releach Filter will separate the unreacted solids from the process liquor; the solid will contain a range of unleached gangue elements. Residual entrained REE metal values are recovered by washing the REE releach residue with acidic wash water to remove entrained soluble REE from the primary precipitate.

A REE releach residue filter cake at 50% w/w moisture will be targeted from the plate and frame filter. The filter cake will be repulped and transferred back to the Water Leach Circuit. Wash liquor and primary filtrate from the REE Releach Filter will be recycled back to the REE Releach Thickener.

The REE releach thickener overflow, comprising a concentrated stream of partially purified REEs, will gravitate to the Thickener Overflow Tank, from where it will be pumped at a controlled rate to the purification circuit where uranium, thorium and zinc contaminants are to be removed.

17.3.6 Solution Purification

17.3.6.1 Uranium CCIX

A Continuous Counter-current Ion Exchange (CCIX) system will be used for the removal of uranium from the releach solution. The CCIX system will be supplied with polystyrene divinylbenzene co-polymerised crosslinked resin beads functionalized with amine-based chemistry to impart an anion exchange capability. The resin will extract uranium and (depending upon resin selection) zirconium, thorium, and molybdenum. Resin loading and uptake efficiency is pH dependent. Regeneration of the resin and removal of the uranium, thorium and zirconium will be achieved through passing strong sulphuric acid through the resin. After elution the resin will be rinsed with water prior to being returned to service.

The uranium strip liquor flowrate is low at less than 0.3 m3/h and is directed to the tailings neutralization system where the uranium is precipitated in a stable form. Additional test work is needed to define exact conditions.

17.3.6.2 Thorium Removal

A solvent extraction (SX) circuit, including extraction, washing, and stripping stages, for removal of residual thorium has been designed. Test work data has been used to set SX circuit performance and reagent concentrations. A pulsed column circuit comprising one extraction one wash and one strip column has been selected for the duty.

The test work indicated that a 1% concentration of Primene JMT is required to recover 99.7% of the thorium from the PLS in the extract circuit. Coextraction of some REE will also occur. The extraction circuit will comprise three theoretical stages of extraction and will operate at an organic to aqueous ratio of 0.2:1. Raffinate will be sent forward to the next stage of purification – zinc precipitation.

The organic will be transferred to a two-stage wash column, which will be adequate for removal of coextracted REE at the wash ratio nominated. Two stages of washing are proposed to maximize REE removal. A wash ratio of 0.67:1 for a wash liquor of 25 g/L sulphuric acid is to be used to remove REE contained in the organic; bleed from the wash will join the raffinate.

Two theoretical stages of stripping in the strip column will remove the thorium from the loaded organic. An advance concentration of 0.186 g/L thorium will result from the operating conditions proposed. The strip liquor will contain 9.13 g/L hydrochloric acid.

The thorium strip liquor will be pumped to the tailings neutralization system where it is precipitated in a stable form. Additional test work is needed to define exact conditions.

17.3.6.3 Zinc Precipitation

The thorium raffinate will be pumped to the zinc precipitation circuit, which will consist of a single bank of four cascaded agitated reactors operating at 45 ºC. The first tank, with 1 h residence time will be used to deaerate the incoming solution in order to facilitate zinc precipitation using hydrogen sulphide. The thorium raffinate will be adjusted to a pH of 3 using sodium carbonate.

Slurry from the final Zinc Precipitation Tank will gravitate to the Zinc Precipitation Thickener. The contained solids will then settle with the aid of flocculant to an underflow containing approximately 50 % w/w solids.

The underflow will then be pumped to the Zinc Precipitation Filter Surge Tank, which will have a retention time of 8 hr. The Zinc Precipitation Filter will separate the precipitated solids from the process liquor; the solids containing precipitated zinc, lead and minor REE. Some entrained REE metal values will be recovered by washing the zinc precipitate with wash solution.

Zinc Filter Cake at 20% w/w moisture is targeted from the plate and frame filter. The filter cake will be combined with the impurity removal tailings. Wash liquor and primary filtrate from the Zinc Precipitation Filter will be recycled back to the Zinc Precipitation Thickener.

The zinc precipitation thickener overflow, containing the REEs, will gravitate to the Thickener Overflow Tank from which it will be pumped at a controlled rate to the aluminium precipitation circuit, where the remaining aluminium will be removed.

17.3.6.4 Final Purification and REE Recovery

In order to reduce the level of aluminium in the final REE product, the pH of the pregnant liquor solution (PLS) will be raised to 5.0 to 5.2 using sodium carbonate, which will effectively precipitate the majority of the aluminium. Coprecipitation of REE will, however, be significant and the precipitate will need to be recycled to redissolve the coprecipitated REE. Further work is required to:

- Minimize aluminium extraction in the first instance (control of temperature, Eh, ferric concentration)
- Consider alternative aluminium precipitants such as phosphate
- Minimize coprecipitation of REE

The precipitation step will occur in a bank of four cascaded agitated reactors operating at 35°C and 1.5 hr residence time.

Slurry from the final Aluminium Precipitation Tanks will gravitate to the Aluminium Precipitation Thickener. The contained solids will then settle with the aid of flocculant to realise an underflow containing approximately 30% w/w solids (assumed). The thickener underflow will then be pumped to the Aluminium Precipitation Filter Surge Tank, which will have a retention time of 8 hours. The Aluminium Precipitation Filter will separate the precipitated solids from the process liquor; the solids containing significant coprecipitated REE.

A Filter Cake of 50% w/w moisture is targeted from the plate and frame filter. The filter cake will be repulped and transferred back to the Water Leach Circuit to recover the coprecipitated REE. Wash liquor and primary filtrate from the Aluminium Precipitation Filter will be recycled back to the Aluminium Precipitation Thickener. The Aluminium Precipitation Thickener overflow, containing the bulk of the REEs, will gravitate to the Thickener Overflow Tank from where it will be pumped at a controlled rate to the REE Carbonate Precipitation circuit.

The purified REE solution is then to be treated with sodium carbonate to raise the pH to 6.0 to precipitate the REE as a hydrated REE carbonate. The precipitation will occur in a bank of four cascaded agitated reactors operating at 30°C and 1.5 hr residence time.

Slurry from the final REE Carbonate Precipitation Tank will gravitate to the REE Carbonate Precipitation Thickener. The contained solids will then settle with the aid of flocculant to an underflow containing approximately 40% w/w solids (assumed).

The underflow will then be pumped to the REE Carbonate Filter Surge Tank, which will have a retention time of 8 hr. The REE Carbonate Filter will then separate the precipitated solids from the process liquor.

An REE Carbonate Filter Cake at 50% w/w moisture is targeted from the plate and frame filter. This will then be fed into a drier before being bagged, containerised, and shipped to a refiner. Wash liquor and primary filtrate from the REE Carbonate Filter will be recycled back to the REE Carbonate Thickener. The REE Carbonate Thickener overflow will be pumped at a controlled rate back to the water leach.

17.3.6.5 Tailings treatment

The slurry following the acid-bake, water leach, impurity removal process is directed to a thickener which separates the REE-bearing pregnant solution from the tailings solids. The thickener underflow is filtered with the solution returned to the thickener and the solids directed to a series of tailings neutralization tanks. The thickener overflow containing the dissolved REE is directed to the First REE Precipitation step. Waste solutions from the uranium and thorium removal systems are combined with the filter cake and reagents such as phosphate and lime are added to precipitate and stabilize dissolved species. The slurry is then filtered with solids taken to a dry-stack tailings system and the filtrate re-used in the plant.

17.3.7 Reagents

17.3.7.1 Flocculant

Flocculant will be mixed and stored in a flocculant mixing system. The mixed flocculant will be stored in the flocculant storage tank. Flocculant will be pumped to the various addition points in the circuit by dedicated flocculant dosing pumps.

17.3.7.2 Magnesium Carbonate

Magnesium Carbonate will be supplied in bulk and shipped to site. It will be unloaded into a bulk reagent storage shed via a common ship unloader to be located on the wharf and a system of conveyors. A long reagent shed will be provided for bulk reagent storage with three main compartments and two annexes. Magnesium carbonate will be reclaimed from the stockpile using a FEL and discharged into a hopper. Magnesium carbonate will then be withdrawn from the hopper at a controlled rate (screw conveyor) and fed into a mixing tank where the magnesium carbonate will be mixed to 25% w/w. Once a batch is mixed, the slurried magnesium carbonate will be transferred to a storage tank. Dedicated dosing pumps that supply usage points within the process plant will then distribute this reagent. A ring main may also be considered in the next phase.

In SLR's opinion, it may be more cost-effective to use magnesium oxide, and this should be considered at the next stage of study.

17.3.7.3 Sulphuric Acid

Sulphur will be supplied in bulk and shipped to site. It will be unloaded into a bulk reagent storage shed via a common pneumatic ship unloader to be located on the wharf and a system of conveyors. Sulphur will then be reclaimed from a stockpile using a FEL and discharged into a hopper. Sulphur will be withdrawn from the hopper at a controlled rate and fed into a sulphur melting and filtration train of steam heated tanks.

The molten filtered sulphur will then be fed to the molten sulphur storage tank. From here the sulphur will be pumped to the sulphur burner of a standard sulphuric acid plant.

The acid plant boiler will have the capacity to produce up to 2.5 MW of electrical power from steam generated in the process from heat reclaim of which a net 2 MW will be available to the process plant. While this links the availability of the process plant to the acid plant, it is expected that there will be grid power available at the Hydrometallurgical Processing Plant site as backup and for start-up requirements. There are also opportunities to export excess power to the grid.

The key parameters of the acid plant design for a nominal 500 t/d of WHIMS concentrate throughput are presented in Table 17-3.

Table 17-3: Modular Sulphuric Acid Plant Key Parameters
Search Minerals Inc. –Deep Fox and Foxtrot Project

Item	Item	Unit	Value
Plant Capacity	Sulphuric Acid	tpd	180 to200
Storage	H_2SO_4	m^3	300
Gross Power		MW	2.5
Net Power		MW	2.0
Sulphur		tpd	59

Liquid effluent from the cooling tower and boiler blowdown, spillage and wash-down will be collected in a sump in the acid circulation area, from where it will be pumped to the process water tank. A separate sump will collect effluent within the acid storage tank bunded area from where it will also be pumped to appropriate wash water tanks or the water leach.

Diesel oil and plant air will be supplied to the start-up burner in the sulphur burner to pre-heat the plant during start-up.

Filter cake from the sulphur filter will be dumped into a container underneath the filter for disposal. For start-up of the absorption section, a first fill of 300 m^3 of 98 % H_2SO_4 must be available.

17.3.7.4 Sodium Carbonate

Sodium Carbonate will be supplied in bulk, shipped to site, and then unloaded into the bulk reagent storage shed as described above. Sodium carbonate will be reclaimed from a stockpile using a FEL and discharged into a hopper. Sodium carbonate will then be withdrawn from the hopper at a controlled rate and fed into a mixing tank where the sodium carbonate is dissolved at a concentration of 15 % w/w. The sodium carbonate solution will then be transferred to a storage tank. From here dedicated dosing pumps will supply usage points within the process plant.

17.3.7.5 Hydrogen Peroxide

Hydrogen peroxide will be supplied to site in bulk boxes. A full bulk box will be held as backup to the duty bulk box. A dosing pump will provide hydrogen peroxide to the uranium precipitation circuit.

17.3.7.6 Hydrogen Sulphide

Bottled (compressed) hydrogen sulphide gas (H_2S) will be delivered to site. The bottles will be connected to a gas manifold and rotated as required. Gas will be dosed via rotameters at the appropriate dosing points.

17.3.7.7 Phosphoric Acid

Phosphoric Acid will be supplied to site in bulk boxes. A full bulk box will be held as backup to the duty bulk box. Phosphoric acid will be dosed to the REE releach circuit via a dosing pump.

17.3.7.8 Diluent

A 60-day inventory of diluent will be stored on site in bulk boxes to meet the make-up requirements of the Th SX circuit.

17.3.7.9 Thorium Extractant

First fill of extractant will be supplied in bulk boxes. On site storage for a 100-day supply of extractant is proposed. Subsequent storage on site will be in 200 L drums. An air operated diaphragm pump will be provided to add extractant to the loaded organic storage tank.

17.3.7.10 Uranium Resin

Resin will be lost from the uranium ion exchange (IX) circuit by attrition and breakdown. Make-up resin will be added on a routine basis to the UIX columns. An inventory of resin equivalent to 4 months supply will be held on site.

17.3.7.11 Coagulant

Coagulant will be mixed by the Coagulant Mixing System and the mixed coagulant will be stored in the Coagulant Storage Tank. Coagulant will be pumped from the Coagulant Storage Tank to the various addition points in the circuit by dedicated Coagulant Dosing Pumps.

17.3.7.12 Hydrochloric Acid

Hydrochloric acid is supplied in 1.0 m^3 bulk boxes and dedicated dosing pumps deliver acid to the Th SX Strip makeup tank.

17.3.8 Tailings Disposal

Further characterization of the tailings from the Hydrometallurgical Processing Plant is required to assess geotechnical as well as chemical stability. Geotechnical compressibility and shear load requires assessment for dry stacking options. Containment embankment and even liner may also be required. The climate is such that the tailings are unlikely to freeze, but seasonal issues and precipitation also need to be considered.

Like that for the Primary Production Plant, NewPro have not made an allowance for the TSF at the Hydrometallurgical Processing Plant, but have made allowance for trucking filtered tailings to a suitable TSF location. Further design work will be required to determine the geotechnical parameters for the TSF as well as any other design criteria.

SLR has made an allowance in the capital and operating costs to manage tailings at the Hydrometallurgical Processing Plant.

17.3.9 Labour

The estimated labour force for the Hydrometallurgical Processing Plant is based on a combination of shift work (12-hour shifts) and a regular 5x2 schedule for certain positions as indicated by "Shift (D/N)" and "Day" in Table 17-4. A total of 110 people is expected to be employed for the Hydrometallurgical Processing Plant.

Table 17-4: Hydrometallurgical Processing Plant Labour Force
Search Minerals Inc. –Deep Fox and Foxtrot Project

Area	Position	Shift Type	Number of People
Production	Shift Supervisor	Shift (D/N)	4
	Control Room Operator	Shift (D/N)	4
	Process Technicians		
	Acid Bake	Shift (D/N)	4
	Water Leach	Shift (D/N)	4
	REE Precipitation	Shift (D/N)	4
	REE Releach	Shift (D/N)	4
	REE Solution Purification	Shift (D/N)	4
	REE Recovery	Shift (D/N)	4
	Power Plant	Shift (D/N)	4
	Tailings	Shift (D/N)	4
	Product Handling	Day	2
	Reagents & Utilities	Shift (D/N)	4
Process (Technical)	Process Superintendent	Day	1
	Senior Metallurgist	Day	1
	Metallurgist – Leaching	Day	2
	Metallurgist Technicians	Day	2
Engineering and Maintenance	Maintenance Superintendent	Day	1
	Maintenance Planner	Day	2
	Electrical and Inst Trades	Shift (D/N)	8
	Mechanical Trades	Shift (D/N)	8
	Trade Assistants	Shift (D/N)	4
	Control System Technician	Day	2
	Maintenance Engineer	Day	2
	Draftsman	Day	1

Area	Position	Shift Type	Number of People
	Clerk	Day	4
Laboratory	Laboratory Manager	Day	1
	Senior Chemist	Day	1
	Chemists	Shift (D/N)	4
	Laboratory Assistants	Shift (D/N)	12
Management and Administration	Administrator	Day	1
	Stores Manager	Day	2
	Stores Assistants	Day	4
	Environmental Officer	Day	1
Total			**110**

17.4 Comments on the Recovery Methods Proposed by NewPro

SLR has reviewed the proposals for the Primary Production Plant and the Hydrometallurgical Processing Plant.

The proposed beneficiation plant includes a simple comminution circuit which, given adequate test work on a range of samples and competent design based on such test work, should be a trouble-free operation. Similarly, the proposed magnetic separation circuits are quite standard in other industries and should operate as projected provided that test work confirms the preliminary test results forming the basis for the present NewPro design.

The proposed hydrometallurgical process starts with an acid bake process. This is a widely practised method of decomposing REE minerals and presently used to produce most of the world's REE supply. The proposed Search Minerals plant would dissolve the REE from the acid bake product and remove impurities through hydrolysis in a fairly standard process. The balance of the process includes REE precipitation and releach followed by multiple stages of purification ahead of REE carbonate precipitation. As noted by NewPro, additional test work is needed to confirm process details. SLR is of the opinion that there is potential to simplify the process.

Although additional test work, including pilot plant operations, are needed, the QP is of the opinion that the design and resulting equipment requirements and reagent demand are adequate for a PEA.

18.0 PROJECT INFRASTRUCTURE

Project infrastructure has been addressed in the NewPro Report, and this has been summarized in this section. SLR has included additional infrastructure descriptions to complement the NewPro Report.

18.1 Primary Production Plant

18.1.1 Water Services

18.1.1.1 Raw Water

Raw water for the Primary Production Plant will be supplied using raw water taken from an authorized water source. The ability to drawdown on the nominated lake and the rate of replenishment is yet to be established. Raw water will be stored on site in the Raw Water Tank and distributed to usage points within the plant. Filtered Raw Water will be utilised for the gland water service.

Raw water requirements are estimated at 134 million litres per annum.

18.1.1.2 Process Water

The process water tank will have sufficient storage to meet process plant operating requirement for 24 hr. Two Process Water Pumps will distribute process water to the various usage points around the process plant.

18.1.1.3 Gland Water

Gland water will be used for a limited number of pumps within the process plant. A gland water tank and pumps will supply duty points within the process plant.

18.1.1.4 Potable Water

Potable water will be supplied from the demineralised water plant, then chlorinated and re-mineralised for potable water use. Potable water will be distributed via a ring main to various usage points within the plant and buildings.

Safety showers will be supplied by potable water maintained at approximately 23°C. Suitably located lagged and heat traced header tanks will be installed to provide the head necessary to operate the safety showers.

18.1.1.5 Fire Water

A firewater storage and reticulation system will be provided for firefighting duties. All substations will be equipped with dedicated fire suppression equipment to protect the motor control panels and plant control systems.

18.1.1.6 Sewage

Sewage Treatment Plants (STP) will be used to treat domestic effluent from toilets, showers, sinks and from camp facilities. Sewage will be collected by gravity at a local raw sewerage lift station and will be pumped to the STP which is a membrane bioreactor (MBR). The membrane portion of the MBR process is used to separate Mixed Liquor Suspended Solids (MLSS) from the treated effluent. The Membrane filtration process itself is an effective bacteria barrier and MBR permeate (effluent) is free of Suspended Solids. During normal operation, the MBR permeate is also free of fecal coliforms. The treated effluent is therefore acceptable for recycle to the process water tank for re-use in the process plant. Like any biological treatment process, excess sludge from wastewater treatment plants needs to be removed and disposed of to leach drain or landfill. However, a MBR treatment system has lower sludge yields as well as more stabilized sludge than most other wastewater treatment systems due to its much higher Solids Retention Time. In addition, the excess activated sludge diverted directly from the MBR process typically has higher concentration (thus lower volume) than sludge from other treatment processes. All these features are beneficial for sludge handling and final sludge disposal.

The STP process flow diagram is as follows:

Raw Sewage Lift Station (by others) → Fine Screen → Equalization Tank → Anoxic Tank →MBR Tank → Effluent (discharge)

The sludge dewatering system (optional) process flow includes:

Sludge from MBR Tank → Sludge Tank → Disc Sludge Press → Sludge Cake (to landfill)

18.1.2 Air Services

Plant air will be supplied by a duty standby arrangement of rotary screw type compressors. The compressors will provide air at a pressure of 700 kiloPascal gauge (kPaG) to plant services. The larger plate and frame filters have dedicated air compressors. Instrument air will be withdrawn from the plant air receiver to an instrument air accumulator and then dried in a duty standby arrangement of driers and air filters.

18.1.3 Power Supply

A power station comprising a number of diesel reciprocating engines and generators will be provided to power the concentrator. Electric power requirements for the Primary Process Plant are estimated at 4.855 MW of installed power with an estimated draw of 3.956 MW. The fuel requirements for the diesel generators are estimated at 7.7 million litres per annum.

18.1.4 Steam (Building Heating)

Steam will be produced by heat recovery boilers on the power station exhaust, which are sized to meet building heating requirements. A backup boiler is provided with sufficient capacity to replace the steam supplied from the power station if the station is not operational for any reason.

The duty points will be supplied with steam at 185°C and 10 Bar pressure.

A heating fluid is required to transfer heat derived from the steam boiler. The solution will comprise a 50/50 mix of glycol/water. The steam boiler will typically be operated on low fire. The heating system will be a closed service, which will use softened water from the steam boiler supply system to prevent scale build-up in the heat exchangers. Hot water radiators are to be used within each building to heat incoming air to meet the required building air turnovers.

18.1.5 Fuel Services

Fuel will be stored on site in fuel storage facilities for distribution to vehicles and to the steam boiler day tank for backup steam generation. Steam generation is typically produced by waste heat boilers on the power station. As diesel will be supplied in bulk, it will be pumped to 3 x 1,375 m^3 tanks located adjacent to the port. The fuel tank capacity is calculated based on the process plant requirements plus one additional tank as an allowance for mine fleet fuel storage.

Adjacent to this will be a re-fuelling area, connected to the ROM pad via a road such that heavy vehicles can refuel on their rotations. Machines based at the mine pits will be refuelled by an intermediary fuel truck. At the refuelling area there will also be a separated light vehicle refuelling bowser.

Fuel will be bought into the Primary Production Plant via ship (either backload on concentrate ship or via the Costal Shipping Services fuel distribution system) and offloaded via a pumping system on the wharf.

18.1.6 Mobile Equipment

Mobile equipment fleet has been specified based on the expected requirements of the plant. This includes various maintenance and operating personnel vehicles. Two FELs (CAT 980 or equivalent) will be required on the ROM pad. A 25 t yard crane, flatbed truck, container forklift, store AT forklift (Manitou style), small skid steer loader, backhoe, and mobile welding machine will be required to support maintenance activities. As the plant is quite compact, only four light vehicles, plus a bus to move personnel to and from the accommodation camp and airport in Happy Valley-Goose Bay, will be required.

18.1.7 Buildings

The following buildings are the major buildings located near the processing sites, with the exception of the accommodation camp which will be located in St. Lewis. All buildings will be steel frame metal clad construction-type with a concrete slab base. It is assumed that the foundations will be built on the bed rock with a minimum amount of filling material needed.

- Primary Production Plant buildings (Table 18-1)
- Administration, community relations, and services office
- Truck Shop and Warehouse
- Main security gate house
- Accommodation camp

18.1.7.1 Primary Production Plant Buildings

Table 18-1 provides the list of buildings that NewPro included in its estimate for the Primary Production Plant.

Table 18-1: Primary Production Plant Buildings
Search Minerals Inc. –Deep Fox and Foxtrot Project

Description	Size (L x W x H) (m)	Type
Crushing Building	7x15x15	Construction: HVAC ventilated shed with OH Crane
Milling Building	7x15x15	Construction: HVAC ventilated shed with OH Crane
Magnetic Separation Building	24x19.5x15	Construction: HVAC ventilated shed with OH Crane
Solid/Liquid Separation Building	28x61x15	Construction: HVAC ventilated shed with OH Crane
Concentrator Warehouse and Racks	40x20x8.5	Construction: HVAC ventilated shed
Concentrator Services Building, including Lab, Fire and Medical Services	10x25x15	Construction: three story building HVAC ventilated and insulated
Concentrator Workshop	40x20x8.5	Construction: HVAC ventilated shed with OH Crane
Concentrator MCC Substation	5.4x17x2.5	Sea Container sized facility
Concentrator Power Station	20x30x2.6	Construction: HVAC ventilated shed with OH Crane
Concentrator Changerooms	20x20x2.6	Construction: HVAC ventilated and insulated building
Concentrator Administration and Offices	20x30x2.6	Construction: HVAC ventilated and insulated shed
WHIMS Concentrate Storage Building Primary Production Plant	61x105x20	Storage Shed 100000t capacity

18.1.7.2 Administration and Services Office

The administration and services office building will accommodate mine management, administration, engineering/geology department, first aid room, training, and meeting rooms, and a mine dry room. The building will be two levels and completed in modules. Costs include the complete supply and installation of building foundations, mechanical equipment, and electrical equipment.

18.1.7.3 Truck Shop and Warehouse

The garage will include a wash bay, three mechanical bays, and a welding shop. One other shop adjacent to the garage and the main warehouse will be added for welders, carpenters, pump and accessories maintenance, and for electrical and instrumentation workers. There will be two levels in the warehouse with maintenance on the lower floor and parts storage and a dining room on the upper floor. In the electrical equipment maintenance area, a second floor will be occupied by maintenance foreman offices.

18.1.7.4 Accommodation Camp – Operations

An accommodation camp will be constructed in St. Lewis to house the permanent mining and process workforce and open pit contractors. It is expected that this camp will have a total capacity of approximately 80 people. There will be sleeping rooms, a kitchen/dining facility, clinic, laundry, and basic recreation facilities.

The Project will seek local employment to the extent possible. Search Minerals intends to investigate accommodation alternatives to an on-site mining camp, to the benefit of the local communities.

18.1.7.5 Accommodation Camp – Construction

Temporary accommodation for the construction phase will be located adjacent to the permanent camp site. The temporary camp will be removed upon completion of construction.

18.1.8 Laboratory Services

An allowance cost has been made for a typical x-ray fluorescence (XRF) laboratory at the Primary Production Plant. The purpose will be to provide a grade control and metallurgical assay laboratory. The laboratory is to be equipped with sample preparation, screening, and a XRF button making machine. The primary means of analysis will be by XRF analysis including the use of hand-held XRF machines for field grade control. Hand-held XRF analysers such as the Niton® XLp 522K isotope-based unit from Thermo Scientific can quickly analyze elements from titanium (Ti) to U. These analyzers cover a broader range of REEs than the equivalent tube-based analyzers, and offer direct analysis of the elements: La, Ce, Pr, and Nd, samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), and Dy, as well as Y, U, and Th.

18.1.9 Port Facility

NewPro provided designs and estimates for a new port facility located at Port Marnham. Search Minerals is currently reviewing port site alternatives and has requested that SLR assume that the existing maritime infrastructure located in Fox Harbour could be used as a primary alternative. SLR has made an allowance of $8 million to account for upgrades to the existing maritime infrastructure to be able to receive ships for outgoing (concentrate) and incoming (diesel, supplies, etc.). This allowance is a preliminary estimate based on assuming approximately 30% of the costs of the brand new port facility estimated by NewPro at approximately $25 million.

SLR understands that Fox Harbour has limited draft of approximately nine metres which will allow for vessels of up to 15,000 dwt. The Fox Harbour will also have a limited shipping season (approximately eight months) and consideration for scheduling allowance will need to be considered.

SLR recommends that further investigation into port locations be carried out.

18.1.10 Access Roads

Access roads have been considered for both Deep Fox and Foxtrot. Preliminary routing is shown in Figure 18-3 and described below. Further study, analysis, and community consultation will be required prior to finalization of access roads.

18.1.10.1 Deep Fox

Site access roads will need to be constructed to connect Deep Fox to the port at Fox Harbour. There are some smaller existing roads that will need to be upgraded to allow for the transport of concentrate and supplies. SLR estimates approximately 6.3 km of upgraded roads will be required.

18.1.10.2 Foxtrot

The Foxtrot site is located approximately 13 km from the Primary Production Plant. A small section of road (approximately 900 m) will be required to connect the mine to the existing Highway 513. Prior to entering St. Lewis, a road detour will need to be built that runs past the old radar station (currently Search Minerals' core storage facility) and to the Primary Production Plant. This detour ensures that all truck traffic will avoid the town of St. Lewis. The detour road is approximately four kilometers.

18.1.11 Air Strip

An existing air strip is located adjacent to the town of St. Lewis and Deep Fox, is approximately 700 m in length, and can be used for small aircraft.

18.1.12 Tailings

Tailings will be generated from the Primary Production Plant and are assumed to be filtered dry-stack tailings. No detailed designs have been carried out for this Technical Report, however, SLR has estimated the volume requirements and has estimated costs to construct a tailings storage pad. SLR recommends that further design work be carried out for the dry stack tailings design.

18.1.13 Site Infrastructure Layout

Figure 18-1 shows the Deep Fox Mine and Primary Production Plant, Figure 18-2 shows the infrastructure at Foxtrot, and Figure 18-3 shows the overall infrastructure on the Property. The site layout is preliminary. Further study, analysis, and community consultation will be required prior to finalization of infrastructure layout.

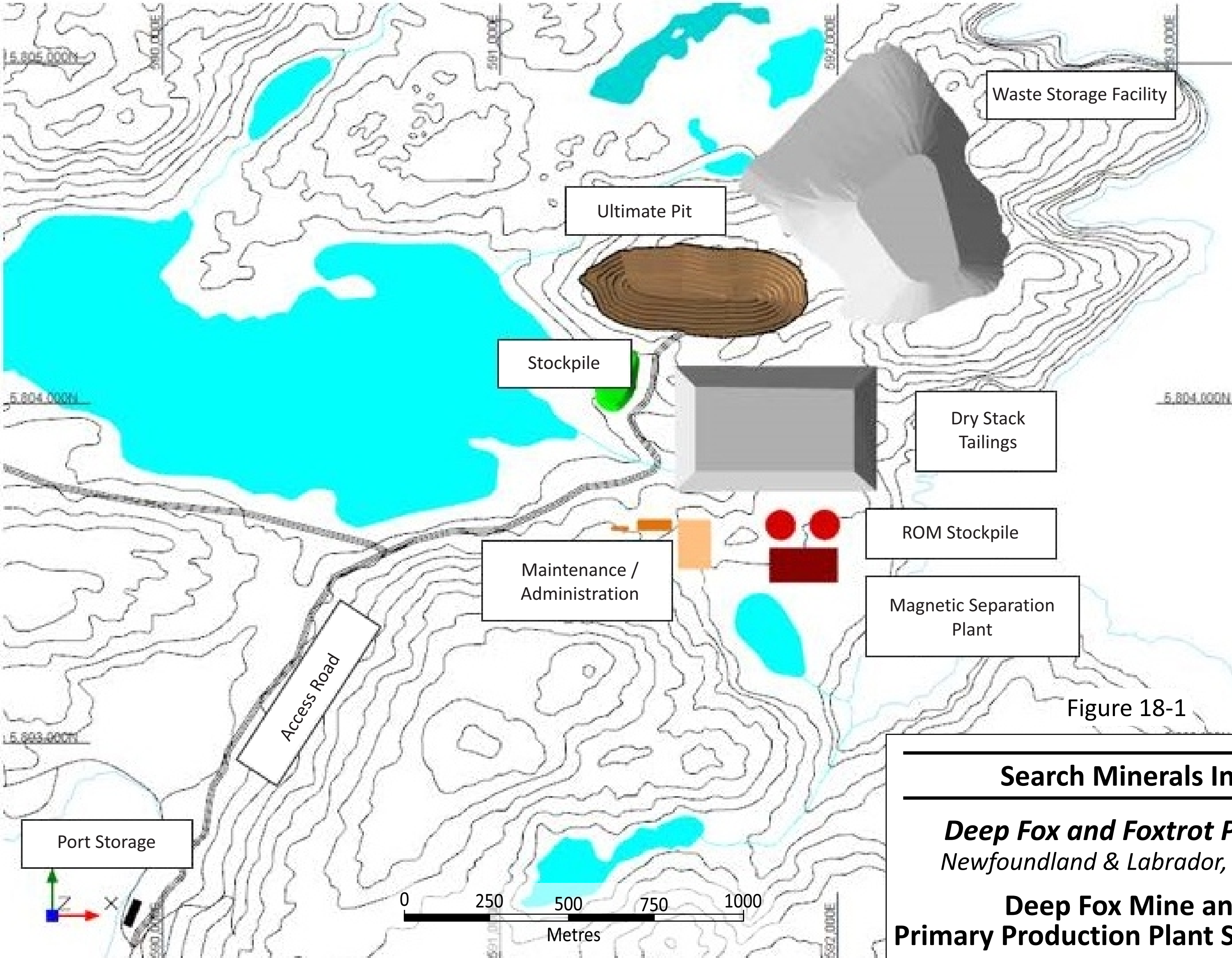


Figure 18-1

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Deep Fox Mine and Primary Production Plant Site Layout

July 2022

Source: SLR, 2022

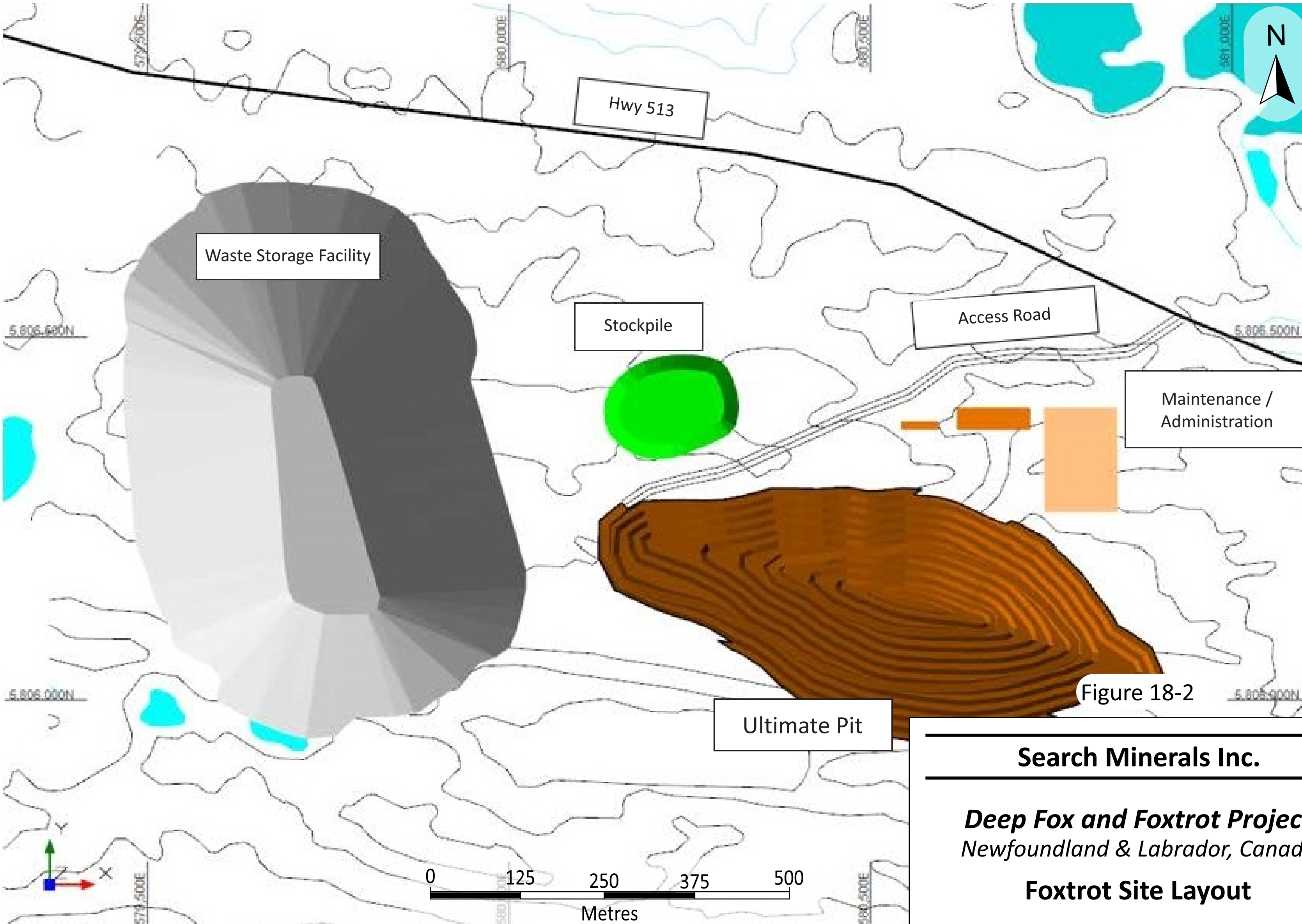


Figure 18-2

Search Minerals Inc.

Deep Fox and Foxtrot Project

Newfoundland & Labrador, Canada

Foxtrot Site Layout

July 2022

Source: SLR, 2022

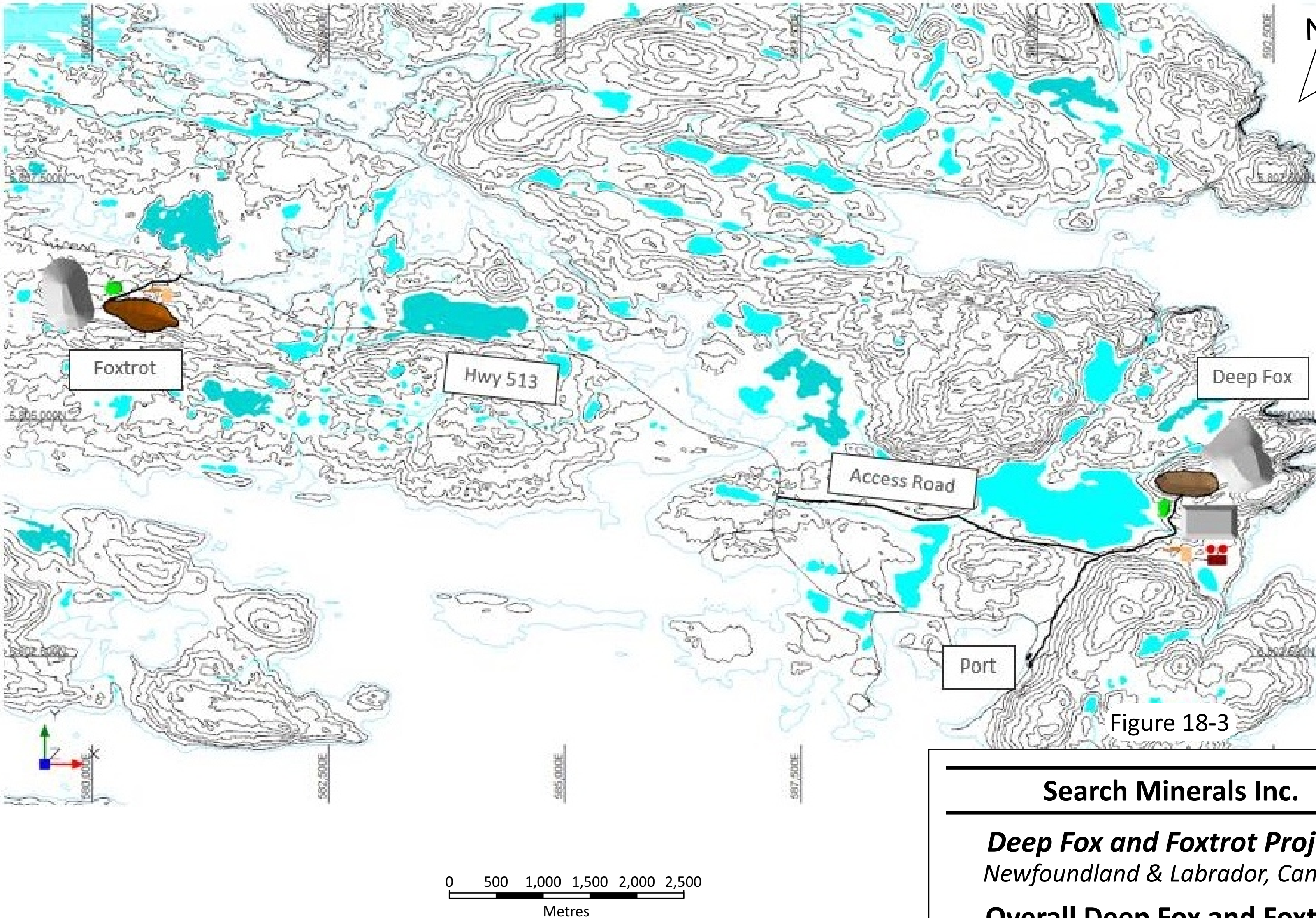


Figure 18-3

Search Minerals Inc.

Deep Fox and Foxtrot Project
Newfoundland & Labrador, Canada

Overall Deep Fox and Foxtrot Infrastructure Layout

July 2022

Source: SLR, 2022

18.2 Hydrometallurgical Processing Plant

18.2.1 Water Services

18.2.1.1 Raw Water

Raw water for the Hydrometallurgical Processing Plant will be supplied by the nearby sources. Raw water will be stored on site in the Raw Water Tank and distributed to usage points within the plant. Filtered Raw Water will be utilised for the gland water service and the reverse osmosis (RO) Plants.

Raw water requirements are estimated at 621 million litres per annum.

18.2.1.2 Process Water

The process water tank will have sufficient storage to meet process plant operating requirement for 24 hr. Two Process Water Pumps will distribute process water to the various usage points around the process plant. Process water will also be used to supply the Acid plant cooling system.

18.2.1.3 Gland Water

Gland water will be used for a limited number of pumps within the process plant. The majority of pumps will be specified with mechanical seals or as hose pumps to avoid having to use water for sealing duties. A gland water tank and pumps will supply duty points within the process plant.

18.2.1.4 Potable Water

Potable water will be supplied by the Hydrometallurgical Processing Plant Port Authority. Potable water will be distributed via a ring main to various usage points within the plant and buildings.

Safety showers will be supplied by potable water maintained at approximately 23°C. Suitably located lagged and heat traced header tanks will be installed to provide the head necessary to operate the safety showers.

18.2.1.5 Demineralized Water

Demineralised water will be required for the process plant and the steam boilers. This will be supplied by a demineralised water plant. Demineralised water will also be used in the process plant to minimize contamination of the REE product.

18.2.1.6 Fire Water

A firewater storage and reticulation system will be provided for firefighting duties. All substations will be equipped with dedicated fire suppression equipment to protect the motor control panels and plant control systems.

18.2.1.7 Sewage

Domestic effluent from toilets, showers, sinks and from camp facilities will be collected by gravity and connect to the Hydrometallurgical Processing Plant Port Authority Sewage System at an agreed tie-in point specified in the lease agreement.

18.2.2 Air Services

Plant air will be supplied by a duty standby arrangement of rotary screw type compressors. The compressors will provide air at a pressure of 700 kiloPascal gauge (kPaG) to plant services. The larger plate and frame filters have dedicated air compressors. Instrument air will be withdrawn from the plant air receiver to an instrument air accumulator and then dried in a duty standby arrangement of driers and air filters.

18.2.3 Power Supply

Power for the processing plant will be generated predominantly from waste heat supplied by the acid plant; a small excess power requirement will be met from the grid. It is assumed that the provincial power utility will also provide start-up power and auxiliary power in the event that the acid plant is non-operational.

Additional electric power requirements for the Hydrometallurgical Processing Plant are estimated at 1.347 MW of installed power with an estimated draw of 1.158 MW.

18.2.4 Steam (Acid Plant, Power & Building Heating)

Steam will be produced primarily using waste heat boilers in the acid plant with backup from a steam boiler sized to replace the acid plant steam capacity. The majority of the steam will be condensed for reuse, with boiler water makeup being provided by demineralised water.

The duty points will be supplied with steam at 185°C and 10 Bar pressure.

18.2.5 Building Heating

A heating fluid is required to recover waste heat from the cogeneration plant and supplemented as required by the plant steam boilers. The solution will comprise a 50/50 mix of glycol/water.

Sufficient waste heat will be available from the cogeneration plant to maintain temperature in process buildings. In the event that there is a shortfall, or the acid plant is unavailable, a steam boiler will be required to operate to supplement the heat recovery. The heating system will be a closed service, which will use softened water from the steam boiler supply system to prevent scale build-up in the heat exchangers. Hot water radiators will be used within each building to heat incoming air to meet the required building air turnovers.

18.2.6 Fuel Services

Fuel will be stored on site in day tanks for distribution to the backup steam boiler for steam generation when the acid plant is not operational. Diesel will be supplied in bulk tanker trucks from a local diesel fuel distributor on an as required basis. Process plant machines will be refuelled at a site bowser, and light vehicles will utilise local (retail) refuelling stations.

18.2.7 Mobile Equipment

Mobile equipment fleet has been specified based on the expected requirements of the plant. This includes various maintenance and operating personnel vehicles. One FEL will be required in the reagent shed, which will be an IT62 (or equivalent) such that separate buckets can be used for each bulk reagent.

A 25 t yard crane, flatbed truck, container forklift, store AT forklift (Manitou style), small skid steer loader, backhoe, and mobile welding machine will be required to support the maintenance activities.

18.2.8 Buildings

NewPro has included the buildings listed in Table 18-2 in its estimate for the Hydrometallurgical Processing Plant.

Table 18-2: Hydrometallurgical Processing Plant Buildings
Search Minerals Inc. –Deep Fox and Foxtrot Project

Description	Size (L x W x H) (m)	Type
Process Building	42x100x12	Construction: HVAC ventilated and insulated shed with OH Crane
Reagent Building	42x188.5x20	Construction: HVAC ventilated shed
Services Building incl. Lab, Fire and Medical Services	10.7x25x15	Construction: three story building HVAC ventilated and insulated
Control Room	4x8x2.6	Construction: HVAC ventilated building
Substation	5.4x17x2.5	Sea container sized facility
Workshop	40x20x8.5	Construction: HVAC ventilated shed with OH Crane
Warehouse and Racks	40x20x8.5	Construction: HVAC ventilated and insulated building
Changerooms	20x20x8.5	Construction: HVAC ventilated and insulated building
Administration and Offices	24x12x6	Construction: HVAC ventilated and insulated building
Concentrate Storage	61x105x20	Storage Shed 100,000t capacity

18.2.9 Laboratory Services

An allowance has been made for a typical ICP laboratory. The purpose here will be to provide a higher level of control on the concentrate feed grade and hydrometallurgical process through the higher level of detection limit achievable by ICP analytical methods. The laboratory is to be equipped with sample preparation, screening, mineral digestion, and analysis facilities. The primary means of analysis will be by inductively couple plasma optical emission spectroscopy (ICP-OES) and mass spectrometry (ICP-MS).

For more detailed analysis, laboratory calibration, and specific programs, there is an ISO 17025 accredited external analytical service provider, Eastern Analytical Ltd., located in the city of Springdale, Newfoundland and Labrador.

18.2.10 Harbour Unloading System

Unloading facilities will be provided for the WHIMS concentrate and bulk reagents that will be transported to storage sheds for the Hydrometallurgical Processing Plant.

SLR recommends that further investigation into port locations be carried out once a Hydrometallurgical Processing Plant site has been located. NewPro has made allowances in its estimate for unloading equipment to be used at an existing port facility

18.2.11 Tailings

The residue will be stored as a moist, neutralized, filter cake of -3.3 mm material in a dry stack residue pad (DSRP). The DSRP concept is based on the transport of residue filter cake to a lined, dry stack residue pad by dump truck. Residue would be periodically levelled by bulldozer.

SLR recommends that further design work be carried out for the dry stack tailings design.

19.0 MARKET STUDIES AND CONTRACTS

The following is summarized from the Q2 2022 AI Report.

19.1 Markets

The supply side portion of the REE market is primarily driven by a select few countries: China, Australia, Malaysia, and the US. If supply chain issues continue, demand will outpace supply and price appreciation is anticipated to sustain.

Prices are currently substantially higher than 2020 and although there may be a scenario where supply is unobstructed in the short term, price depreciation is not expected to return to 2020 levels.

Looking forward, AI forecasts that the global rare earth market will consistently underproduce NdPr oxide from 2022, resulting in shortages by as early as 2023 if production does not increase beyond what is currently projected. Looking forward, from 2022 through 2035 AI forecasts that global TREO demand will rise at a compound annual growth rate (CAGR) of 6.0%, from 190,476 t to 407,621 t, driven primarily by the permanent magnet sector. TREO demand relating to permanent magnets (NdFeB magnets) is expected to rise at a CAGR of 8.3%, from 87,000 t to 246,000 t, boosted by strong demand growth from electric vehicle, wind power, general automotive, and other applications of NdFeB magnets. AI expects that electric vehicles will be responsible for over 40% of global magnet earth oxide demand by 2035.

Similarly, AI forecast that the global rare earth market will consistently underproduce Dy oxide resulting in shortages by as early as 2023 should production not increase beyond what is currently anticipated.

AI forecasts that the global rare earth market will consistently underproduce Tb oxide, resulting in ongoing and increasing shortages should production not increase beyond what is currently expected.

SLR notes that Nd, Pr, Dy, and Tb make up approximately 92% of the Project value.

19.2 Contracts

On October 20, 2021, Search Minerals Inc. and USA Rare Earth, LLC signed a non-binding Memorandum of Understanding ("MOU") for an offtake of 500 tonnes/year of Neodymium (Nd) / Praseodymium (Pr) from future production at the Deep Fox or Foxtrot deposits.

19.3 REE Pricing

Market prices are summarized using price forecast reports from AI.

SLR references two price scenarios for this project. The first was generated by AI in October of 2021 which was used to generate a Net Value as the basis of SLR's resource estimation, mine optimization, and mine design. The second price scenario was generated by AI in February of 2022 which was used in SLR's cashflow analysis. Both forecasts represent the average price between years 2025 and 2030.

The 2025 to 2030 price average for both October 2021 and February 2022 forecasts are presented in Table 19-1.

Table 19-1: Adamas Intelligence REE Price Forecast
Search Minerals Inc. – Deep Fox and Foxtrot Project

Metal Prices	Unit	Oxide	Forecast Date	
			Oct-21	Feb-22
Cerium	US$/kg	Ce_2O_3	2.00	1.50
Lanthanum	US$/kg	La_2O_3	3.00	1.40
Neodymium	US$/kg	Nd_2O_3	110.00	212.00
Praseodymium	US$/kg	Pr_2O_3	108.00	201.00
Samarium	US$/kg	Sm_2O_3	2.00	5.00
Europium	US$/kg	Eu_2O_3	48.00	36.00
Gadolinium	US$/kg	Gd_2O_3	41.00	109.00
Yttrium	US$/kg	Y_2O_3	8.00	17.00
Ytterbium	US$/kg	Yb_2O_3	19.00	20.00
Dysprosium	US$/kg	Dy_2O_3	614.00	587.00
Erbium	US$/kg	Er_2O_3	36.00	64.00
Holmium	US$/kg	Ho_2O_3	122.00	290.00
Lutetium	US$/kg	Lu_2O_3	800.00	947.00
Terbium	US$/kg	Tb_2O_3	1,535.00	2,493.00

The prices listed in Table 19-1 are for separated REOs. Search Minerals plans to produce a refined rare earth carbonate that will require further downstream processing to separate into individual REOs. SLR has assumed separation charges of US$10.00/kg applied to TREO and an additional US$20.00/kg applied to HREO. These are preliminary estimate based on our experience, having reviewed other projects, and will need to be estimated based on actual agreements in the future.

SLR notes that the significant change in REE price forecasts between October 2021 and February 2022 indicates the volatility of the REE market. This price increase leads to an increase in unit Net Value from $467/t to $756/t, or an increase of approximately 62%.

A range of sensitivities is shown in Section 22 of this Technical Report to cover a wide range of price fluctuations.

SLR has assumed the following payability percentages for the REE's as shown in Table 19-2. These are estimates based on our industry experience and will need to be estimated based on actual agreements in the future.

Table 19-2: REE Payability
Search Minerals Inc. – Deep Fox and Foxtrot Project

Rare Earth Element	Percent Payable
Yttrium	95.0%
Lanthanum	0.0%
Cerium	0.0%
Praseodymium	98.0%
Neodymium	98.0%
Samarium	95.0%
Europium	95.0%
Gadolinium	95.0%
Terbium	95.0%
Dysprosium	95.0%
Holmium	95.0%
Erbium	95.0%
Thulium	95.0%
Ytterbium	95.0%
Lutetium	95.0%

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This chapter has been informed by the previous technical reports and information provided by Search Minerals and their consultant, GEMTEC. In particular, discussions were held with the following personnel:

- Mr. Todd Burlingame, Chief Operating Officer, Search Minerals
- Mr. Darrol Rice, GEMTEC

The Chief Operating Officer (COO) is responsible for managing environmental and social aspects, and for establishing corporate policies regarding environmental and social management, human rights, Indigenous relationships, and health and safety. Search Minerals has a Code of Business Conduct policy which includes health, safety and environment aspects, as well as an Integrated Policy on Health, Safety, Environment and Community Relations. This policy states that Search Minerals' core values and objectives include compliance with laws and regulations, integrity, respect, accountability, and continuous performance improvement related to the management of the potential social and environmental impacts associated with their activities, and to safeguard the health and safety of their workforce, visitors, and business partners. Additional policies include Insider Trading Policy, Whistleblower Policy, and Disclosure Policy. SLR understands that Search Minerals is planning to develop additional environmental and social policies.

20.1 Environmental Studies

Deep Fox is located 12 km east of Foxtrot; baseline studies have been initiated covering both deposit areas. GEMTEC, a consultant contracted to Search Minerals, has provided a list of environmental studies completed to date, and those planned for the Project. This work plan has been based on preliminary Project footprint information, however, this is still subject to change. The list of studies is provided in Table 20-1.

The 2012 NI 43-101 Technical Report for Foxtrot noted that the following baseline studies would be required:

- Sound monitoring
- Air quality
- Historic and heritage sites
- Fish and fish habitat
- Rare plant analysis
- Ecological land classifications (ELC) including wildlife assemblages and wetlands
- Songbird surveys
- Determination of Harmful Alteration, Disruption, or Destruction of Fish Habitat (HADD)
- Socio-economic baseline studies

Some of these studies have been initiated, as described in Table 20-1.

Additional baseline studies typically conducted for mining projects, which should also be considered, include soil and land use, and aquatic sediment. Geochemical characterisation of waste rock, tailings, and mineral will also be required at a later stage to support environmental approval applications.

Furthermore, as the Project includes utilization of an existing harbour and some infrastructure will be established off-shore, various fore-shore and marine studies will likely be required.

Traditional Knowledge studies may be requested by Indigenous communities as the Project progresses.

Baseline studies and monitoring programmes may require some adjustment once the site layout is further developed to ensure that all proposed Project infrastructure and activities are covered. This must include linear infrastructure components.

SLR enquired whether any environmental or social risks have been identified for the Project in the current phase and going forward. Search Minerals replied that current exploration at Deep Fox occurs within the town of St. Lewis protected water supply catchment area. All permits to operate within this area are in place and required mitigation measures are strictly adhered to. SLR understands that Search Minerals continues to work directly with the St. Lewis Town Council to ensure that residents are informed of activities and that concerns are addressed in a timely manner. This is a key risk to manage as the Project progresses.

Search Minerals shared an article with SLR discussing the potential environmental risks associated with the development of REE production in Canada published by Canadian Science (2021). The article examined environmental behaviours and fates of REEs and their toxicity on ecological and human health. The following are some key conclusions presented in the article:

- More baseline work is required to understand REE concentrations in soil, water, vegetation, animals, and humans.
- Toxicity studies are needed on target species for food sources.
- Additional studies are required to understand the environmental behaviour of REEs.
- REEs transfer and accumulate as a group of contaminants.
- Cleaner technology to exploit REE is the most effective way to limit potential environmental risks.

The surface water baseline work planned for 2022 plans to include REE parameters to establish baseline concentrations. Search Minerals should consider:

- Expanding baseline and future environmental studies to include other receptor pathways that could affect human health, e.g., soil, water, vegetation, animals; toxicity testing on target species
- Expanding geochemical studies
- Technology options to limit potential environmental and social risks.

Table 20-1: Environmental Studies Completed and Planned for Deep Fox and Foxtrot Deposits
Search Minerals Inc. – Deep Fox and Foxtrot Project

Study	Completed Scope of Work	Date Completed	Planned Scope of Work 2022
Surface water	• Delineation of drainage basins associated with both Deep Fox and Foxtrot. • Review and analyses of climate data. • Compilation and analysis of existing water level and flow data from nearby hydrometric stations. • Collection of temporal stream flow data at locations across each site. Level loggers were installed at four locations; two at Foxtrot and two at Deep Fox to collect continuous water level measurements in selected locations. Water levels were recorded between July 21 and November 19, 2021. • Surface water and sediment samples were collected at 19 locations, 7 at Foxtrot and 12 at Deep Fox. Samples were collected in October 2018, July 2021, and November 2021. Surface water was analysed general chemistry and total metals, while sediment was analysed for available metals. • Note: Current flow data analysis can be used for future water management, however more field flow data during May or June is required. The field data collected in 2021 was during low-flow periods.	Completed in July, October, November 2021	• Continue to monitor stream flow and water quality, to be initiated in May to capture spring freshet. • Consider the addition of certain REEs to the sampling program, and the expanded footprint
Groundwater	• Limited field program to collect hydrogeological data (i.e., groundwater levels, bedrock hydraulic conductivity estimates, and groundwater quality) using selected existing exploration drill holes.	Completed in late fall 2021	• Drilling of dedicated monitoring boreholes and collection of additional baseline hydrogeological data; planned program will satisfy regulatory requirements.

Ecology	• Conducted the following baseline work and surveys in the preliminary footprint areas identified:
	• Terrestrial Environment
	  ○ Ecotype classification
	  ○ Preliminary Wetland assessments
	  ○ Vegetation and rare flora surveys
	  ○ Incidental wildlife surveys
	• Aquatic Environment Assessment
	  ○ Stream Assessment Survey
	  ○ Fish habitat assessments
	  ○ Fisheries Assessment
		Completed in July, August, and September 2021.	• Additional baseline work based on the expansion of the Project footprints, discussions with regulatory agencies, and completion of the investigations proposed in 2021
			• Terrestrial Environment
			  ○ Ecotype classification
			  ○ Wetland characterization and refine delineations
			  ○ Breeding bird surveys
			  ○ Vegetation and Rare Flora Surveys
			  ○ Incidental Wildlife and Species at Risk
			• Aquatic Environment Assessment
			  ○ Fish habitat assessments
			  ○ Quantitative fisheries assessments within watercourses
			  ○ Presence / absence fisheries assessment within inland ponds if time permits

Source: GEMTEC

20.2 Project Approvals

Search Minerals has confirmed that the required approvals and permits are in place for current exploration activities for Deep Fox and Foxtrot. As the Project progresses, provincial and federal approvals will be required.

Mining projects in the Province of Newfoundland and Labrador are subject to Environmental Assessment (EA) under the *Newfoundland and Labrador Environmental Protection Act*. A formal registration must be submitted to the Newfoundland and Labrador Department of Environment and Conservation. The Minister may request an Environmental Preview Report or an Environmental Impact Statement (EIS). Once the Project is released from the EA process, the proponent can proceed to obtain the necessary permits and authorizations for construction and operation. A release from the provincial process is valid for three years. Additional approvals and permits may be required for the Project development; however, this can only be determined at a later stage once the Project is defined in more detail. The 2012 NI 43-101 Technical Report for Foxtrot provided a list of provincial authorizations which may be required for the Foxtrot Project; however, this list requires revision and inclusion of Deep Fox. It is worth noting that the discharge of excess water is expected and will require approval under the provincial *Water Resources Act*, and the *Environmental Protection Act*. Dewatering activities, if required, will also require approval under the *Water Resources Act.* The Primary Production Plant will require authorisation in terms of Section 5 of the Mining Act, and a Certificate of Approval for a fuel storage system must be obtained from the Department of Government Services and Lands.

In November 2017 Search Minerals submitted a Project Description Summary for the Foxtrot Project, compiled by Allnorth, to the Canadian Environmental Assessment Agency (CEAA) and the Newfoundland and Labrador Department of Environment. Guidelines were issued for the preparation of an EIS for Foxtrot on March 2, 2018. Since the initial registration of the project, the scope of the Project has undergone significant change. Due to these changes and delays in providing supporting documentation, the Provincial assessment process has lapsed and is no longer active. The 2018 guidelines no longer reflect the current project proposal and therefore the CEAA application will not be progressed. Engineering and baseline studies are ongoing and will be used to produce a new project description which will be submitted to the appropriate regulatory authorities.

The revised project scope as currently configured does not include any physical activities that are listed in the Physical Activities Regulations (commonly known as the federal Project List), which means that it is not a "designated project", as defined by the Impact Assessment Agency of Canada, and does not require a federal impact assessment under the Impact Assessment Act. Project activities, such as the disruption or destruction of fish habitat, will require authorisation from the Department of Fisheries and Oceans Canada (DFO). Fish habitat compensation may also be required by DFO if the impacts on fish habitat are deemed to warrant this. Any effluent discharge from the Project site will be required to comply with the Metal and Diamond Mining Effluent Regulations (MDMER) enforced by Environment and Climate Change Canada (ECCC). As part of these regulations, Search Minerals will be required to design and implement an Environmental Effects Monitoring (EEM) program during operations which will monitor its final discharge locations.

As the Project becomes better defined, SLR recommends that Search Minerals develop an approval and permitting plan for the Project covering federal and provincial requirements. This plan should identify any risks to the approval processes and mitigation measures, if applicable. The same Project Description and EIS could be used to seek approval from both the provincial and federal regulators, if required. The environmental assessment processes take approximately two years, depending on the studies needed, stakeholder and Indigenous community engagement processes and outcomes, and if the process progresses as planned. Permitting will need to be managed to ensure that permits are obtained in advance of constructing relevant Project infrastructure. For example, a DFO authorisation will be required in advance of constructing watercourse crossings.

20.3 Social or Community Requirements

Search Minerals has indicated that socio-economic studies are being designed and will be based on the projected effects of the Project scope as defined by this PEA and subsequent refinement of Project design as the Project moves into the impact assessment regulatory process. These socio-economic studies are planned for later in 2022.

Search Minerals has also indicated that community engagement focused on exploration activities has been undertaken annually since 2011. A detailed community engagement strategy and plan has been developed and will be initiated later in 2022, subject to budgetary approval. SLR has not reviewed this engagement strategy, however, it will be important to include all relevant stakeholders and Indigenous communities.

Search Minerals holds a Mining Exploration Activities Agreement with the NunatuKavut Community Council (NCC) which was signed on August 27, 2012. This remains valid and is reported to be in good standing. Additional community agreements may be required as the Project progresses.

Search Minerals has initiated social initiatives. Search Minerals reports to have provided limited scholarships to the local community and continues to work with the NCC on annual employment initiatives. Search Minerals have also indicated that they have been working with government agencies to seek opportunities to provide renewable energy alternatives to adjacent communities.

Search Minerals has not identified any need to resettle people in the future for the development of the Project.

As mentioned previously, Deep Fox lies within the town of St. Lewis protected water supply catchment area. All permits to operate within this area are in place and required mitigation measures are strictly adhered to. SLR understands that Search Minerals continues to work directly with the St. Lewis Town Council to ensure that residents are informed of activities and that concerns are addressed in a timely manner. This is a key risk to manage as the Project progresses.

20.4 Mine Closure Requirements

A Rehabilitation and Closure Plan (RCP) is required by the Newfoundland and Labrador Mining Act. The RCP must describe the work to be done, detailed scheduling, and financial assurance which must include ongoing monitoring and site maintenance, amongst other requirements.

As described in the 2016 NI 43-101 Technical Report for Foxtrot, the RCP must be regularly updated and address closure objectives, progressive rehabilitation, closure and rehabilitation of infrastructure areas, post closure activities, and be aimed at achieving long term physical and chemical stability to support the final end land use.

SLR understands that an RCP will be developed for the Project as part of the planned permitting activities and will ensure all legal requirements are addressed, in addition to the financial provision for closure and rehabilitation.

21.0 CAPITAL AND OPERATING COSTS

The capital and operating costs for the processing, transport, and infrastructure were estimated by NewPro and reviewed by SLR. SLR estimated costs related to mining, tailings, and some additional infrastructure not covered in the NewPro estimate.

SLR notes that, due to global events relating to COVID 19 and the war in Ukraine, there have been significant increases to many goods, and freight prices have increased dramatically. SLR has not made any adjustments to the capital and operating cost estimates from NewPro to reflect these events, and the mining costs reflect "normal" conditions.

All costs are in Canadian Dollars (C$) unless otherwise stated.

21.1 Capital Costs

The mine, process, and site infrastructure costs are summarized in Table 21-1.

Table 21-1: Overall Capital Cost Summary
Search Minerals Inc. –Deep Fox and Foxtrot Project

Area	Capital Cost (C$ 000)
Open Pit Mining	4,781
Infrastructure – Utilities – Primary Production Plant	68,104
Primary Production Plant	40,407
Infrastructure – Utilities – Hydrometallurgical Processing Plant	73,442
Hydrometallurgical Processing Plant	58,220
Total Directs	**244,954**
Indirects/Owners	115,635
Contingency	61,239
Total Initial Capital	**421,828**
Sustaining Capital	267,316
UG Sustaining development	44,294
Reclamation and Closure	20,000
Total Capital Cost	**753,438**

The initial and sustaining capital costs are estimated at $421.8 million and $267.3 million, respectively, for the Project. Underground sustaining capital and reclamation and closure costs are estimated at $44.3 million and $20.0 million, respectively. Total capital costs over the LOM are estimated at $753.4 million.

Capital costs for the process facility design and a large portion of the infrastructure were estimated by NewPro. SLR has reviewed the costs and has added additional costs to cover tailings management, additional infrastructure, and mining costs.

Indirect capital costs total approximately 47% of direct costs and contingency is estimated at 25% of direct costs.

An RCP has not been developed and therefore no cost information is available. SLR has estimated $20 million at the end of the mine life based on similar sized operations and has not included any bonds or progressive reclamation costs.

It is expected that the initial capital costs will be spent over a 24 month period to develop the project.

21.1.1 Process and Infrastructure Capital Costs

As previously discussed, the NewPro Report covers two processing facilities. The first facility is a physical separation plant that is located in Labrador, which NewPro refers to as the "Port Marnham Concentrator Facility" in its report. Search Minerals is currently undertaking an assessment of port alternatives in Labrador, and SLR has been asked to assume that the existing dock infrastructure in Fox Harbour (St. Lewis) would be upgraded to meet the needs of the Project. This processing facility is referred to throughout this Technical Report as the "Primary Production Plant".

The second process plant in the NewPro Report was based on a location at Argentia, Newfoundland. Search Minerals is currently reviewing alternative brownfield site locations on the island of Newfoundland and SLR refers to this plant as the "Hydrometallurgical Processing Plant".

Process and Infrastructure costs for both the Primary Production Plant and the Hydrometallurgical Processing Plant were estimated by NewPro and are listed in Table 21-2. Capital costs were estimated in US Dollars and have been converted to Canadian Dollars using an exchange rate of C$1.00:US$0.80.

Table 21-2: NewPro Processing and Infrastructure Capital Cost Summary
Search Minerals Inc. – Deep Fox and Foxtrot Project

Level	AREA DESCRIPTION	Capital Cost (C$ 000)	%
0	**GENERAL SITE DEVELOPMENT**		**0.0%**
400	**PORT MARNHAM SITE CIVIL WORKS**	**$3,775**	**1.1%**
500	**ARGENTIA SITE CIVIL WORKS**	**$1,662**	**0.5%**
1000	**PORT MARNHAM CONCENTRATOR**	**$40,407**	**11.5%**
1100	Crushing	$3,547	1.0%
1200	Milling	$14,585	4.2%
1300	LIMS	$2,205	0.6%
1400	WHIMS	$2,579	0.7%
1600	WHIMS Con S/L Separation	$4,920	1.4%
1700	Tailings	$5,462	1.6%
1800	Port Marnham Reagents	$853	0.2%
1900	Reclaim & Ship loading	$6,256	1.8%
2000	**ARGENTIA HYDROMETALLURGICAL FACILITY**	**$58,220**	**16.6%**

Level	AREA DESCRIPTION	Capital Cost (C$ 000)	%
2100	Concentrate Handling & Ship Unloading	$5,822	1.7%
2200	Acid Bake	$8,496	2.4%
2310	Water Leach	$4,319	1.2%
2320	Impurity Removal	$1,452	0.4%
2330	Solid Liquid Separation	$6,151	1.8%
2410	REE Precipitation	$854	0.2%
2420	REE Solid/Liquid Separation	$4,805	1.4%
2510	REE Releaching	$1,274	0.4%
2520	REE Releaching Solid/Liquid Separation	$1,310	0.4%
2530	Gas Scrubbing	$674	0.2%
2610	Uranium IX	$3,886	1.1%
2620	Thorium SX	$6,085	1.7%
2630	Zinc Precipitation	$2,431	0.7%
2710	Aluminum Precipitation	$669	0.2%
2720	Al Ppt Solid/Liquid Separation	$2,243	0.6%
2730	REE Carbonate Ppt	$555	0.2%
2740	REE Carbonate Solid/Liquid Separation	$3,947	1.1%
2800	Argentia Reagents	$2,419	0.7%
2900	On-Steam Analyzer	$831	0.2%
5000	**TAILINGS**	**$708**	**0.2%**
6000	**UTILITIES**	**$38,667**	**11.0%**
6100	Port Marnham Water Services	$1,786	0.5%
6200	Argentia Water Services	$2,463	0.7%
6300	Air Services	$238	0.1%
6400	Power Supply	$5,267	1.5%
6500	HVAC	$2,256	0.6%
6700	Fuel Services	$621	0.2%
6800	Mobile Equipment	$3,978	1.1%
6900	Argentia Acid Plant	$22,057	6.3%
7000	**INFRASTRUCTURE**	**$67,819**	**19.4%**
7010	Port Marnham Buildings	$25,168	7.2%
7020	Argentia Buildings	$42,650	12.2%
7500	**MARITIME INFRASTRUCTURE**	**$24,921**	**7.1%**
7530	Port Marnham Marine Infrastructure	$24,921	7.1%
8000	**CONSTRUCTION DIRECTS**	**$45,887**	**13.1%**

Level	AREA DESCRIPTION	Capital Cost (C$ 000)	%
8100	Field Indirects	$16,769	4.8%
8200	Freight	$13,187	3.8%
8500	Construction Infrastructure	$984	0.3%
8600	Construction Equipment & Consumables	$14,947	4.3%
9000	**INDIRECTS**	**$68,313**	**19.5%**
9300	Technology Licence Fees	0	0.0%
8700	Engineering, Procurement, and Construction Management (EPCM)	$45,509	13.0%
8300	Spares	$3,997	1.1%
8400	First Fills	$7,346	2.1%
9800	Owners Cost	$11,462	3.3%
	Grand Total	**$350,154**	**100.0%**

*Note: The above estimate is based on plant locations at Argentia and Port Marnham. Search plans to identify alternative plant locations.

SLR has relied on the above NewPro estimate with the exception of an adjustment made to the port costs for the Labrador site. Removing these port costs and summarizing the above estimates into infrastructure and plant costs by location results in a total of $325.5 million as shown in Table 21-3.

Table 21-3: Adjusted NewPro Processing and Infrastructure Capital Cost Summary by Location
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Unit	Labrador	Newfoundland
Infrastructure & Utilities	(C$ 000)	39,897	72,733
Concentrator Facility	(C$ 000)	40,407	58,220
Subtotal Directs	**(C$ 000)**	**80,305**	**130,953**
Indirects	**(C$ 000)**	**57,100**	**57,100**
Total	**(C$ 000)**	**137,405**	**188,053**
Combined Total	**(C$ 000)**	**325,458**	

SLR has estimated capital costs for some additional infrastructure that was not included in the NewPro estimate. These additions, listed in Table 21-4, include the following:

- Removed the Port Marnham Marine Infrastructure and replaced these with an allowance for upgrades at the existing dock in Fox Harbour
- Added costs for tailings storage facilities at both Primary Production Plant and Hydrometallurgical Processing Plant sites
- Added additional site infrastructure costs relating to the mine site.

Table 21-4: SLR Processing and Infrastructure Capital Cost Additions
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Capital Cost (C$ 000)
Other Infrastructure – Primary Production Plant	
Harbour – Upgrade	8,000
Harbour – Infrastructure	4,196
Dry Stack Storage Facility	1,817
Access Road Construction	3,816
Administration & Dry Building	1,619
Truck Shop	4,509
Room, Cafeteria & Gym	3,750
Miscellaneous	500
Subtotal	**28,207**
Other Infrastructure – Hydrometallurgical Processing Plant	
Dry Stack Storage Facility	708
Total	**28,915**

The combination of the SLR and NewPro estimates for infrastructure result in a total of $68.1 million for Labrador and $73.4 million for Newfoundland.

21.1.2 Mining Capital Costs

21.1.2.1 Open Pit

Open pit mining will be carried out by contractor who will supply their own equipment. A list of additional items has been included in Table 21-5 relating to the open pit mining.

Table 21-5: Open Pit Mining Capital Costs
Search Minerals Inc. – Deep Fox and Foxtrot Project

Open Pit Mine Equipment	Total (C$ 000)
Open Pit, WSF, Stockpile Preparation, and Water Management	6,563
Electrical distribution	188
Back-up Generators	94
Pumps	188
Pick-up trucks	500
Transport Bus	313
Miscellaneous	625
Total Open Pit Mine Capital	**8,469**

21.1.2.2 Underground

The underground mining capital costs include capital development, mobile equipment, and stationary mine equipment.

The underground direct capital costs include mobile and stationary equipment. The equipment used for Deep Fox underground mining operations will be transferred to Foxtrot when underground mining commences. An overhaul of major mobile equipment is scheduled for Year 18 and Year 19 to support on-going operations at Foxtrot.

Estimates for capital costs were based on internal databases for recent underground operations of a similar scale. Mining capital costs are summarized in Table 21-6.

Table 21-6: Underground Mining Initial Capital Cost
Search Minerals Inc. – Deep Fox and Foxtrot Project

Underground Mine Equipment	Total (C$ 000)
Mobile Equipment	
2 Boom Jumbo	7,888
6 yd LHD	12,981
32t Haul Truck	15,994
Rock Bolter	3,944
Flat Deck Truck w. Crane	797
Personnel Carrier	420
Scissor Lift	420
Grader	1,091
LH Drill	6,695
Lube Truck	475
ANFO Loader Truck	615
Total Mobile Equipment	**47,972**
Stationary Mine Equipment	
Primary Ventilation System	8,391
Mine Air Heating	2,797
Slurry Backfill Plant	6,643
Main Dewatering Pumps	743
Development Fans	201
Underground Service Bay	559
Mine Control Center & Office	1,301
Power Line	8,951

Underground Mine Equipment	Total (C$ 000)
UG Electrical Distribution	6,750
Fuel & Lube Storage & Dispensing	329
Portable Refuge Stations	559
Mine Rescue & Safety Supplies	1,399
Total Stationary Mine Equipment	**38,624**
Total Underground Mine Equipment	**86,596**

Sustaining capital costs consist of contractor development costs and capitalized development and is shown in Table 21-7.

Table 21-7: Underground Mining Sustaining Capital Cost
Search Minerals Inc. – Deep Fox and Foxtrot Project

Underground Sustaining Capital	Units (m)	Unit Cost (C$/m)	Total (C$ 000)
Capital Development			
Total Vertical Development	1,303	5,594	7,291
Contractor Development	2,223	6,713	14,923
4x4 Capital Development	11,052	1,340	14,804
5x5 Capital Development	4,667	1,559	7,276
Total Capital Development			**44,294**

21.1.3 Capital Estimate Accuracy

The capital estimate for the Primary Production Plant and Hydrometallurgical Processing Plant has been developed to meet the recommended practices outlined in AACE No.47R-11 Cost Estimate Classification System – As Applied in the Mining and Mineral Processing Industries.

The capital cost estimate has been developed in accordance with the requirements of a Class 4 estimate, targeting an accuracy of ±35%. Table 21-8 lists the requirements of the various estimate classes as defined by AACE No.47R-11.

Similarly, the mining costs have been estimated to an accuracy of ±35% and are based on a combination of cost estimation guides (InfoMine), first principles, and allowances where insufficient information was available.

Table 21-8: AACE Estimate Classification Matrix
Search Minerals Inc. –Deep Fox and Foxtrot Project

	Primary Characteristic	Secondary Characteristic		
Estimate Class	**Maturity Level of Project Definition Deliverables Expressed as % of Complete Definition**	**End Usage Typical Purpose of Estimate**	**Methodology Typical estimation method**	**Expected Accuracy Range Typical variation in low (L) and high (H) ranges**
Class 5	0% to 2%	Conceptual Planning	Capacity factored, parametric models, judgement, or analogy	L: -20% to -50% H: +30 to +100%
Class 4	1% to 15%	Screening Options	Equipment factored or parametric models	L: -15% to -30% H: +20 to +50%
Class 3	10% to 40%	Funding Authorisation	Semi-detailed unit costs with assembly level line items	L: -10% to -20% H: +10 to +30%
Class 2	30% to75%	Project Control	Detailed unit cost with forced detailed take-off	L: -5% to -15% H: +5 to +20%
Class 1	65% to 100%	Fixed price bid check estimate	Detailed unit cost with detailed take-off	L: -3% to -10% H: +3 to +15%

Table 21-9 summarises the requirements of an AACE Class 4 estimate and the achieved Study capital cost accuracy as provided in the NewPro report.

Table 21-9: Maturity Matrix
Search Minerals Inc. –Deep Fox and Foxtrot Project

Deliverable	AACE	Achieved	Comment
		General Project Data	
Project Scope Description	Preliminary	General	Site visit is required.
Mine and Plant Production / Facility Capacity	Preliminary	Assumed	Throughput basis provided by Search Minerals.
Plant Location	Approximate	General	Site visit is required.
Soil & Hydrology	Preliminary	None	No soil and hydrology information available, raw water supply capacity is assumed based on google earth.
Resource Determination	Probable	Indicative	Resource determination not assessed.
Reserve Determination	Indicative	Indicative	Reserve determination not assessed.
Geotechnical and Rock Mechanics	Preliminary	Assumed	No geotechnical information available.

Deliverable	AACE	Achieved	Comment
Metallurgical Test Work	Advanced	Commenced	Test work Required: • Flowsheet confirmation • Filtration and settling test work • Materials handling characterisation (e.g., TUNRA) • Demonstration plant contemplated.
Integrated Project Plan	Preliminary	None	Information gaps: • Mining schedule • Scope of works • Logistics
Project Master Schedule	Preliminary	None	
LOM Plan / Schedule	Preliminary	By Analogy	No mining and production schedule
Escalation Strategy	Preliminary	None	To be developed by Search Minerals
Work Breakdown Structure	Preliminary	Preliminary	Meets requirements for process plant facility only
Project Code of Accounts	Preliminary	None	To be developed by Search Minerals
Contracting Strategy	Assumed	Assumed	Meets requirements
Mine (production equip, pre-stripping etc.)	Preliminary	None	By others
Non-Process Facilities (Infrastructure, port, pipelines, power transmission etc.)	Investigated	Investigated	Meets requirements but site visit required to confirm assumptions
	<u>Engineering Deliverables</u>		
Block Flow Diagrams	Preliminary	Preliminary	By others
Plot Plans	Preliminary	Preliminary	Mechanical GA's were not prepared
Process Flow Diagrams	Preliminary	Assumed	METSIM flowsheets only
Piping & Instrumentation Diagrams	Outline	None	Piping & Instrumentation factored
Heat & Mass Balances	Advanced	Estimated	METSIM only
Process Equipment List	Preliminary	Preliminary	Meets requirements
Utility Equipment List	Preliminary	Preliminary	Meets requirements
Electrical SLD's	Preliminary	None	Excluded from study scope
Specifications & Datasheets	Preliminary	None	Excluded from study scope
General Equip. Arrangement Drawings	Minimum	None	Mechanical GA's were not prepared
Spare Parts Listings	% of Total	% of Total	Meets requirements
Mechanical Discipline Drawings	Minimum	None	Mechanical GA's were not prepared
Electrical Discipline Drawings	None	None	Meets requirements

Deliverable	AACE	Achieved	Comment
Instrumentation/Control Drawings	None	None	Meets requirements
Civil/Structural Architectural Disc. Drawings	None	None	Meets requirements

Notes:

1. Resource and Reserve definitions are as per the NI 43-101 classification
2. Capital cost estimates for plants was carried out prior to completion of mine planning by SLR.
3. None: Development of Deliverables has not begun
4. Started: Work on deliverable has begun. Development is typically limited to sketches, rough outlines, or similar levels of early completion
5. Preliminary: Work on the deliverable is advanced. Interim cross-functional reviews have usually been conducted. Development may be near completion except for final reviews and approvals.
6. Complete: The deliverable has been reviewed and approved as appropriate

21.1.4 Exclusions

The following is excluded from the capital costs estimate:

- Project financing and interest charges
- Escalation during the Project
- Permits, fees, and process royalties
- Pre-feasibility and Feasibility studies
- Environmental and social impact studies
- Any additional civil, concrete work due to the adverse soil condition and location
- Sales taxes
- Import duties and custom fees
- Cost of geotechnical and geomechanical investigations
- Cost of hydrogeology investigations
- Rock mechanics study
- Metallurgical test work
- Exploration drilling
- Costs of fluctuations in currency exchanges
- Project application and approval expenses.
- Working capital

21.2 Operating Costs

Operating costs for processing, G&A, and transport were estimated by NewPro. SLR estimated the mining costs and separation plant costs.

A summary of the Project operating costs is presented in Table 21-10.

Table 21-10: LOM Operating Costs
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Unit	Cost
OP Mining (Ore)	C$/t mined	6.50
OP Mining (Waste)	C$/t mined	5.00
UG Mining	C$/t mined	63.69
Mining	C$/t processed	61.75
Additional Haulage to Plant (Foxtrot Only)	C$/t processed	2.00
Primary Production Plant	C$/t processed	38.90
G&A (Primary Production Plant)	C$/t processed	10.97
Transport to Hydrometallurgical Processing Plant	C$/t processed	5.07
Hydrometallurgical Processing	C$/t processed	90.60
G&A (Hydrometallurgical Processing Plant)	C$/t processed	2.74
Separation Plant (Full feed)	C$/t processed	108.05
	C$/kg TREO	12.50
Separation Plant (HREO)	C$/t processed	40.22
	C$/kg HREO	25.00
Total Operating Costs	**C$/t processed**	**344.59**
Open Pit Mining	C$ 000	333,915
Underground Mining	C$ 000	516,492
Additional Haulage to Plant (Foxtrot Only)	C$ 000	20,793
Primary Production Plant	C$ 000	705,602
G&A (Primary Production Plant)	C$ 000	198,959
Transport to Hydrometallurgical Processing Plant	C$ 000	91,909
Hydrometallurgical Processing	C$ 000	1,643,207
G&A (Hydrometallurgical Processing Plant)	C$ 000	49,740
Separation Plant (Full feed)	C$ 000	1,959,621
Separation Plant (HREO)	C$ 000	729,495
Total Operating Costs	**C$ 000**	**6,249,735**

21.2.1 Processing

Processing, G&A, and transport operating costs were estimated by NewPro and are shown in Table 21-11. The operating costs cover both the Primary Production Plant (magnetic separator) and the Hydrometallurgical Processing Plant and the transportation of concentrate to the Hydrometallurgical Processing Plant. Operating costs were estimated in US Dollars and have been converted to Canadian Dollars using an exchange rate of C$1.00:US$0.80. An additional tailings placement costs of $2.50/t mineral has been added by SLR to account for placement of the dry stack tailings.

Table 21-11: Processing, G&A, and Transport Operating Costs
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Total (C$000)	Unit Cost (C$/t processed)
	Primary Production Plant	
G&A Costs	198,959	10.97
Processing	184,259	10.16
Labour	29,108	1.60
Maintenance	318,879	17.58
Consumable Costs	66,547	3.67
Power	61,467	3.39
Tailings Disposal	45,342	2.50
Subtotal Processing Costs	**895,493**	**49.37**
	Off Site Costs	
REE Concentrate Shipment	91,909	5.07
Total	**996,470**	**54.94**
	Hydrometallurgical Processing Plant	
G&A Costs	49,740	2.74
Labour	409,390	22.57
Maintenance	41,415	2.28
Consumable Costs	1,137,675	62.73
Power	0	0.00
Tailings Disposal	9,386	0.52
Tailings Placement	45,342	2.50
Total	**1,692,947**	**93.34**
Grand Total Operating Costs	**2,689,418**	**148.29**

SLR has carried out a thorough review of reagent costs and notes that there have been significant increases recently due to supply chain issues related to the COVID-19 pandemic and the war in Ukraine.

SLR has not made any adjustments to the NewPro estimates since these increases are likely temporary in nature and may return to "normal" levels over the next couple of years.

As part of the SLR review of the project operating costs provided by NewPro, the QP has investigated the costs for diesel fuel and the three main reagents. Consumables comprise approximately 36% of all costs at the proposed Hydrometallurgical Processing Plant on the island of Newfoundland. Annual consumable costs are estimated at US$36.6 million per year and comprise four items accounting for 98% of the total. These are as follows:

- Diesel US$4.4 million per year (12% of total)
- $MgCO_3$ US$17.3 million per year a (47%)
- H_2SO_4 US$4.3 million per year (12%) made from elemental sulphur
- Na_2CO_3 US$9.8 million per year (27%)

A large component of reagent costs is related to freight which has increased as much as five-fold over typical values. NewPro has assumed US$60/t for all reagent transport when in fact recent shipping quotes are over US$300/t from Montreal to Newfoundland.

$MgCO_3$ costs have increased approximately 30% to 40%, elemental sulphur prices have increased two to three times, and Na_2CO_3 has increased approximately 20% to 30%.

SLR has provided a range of sensitivities in Section 22 of this Technical Report.

21.2.2 Open Pit Mining

The open pit operating costs are based on an estimate of contractor costs of $5.00/t for waste and $6.50/t for mineral. These costs are based on 2016 estimates from a local contractor and have been escalated to 2022 Dollars. The mineral costs cover a small geology and engineering team, overall supervision of the contractor, and other miscellaneous costs (i.e., dewatering, etc.).

An additional $2.00/t mineral is applied to mineral from Foxtrot to cover transportation for additional haulage (approximately 12 km).

21.2.3 Underground Mining

The underground mine operating costs were estimated using cost models, unit prices, preliminary designs, and other information from recent similar projects. The underground mine is assumed to be owner operated. Mine operating costs consider labour costs, consumables, underground power requirements, maintenance costs, and operating development.

Underground mining costs total $516.5 million over the LOM and average $63.69/t mined as shown in Table 21-12.

Table 21-12: LOM Operating Costs
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Input	Input Unit	Unit	Total
CRF – 6%			000 t	1,993
CRF-3%			000 t	3,885
URF			000 t	2,232
Total mined			000 t	8,109
		Backfill Costs		
Backfill Volume – CRF 6%	2.7	t/m^3	m^3	737,982
Backfill Volume – CRF 3%	2.7	t/m^3	m^3	1,438,914
Backfill Volume – URF	2.7	t/m^3	m^3	826,485
Backfill Tonnes – CRF 6%	2.0	t/m^3	t	1,475,964
Backfill Tonnes – CRF 3%	2.0	t/m^3	t	2,877,827
Backfill Tonnes – URF	2.0	t/m^3	t	1,652,970
Binder content	6%		t	88,558
Binder content	3%		t	86,335
Cost of Binder	300	C$/t	C$ 000	52,468
		Stoping Consumables		
Explosives	6.5	C$/t	C$ 000	52,709
Drilling	0.5	C$/t	C$ 000	4,055
Consumables	0.5	C$/t	C$ 000	4,055
Operating Development	1,500	C$/m	C$ 000	62,729
Labour			C$ 000	245,868
			C$/t	30.32
Equipment Maintenance	3,000,000	C$/yr	C$ 000	39,000
		Power		
Estimated demand	2.00	MW		
	17,520,000	kWh/yr		
Basic charge NL Hydro	0.13	C$/kWh		
Yearly Power charge	2,277,600		C$ 000	29,609
Misc.	2,000,000	C$/yr	C$ 000	26,000
Total UG Operating Costs			**C$ 000**	**516,492**
			C$/t	**63.69**

An additional $2.00/t is applied to mineral from Foxtrot to cover transportation for additional haulage (approximately 12 km).

21.3 Personnel

A summary of all personnel for the Project is shown in Table 21-13. A total of approximately 237 people are expected to be employed during the open pit mining operation (including contractor) and 358 people during the underground operations.

Table 21-13: LOM Personnel
Search Minerals Inc. – Deep Fox and Foxtrot Project

Area	Number of People		
Primary Production Plant			
Production	28		
Process (Technical)	3		
Engineering and Maintenance	14		
Laboratory	5		
Management and Administration	2		
Sub-total	**52**		
Hydrometallurgical Processing Plant			
Production	46		
Process (Technical)	6		
Engineering and Maintenance	32		
Laboratory	18		
Management and Administration	8		
Sub-total	**110**		
Mining	**Open Pit**		**Underground**
	Contract	**Owner**	
Mine	44		96
Maintenance	16		76
Supervision	2	4	6
Engineering		5	11
Geology		4	7
Sub-total	**62**	**13**	**196**
Total (Primary Production Plant + Hydrometallurgical Processing Plant + Mining)	**237**		**358**

22.0 ECONOMIC ANALYSIS

An economic analysis was performed using the assumptions presented in this Technical Report. The QP notes that, the economic analysis contained in this Technical Report is based, in part, on Inferred Resources, and is preliminary in nature. Inferred Resources are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Unlike Mineral Reserves, Mineral Resources do not have demonstrated economic viability. There is no certainty that economic forecasts on which this PEA is based will be realized. Table 22-1 presents the after-tax cash flow summary for the Project.

22.1 Economic Criteria

22.1.1 Revenue

- 2,000 tpd mining from both open pit and underground (720,000 tpa).
- Mill recovery varies by element, as indicated by NewPro based on test work, averaging 78%.
- Exchange rate C$1.00 = US$0.80.
- REE price varies, as detailed in Section 19.3.
- Net Value includes recovery, oxide conversion, and royalties.
- Revenue is recognized at the time of production.

22.1.2 Costs

- Pre-production period: 24 months.
- Mine life: 26 years.
- Life of Mine production plan as summarized in Section 16.
- Mine life capital totals $753.4 million.
- Average operating cost over the mine life is $344.59/t processed.

22.1.3 Taxation and Royalties

The Project is subject to the following encumbrances:

- 0.5% NSR royalty for both Deep Fox and Foxtrot.
- SLR has used a simple “effective” tax rate of 38%, based on previous tax modelling for the Foxtrot Project, including Newfoundland mining tax and provincial and federal corporate income tax, including depreciation and tax credits.

Table 22-1: After-Tax Cash Flow Summary
Search Minerals Inc. – Deep Fox and Foxtrot

Parameter	Units	Value
Feed to Mill Rate	000 tpa	720
Feed to Mill, Total	Mt	18.1
LOM	years	26
Revenue, after fees	C$M	13,719
Operating Costs		
Open Pit Mining	C$M	334
Underground Mining	C$M	516
Additional Haulage to Plant (Foxtrot Only)	C$M	21
Primary Production Plant	C$M	706
G&A (Primary Production Plant)	C$M	199
Transport to Hydrometallurgical Processing Plant	C$M	92
Hydrometallurgical Processing	C$M	1,643
G&A (Hydrometallurgical Processing Plant)	C$M	50
Separation Plant (Full feed)	C$M	1,960
Separation Plant (HREO)	C$M	729
Total Operating Costs	C$M	6,250
Expansion Capital		
Total Directs	C$M	245
Indirects/Owners	C$M	116
Contingency	C$M	61
Total Initial Capital	C$M	422
Sustaining Capital	C$M	267
UG Sustaining development	C$M	44
Reclamation and Closure	C$M	20
Total Capital Cost	C$M	753
Undiscounted Net Cash Flow, pre-tax	C$M	6,716
Payback Period, pre-tax	years	1.5
Pre-Tax NPV 8%	C$M	2,231
Pre-Tax NPV 10%	C$M	1,776
Pre-Tax NPV 12%	C$M	1,434
Pre-Tax IRR	%	55%

Parameter	Units	Value
Project Taxes	C$M	2,620
Undiscounted Net Cash Flow, after-tax	C$M	4,097
Payback Period	years	1.8
NPV 8%	C$M	1,314
NPV 10%	C$M	1,032
NPV 12%	C$M	820
IRR	%	42%

22.2 Cash Flow Analysis

Considering the Project on a stand-alone basis, the undiscounted pre-tax cash flow totals $6,716 million over the mine life, and simple payback occurs 1.5 years from start of production.

22.3 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities:

- TREE Head Grade
- Net Value ($/t) (reflects REE price and recovery variations)
- Exchange Rate
- Operating Cost
- Capital Cost

Pre-tax IRR sensitivity over the base case has been calculated for a range of variations for each of the key parameters. The sensitivities are presented in Figure 22-1 and Table 22-2.

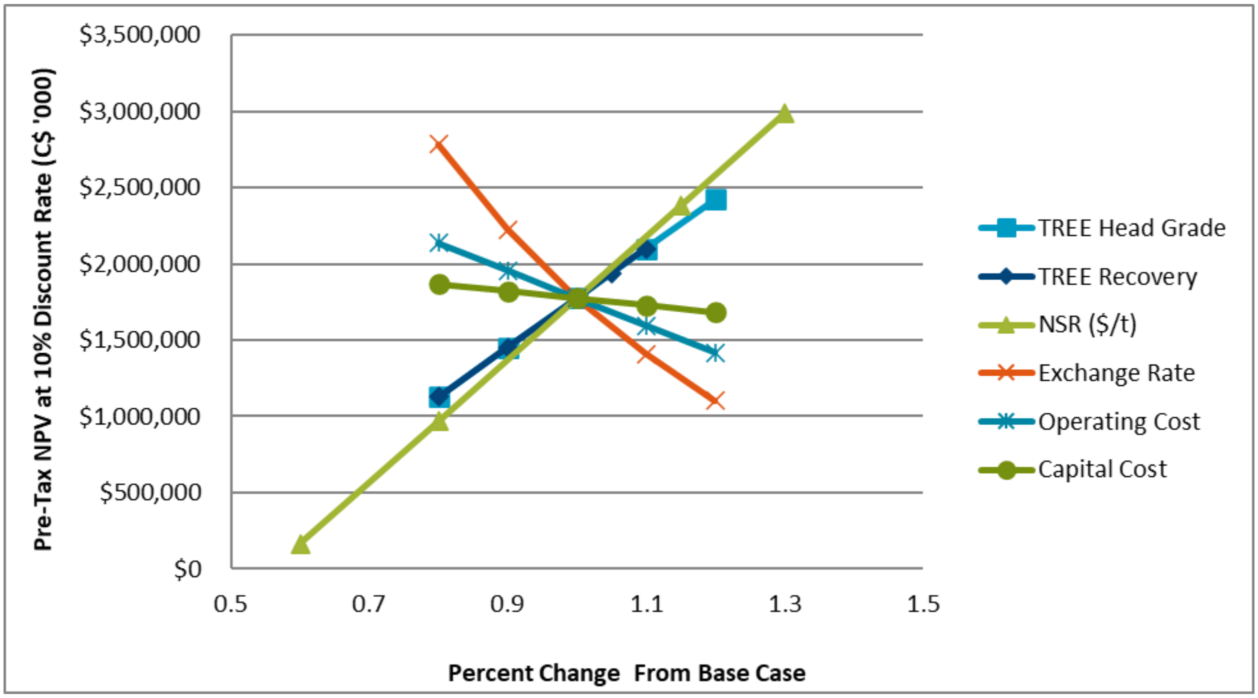


Figure 22-1: Pre-Tax Sensitivity Analysis

Table 22-2: Pre-Tax Sensitivity Analyses
Search Minerals Inc. – Deep Fox and Foxtrot

Factor	TREE Head Grade (%)	NPV at 10% (C$)
0.8	0.69%	$1,126,502
0.9	0.78%	$1,451,033
1	**0.87%**	**$1,775,565**
1.1	0.95%	$2,100,096
1.2	1.04%	$2,424,627
Factor	**TREE Recovery (%)**	**NPV at 10% (C$)**
0.8	63%	$1,126,502
0.9	71%	$1,451,033
1	**78%**	**$1,775,565**
1.05	82%	$1,937,830
1.1	86%	$2,100,096

	Net Value ($/t)	NPV at 10% (C$)
0.6	$454	$163,544
0.8	$605	$969,554
1	**$756**	**$1,775,565**
1.15	$870	$2,380,072
1.3	$983	$2,984,580
	Exchange Rate (CAD:USD)	**NPV at 10% (C$)**
0.8	0.64	$2,783,453
0.9	0.72	$2,223,515
1	**0.80**	**$1,775,565**
1.1	0.88	$1,409,060
1.2	0.96	$1,103,639
	Operating Cost (C$)	**NPV at 10% (C$)**
0.8	$4,999,788	$2,135,339
0.9	$5,624,761	$1,955,452
1.00	**$6,249,735**	**$1,775,565**
1.30	$8,124,655	$1,235,902
1.50	$9,374,602	$876,127
	Capital Cost (C$)	**NPV at 10% (C$)**
0.8	$602,750	$1,866,687
0.9	$678,094	$1,821,126
1.00	**$753,438**	**$1,775,565**
1.30	$979,469	$1,638,881
1.50	$1,130,157	$1,547,758

The sensitivities for REO prices range from 0.6 to 1.3 to capture the volatility in the REE market. This lower end of the range (0.6) was selected to overlap the October 2021 price forecasts by AI and the upper range (1.3) is to capture future upside.

The sensitivities for operating and capital costs range from 0.8 to 1.5. The higher sensitivity of 1.5 reflects the risk of sustained increased costs relating to supply chain issues.

All other sensitivities were carried out in the typical +/- 20% ranges.

23.0 ADJACENT PROPERTIES

This section is not applicable.

24.0 OTHER RELEVANT DATA AND INFORMATION

24.1 Project Implementation and Execution Plan

The overall scope of the Project, as defined in this Technical Report, is comprised of facilities in two separate locations:

- The mine site, Primary Production Plant, and port facility in Labrador, and
- The Hydrometallurgical Processing Plant and port at a brownfield site yet to be determined on the Island of Newfoundland.

As indicated in Chapter 21 and Chapter 22 of this Technical Report, the base case assumption for this PEA is that the facilities will be developed simultaneously and in parallel. Revenues modelled in this Technical Report are based on the sale of the product from the hydrometallurgical process that will be further refined by a third party into individual REOs with separation charges as discussed in Section 19 and 21.

Value chain studies are ongoing to determine the cost/benefit of including additional downstream processing capacity in the Project scope to optimize overall value for the Project and this information will be included in a Feasibility Study (FS). Search Minerals has confirmed it will undertake an independent engineering study to determine the feasibility of building its own separation facility (to be located adjacent to the hydrometallurgical facility) as opposed to paying toll charges to third parties for separation services.

The preliminary project execution schedule presented in Figure 24-1, assumes a base case development strategy. Upon completion of this Technical Report, Search Minerals intends to proceed immediately to the FS phase for both the mine, Primary Production Plant, and Hydrometallurgical Processing Plant. The development schedule will be updated as more detailed information becomes available.

During the development of the FS, the following major activities will need to be undertaken:

- A site location study will be conducted to determine the site of the Hydrometallurgical Processing Plant and port facility on the Island of Newfoundland.
- Trade-off studies.
- Market studies.
- Infill drilling to upgrade the classification of Inferred resources to Indicated and Indicated to Measured.
- Metallurgical test work for mineral and hydrometallurgical processing.
- Environmental studies (concurrently) for all project sites.
- Continuation of stakeholder engagement activities.
- Project registration and start of environmental permitting for construction.

The preliminary, base case project execution schedule presented in Figure 24-1 covers the period from the start of the FS to the end of commissioning of the Hydrometallurgical Processing Plant.

The major assumptions driving key milestones in the preliminary project execution schedule are:

- There are two separate undertakings, the mines and Primary Production Plant in Labrador and the Hydrometallurgical Processing Plant to be located on a brownfield site on the Island of Newfoundland.

- Each undertaking has the potential to operate independently, however, the combination of the two provide significant and robust economics.
- Activities for each site will proceed concurrently. For simplicity, one consolidated schedule is presented.
- The Province of Newfoundland and Labrador will require secondary processing in the province in addition to mining and primary production in Labrador.
- Facilities construction and environmental permitting milestones are presented individually to better understand the project execution critical path.
- Specific early works construction activities can be initiated in advance of final approvals on existing Search Minerals owned properties in Labrador and on an existing brownfield location on the Island of Newfoundland.
- The environmental permitting timeline and milestones are based on typical, and where applicable, minimum regulatory durations of key activities.
- Existing port infrastructure is available and suitable for upgrading and use for production.
- Towards the end of the FS, Search Minerals would designate its EPCM contractor and begin detailed engineering required for procurement of long lead items.

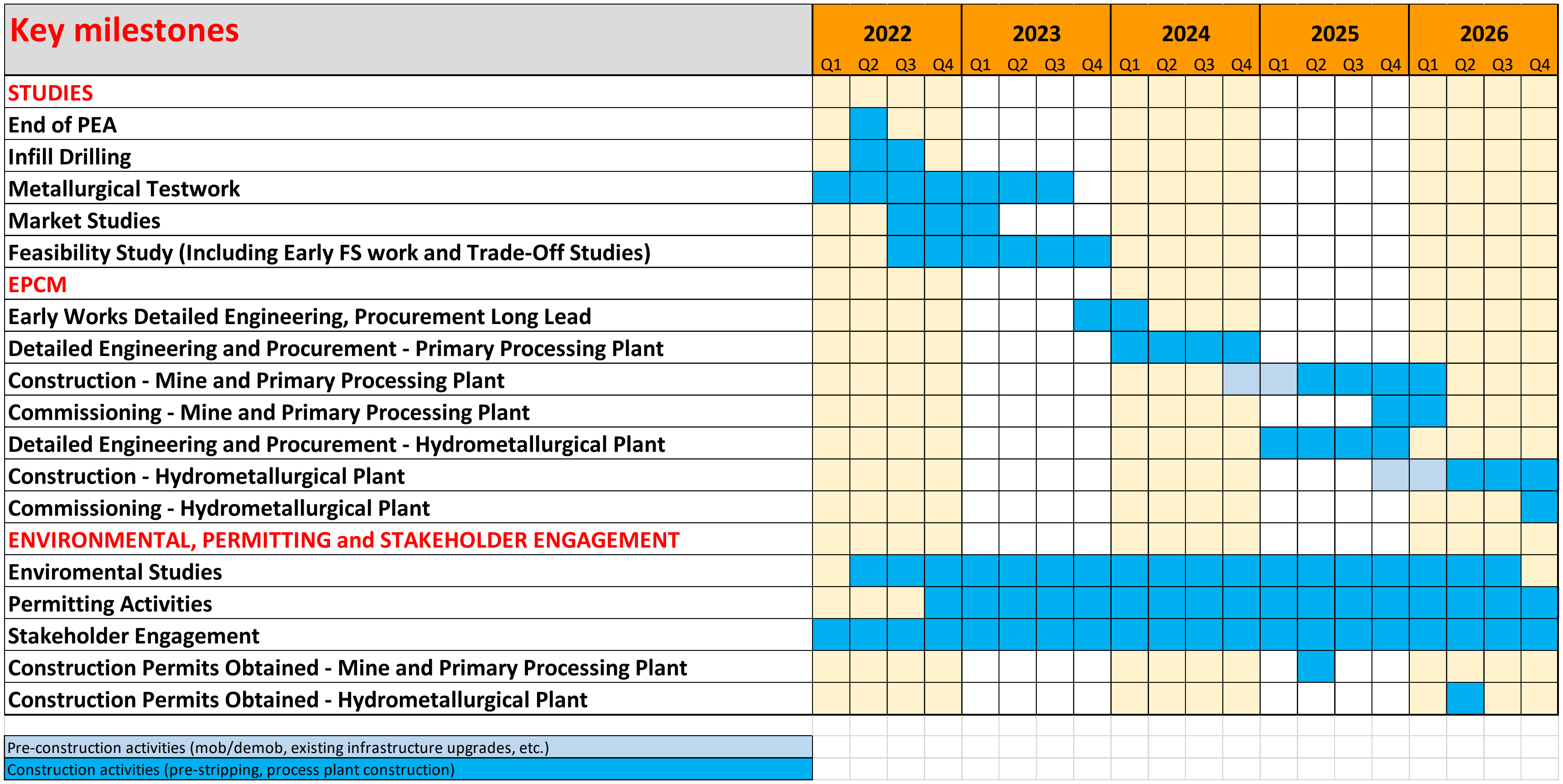


Figure 24-1: Simplified Preliminary Project Execution Schedule for Base-Case

As stated, the base case project execution plan is based on concurrent development of the project areas. There is a risk that the Hydrometallurgical Processing Plant, being more complex in nature, will require a longer development schedule and will be on the critical path for overall Project development. There is also a risk of loss of opportunity associated with a delay in commencing with the overall development of the Project.

Should the commissioning of the Hydrometallurgical Processing Plant be delayed there is an option to sell an intermediate concentrate product, albeit at a lower overall profit, for a limited period of time up until the Hydrometallurgical Processing Plant is operating. It is anticipated that an agreement with the Province of Newfoundland and Labrador supporting the development of the Hydrometallurgical Processing Plant will be negotiated.

To mitigate these risks Search Minerals is proceeding with the concurrent and parallel development of the mine and Primary Production Plant in Labrador and the Hydrometallurgical Processing Plant located on a brownfield site on the Island of Newfoundland. The key elements which support the success for this strategy are as follows:

- Additional market studies which further confirm the value of the concentrate from the mine site. These additional studies will include an estimate for the net selling price, including prospective payability associated with downstream processing that will be critical for evaluating the economic feasibility.
- Identification of domestic and non-domestic potential off-takers for the interim sale or tolling of the primary concentrate.
- Identification of further downstream processing to capture the full value of the product within the province.

The development approach of implementing the Project in two concurrent phases significantly de-risks the Project from both a technical and project financing point of view. It also allows for the Project to proceed in the near term to ensure the opportunity to secure the Province of Newfoundland and Labrador and Canada a position in the global REE supply chain.

25.0 INTERPRETATION AND CONCLUSIONS

Robust economic results indicate that the Project has good potential to become a long-life producer of critical REEs, providing an independent Canadian source of materials which are key to the green economy. Further conclusions by area are as follows:

25.1 Geology and Mineral Resources

- Significant REE deposits have been delineated at Deep Fox and Foxtrot by the Search Minerals exploration team. Deep Fox is located approximately two kilometres northeast of St. Lewis, Labrador. Foxtrot is located approximately 10 km west of St. Lewis, Labrador. Both deposits are located in the Fox Harbour Volcanic Belt (FHVB), which also hosts other REE prospects and targets owned by Search Minerals.
- Deep Fox mineralization is steeply dipping (approximately 80°) at an azimuth of 275°, with a strike length of approximately one kilometre. The majority of Deep Fox high grade mineralization occurs within steeply dipping packages of pantellerite. Two mineralized wireframes were modelled, a higher grade and more extensive footwall zone, and a thinner hanging wall zone. Deep Fox remains open at depth with potential to extend Mineral Resources to the east and west.
- Foxtrot mineralization consists of three steeply dipping mineralized zones, a thicker, predominantly pantellerite core, and a hanging wall and footwall zone consisting of pantellerite and low zirconium (Zr)-pantellerite bands. Foxtrot mineralization is steeply dipping (70° to 80°), with a strike length of approximately 765 m at an azimuth of 285°. Foxtrot remains open at depth and there is potential to extend Mineral Resources west and east of the current footprint.
- For both Deep Fox and Foxtrot, Search Minerals collected core and channel samples, assayed samples with a quality assurance and quality control (QA/QC) program, conducted surface exploration, and produced drill hole databases. SLR verified the content of the assay databases, reviewed the QA/QC programs and logging and sampling procedures, and performed location spot checks. The assay database, logging and sampling procedures, and QA/QC programs are acceptable for Mineral Resource estimation.
- SLR estimated Mineral Resources for the Project using all drill hole and channel sample data available as of December 31, 2021. Mineralization wireframes were modelled at Deep Fox and Foxtrot, using a nominal cut-off of $260/t Net Value. Open pit resource shells were generated for both deposits to constrain open pit Mineral Resources. Material with Net Value of $335/t and higher was used to report underground Mineral Resources remaining below the resource shells assuming an underground scenario. The underground Mineral Resources were reported at a block cut-off and validated using underground reporting shapes to ensure Reasonable Prospects of Eventual Economic Extraction (RPEEE).
- Deep Fox Mineral Resources include 5.1 million tonnes (Mt) classified as Indicated at average grades of 394 ppm Pr, 1,469 ppm Nd, 202 ppm Dy, and 34 ppm Tb, and 3.3 Mt classified as Inferred at average grades of 366 ppm Pr, 1,381 ppm Nd, 198 ppm Dy, and 33 ppm Tb.
- Foxtrot Mineral Resources include 10.0 Mt classified as Indicated at average grades of 366 ppm Pr, 1,368 ppm Nd, 176 ppm Dy, and 30 ppm Tb, and 3.0 Mt classified as Inferred at average grades of 371 ppm Pr, 1,384 ppm Nd, and 177 ppm Dy, and 30 ppm Tb.

25.2 Mining and Mineral Reserves

- Mining on the Property will be carried out using open pit and underground methods at a rate of 2,000 tpd starting at Deep Fox and followed by Foxtrot. Deep Fox will be mined over an 11 year period (seven years open pit and four years underground) and Foxtrot will be mined over a 16 year period (seven years open pit and nine years underground) for a total mine life of 26 years (the Foxtrot open pit and Deep Fox underground will both be mined in Year 11).
- A total of 18.137 Mt of mineralized material will be mined at grades of 1,416 ppm Nd, 379 ppm Pr, 188 ppm Dy, and 32 ppm Tb with an estimated average value of $756/t (net of process recoveries and payability terms).
- The PEA mineable quantities are based on 86% Indicated Mineral Resources and 14% Inferred Mineral Resources.
- The Deep Fox and Foxtrot open pits are planned to be mined using conventional truck and shovel operations using a contractor.
- The Deep Fox and Foxtrot underground mines are planned to be trackless mechanized operations accessed from the open pits by a single main ramp each and will be owner operated. Deep Fox and Foxtrot are generally steeply dipping with average widths of 15 m. The deposit configurations are suitable for mining using longhole mining methods with transverse and longitudinal accesses.
- The Deep Fox and Foxtrot underground mines will be a continuation of the open pit mining operations and will be mined at a production rate of 2,000 tpd.
- Mineral Reserves have not yet been estimated for the Project.

25.3 Mineral Processing

- SLR has reviewed the metallurgical test work reports and summaries provided by Search Minerals. The test work has been performed by SGS Canada Inc. (SGS), which is a highly experienced and competent laboratory. The interpretation of the test work appears to be reasonable.
- Although additional test work is required, the qualified person (QP) is of the opinion that the available test work is sufficient to define the design of recovery methods at a PEA level.
- The proposed Primary Production Plant includes a simple comminution circuit which, given adequate test work on a range of samples and competent design based on such test work, should be easily implemented. Similarly, the proposed magnetic separation circuits are standard in other industries and should operate as projected provided that test work confirms the preliminary test results forming the basis for the present design.
- The proposed hydrometallurgical process starts with an acid bake process. This is a widely practised method of decomposing REE minerals and is presently used to produce most of the world's REEs. The proposed Hydrometallurgical Processing Plant would dissolve the REE from the acid bake product in water and remove impurities through hydrolysis using a standard process. The balance of the process includes REE precipitation and releach followed by multiple stages of purification ahead of REE carbonate precipitation. As noted by NewPro, additional test work is required to confirm process details. SLR is of the opinion that the process might be simplified.
- Although additional test work, including pilot plant operations, are required, SLR is of the opinion that the design and resulting equipment requirements and reagent demand are adequate for a PEA level of study.

25.4 Environment

- Search Minerals has a Code of Business Conduct policy, Integrated Policy on Health, Safety, Environment and Community Relations, Insider Trading Policy, Whistleblower Policy, and Disclosure Policy. Additional policies are under development.
- Search Minerals has corporate environmental and social policies, although these are being expanded and further developed.
- Baseline studies have been initiated based on preliminary Project information.
- The Project will require provincial approvals and permits. The revised project scope as currently configured does not trigger a federal Impact Assessment under the Impact Assessment Act (IAA).
- Search Minerals conducts community engagement in relation to exploration activities and plans to conduct further engagement activities in 2022. It has initiated some social initiatives such as offering limited scholarships to people in the local community.
- Search Minerals signed an agreement with the NunatuKavut Community Council (NCC) on August 27, 2012, to address exploration activities and this remains valid.
- Deep Fox lies within the St. Lewis protected water supply catchment area. Search Minerals continues to work directly with the St. Lewis Town Council to ensure that residents are informed of activities and that concerns are addressed in a timely manner. This is a key risk to manage as the Project progresses. Surface water studies are required to understand any potential quality and quantity impacts on the water resource. Surface water studies were initiated in 2020, have been ongoing since then and will continue throughout the exploration and development activities.
- A Rehabilitation and Closure Plan (RCP) and financial assurance for rehabilitation and closure costs will be required to obtain environmental approvals.

26.0 RECOMMENDATIONS

Advanced engineering studies (Pre-Feasibility, Feasibility) on the Project are merited, through further data collection, testing, and analysis.

SLR offers the following specific recommendations by area:

26.1 Geology and Mineral Resources

1. Expand the master drilling database content to include all QA/QC data.
2. Review and update the QA/QA protocols to address potential improvements regarding usage of coarse blank samples, type and number of certified reference materials (CRMs), nominal values of internal standards, and batch failing criteria and re-assay procedures.
3. Collect wider channel samples to generate field sample duplicates.
4. Conduct infill drilling on portions of Deep Fox and Foxtrot to a spacing of 15 m to 30 m. This is expected to suffice for Measured Resources (although this is subject to confirmation via variography). SLR understands that Search is currently undertaking a 11,000m infill exploration program.
5. Continue exploration for the expansion of Deep Fox and Foxtrot, with mineralization down-plunge and lateral extent targeted drilling.
6. Continue exploration of high grade REE prospects in the area.

26.2 Mining and Mineral Reserves

1. Develop a better understanding of the geotechnical conditions in order to optimize stope dimensions and potentially reduce the amount of development. SLR understands that Search Minerals is currently undertaking a 3,000 m geotechnical drilling program.
2. Continue drilling campaigns focusing on areas where Inferred Mineral Resources can be upgraded to the Indicated category.
3. Complete a study which assesses the required cemented rock fill (CRF) strength to confirm the stability of the exposed stope walls.
    - Additionally, assess the optimum backfill granulometry and cement content. This will provide information on cement content required and can provide opportunity for reduced operating costs.
4. Investigate using tailings in paste fill applications for backfill in primary transverse stopes.

26.3 Mineral Processing

1. Consistent with Search Minerals' plans, continue additional laboratory test work to confirm, or improve upon, present recovery and reagent consumption values and to examine the response of the beneficiation and hydrometallurgical processes to mineral variability.
    - Future test work must also include pilot-scale operations, the determination of engineering parameters such as liquid-solid-separation requirements, and the characterization of effluents and residues to allow the design of suitable handling, storage, and disposal facilities.

- Waste solids and solutions from the beneficiation and hydrometallurgical processing plants need to be tested to allow for the design of suitable handling systems and ensure compliance with all applicable regulations.

26.4 Infrastructure

1. Complete a detailed environmental assessment and detailed engineering for the tailings site adjacent to the Primary Production Plant, identified by SLR, to confirm its viability. Identify and complete investigations for a tailings site for the Hydrometallurgical Processing Plant.
2. Continue investigating port locations. SLR understands that the Port of Fox Harbour has a limited draft of approximately nine metres which could allow for up to 15,000 deadweight tonnage (dwt) vessels. Fox Harbour will also have a limited shipping season and consideration for scheduling allowance will need to be accounted for.
3. Investigate the viability of the route proposed by SLR has, which utilizes an access road connecting Highway 513 to Deep Fox in order to avoid traffic in St. Lewis. These investigations should include environmental and engineering assessments.

26.5 Environment

1. Develop the corporate environmental and social policies and publish these on Search Minerals website.
   - Develop plans to implement and audit the requirements of these policies
2. Plan, progress, and expand on ongoing environmental and social baseline studies to ensure that all Project infrastructure and activities are covered. Ensure that all environmental and social aspects are fully addressed to provide a comprehensive baseline record for the Project, and to meet regulatory requirements for provincial and federal applications for approval and permitting.
   - These studies should include other receptor pathways that could affect human health e.g., soil, water, vegetation, animals, toxicity testing on target species, geochemical studies, and technological options to limit potential environmental and social risks.
3. Develop and implement a plan to obtain all the required federal and provincial approvals and permits and ensure that these are in place in advance of construction. This plan should be developed in consultation with the regulators, fully integrate with environmental study planning and engineering studies, and identify any risks to the approval processes and mitigation measures, if applicable.
4. Implement the community engagement plan and ensure that all stakeholders are included. The engagement plan should detail the process for engaging Indigenous communities interested in the Project.
5. Continue to honour the Mining Exploration Activities Agreement with the NCC which was signed on August 27, 2012. Determine the need for additional community agreements through engagement processes.
6. Continue to implement social initiatives and expand on these as appropriate and as needs are identified through stakeholder and Indigenous community engagement.
7. Continue surface water studies to understand any potential quality and quantity impacts on the St. Lewis protected water supply catchment area, and develop management and mitigation plans. Continue stakeholder engagement on this issue.

8. Conduct additional test work on the beneficiation and hydrometallurgical residues and effluents. As part of regulatory approval processes, compile an RCP in accordance with legal requirements and applicable guidelines, considering best practice where possible and ensuring that the financial assurance is in place as required by law.

A budget for carrying out the recommendations is as provided in Table 26-1.

Table 26-1: Budget for Recommended Actions
Search Minerals Inc. – Deep Fox and Foxtrot Project

Activity	Budgeted Cost (C$)
Infill and Exploration Drilling (10,000 m @ $200/m)	2,000,000
Assaying (2,000 samples @ $100/each)	200,000
Geotechnical Investigation	300,000
Backfill Testing	100,000
Metallurgical Test Work	500,000
Environmental Baseline Monitoring	200,000
Advanced Engineering Study	1,000,000
Total	**4,300,000**

27.0 REFERENCES

AACE International Recommended Practice No. 47R-11, August 7, 2020, Cost Estimate Classification System – As Applied in Engineering, Procurement, and Construction for the Mining and Mineral Processing Industries.

Allnorth, 2017, CEAA Project Description Foxtrot Rare Earth Element Mine.

Canadian Environmental Assessment Agency, 2018, Guideline for the Preparation of an environmental Impact Statement pursuant to the Canadian Environmental Assessment Act, 2012 Foxtrot Rare Earth Element Mine Project, Search Minerals Inc.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2014, CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted by the CIM Council on May 10, 2014.

Canadian Science Publishing, Volume 29, number 3, September 2021, The potential environmental risks associated with the development of rare earth element production in Canada (cdnsciencepub.com).

CIM, 2019, CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines, adopted by the CIM Council on November 29, 2019.

Dreisinger, D., 2022, “Rare-Earth and Critical Material Recovery from Peralkaline Volcanic Ores: Minerals Processing, Hydrometallurgy and Solvent Extraction Separation”, T. Ouchi et al. (eds), Rare Metal Technology 2022, The Minerals, Metals & Materials Series, https://doi.org/10.1007/978-3-030-92662-5_1

Dreisinger, D., Andrews, G., Verbaan, N., Johnson, M., Bourricaudy, E., 2018, “The Demonstration Pilot Plant Results for the Search Minerals Direct Extraction Process for Rare Earth Recovery”, H. Kim et al. (eds.), Rare Metal Technology 2018, The Minerals, Metals & Materials Series, https://doi.org/10.1007/978-3-319-72350-1_1.

Dreisinger, D., Verbaan, N., Johnson, M., “The Processing of REE’s from Search Minerals Foxtrot Resource – an Update”, 201, COM 2014 - Conference of Metallurgists Proceedings (2014), 13 pages.

Dreisinger, D.B., Andrews, G., 2017, “The Economics of the Search Minerals Direct Extraction Process for Rare Earth Element Recovery”, H. Kim et al. (eds.), Rare Metal Technology 2017, The Minerals, Metals & Materials Series, DOI 10.1007/978-3-319-51085-9_1, 15 pages. KEYNOTE

Dreisinger, D.B., Clucas, J.D., Verbaan, N., Grammatikopoulos, T., Aghamirian, M., Forstner, C., 2012, “The Processing of REE’s from Search Minerals Foxtrot Resource”, Proceedings of Rare Earths 2012, edited by J.R. Goode, G. Moldoveanu, M.S. Reyat, CIM Metsoc (Montreal), 81-94.

Dreisinger, D.B., Verbaan, N., Johnson, M., 2016b, "The Search Minerals Direct Extraction Process for Rare Earth Element Recovery, "Rare Metal Technology 2016, S. Alam et al Eds., TMS (Warrendale), 3-16. KEYNOTE.

Dreisinger, D.B., Verbaan, N., Johnson, M., Andrews, G., 2016a, "The Search Minerals Direct Extraction Technology for Rare Earth Recovery", Proceedings of IMPC 2016, CIM-METSOC, Quebec City, (2016), 13 pages.

Eade, K.E., 1962: Geology, Battle Harbour-Cartwright, Coast of Labrador, Newfoundland. Geological Survey of Canada, Map 22 1962. [LAB/0030].

Gower, C.F., Neuland, S., Newman, M., and Smyth, J., 1987: Geology of the Port Hope- Simpson map region, Grenville Province, eastern Labrador. In Current Research. Newfoundland Department of Mines, Mineral Development Division, Report 87-1, pp.183-199.

Haley, J.T., 2014: 1.3 Ga bimodal volcanism in southeastern Labrador: Fox Harbour. Unpublished M.Sc. thesis, Memorial University of Newfoundland, St. John's, Canada, 204 p.

Hanmer, S., Scott, D.J. 1990: Structural observations in the Gilbert River Belt, Grenville Province, southeastern Labrador. In Current Research, Part C. Geologic Survey of Canada, Paper 90-1C, pp. 1-11.

Miller, R.R., 1987: The relationship between Mann-type Nb-Be mineralization and felsic peralkaline intrusives, Letitia Lake Project, Labrador. Newfoundland and Labrador Department of Mines and Energy, Mineral Development Division, Report 87-1, pp. 83-91.

Miller, R.R., 1988: Yttrium (Y) and other rare metals (Be, Nb, REE, Ta, Zr) in Labrador. Newfoundland and Labrador Department of Mines and Energy, Mineral Development Division, Report 88-1, pp. 229-245.

Miller, R.R., Heaman, L.M. and Birkett, T.C., 1996: U-Pb zircon age of the Strange Lake peralkaline complex: implications for Mesoproterozoic peralkaline magmatism in north-central Labrador. Precambrian Research, 81, pp. 67-82.

Roscoe Postle Associate Inc., 2012, Search Minerals Inc. Technical Report on the Foxtrot Project in Labrador, Newfoundland & Labrador, Canada, NI 43-101 Report.

Roscoe Postle Associate Inc., 2016, Search Minerals Inc. Technical Report on the Foxtrot Project in Labrador, Newfoundland & Labrador, Canada, NI 43-101 Report, April 28, 2016

Roscoe Postle Associate Inc., 2019, Search Minerals Inc. Technical Report on the Deep Fox Project, Newfoundland & Labrador, Canada, NI 43-101 Report, November 12, 2019

SGS Canada Inc., 2012a, Beneficiation Test Work on Samples from the Port Hope Simpson Prospects in SE Labrador, SGS Project No. 13004-001, November 20, 2012.

SGS Canada Inc., 2012b, Hydrometallurgical Test Work on Samples from the Port Hope Simpson Prospects, SGS Project No. 13004-001 Report #2, November 29, 2012.

SGS Canada Inc., 2012c, Mineralogical Characteristics of a Variability Sample from the Port Hope Simpson REE Prospect, SGS Project No. 13004-001 (MI5104-Sep11), June 11, 2012.

SGS Canada Inc., 2012d, Mineralogical Characteristics of Three Variability Samples from the Port Hope Simpson REE Prospects in SE Labrador, SGS Project No .13004-001 (MI5013-Jan11), September 27, 2012.

SGS Canada Inc., 2013, The Mineralogical Characteristics of One Metallurgical Sample from the Pesky Hill REE Prospect in SE Labrador, SGS Project No.13004-001 (M5043-Sep12), January 3, 2013.

SGS Canada Inc., 2014, Whole mineral Processing for Recovery of Rare Earth Elements from Foxtrot, SGS Project No. 13004-002 PR#1, December 16, 2014.

SGS Canada Inc., 2015, Bulk Whole mineral Processing for Recovery of Rare Earth Elements from Foxtrot, SGS Project No. 13004-002 PR#2, January 23, 2015.

SGS Canada Inc., 2017a, An Investigation of Extraction of REEs from Foxtrot– Bench and Pilot Plant Test Work, SGS Project No. 13004-003 PR#2, June 27, 2017.

SGS Canada Inc., 2017b, Foxtrot Pre-Pilot Bench Test Work, SGS Project No. 13004-003 PR#1, May 15, 2017.

SGS Canada Inc., 2018, An Investigation into Environmental Characterization of Hydrometallurgical Tailings from Foxtrot, SGS Project No. 13004-004, February 23, 2018.

SGS Canada Inc., 2020a, An Investigation into Optimization Pilot Plant Testing of Search Minerals REE Flowsheet, SGS Project No. 13004-05 Rep #2, March 10, 2020.

SGS Canada Inc., 2020b, An Investigation into Optimization Testing of Search Minerals Rare Earth Elements Flowsheet, SGS Project No. 13004-05 Rep #1, March 23, 2020.

SGS Canada Inc., 2020c, An Investigation into the Preliminary Metallurgical Test Work on a Zircon Bearing Samples from the Silver Fox Deposit, SGS Project No. 13004-06, December 17, 2020.

28.0 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Deep Fox and Foxtrot Project, Newfoundland and Labrador, Canada" with an effective date of May 31, 2022, was prepared and signed by the following authors:

(Signed & Sealed) ***Tudor Ciuculescu***

Dated at Toronto, ON
July 18, 2022

Tudorel Ciuculescu, M.Sc., P.Geo.
Consultant Geologist

(Signed & Sealed) ***Katharine M. Masun***

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(Signed & Sealed) ***John R. Goode***

Dated at Toronto, ON
July 18, 2022

John R. Goode, P.Eng.
Associate Principal Metallurgist

29.0 CERTIFICATE OF QUALIFIED PERSON

29.1 Tudorel Ciuculescu

I, Tudorel Ciuculescu, M.Sc., P.Geo., as an author of this report entitled "Technical Report on the Deep Fox and Foxtrot Project, Newfoundland and Labrador, Canada" with an effective date of May 31, 2022, prepared for Search Minerals Inc., do hereby certify that:

1. I am Consultant Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of University of Bucharest with a B.Sc. degree in Geology in 2000 and University of Toronto with a M.Sc. degree in Geology in 2003.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #1882). I have worked as a geologist for a total of 20 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Preparation of Mineral Resource estimate for a variety of commodities.
   - Experienced user of geological and resource modelling software.
   - Over five years of exploration experience in Canada and Chile.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Deep Fox and Foxtrot Project from November 9 to 12, 2021.
6. I am responsible for Sections 1.1.1.1, 1.1.2.1, 1.3.1 to 1.3.3, 1.3.5, 1.3.6, 4.0 to 6.0, 9.0, 10.1, 11.1, 14.0, 25.1, and 26.1, and contributions to Section 27.0 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have been a QP on a previous Technical Report regarding the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.1, 1.1.2.1, 1.3.1 to 1.3.3, 1.3.5, 1.3.6, 4.0 to 6.0, 9.0, 10.1, 11.1, 14.0, 25.1, and 26.1 of the Technical Report, for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated July 18, 2022,

(Signed & Sealed) ***Tudor Ciuculescu***

Tudorel Ciuculescu, M.Sc., P.Geo.

29.2 Katharine M. Masun

I, Katharine M. Masun, M.Sc., MSA, P.Geo., as an author of this report entitled "Technical Report on the Deep Fox and Foxtrot Project, Newfoundland and Labrador, Canada" with an effective date of May 31, 2022, prepared for Search Minerals Inc., do hereby certify that:

1. I am Consultant Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Lakehead University, Thunder Bay, Ontario, Canada, in 1997 with an Honours Bachelor of Science degree in Geology and in 1999 with a Master of Science degree in Geology. I am also a graduate of Ryerson University in Toronto, Ontario, Canada, in 2010 with a Master of Spatial Analysis.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #1583). I have worked as a geologist for a total of 24 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Review and report as a professional geologist on many mining and exploration projects around the world for due diligence and regulatory requirements.
    - Mineral Resource estimates on a variety of commodities including zinc, copper, nickel, silver, gold, REE, tin, graphite, and diamonds.
    - Project Geologist on numerous field and drilling programs in North America, South America, Asia, and Australia.
    - Experienced user of geological and resource modelling software including Leapfrog, Micromine, and GEMS.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Deep Fox and Foxtrot Project on August 26, 2015.
6. I am responsible for Sections 1.3.4, 7.0, 8.0, 10.2, 11.2, and 12.0, and contributions to Section 27.0 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have been a QP on previous Technical Reports regarding the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.3.4, 7.0, 8.0, 10.2, 11.2, and 12.0 of the Technical Report, for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated July 18, 2022,

(Signed & Sealed) ***Katharine M. Masun***

Katharine M. Masun, M.Sc., MSA, P.Geo.

29.3 Ian Weir

I, Ian Weir, P.Eng., as an author of this report entitled "Technical Report on the Deep Fox and Foxtrot Project, Newfoundland and Labrador, Canada" with an effective date of May 31, 2022, prepared for Search Minerals Inc., do hereby certify that:

1. I am a Principal Mining Engineer with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Queen's University, Kingston, Ontario, in 2004 with a B.A.Sc. degree in Mining Engineering.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg.# 100143218) and I am a member in good standing of the Professional Engineers and Geoscientists Newfoundland and Labrador (#08230). I have worked as a mining engineer for a total of 15 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Open pit operational experience including supervision of mine development at a copper mine in Chile from the pre-stripping phase to a fully operational mine.
   - Review and report as a consultant on open pit mining projects and operations in Canada and around the world for studies, audits, due diligence, and regulatory requirements.
   - Engineering study work (PEA, PFS, and FS) on many mining projects around the world, including commodities such as precious metals, base metals, bulk commodities, industrial minerals, and REEs.
   - Project cash flow modelling and economic analysis.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Deep Fox and Foxtrot Project on August 15, 2015.
6. I am responsible for Sections 1.1.1.2, 1.1.2.2, 1.1.2.4, 1.2, 1.3.7, 1.3.9, 1.3.10, 1.3.12, 2.0, 3.0, 15.0, 16.0, 18.0, 19.0, 21.0 to 24.0, 25.2, 26.2, 26.4, and 30.0, and contributions to Section 27.0 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Section 1.1.1.2, 1.1.2.2, 1.1.2.4, 1.2, 1.3.7, 1.3.9, 1.3.10, 1.3.12, 2.0, 3.0, 15.0, 16.0, 18.0, 19.0, 21.0 to 24.0, 25.2, 26.2, 26.4, and 30.0 of the Technical Report, for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated July 18, 2022,

(Signed & Sealed) ***Ian Weir***

Ian Weir, P.Eng.

29.4 Luis Vasquez

I, Luis Vasquez, M.Sc., P.Eng., as an author of this report entitled "Technical Report on the Deep Fox and Foxtrot Project, Newfoundland and Labrador, Canada" with an effective date of May 31, 2022, prepared for Search Minerals Inc., do hereby certify that:

1. I am Senior Environmental Consultant and Hydrotechnical Engineer with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Universidad de Los Andes, Bogotá, Colombia, in 1998 with a B.Sc. degree in Civil Engineering, and in 1999 with a M.Sc. degree in Water Resources Engineering.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #100210789). I have worked as a civil engineer on mining related projects for a total of 17 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Reviews and reports as an environmental consultant on numerous mining operations and projects for due diligence and regulatory requirements.
    - Preparation of numerous environmental impact assessments for mining projects located in Canada, and Perú for regulatory approval.
    - Preparation of multiple mine closure plans for mining projects in Canada and Perú.
    - Preparation of several scoping, prefeasibility, feasibility, and detailed design level studies for projects located in North America, South America, the Caribbean, and Asia with a focus on planning, design and safe operation of water management systems and waste disposal facilities.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have not visited the Deep Fox and Foxtrot Project site.
6. I am responsible for Sections 1.1.1.4, 1.1.2.5, 1.3.11, 20.0, 25.4, and 26.5, and contributions to Section 27.0 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.4, 1.1.2.5, 1.3.11, 20.0, 25.4, and 26.5 of the Technical Report, for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated July 18, 2022,

(Signed & Sealed) ***Luis Vasquez***

Luis Vasquez, M.Sc., P.Eng.

29.5 John R. Goode

I, John R. Goode, P.Eng., as an author of this report entitled "Technical Report on the Deep Fox and Foxtrot Project, Newfoundland and Labrador, Canada" with an effective date of May 31, 2022, prepared for Search Minerals Inc., do hereby certify that:

1. I am an independent metallurgical engineer, Principal of J.R. Goode and Associates, and resident at Suite 1010, 65 Spring Garden Avenue, Toronto, Ontario, Canada, M2N 6H9.
2. I graduated in 1963 with the Honours Degree of B.Sc. (Chemical Engineering in Metallurgy) from the Royal School of Mines, Imperial College, London University, UK.
3. I am a member in good standing of both the Professional Engineers and Geoscientists Newfoundland and Labrador (08227) and Professional Engineers Ontario (16561011); a Fellow of both the Canadian Institute of Mining, Metallurgy and Petroleum and the Australasian Institute of Mining and Metallurgy; a member of the Society for Mining, Metallurgy, and Exploration, the Geological Association of Canada, and the Prospectors and Developers Association of Canada. I have been practicing my profession as a metallurgist for 59 years covering a wide variety of roles, locations, and commodities.
4. I have read the definition of "Qualified Persons" set out in NI 43-101 and as a result of my education, experience, and registration I am a Qualified Person as defined in NI 43-101.
5. I have not visited the Deep Fox and Foxtrot Project site.
6. I am responsible for Sections 1.1.1.3, 1.1.2.3, 1.3.8, 13.0, 17.0, 25.3, and 26.3, and contributions to Section 27.0 of the Technical Report.
7. I have been a QP on a previous Technical Report regarding the property that is the subject of the Technical Report.
8. I am independent of the issuer applying all of the tests in section 1.4 of NI 43-101.
9. I have read National Instrument 43-101 and Form 42-101F1, and this Technical Report has been prepared in compliance with that instrument and form.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.3, 1.1.2.3, 1.3.8, 13.0, 17.0, 25.3, and 26.3 of the Technical Report, for which I am responsible, contain all available scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated July 18, 2022,

(Signed & Sealed) ***John R. Goode***

John R. Goode, P.Eng.

30.0 APPENDIX 1

Table 30-1: Cashflow Summary
Search Minerals Inc. – Deep Fox and Foxtrot Project

Years -2 to 12

	Input	Units	Total/Avg.	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12
OP Mining																	
Target Mineral to Plant		tonnes				540,000	720,000	720,000	720,000	720,000	720,000	720,000	-	-	-	48,746	720,000
Mineral Mined		tonnes	10,027,539			658,382	759,127	981,266	372,063	848,002	561,715	915,191	-	-	-	728,712	750,157
Mined Mineral to Plant		tonnes	8,398,085			540,000	720,000	720,000	372,063	720,000	561,715	720,000	-	-	-	48,746	720,000
Mineral to Stockpile		tonnes	1,629,454			118,382	39,127	261,266	-	128,002	-	195,191	-	-	-	679,966	30,157
Total Material Moved		tonnes	63,774,829			3,194,531	3,659,891	3,971,121	5,465,538	5,415,172	5,490,015	2,622,476	-	-	5,000,000	5,749,515	5,407,194
Waste to Ore ratio		---	5.36			3.85	3.82	3.05	13.69	5.39	8.77	1.87	-	-	-	11.69	8.21
Adjusted Waste to Ore ratio			5.36			3.85	3.82	3.05	13.69	5.39	8.77	1.87	-	-	-	6.89	6.21
UG Mining																	
Mined Mill Feed		tonnes	8,109,128			-	-	-	-	-	-	-	486,000	720,000	720,000	671,254	-
Processing																	
Feed to Mill		'000 tonnes	18,137	-	-	540	720	720	720	720	720	720	720	720	720	720	720
		tpd				1,500	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Head Grade																	
Yttrium		ppm	1,007			1,061	1,112	1,096	1,028	1,061	889	962	972	994	976	975	941
Lanthanum		ppm	1,619			1,673	1,768	1,757	1,546	1,688	1,421	1,544	1,502	1,461	1,440	1,475	1,527
Cerium		ppm	3,293			3,472	3,593	3,592	3,220	3,476	2,903	3,157	3,104	3,041	3,025	3,033	3,085
Praseodymium		ppm	379			394	419	417	374	402	336	366	359	357	357	354	351
Neodymium		ppm	1,416			1,486	1,563	1,544	1,405	1,484	1,248	1,356	1,351	1,351	1,360	1,328	1,310
Samarium		ppm	258			277	287	285	265	274	229	251	251	254	253	248	235
Europium		ppm	13			14	15	15	14	14	12	13	13	13	13	13	12
Gadolinium		ppm	202			216	223	221	208	213	180	196	199	205	204	196	185
Terbium		ppm	32			35	36	35	34	34	29	31	32	33	33	31	29
Dysprosium		ppm	188			204	211	210	201	203	171	185	188	196	197	187	169
Holmium		ppm	36			39	40	40	38	39	33	35	36	37	38	36	32
Erbium		ppm	102			110	113	112	108	109	92	99	101	105	106	100	90
Thulium		ppm	14			15	16	16	15	15	13	14	14	15	15	14	13
Ytterbium		ppm	89			94	96	96	94	94	80	86	87	90	90	86	80
Lutetium		ppm	13			14	14	14	13	13	12	12	13	13	13	12	12
Zirconium		ppm	-			-	-	-	-	-	-	-	-	-	-	-	-
Niobium		ppm	-			-	-	-	-	-	-	-	-	-	-	-	-
Uranium		ppm	-			-	-	-	-	-	-	-	-	-	-	-	-
LREE Grade		ppm	6,966			7,302	7,629	7,595	6,811	7,324	6,138	6,675	6,568	6,464	6,434	6,437	6,507
HREE Grade		ppm	1,697			1,801	1,876	1,854	1,754	1,795	1,510	1,633	1,653	1,700	1,685	1,650	1,563
Total REE Grade		**ppm**	**8,662**			**9,103**	**9,506**	**9,449**	**8,565**	**9,119**	**7,647**	**8,308**	**8,221**	**8,163**	**8,119**	**8,087**	**8,071**
Yttrium	77.5%	%	77.5%			77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%
Lanthanum	87.9%	%	87.9%			87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%
Cerium	85.4%	%	85.4%			85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%
Praseodymium	88.6%	%	88.6%			88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%
Neodymium	86.2%	%	86.2%			86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%
Samarium	85.1%	%	85.1%			85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%
Europium	83.7%	%	83.7%			83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%
Gadolinium	86.2%	%	86.2%			86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%
Terbium	84.0%	%	84.0%			84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%
Dysprosium	84.0%	%	84.0%			84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%
Holmium	80.8%	%	80.8%			80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%
Erbium	75.7%	%	75.7%			75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%
Thulium	70.6%	%	70.6%			70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%
Ytterbium	50.2%	%	50.2%			50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%
Lutetium	50.2%	%	50.2%			50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%
Total Recovery		**%**	**78.4%**			**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**
Material Recovered REE's																	
Yttrium		kg	14,160,126			444,024	620,996	611,525	573,937	592,151	496,095	536,755	542,400	554,701	544,689	544,054	525,484
Lanthanum		kg	25,824,770			794,267	1,119,067	1,112,310	978,635	1,068,466	899,822	977,721	950,605	924,839	911,896	933,644	966,455
Cerium		kg	51,010,670			1,601,260	2,209,659	2,209,026	1,980,419	2,137,480	1,784,928	1,941,513	1,908,919	1,869,939	1,859,967	1,865,185	1,897,047
Praseodymium		kg	6,087,564			188,549	266,856	265,944	238,668	256,183	214,408	233,321	229,144	227,358	227,310	225,478	223,889
Neodymium		kg	22,126,958			691,311	969,316	957,840	871,809	920,908	774,190	841,057	838,173	838,152	843,559	823,786	812,507
Samarium		kg	3,986,142			127,315	175,944	174,310	162,251	167,874	140,560	154,054	153,995	155,831	155,040	151,896	143,855
Europium		kg	199,949			6,447	8,818	8,833	8,251	8,576	7,151	7,826	7,784	7,854	7,813	7,684	7,240
Gadolinium		kg	3,163,491			100,478	138,457	137,306	129,117	132,402	111,560	121,457	123,276	127,106	126,634	121,533	115,021
Terbium		kg	488,712			15,775	21,684	21,473	20,425	20,723	17,442	18,919	19,190	19,882	19,965	19,025	17,509
Dysprosium		kg	2,865,714			92,403	127,726	127,076	121,656	122,550	103,494	111,810	113,728	118,384	119,204	113,230	101,945
Holmium		kg	528,303			16,896	23,507	23,223	22,325	22,433	18,962	20,425	20,804	21,718	21,955	20,705	18,692
Erbium		kg	1,395,381			44,800	61,654	61,090	59,068	59,164	50,195	54,005	54,983	57,223	57,923	54,407	49,247
Thulium		kg	184,564			5,835	7,941	7,897	7,711	7,724	6,584	7,067	7,136	7,391	7,480	7,084	6,576
Ytterbium		kg	809,008			25,599	34,738	34,654	33,924	33,994	29,034	31,184	31,380	32,360	32,626	31,118	28,912
Lutetium		kg	118,773			3,719	5,041	4,956	4,876	4,866	4,202	4,492	4,528	4,689	4,705	4,506	4,249
Total Material Recovered		kg	132,950,125	-	-	4,158,678	5,791,403	5,757,462	5,213,071	5,555,496	4,658,628	5,061,607	5,006,045	4,967,427	4,940,766	4,923,335	4,918,627

Years -2 to 12

	Input	Units	Total/Avg.	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12
Revenue																	
Payable REOs	Ox Conv																
Yttrium	1.27	kg	17,982,628			563,887	788,633	776,605	728,870	752,001	630,016	681,651	688,820	704,442	691,727	690,920	667,337
Lanthanum	1.17	kg	30,286,756			931,500	1,312,418	1,304,495	1,147,723	1,253,075	1,055,293	1,146,651	1,114,849	1,084,632	1,069,453	1,094,958	1,133,438
Cerium	1.17	kg	59,747,868			1,875,526	2,588,133	2,587,392	2,319,629	2,503,592	2,090,654	2,274,059	2,235,882	2,190,226	2,178,545	2,184,657	2,221,977
Praseodymium	1.17	kg	7,124,424			220,663	312,308	311,240	279,319	299,818	250,927	273,062	268,173	266,082	266,026	263,883	262,023
Neodymium	1.17	kg	25,808,648			806,338	1,130,600	1,117,214	1,016,869	1,074,137	903,007	981,000	977,636	977,612	983,919	960,855	947,700
Samarium	1.16	kg	4,622,229			147,631	204,021	202,126	188,142	194,663	162,990	178,637	178,568	180,698	179,780	176,134	166,810
Europium	1.16	kg	231,529			7,466	10,210	10,227	9,555	9,930	8,280	9,062	9,013	9,095	9,047	8,898	8,384
Gadolinium	1.15	kg	3,646,313			115,814	159,589	158,262	148,823	152,609	128,587	139,994	142,091	146,506	145,962	140,081	132,576
Terbium	1.15	kg	562,514			18,157	24,958	24,716	23,509	23,853	20,077	21,776	22,088	22,885	22,980	21,898	20,153
Dysprosium	1.15	kg	3,288,957			106,050	146,590	145,844	139,623	140,650	118,779	128,323	130,525	135,868	136,809	129,954	117,001
Holmium	1.15	kg	605,179			19,355	26,927	26,603	25,573	25,697	21,721	23,397	23,832	24,879	25,150	23,718	21,412
Erbium	1.14	kg	1,595,603			51,229	70,501	69,856	67,544	67,654	57,398	61,754	62,873	65,434	66,234	62,213	56,313
Thulium	1.14	kg	210,785			6,664	9,069	9,019	8,806	8,822	7,520	8,071	8,150	8,441	8,543	8,090	7,510
Ytterbium	1.14	kg	921,215			29,150	39,556	39,460	38,629	38,709	33,060	35,509	35,732	36,848	37,151	35,434	32,922
Lutetium	1.14	kg	135,065			4,229	5,733	5,636	5,545	5,534	4,779	5,108	5,149	5,332	5,350	5,124	4,831
Total REO Material		kg	156,769,713			4,903,658	6,829,246	6,788,693	6,148,159	6,550,743	5,493,086	5,968,055	5,903,381	5,858,977	5,826,676	5,806,819	5,800,388
		t	156,770			4,904	6,829	6,789	6,148	6,551	5,493	5,968	5,903	5,859	5,827	5,807	5,800
Yttrium	95%	kg	17,083,497			535,693	749,201	737,775	692,427	714,401	598,515	647,569	654,379	669,220	657,140	656,374	633,970
Lanthanum	0%	kg	-			-	-	-	-	-	-	-	-	-	-	-	-
Cerium	0%	kg	-			-	-	-	-	-	-	-	-	-	-	-	-
Praseodymium	98%	kg	6,981,936			216,250	306,061	305,016	273,733	293,821	245,908	267,601	262,810	260,761	260,705	258,605	256,783
Neodymium	98%	kg	25,292,475			790,211	1,107,988	1,094,870	996,531	1,052,655	884,947	961,380	958,083	958,059	964,240	941,638	928,746
Samarium	95%	kg	4,391,117			140,249	193,820	192,020	178,735	184,930	154,840	169,705	169,640	171,663	170,791	167,328	158,470
Europium	95%	kg	219,952			7,092	9,700	9,716	9,077	9,433	7,866	8,609	8,562	8,640	8,595	8,453	7,965
Gadolinium	95%	kg	3,463,998			110,023	151,609	150,349	141,382	144,979	122,157	132,995	134,987	139,180	138,664	133,077	125,947
Terbium	95%	kg	534,389			17,249	23,710	23,480	22,334	22,660	19,073	20,688	20,984	21,740	21,831	20,803	19,145
Dysprosium	95%	kg	3,124,510			100,747	139,261	138,552	132,642	133,618	112,840	121,907	123,999	129,074	129,969	123,456	111,151
Holmium	95%	kg	574,920			18,387	25,581	25,273	24,295	24,412	20,635	22,228	22,640	23,635	23,893	22,533	20,341
Erbium	95%	kg	1,515,823			48,667	66,976	66,363	64,167	64,271	54,528	58,666	59,729	62,163	62,922	59,103	53,498
Thulium	95%	kg	200,245			6,331	8,615	8,568	8,366	8,381	7,144	7,667	7,742	8,019	8,116	7,686	7,134
Ytterbium	95%	kg	875,154			27,692	37,578	37,487	36,698	36,773	31,407	33,734	33,945	35,006	35,293	33,662	31,276
Lutetium	95%	kg	128,312			4,017	5,446	5,354	5,268	5,257	4,540	4,852	4,892	5,065	5,083	4,868	4,590
Total Payable Material		kg	64,386,327			2,022,610	2,825,547	2,794,820	2,585,653	2,695,591	2,264,400	2,457,599	2,462,391	2,492,224	2,487,243	2,437,586	2,359,016
Market Price	Price																
Y_2O_3	$ 17.00	US$/kg	$ 17.00			17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00
La_2O_3	$ 1.40	US$/kg	$ 1.40			1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
Ce_2O_3	$ 1.50	US$/kg	$ 1.50			1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Pr_2O_3	$ 201.00	US$/kg	$ 201.00			201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00
Nd_2O_3	$ 212.00	US$/kg	$ 212.00			212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00
Sm_2O_3	$ 5.00	US$/kg	$ 5.00			5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Eu_2O_3	$ 36.00	US$/kg	$ 36.00			36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gd_2O_3	$ 109.00	US$/kg	$ 109.00			109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00
Tb_2O_3	$ 2,493.00	US$/kg	$ 2,493.00			2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00
Dy_2O_3	$ 587.00	US$/kg	$ 587.00			587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00
Ho_2O_3	$ 290.00	US$/kg	$ 290.00			290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00
Er_2O_3	$ 64.00	US$/kg	$ 64.00			64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00
Tm_2O_3	$ -	US$/kg	$ -			-	-	-	-	-	-	-	-	-	-	-	-
Yb_2O_3	$ 20.00	US$/kg	$ 20.00			20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Lu_2O_3	$ 947.00	US$/kg	$ 947.00			947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00
Gross Revenue																	
Yttrium		US$ 000s	$ 290,419			9,106.77	12,736.42	12,542.17	11,771.26	12,144.82	10,174.75	11,008.67	11,124.43	11,376.73	11,171.39	11,158.36	10,777.50
Lanthanum		US$ 000s	$ -			-	-	-	-	-	-	-	-	-	-	-	-
Cerium		US$ 000s	$ -			-	-	-	-	-	-	-	-	-	-	-	-
Praseodymium		US$ 000s	$ 1,403,369			43,466.27	61,518.35	61,308.14	55,020.24	59,058.09	49,427.53	53,787.71	52,824.74	52,412.91	52,401.79	51,979.60	51,613.32
Neodymium		US$ 000s	$ 5,362,005			167,524.68	234,893.51	232,112.36	211,264.62	223,162.78	187,608.67	203,812.48	203,113.67	203,108.58	204,418.97	199,627.22	196,894.09
Samarium		US$ 000s	$ 21,956			701.25	969.10	960.10	893.68	924.65	774.20	848.52	848.20	858.31	853.96	836.64	792.35
Europium		US$ 000s	$ 7,918			255.33	349.19	349.78	326.77	339.61	283.18	309.91	308.25	311.04	309.41	304.31	286.73
Gadolinium		US$ 000s	$ 377,576			11,992.52	16,525.41	16,387.99	15,410.64	15,802.67	13,315.16	14,496.42	14,713.54	15,170.66	15,114.35	14,505.44	13,728.24
Terbium		US$ 000s	$ 1,332,231			43,002.55	59,110.24	58,535.72	55,677.67	56,492.01	47,548.25	51,574.23	52,312.78	54,198.98	54,424.44	51,862.54	47,729.34
Dysprosium		US$ 000s	$ 1,834,087			59,138.64	81,746.05	81,329.96	77,860.97	78,433.52	66,237.12	71,559.58	72,787.38	75,766.72	76,291.64	72,468.69	65,245.60
Holmium		US$ 000s	$ 166,727			5,332.32	7,418.52	7,329.06	7,045.41	7,079.58	5,984.23	6,446.00	6,565.62	6,854.08	6,928.88	6,534.44	5,898.92
Erbium		US$ 000s	$ 97,013			3,114.70	4,286.47	4,247.23	4,106.66	4,113.34	3,489.78	3,754.64	3,822.66	3,978.40	4,027.03	3,782.57	3,423.86
Thulium		US$ 000s	$ -			-	-	-	-	-	-	-	-	-	-	-	-
Ytterbium		US$ 000s	$ 17,503			553.85	751.56	749.74	733.95	735.47	628.15	674.67	678.91	700.11	705.87	673.25	625.52
Lutetium		US$ 000s	$ 121,511			3,804.27	5,157.42	5,070.08	4,988.64	4,978.47	4,299.19	4,595.12	4,632.27	4,796.68	4,813.47	4,609.90	4,346.58
Total Gross Revenue		US$ 000s	$ 11,032,314			347,993.15	485,462.24	480,922.33	445,100.52	463,265.02	389,770.22	422,867.97	423,732.44	429,533.22	431,461.18	418,342.96	401,362.05
Basket Price		US$/kg	$ 70.37														
Exchange Rate	0.80	$US/$C	0.80			0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Gross Revenue		C$'000s	$ 13,790,393			434,991.44	606,827.80	601,152.91	556,375.64	579,081.27	487,212.77	528,584.96	529,665.55	536,916.52	539,326.48	522,928.70	501,702.56
NSR Royalty	0.5%	C$'000s	70,952			4,174.96	3,034.14	3,005.76	2,781.88	2,895.41	2,436.06	2,642.92	2,648.33	2,684.58	2,696.63	2,614.64	2,508.51
Net Revenue		**C$'000s**	**$ 13,719,441**			**430,816.48**	**603,793.66**	**598,147.15**	**553,593.77**	**576,185.87**	**484,776.71**	**525,942.04**	**527,017.23**	**534,231.94**	**536,629.85**	**520,314.06**	**499,194.05**
NSR		C$/t	$ 756.45			797.81	838.60	830.76	768.88	800.26	673.30	730.48	731.97	741.99	745.32	722.66	693.33

Years -2 to 12

	Input	Units	Total/Avg.	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12
Operating Costs																	
OP Mining (Ore)	6.50	C$/t mined	$ 6.50			6.50	6.50	6.50	6.50	6.50	6.50	6.50	-	-	-	6.50	6.50
OP Mining (Waste)	5.00	C$/t mined	$ 5.00			5.00	5.00	5.00	5.00	5.00	5.00	5.00	-	-	5.00	5.00	5.00
UG Mining		C$/t mined	$ 63.69			-	-	-	-	-	-	-	76.28	65.53	62.56	58.91	-
Mining		C$/t processed	$ 61.75			31.41	36.00	39.50	51.64	52.50	52.39	26.82	68.65	87.37	83.41	160.89	66.04
Additional Haulage to Plant (Foxtrot Only)	2.00	C$/t processed	$ 2.00			2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Primary Process Plant Concentrator	38.90	C$/t processed	$ 38.90			38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90
G&A (Primary Process Plant)	10.97	C$/t processed	$ 10.97			10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97
Transport to Hydrometallurgical Plant	5.07	C$/t processed	$ 5.07			5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07
Hydromet Processing	90.60	C$/t processed	$ 90.60			90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60
G&A (Hydrometallurgical Plant)	2.74	C$/t processed	$ 2.74			2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74
Separation Plant (Full feed)		C$/t processed	$ 108.05			113.51	118.56	117.86	106.74	113.73	95.37	103.61	102.49	101.72	101.16	100.81	100.70
Separation Plant (HREO)		C$/t processed	$ 40.22			42.69	44.51	43.97	41.54	42.55	35.77	38.70	39.18	40.27	39.89	39.11	37.10
Total Operating Costs		**C$/t processed**	**$ 344.59**			**335.89**	**338.35**	**339.73**	**335.30**	**343.94**	**318.72**	**310.72**	**341.44**	**355.80**	**351.89**	**408.88**	**337.62**
Mining - Open Pit		C$ '000s	$ 333,915			16,960.23	19,438.14	21,327.50	27,885.79	28,347.86	28,292.65	14,485.17	-	-	-	47,340.64	35,661.20
UG Mining		C$ '000s	$ 516,492			-	-	-	-	-	-	-	37,069.78	47,180.97	45,040.51	39,540.92	-
Additional Haulage to Plant (Foxtrot Only)		C$ '000s	$ 20,793			-	-	-	-	-	-	-	-	-	-	-	1,440.00
Primary Process Plant Concentrator		C$ '000s	$ 705,602			21,008.55	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40
G&A (Primary Process Plant)		C$ '000s	$ 198,959			5,923.80	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40
Transport to Hydrometallurgical Plant		C$ '000s	$ 91,909			2,736.50	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67
Hydromet Processing		C$ '000s	$ 1,643,207			48,924.76	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01
G&A (Hydrometallurgical Plant)		C$ '000s	$ 49,740			1,480.95	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60
19.5% Separation Plant (Full feed)	12.50	C$ '000s	$ 1,959,621			61,295.72	85,365.58	84,858.67	76,851.99	81,884.28	68,663.57	74,600.69	73,792.26	73,237.22	72,833.45	72,585.23	72,504.85
$13.72 Separation Plant (HREO)	25.00	C$ '000s	$ 729,495			23,049.99	32,044.16	31,655.67	29,911.94	30,636.47	25,755.40	27,866.16	28,206.80	28,993.20	28,723.83	28,158.30	26,710.99
Total Operating Costs		**C$ '000s**	**$ 6,249,735**			**181,380.50**	**243,613.95**	**244,607.92**	**241,415.79**	**247,634.69**	**229,477.69**	**223,718.09**	**245,834.92**	**256,177.46**	**253,363.86**	**294,391.17**	**243,083.11**
Operating Margin		**C$ '000s**	**$ 7,469,706**			**249,435.99**	**360,179.70**	**353,539.23**	**312,177.97**	**328,551.18**	**255,299.01**	**302,223.95**	**281,182.31**	**278,054.47**	**283,265.99**	**225,922.89**	**256,110.93**
Capital Cost																	
Open Pit Mining		C$ '000s	$ 4,781	-	4,781.25	-	-	-	-	-	-	-	-	-	-	-	-
Infrastructure & Utilities - Primary Process Plant		C$ '000s	$ 68,104	34,052.17	34,052.17	-	-	-	-	-	-	-	-	-	-	-	-
Primary Process Plant $ 0.44		C$ '000s	$ 40,407	20,203.55	20,203.55	-	-	-	-	-	-	-	-	-	-	-	-
Infrastructure & Utilities - Hydrometallurgical Plant		C$ '000s	$ 73,442	36,720.93	36,720.93	-	-	-	-	-	-	-	-	-	-	-	-
Hydrometallurgical Plant		C$ '000s	$ 58,220	29,109.78	29,109.78	-	-	-	-	-	-	-	-	-	-	-	-
Total Directs		**C$ '000s**	**$ 244,954**	**120,086.43**	**124,867.68**	-	-	-	-	-	-	-	-	-	-	-	-
Indirects/Owners 47%		C$ '000s	$ 115,635	57,100.32	58,534.69	-	-	-	-	-	-	-	-	-	-	-	-
Contingency		C$ '000s	$ 61,239	30,021.61	31,216.92	-	-	-	-	-	-	-	-	-	-	-	-
Total Initial Capital		**C$ '000s**	**$ 421,828**	**207,208.35**	**214,619.29**	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining Capital		C$ '000s	$ 267,316	-	-	4,899.08	4,899.08	4,899.08	4,899.08	4,899.08	4,899.08	54,411.01	28,052.35	4,899.08	4,899.08	10,614.71	4,899.08
UG Sustaining development		C$ '000s	$ 44,294	-	-	-	-	-	-	-	-	7,914.70	4,931.89	2,980.55	4,068.67	188.57	-
Reclamation and Closure		C$ '000s	$ 20,000														
Total Capital Cost		**C$ '000s**	**$ 753,438**	**207,208.35**	**214,619.29**	**4,899.08**	**4,899.08**	**4,899.08**	**4,899.08**	**4,899.08**	**4,899.08**	**62,325.71**	**32,984.24**	**7,879.63**	**8,967.75**	**10,803.27**	**4,899.08**
Pre-Tax Cash Flow																	
Undiscounted Pre-Tax Cash Flow		**C$ '000s**	**$ 6,716,268**	**(207,208.35)**	**(214,619.29)**	**244,536.90**	**355,280.62**	**348,640.15**	**307,278.89**	**323,652.09**	**250,399.93**	**239,898.24**	**248,198.07**	**270,174.84**	**274,298.23**	**215,119.62**	**251,211.85**
Cumulative				(207,208.35)	(421,827.65)	(177,290.74)	177,989.88	526,630.03	833,908.92	1,157,561.01	1,407,960.95	1,647,859.19	1,896,057.25	2,166,232.10	2,440,530.33	2,655,649.95	2,906,861.80
Taxes	38%	**C$ '000s**	**$ 2,619,552**	-	-	-	135,006.64	132,483.26	116,765.98	122,987.80	95,151.97	91,161.33	94,315.27	102,666.44	104,233.33	81,745.46	95,460.50
After-Tax Cashflow		**C$ '000s**	**$ 4,096,716**	(207,208.35)	(214,619.29)	244,536.90	220,273.99	216,156.89	190,512.91	200,664.30	155,247.96	148,736.91	153,882.80	167,508.40	170,064.90	133,374.16	155,751.35
Cumulative After-Tax Cashflow		**C$ '000s**		(207,208.35)	(421,827.65)	(177,290.74)	42,983.24	259,140.14	449,653.05	650,317.35	805,565.30	954,302.21	1,108,185.02	1,275,693.42	1,445,758.32	1,579,132.49	1,734,883.83
Project Economics																	
Pre-Tax NPV	8.0%	C$ '000s	$ 2,230,517	-	-	Payback	-	-	-	-	-	-	-	-	-	-	-
Pre-Tax NPV	10.0%	C$ '000s	$ 1,775,565	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-
Pre-Tax NPV	12.0%	C$ '000s	$ 1,433,825														
After-Tax NPV	8.0%	C$ '000s	$ 1,313,859	-	-	Payback	-	-	-	-	-	-	-	-	-	-	-
After-Tax NPV	10.0%	C$ '000s	$ 1,031,683	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-
After-Tax NPV	12.0%	C$ '000s	$ 819,795														
Pre-Tax IRR		%	55.3%														
After-Tax IRR		%	41.5%														
Pre-Tax Payback Period		Years	1.5														

Years 13 to 27

	Input	Units	Total/Avg.	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
OP Mining																		
Target Mineral to Plant		tonnes		720,000	720,000	720,000	720,000	395,561	-	-	-	-	-	-	-	-	-	-
Mineral Mined		tonnes	10,027,539	724,156	728,442	777,762	827,004	395,561	-	-	-	-	-	-	-	-	-	-
Mined Mineral to Plant		tonnes	8,398,085	720,000	720,000	720,000	720,000	395,561										
Mineral to Stockpile		tonnes	1,629,454	4,156	8,442	57,762	107,004	-	-	-	-	-	-	-	-	-	-	-
Total Material Moved		tonnes	63,774,829	5,725,980	4,693,691	3,826,807	2,771,311	781,587	-	-	-	-	-	-	-	-	-	-
Waste to Ore ratio		---	5.36	6.91	5.44	3.92	2.35	0.98	-	-	-	-	-	-	-	-	-	-
Adjusted Waste to Ore ratio			5.36	6.91	5.44	3.92	2.35	0.98	-	-	-	-	-	-	-	-	-	-
UG Mining																		
Mined Mill Feed		tonnes	8,109,128	-	-	-	-	-	156,000	720,000	720,000	720,000	720,000	720,000	720,000	720,000	315,874	-
Processing																		
Feed to Mill		'000 tonnes	18,137	720	720	720	720	720	721	720	720	720	720	720	720	720	316	-
		tpd		2,000	2,000	2,118	2,118	2,118	2,120	2,118	2,118	2,118	2,118	2,118	2,118	2,118	929	-
Head Grade																		
Yttrium		ppm	1,007	972	966	906	978	1,010	944	964	1,292	836	1,045	992	1,170	1,191	685	-
Lanthanum		ppm	1,619	1,569	1,566	1,479	1,627	1,635	1,538	1,599	2,110	1,461	1,788	1,688	1,957	1,951	1,005	-
Cerium		ppm	3,293	3,153	3,159	3,214	3,329	3,263	3,104	3,184	4,201	2,883	3,543	3,326	3,876	3,945	2,129	-
Praseodymium		ppm	379	357	361	364	377	374	352	364	485	330	404	382	445	454	251	-
Neodymium		ppm	1,416	1,341	1,351	1,370	1,419	1,389	1,308	1,364	1,805	1,225	1,513	1,409	1,646	1,692	960	-
Samarium		ppm	258	240	239	241	250	248	235	248	327	220	274	257	301	310	173	-
Europium		ppm	13	12	12	12	13	13	12	13	17	11	14	13	15	16	9	-
Gadolinium		ppm	202	191	189	189	195	195	184	192	257	169	207	198	236	243	135	-
Terbium		ppm	32	30	30	30	31	31	29	30	40	26	32	31	36	38	22	-
Dysprosium		ppm	188	172	171	174	176	179	170	177	235	151	192	182	211	222	126	-
Holmium		ppm	36	33	33	33	33	34	33	34	45	29	37	36	41	44	25	-
Erbium		ppm	102	93	93	93	95	97	92	97	129	82	104	100	117	122	70	-
Thulium		ppm	14	13	13	13	14	14	13	14	19	12	15	14	17	18	10	-
Ytterbium		ppm	89	83	83	82	83	86	82	86	114	72	91	88	104	108	62	-
Lutetium		ppm	13	12	12	12	12	13	12	13	17	11	14	13	15	16	9	-
Zirconium		ppm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Niobium		ppm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uranium		ppm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LREE Grade		ppm	6,966	6,661	6,676	6,669	7,002	6,909	6,538	6,759	8,928	6,118	7,522	7,062	8,224	8,352	4,518	-
HREE Grade		ppm	1,697	1,612	1,602	1,546	1,630	1,672	1,571	1,619	2,164	1,398	1,750	1,667	1,962	2,016	1,152	-
Total REE Grade		**ppm**	**8,662**	**8,272**	**8,278**	**8,215**	**8,633**	**8,581**	**8,108**	**8,378**	**11,092**	**7,516**	**9,271**	**8,729**	**10,186**	**10,368**	**5,670**	**-**
Yttrium	77.5%	%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	0.0%
Lanthanum	87.9%	%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	87.9%	0.0%
Cerium	85.4%	%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	85.4%	0.0%
Praseodymium	88.6%	%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	0.0%
Neodymium	86.2%	%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	0.0%
Samarium	85.1%	%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	0.0%
Europium	83.7%	%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%	0.0%
Gadolinium	86.2%	%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	86.2%	0.0%
Terbium	84.0%	%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	0.0%
Dysprosium	84.0%	%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	84.0%	0.0%
Holmium	80.8%	%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	80.8%	0.0%
Erbium	75.7%	%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	75.7%	0.0%
Thulium	70.6%	%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	70.6%	0.0%
Ytterbium	50.2%	%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	0.0%
Lutetium	50.2%	%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	0.0%
Total Recovery		**%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**78.4%**	**0.0%**
Material Recovered REE's																		
Yttrium		kg	14,160,126	542,482	539,208	505,873	546,168	564,017	527,303	538,077	721,111	466,702	583,186	553,555	653,150	664,651	167,832	-
Lanthanum		kg	25,824,770	993,344	991,379	936,026	1,030,235	1,035,083	974,974	1,011,994	1,335,654	924,899	1,131,763	1,068,666	1,238,758	1,235,274	278,995	-
Cerium		kg	51,010,670	1,939,017	1,942,854	1,976,540	2,047,137	2,006,635	1,910,951	1,958,015	2,583,606	1,772,944	2,178,945	2,045,172	2,383,370	2,425,792	574,349	-
Praseodymium		kg	6,087,564	227,896	230,115	232,138	240,495	238,404	224,485	232,227	309,345	210,556	257,844	243,850	283,575	289,267	70,259	-
Neodymium		kg	22,126,958	831,904	837,803	850,153	880,332	861,572	812,388	846,338	1,119,602	759,640	938,452	874,084	1,021,082	1,049,704	261,296	-
Samarium		kg	3,986,142	147,046	146,621	147,899	152,867	152,193	144,314	151,930	200,208	134,477	167,582	157,551	184,138	189,866	46,527	-
Europium		kg	199,949	7,427	7,375	7,400	7,635	7,560	7,096	7,572	9,993	6,681	8,269	7,838	9,150	9,391	2,285	-
Gadolinium		kg	3,163,491	118,495	117,382	117,563	121,216	121,134	114,486	119,314	159,253	104,806	128,351	122,916	146,779	150,780	36,666	-
Terbium		kg	488,712	17,941	17,941	18,358	18,641	18,646	17,612	18,215	24,450	15,764	19,528	18,660	22,071	23,102	5,768	-
Dysprosium		kg	2,865,714	104,303	103,681	105,356	106,469	108,334	102,975	106,903	141,934	91,241	115,869	110,367	127,363	134,365	33,347	-
Holmium		kg	528,303	19,167	19,069	19,275	19,406	19,919	18,994	19,895	26,388	16,850	21,535	20,682	23,695	25,510	6,271	-
Erbium		kg	1,395,381	50,736	50,555	50,650	51,511	52,828	50,247	52,950	70,132	44,438	56,574	54,339	63,586	66,363	16,713	-
Thulium		kg	184,564	6,855	6,784	6,740	6,866	7,051	6,724	7,134	9,446	5,932	7,613	7,334	8,528	8,930	2,204	-
Ytterbium		kg	809,008	29,969	29,910	29,748	30,110	31,105	29,586	30,950	41,224	26,005	32,914	31,772	37,476	38,868	9,852	-
Lutetium		kg	118,773	4,369	4,436	4,411	4,512	4,648	4,403	4,600	6,122	3,874	4,911	4,780	5,590	5,833	1,456	-
Total Material Recovered		kg	132,950,125	5,040,953	5,045,113	5,008,130	5,263,599	5,229,131	4,946,538	5,106,114	6,758,467	4,584,807	5,653,335	5,321,566	6,208,311	6,317,695	1,513,821	-

Years 13 to 27

	Input	Units	Total/Avg.	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Revenue																		
Payable REOs	Ox Conv																	
Yttrium	1.27	kg	17,982,628	688,924	684,766	642,433	693,605	716,272	669,648	683,330	915,773	592,687	740,616	702,987	829,466	844,073	213,139	-
Lanthanum	1.17	kg	30,286,756	1,164,974	1,162,668	1,097,752	1,208,238	1,213,924	1,143,429	1,186,845	1,566,427	1,084,702	1,327,308	1,253,310	1,452,790	1,448,704	327,199	-
Cerium	1.17	kg	59,747,868	2,271,136	2,275,630	2,315,085	2,397,775	2,350,335	2,238,262	2,293,387	3,026,130	2,076,617	2,552,158	2,395,473	2,791,598	2,841,286	672,724	-
Praseodymium	1.17	kg	7,124,424	266,713	269,309	271,677	281,457	279,010	262,720	271,781	362,034	246,419	301,761	285,383	331,875	338,536	82,226	-
Neodymium	1.17	kg	25,808,648	970,324	977,204	991,610	1,026,810	1,004,928	947,561	987,160	1,305,892	886,036	1,094,600	1,019,523	1,190,979	1,224,364	304,772	-
Samarium	1.16	kg	4,622,229	170,511	170,018	171,500	177,260	176,479	167,343	176,174	232,157	155,936	194,324	182,692	213,521	220,163	53,951	-
Europium	1.16	kg	231,529	8,599	8,540	8,569	8,841	8,754	8,217	8,768	11,571	7,736	9,574	9,076	10,595	10,874	2,646	-
Gadolinium	1.15	kg	3,646,313	136,580	135,297	135,506	139,717	139,622	131,960	137,524	183,559	120,801	147,940	141,676	169,181	173,793	42,262	-
Terbium	1.15	kg	562,514	20,651	20,651	21,130	21,456	21,462	20,272	20,966	28,143	18,145	22,478	21,478	25,404	26,590	6,639	-
Dysprosium	1.15	kg	3,288,957	119,708	118,994	120,916	122,194	124,334	118,184	122,691	162,896	104,716	132,982	126,667	146,174	154,210	38,273	-
Holmium	1.15	kg	605,179	21,956	21,843	22,080	22,230	22,818	21,758	22,790	30,228	19,301	24,669	23,692	27,143	29,222	7,184	-
Erbium	1.14	kg	1,595,603	58,016	57,809	57,918	58,903	60,408	57,456	60,548	80,195	50,814	64,692	62,136	72,710	75,886	19,111	-
Thulium	1.14	kg	210,785	7,829	7,747	7,698	7,841	8,053	7,679	8,148	10,788	6,774	8,695	8,376	9,739	10,198	2,517	-
Ytterbium	1.14	kg	921,215	34,125	34,059	33,873	34,286	35,419	33,689	35,242	46,941	29,611	37,479	36,178	42,673	44,259	11,219	-
Lutetium	1.14	kg	135,065	4,968	5,045	5,016	5,131	5,285	5,007	5,231	6,962	4,405	5,584	5,436	6,357	6,633	1,656	-
Total REO Material		kg	156,769,713	5,945,015	5,949,581	5,902,762	6,205,742	6,167,107	5,833,185	6,020,585	7,969,696	5,404,703	6,664,860	6,274,082	7,320,207	7,448,790	1,785,518	-
		t	156,770	5,945	5,950	5,903	6,206	6,167	5,833	6,021	7,970	5,405	6,665	6,274	7,320	7,449	1,786	-
Yttrium	95%	kg	17,083,497	654,478	650,528	610,311	658,924	680,459	636,165	649,163	869,985	563,053	703,586	667,838	787,993	801,869	202,482	-
Lanthanum	0%	kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cerium	0%	kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Praseodymium	98%	kg	6,981,936	261,378	263,922	266,243	275,828	273,430	257,466	266,345	354,793	241,491	295,725	279,675	325,237	331,765	80,582	-
Neodymium	98%	kg	25,292,475	950,918	957,660	971,778	1,006,273	984,830	928,610	967,416	1,279,774	868,315	1,072,708	999,132	1,167,160	1,199,877	298,677	-
Samarium	95%	kg	4,391,117	161,985	161,517	162,925	168,397	167,655	158,976	167,365	220,549	148,139	184,608	173,557	202,845	209,155	51,254	-
Europium	95%	kg	219,952	8,169	8,113	8,141	8,399	8,316	7,806	8,330	10,993	7,349	9,096	8,622	10,065	10,330	2,514	-
Gadolinium	95%	kg	3,463,998	129,751	128,533	128,731	132,731	132,641	125,362	130,648	174,381	114,761	140,543	134,592	160,722	165,103	40,149	-
Terbium	95%	kg	534,389	19,618	19,618	20,073	20,383	20,389	19,258	19,918	26,736	17,238	21,354	20,404	24,134	25,261	6,307	-
Dysprosium	95%	kg	3,124,510	113,723	113,045	114,870	116,084	118,118	112,275	116,557	154,751	99,480	126,333	120,334	138,865	146,500	36,359	-
Holmium	95%	kg	574,920	20,859	20,751	20,976	21,118	21,677	20,670	21,651	28,716	18,336	23,435	22,507	25,786	27,760	6,825	-
Erbium	95%	kg	1,515,823	55,115	54,919	55,022	55,958	57,388	54,584	57,520	76,185	48,273	61,457	59,029	69,074	72,091	18,156	-
Thulium	95%	kg	200,245	7,437	7,360	7,313	7,449	7,651	7,295	7,741	10,248	6,436	8,260	7,957	9,252	9,688	2,391	-
Ytterbium	95%	kg	875,154	32,419	32,356	32,180	32,572	33,648	32,005	33,480	44,594	28,131	35,605	34,369	40,540	42,046	10,658	-
Lutetium	95%	kg	128,312	4,720	4,792	4,765	4,874	5,021	4,757	4,970	6,614	4,185	5,305	5,164	6,039	6,301	1,573	-
Total Payable Material		kg	64,386,327	2,420,571	2,423,114	2,403,327	2,508,991	2,511,223	2,365,227	2,451,104	3,258,319	2,165,188	2,688,015	2,533,181	2,967,714	3,047,747	757,925	-
Market Price	Price																	
Y2O3	$ 17.00	US$/kg	$ 17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	-
La2O3	$ 1.40	US$/kg	$ 1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	-
Ce2O3	$ 1.50	US$/kg	$ 1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	-
Pr2O3	$ 201.00	US$/kg	$ 201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	201.00	-
Nd2O3	$ 212.00	US$/kg	$ 212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	212.00	-
Sm2O3	$ 5.00	US$/kg	$ 5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	-
Eu2O3	$ 36.00	US$/kg	$ 36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	-
Gd2O3	$ 109.00	US$/kg	$ 109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	-
Tb2O3	$ 2,493.00	US$/kg	$ 2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	2,493.00	-
Dy2O3	$ 587.00	US$/kg	$ 587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	587.00	-
Ho2O3	$ 290.00	US$/kg	$ 290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	-
Er2O3	$ 64.00	US$/kg	$ 64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	-
Tm2O3	$ -	US$/kg	$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yb2O3	$ 20.00	US$/kg	$ 20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	-
Lu2O3	$ 947.00	US$/kg	$ 947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	947.00	-
Gross Revenue																		
Yttrium		US$ 000s	$ 290,419	11,126.13	11,058.97	10,375.29	11,201.72	11,567.80	10,814.81	11,035.78	14,789.74	9,571.90	11,960.95	11,353.24	13,395.88	13,631.77	3,442.19	-
Lanthanum		US$ 000s	$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cerium		US$ 000s	$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Praseodymium		US$ 000s	$ 1,403,369	52,537.07	53,048.42	53,514.84	55,441.43	54,959.43	51,750.63	53,535.43	71,313.45	48,539.63	59,440.79	56,214.77	65,372.70	66,684.85	16,196.91	-
Neodymium		US$ 000s	$ 5,362,005	201,594.55	203,023.89	206,016.88	213,329.97	208,783.93	196,865.31	205,092.28	271,312.04	184,082.83	227,414.18	211,816.05	247,437.87	254,373.86	63,319.51	-
Samarium		US$ 000s	$ 21,956	809.93	807.58	814.62	841.99	838.27	794.88	836.83	1,102.74	740.70	923.04	867.79	1,014.23	1,045.78	256.27	-
Europium		US$ 000s	$ 7,918	294.10	292.07	293.06	302.35	299.39	281.01	299.86	395.74	264.58	327.45	310.39	362.35	371.90	90.50	-
Gadolinium		US$ 000s	$ 377,576	14,142.91	14,010.05	14,031.65	14,467.67	14,457.87	13,664.43	14,240.65	19,007.52	12,508.97	15,319.16	14,670.57	17,518.74	17,996.24	4,376.26	-
Terbium		US$ 000s	$ 1,332,231	48,908.31	48,908.52	50,043.03	50,816.00	50,830.32	48,010.04	49,654.89	66,651.92	42,973.16	53,234.75	50,866.45	60,166.19	62,974.98	15,723.50	-
Dysprosium		US$ 000s	$ 1,834,087	66,755.29	66,357.20	67,428.74	68,141.60	69,335.13	65,905.25	68,418.85	90,839.07	58,395.03	74,157.23	70,636.05	81,513.88	85,995.25	21,342.66	-
Holmium		US$ 000s	$ 166,727	6,048.97	6,017.86	6,083.02	6,124.26	6,286.25	5,994.43	6,278.68	8,327.76	5,317.54	6,796.23	6,527.07	7,477.96	8,050.54	1,979.18	-
Erbium		US$ 000s	$ 97,013	3,527.37	3,514.80	3,521.39	3,581.28	3,672.83	3,493.35	3,681.29	4,875.84	3,089.49	3,933.27	3,777.87	4,420.75	4,613.85	1,161.97	-
Thulium		US$ 000s	$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ytterbium		US$ 000s	$ 17,503	648.38	647.12	643.59	651.43	672.97	640.09	669.61	891.88	562.61	712.10	687.39	810.80	840.91	213.15	-
Lutetium		US$ 000s	$ 121,511	4,469.78	4,538.46	4,512.27	4,615.73	4,755.06	4,504.69	4,706.29	6,263.49	3,963.29	5,024.05	4,890.11	5,719.04	5,967.03	1,489.76	-
Total Gross Revenue		US$ 000s	$ 11,032,314	410,862.77	412,224.94	417,278.39	429,515.42	426,459.24	402,718.92	418,450.44	555,771.21	370,009.74	459,243.19	432,617.76	505,210.38	522,546.96	129,591.86	-
Basket Price		US$/kg	$ 70.37															
Exchange Rate	0.80	$US/$C	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Gross Revenue		C$'000s	$ 13,790,393	513,578.46	515,281.17	521,597.98	536,894.27	533,074.05	503,398.66	523,063.05	694,714.01	462,512.17	574,053.99	540,772.19	631,512.98	653,183.70	161,989.82	-
NSR Royalty	0.5%	C$'000s	70,952	2,567.89	2,576.41	2,607.99	2,684.47	2,665.37	2,516.99	2,615.32	3,473.57	2,312.56	2,870.27	2,703.86	3,157.56	3,265.92	809.95	-
Net Revenue		**C$'000s**	**$ 13,719,441**	**511,010.57**	**512,704.77**	**518,989.99**	**534,209.80**	**530,408.68**	**500,881.66**	**520,447.73**	**691,240.44**	**460,199.61**	**571,183.72**	**538,068.33**	**628,355.41**	**649,917.78**	**161,179.88**	-
NSR		C$/t	$ 756.45	709.74	712.09	720.82	741.96	736.68	694.90	722.84	960.06	639.17	793.31	747.32	872.72	902.66	510.27	-

Years 13 to 27

	Input	Units	Total/Avg.	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Operating Costs																		
OP Mining (Ore)	6.50	C$/t mined	$ 6.50	6.50	6.50	6.50	6.50	6.50	-	-	-	-	-	-	-	-	-	-
OP Mining (Waste)	5.00	C$/t mined	$ 5.00	5.00	5.00	5.00	5.00	5.00	-	-	-	-	-	-	-	-	-	-
UG Mining		C$/t mined	$ 63.69	-	-	-	-	-	147.89	66.56	59.54	67.91	60.03	64.28	59.18	57.99	34.93	-
Mining		C$/t processed	$ 61.75	55.03	45.48	37.59	27.96	8.34	42.72	88.75	79.38	90.55	80.04	85.71	78.91	77.32	20.43	-
Additional Haulage to Plant (Foxtrot Only)	2.00	C$/t processed	$ 2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	-
Primary Process Plant Concentrator	38.90	C$/t processed	$ 38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	38.90	-
G&A (Primary Process Plant)	10.97	C$/t processed	$ 10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	10.97	-
Transport to Hydrometallurgical Plant	5.07	C$/t processed	$ 5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	-
Hydromet Processing	90.60	C$/t processed	$ 90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	90.60	-
G&A (Hydrometallurgical Plant)	2.74	C$/t processed	$ 2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	-
Separation Plant (Full feed)		C$/t processed	$ 108.05	103.21	103.29	102.48	107.74	107.07	101.16	104.52	138.36	93.83	115.71	108.93	127.09	129.32	70.66	-
Separation Plant (HREO)		C$/t processed	$ 40.22	38.24	38.01	36.64	38.69	39.67	37.25	38.38	51.29	33.16	41.48	39.50	46.51	47.77	27.28	-
Total Operating Costs		**C$/t processed**	**$ 344.59**	**333.01**	**325.70**	**317.60**	**317.68**	**303.27**	**320.70**	**359.75**	**399.47**	**345.19**	**367.51**	**363.00**	**383.06**	**385.36**	**283.15**	**-**
Mining - Open Pit		C$ '000s	$ 333,915	29,716.13	24,561.12	20,300.68	15,097.06	4,501.28	-	-	-	-	-	-	-	-	-	-
UG Mining		C$ '000s	$ 516,492	-	-	-	-	-	23,071.19	47,926.52	42,867.25	48,895.91	43,220.75	46,283.86	42,610.64	41,750.79	11,033.19	-
Additional Haulage to Plant (Foxtrot Only)		C$ '000s	$ 20,793	1,440.00	1,440.00	1,440.00	1,440.00	1,440.00	1,441.59	1,440.00	1,440.00	1,440.00	1,440.00	1,440.00	1,440.00	1,440.00	631.75	-
Primary Process Plant Concentrator		C$ '000s	$ 705,602	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,042.26	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	28,011.40	12,288.98	-
G&A (Primary Process Plant)		C$ '000s	$ 198,959	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,907.10	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	7,898.40	3,465.13	-
Transport to Hydrometallurgical Plant		C$ '000s	$ 91,909	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,652.69	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	3,648.67	1,600.72	-
Hydromet Processing		C$ '000s	$ 1,643,207	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,304.88	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	65,233.01	28,618.60	-
G&A (Hydrometallurgical Plant)		C$ '000s	$ 49,740	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,976.78	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	1,974.60	866.28	-
19.5% Separation Plant (Full feed)	12.50	C$ '000s	$ 1,959,621	74,312.69	74,369.76	73,784.52	77,571.78	77,088.83	72,914.81	75,257.32	99,621.20	67,558.79	83,310.75	78,426.02	91,502.59	93,109.88	22,318.98	-
$13.72 Separation Plant (HREO)	25.00	C$ '000s	$ 729,495	27,533.94	27,368.81	26,378.46	27,855.06	28,560.73	26,846.74	27,630.97	36,926.41	23,874.81	29,867.71	28,442.53	33,486.09	34,393.41	8,616.13	-
Total Operating Costs		**C$ '000s**	**$ 6,249,735**	**239,768.84**	**234,505.77**	**228,669.73**	**228,729.97**	**218,356.92**	**231,158.03**	**259,020.88**	**287,620.93**	**248,535.58**	**264,605.29**	**261,358.49**	**275,805.39**	**277,460.15**	**89,439.76**	**-**
Operating Margin		**C$ '000s**	**$ 7,469,706**	**271,241.73**	**278,199.00**	**290,320.26**	**305,479.83**	**312,051.76**	**269,723.63**	**261,426.85**	**403,619.51**	**211,664.03**	**306,578.43**	**276,709.85**	**352,550.02**	**372,457.62**	**71,740.12**	**-**
Capital Cost																		
Open Pit Mining		C$ '000s	$ 4,781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Infrastructure & Utilities - Primary Process Plant		C$ '000s	$ 68,104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Primary Process Plant $ 0.44		C$ '000s	$ 40,407	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Infrastructure & Utilities - Hydrometallurgical Plant		C$ '000s	$ 73,442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydrometallurgical Plant		C$ '000s	$ 58,220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Directs		**C$ '000s**	**$ 244,954**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Indirects/Owners 47%		C$ '000s	$ 115,635	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contingency		C$ '000s	$ 61,239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Initial Capital		**C$ '000s**	**$ 421,828**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Sustaining Capital		C$ '000s	$ 267,316	4,899.08	4,899.08	4,899.08	4,899.08	31,130.72	21,718.16	23,407.42	4,899.08	4,899.08	4,899.08	4,899.08	4,899.08	4,899.08	4,899.08	-
UG Sustaining development		C$ '000s	$ 44,294	-	-	-	-	7,008.44	2,013.01	2,126.28	1,906.07	1,641.93	2,248.30	2,402.44	3,090.44	1,772.87	-	-
Reclamation and Closure		C$ '000s	$ 20,000															20,000.00
Total Capital Cost		**C$ '000s**	**$ 753,438**	**4,899.08**	**4,899.08**	**4,899.08**	**4,899.08**	**38,139.15**	**23,731.17**	**25,533.70**	**6,805.15**	**6,541.01**	**7,147.38**	**7,301.52**	**7,989.53**	**6,671.96**	**4,899.08**	**20,000.00**
Pre-Tax Cash Flow																		
Undiscounted Pre-Tax Cash Flow		**C$ '000s**	**$ 6,716,268**	**266,342.65**	**273,299.92**	**285,421.18**	**300,580.74**	**273,912.60**	**245,992.46**	**235,893.15**	**396,814.36**	**205,123.02**	**299,431.05**	**269,408.32**	**344,560.50**	**365,785.67**	**66,841.03**	**(20,000.00)**
Cumulative				3,173,204.45	3,446,504.37	3,731,925.55	4,032,506.29	4,306,418.90	4,552,411.36	4,788,304.51	5,185,118.87	5,390,241.89	5,689,672.94	5,959,081.26	6,303,641.76	6,669,427.43	6,736,268.46	6,716,268.46
Taxes	38%	**C$ '000s**	**$ 2,619,552**	101,210.21	103,853.97	108,460.05	114,220.68	104,086.79	93,477.14	89,639.40	150,789.46	77,946.75	113,783.80	102,375.16	130,932.99	138,998.55	25,399.59	(7,600.00)
After-Tax Cashflow		**C$ '000s**	**$ 4,096,716**	165,132.44	169,445.95	176,961.13	186,360.06	169,825.81	152,515.33	146,253.75	246,024.90	127,176.27	185,647.25	167,033.16	213,627.51	226,787.11	41,441.44	(12,400.00)
Cumulative After-Tax Cashflow		**C$ '000s**		1,900,016.28	2,069,462.23	2,246,423.36	2,432,783.42	2,602,609.23	2,755,124.56	2,901,378.31	3,147,403.22	3,274,579.49	3,460,226.74	3,627,259.90	3,840,887.41	4,067,674.52	4,109,115.96	4,096,715.96
Project Economics																		
Pre-Tax NPV	8.0%	C$ '000s	$ 2,230,517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pre-Tax NPV	10.0%	C$ '000s	$ 1,775,565	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pre-Tax NPV	12.0%	C$ '000s	$ 1,433,825															
After-Tax NPV	8.0%	C$ '000s	$ 1,313,859	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After-Tax NPV	10.0%	C$ '000s	$ 1,031,683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After-Tax NPV	12.0%	C$ '000s	$ 819,795															
Pre-Tax IRR		%	55.3%															
After-Tax IRR		%	41.5%															
Pre-Tax Payback Period		Years	1.5															