NI 43-101 Technical Report

Preliminary Economic Assessment Update for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project.

Rio Negro Province, Argentina

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Cautionary Note Regarding Forward-Looking Information

This NI 43-101 Technical Report ("Technical Report") contains forward-looking information which is not comprised of historical facts. Forward-looking information involves risks, uncertainties and other factors that could cause actual events, results, performance, prospects and opportunities to differ materially from those expressed or implied by such forward-looking information. Forward looking information in this Technical Report includes, but is not limited to, Blue Sky's objectives, goals or future plans, statements regarding the estimation of Mineral Resources, exploration results, potential mineralization, exploration and mine development plans, timing of the commencement of operations and estimates of market conditions. Factors that could cause actual results to differ materially from such forward-looking information include, but are not limited to, failure to convert estimated Mineral Resources to reserves, capital and operating costs varying significantly from estimates, the preliminary nature of metallurgical test results, delays in obtaining or failure to obtain required governmental, environmental or other project approvals, political risks, uncertainties relating to the availability and costs of financing needed in the future, changes in equity markets, inflation, changes in exchange rates, fluctuations in commodity prices, delays in the development of projects and the other risks involved in the mineral exploration and development industry, and those risks set out in Blue Sky's public documents filed on SEDAR+. Although Blue Sky believes that the assumptions and factors used in preparing the forward-looking information in this Technical Report are reasonable, undue reliance should not be placed on such information, which only applies as of the effective date of this Technical Report, and no assurance can be given that such events will occur in the disclosed time frames or at all. Blue Sky disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law. We advise U.S. investors that the SEC's mining guidelines strictly prohibit information of this type in documents filed with the SEC. U.S. investors are cautioned that mineral deposits on adjacent properties are not indicative of mineral deposits on our properties.

1 Summary

1.1 Introduction

Blue Sky Uranium (TSX-V: BSK) is the owner of the Amarillo Grande Project, including the Ivana uranium-vanadium deposit, in Rio Negro Province, Argentina (Figure 1-1).

Figure 1-1: Location of the Amarillo Grande project, including the Ivana uranium-vanadium deposit, in Rio Negro Province, Argentina. (Thorson et al., 2018)

This Technical Report supports the updated Preliminary Economic Assessment ("PEA") completed on the project, including a new Mineral Resource estimate for the Ivana deposit. The study results were reported on February 22, 2024 (Blue Sky, 2024). This report replaces the previous PEA Technical Report completed in 2019 (Kuchling et al., 2019).

The PEA, resource estimate and this report were completed by independent Qualified Persons, using industry accepted Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "Best Practices and Reporting Guidelines" for disclosing mineral exploration information, and the Canadian Securities

Administrators revised regulations in NI 43-101 (Standards of Disclosure for Mineral Projects), and Companion Policy 43-101CP. The resources reported herein are compliant with "CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines".

1.2 Project Overview

The Amarillo Grande Project encompasses a uranium-vanadium exploration trend stretching for approximately 145 km, within which Blue Sky Uranium, through its local wholly owned subsidiary Minera Cielo Azul S.A., controls over 230,000 hectares of mineral exploration rights. In addition to Ivana, the Amarillo Grande Project contains two other advanced prospect areas, Anit and Santa Barbara, as well as other early-stage prospects. The Ivana deposit is situated within five main “Mine” properties and six “Over-Claimed Units” totaling less than 7,000 hectares.

The Ivana deposit is located about 25 km north of the town of Valcheta, in a sparsely populated, semi-arid area of flat topography. Access is via paved Provincial Highway #4 to within 10 km of the deposit, then by dirt ranch roads. Blue Sky Uranium has been exploring the greater Amarillo Grande Project since 2006; the Ivana prospect is the most advanced area of the Project.

1.3 Geology and Exploration

The Ivana deposit occurs in the Oligocene-early Miocene Chichinales Formation at the distal, thin, southeastern edge of Neuquen Basin sedimentary sequences. The Chichinales Formation consists of conglomerate, tuffaceous sandstone, siltstone and mudstone, deposited unconformably on older basement rocks.

The uranium mineralization at Ivana has been divided into two types based on dominant uranium mineralogy and/or alteration and gangue mineralogy; 1) Oxide mineralization characterized by visible carnotite and oxide alteration minerals, and 2) Altered “primary” mineralization characterized by a variant of coffinite, that has been named β-coffinite (beta-coffinite) by the Company and which contains mainly U^{+6} rather than U^{+4} which is normal for coffinite, and pyrite.

In plan view the Ivana uranium-vanadium mineralization has a broad coherent C-shaped pattern with some isolated outlying areas of mineralization. The Ivana deposit is characterized by two stacked zones of uranium mineralization, the upper zone and the lower zone. The upper zone is comprised of oxidized mineralization, and the lower zone contains a mixture of oxidized and altered primary-style mineralization. The two zones occur together through most of the deposit, but there are localized areas where only one zone is present.

The two varieties of uranium mineralization are associated with alteration assemblages that suggest aspects of at least two types of uranium deposits, and related depositional environments, are present in the Ivana deposit.

Four alteration types have been defined at the Ivana prospect through the geological description and logging of RC cuttings samples: reduced alteration, reduced carbonaceous alteration, oxidized alteration and hematitic alteration. The distribution of alteration types at Ivana commonly appears as a redox boundary or complex roll-front where tongues of oxidized alteration are penetrating and replacing reduced alteration. Some of the best uranium assays occur at the redox boundary between oxidized alteration and reduced carbonaceous alteration.

The uranium-vanadium deposit at Ivana has similarities to other uranium deposits but does not fit the existing categories precisely. The work to date confirms that the Ivana uranium-vanadium deposit is, in part, a sandstone-hosted deposit, and, in part, a surficial deposit. The Ivana oxide mineralization has similarities to the surficial uranium deposits in Australia (Yeelirrie, and others) and Namibia (Langer-Heinrich). The altered primary-type uranium mineralization at Ivana is similar to the sandstone-hosted primary uranium mineralization of the Grants District, New Mexico, USA, However, the primary mineralization at Ivana hugs the basement unconformity, similar to the Blizzard deposit in Canada, or the Honeymoon and Four Mile deposits in Australia and therefore it is most like a basal channel sandstone-hosted uranium deposit.

Exploration of the Ivana uranium-vanadium deposit has been largely conducted through the shallow geophysical technique electrical tomography, ("ET") and drilling. Four phases of drilling included 836 Reverse Circulation ("RC") drill holes for a total of 10,869 m drilled, at an average drill hole depth of less than 13 m. Exploration drilling was done with track-mounted RC rigs for ease and rapidity of movement between shallow drill holes, and to minimize environmental impact. Samples were collected for each metre drilled, logged, and transported for assay preparation in Argentina. Assays were completed at certified laboratories in Vancouver, Canada and Lima, Peru and reported in parts per million uranium and vanadium. The Mineral Resource estimate supported by this report is entirely based on chemical assays of uranium and vanadium; no equivalent-uranium ("eU" or "eU_3O_8") data, such as from a Gamma probe, has been used in the calculations.

1.4 Mineral Resource Estimate

In preparation for the resource estimation, various tests were performed on the drilling data to validate its completeness and accuracy; no irregularities were found. The Mineral Resource estimation was performed on two layers of mineralization, an upper zone comprised of oxidized mineralization, and a lower zone which contains a mixture of oxidized and altered primary-style mineralization associated with reduced alteration minerals.

Mineral Resources in the Inferred category include blocks that are located within a maximum distance of 200 m from a drill hole and in the Indicated category for blocks within 100 m of 2 drill holes.

Solids were built to encompasses model blocks that are included in the Inferred category and another one for the Indicated category. This step insures consistency of classification across the deposit.

A resource-limiting pit shell was generated using the following technical and economic parameters:

- Operating costs:
  - Mining mineralization: open pit US$1.50/t
  - Processing: US$4.00/t
  - G&A: US$2.30/t
- Pit slope: 32 degrees.
- Prices: US$75/lb U_3O_8
- Metallurgical recoveries: 84.6%.

The estimate of mineral resources is presented in Table 1-1. Based on the assumed uranium price of $75/lb U_3O_8, operating cost of $7.80/tonne and process recovery of 84.6%, the base case cut-off grade for Mineral Resources is estimated to be 60 ppm uranium. A cut-off of 100 ppm uranium was used to report the Mineral Resources in Table 1-1 to align with the PEA study.

The uranium price selected for determination of the cut-off grade is based on a review of historical average pricing, recent comparable peer studies, public disclosure of sales and contract prices, and industry surveys of price projections. Operating cost assumptions for determination of the cut-off grade were made based on general experience with shallow open pit mines, uranium leach operations, and the unconsolidated nature of the deposit, as well as review of data from similar near-surface uranium operations. Based on initial process design work, in-situ material will be upgraded using wet attrition scrubbing and screening and uranium and vanadium subsequently recovered from the resultant concentrate by alkaline leaching. The assumed process recovery was based on preliminary metallurgical information available at the time of resource estimation for uranium.

The QPs are not aware of factors related to environmental, permitting, legal, title, taxation, socio-economic, marketing, or political issues which could materially affect the Mineral Resource. It is reasonably expected that the remaining Inferred Mineral Resources could be upgraded to Indicated mineral resources with continued exploration.

Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into a Mineral Reserve upon application of modifying factors.

Table 1-1: Estimate of Inferred Mineral Resource reported at 100 ppm Uranium Cut-off

Zone	Class	Tonnes (Mt)	Average Grade				Contained Metal	
			U (ppm)	U_3O_8 (%)	V (ppm)	V_2O_5 (%)	U_3O_8 (Mlb)	V_2O_5 (Mlb)
Upper	Indicated	2.0	122	0.014	110	0.020	0.6	0.9
Lower	Indicated	17.6	358	0.042	104	0.019	16.4	7.2
Total	**Indicated**	**19.7**	**333**	**0.039**	**105**	**0.019**	**17.0**	**8.1**
Upper	**Inferred**	**1.4**	**167**	**0.020**	**170**	**0.030**	**0.6**	**0.9**
Lower	**Inferred**	**4.2**	**293**	**0.035**	**90**	**0.016**	**3.2**	**1.5**
Total	**Inferred**	**5.6**	**262**	**0.031**	**109**	**0.019**	**3.8**	**2.4**

Notes to Table 1-1:

1. The effective date of the Mineral Resource is October 14, 2023. The QPs for the Mineral Resource estimate are Susan Lomas, P.Geo. of Lions Gate Geological Consulting (LGGC) and Dr. Bruce Davis FAusIMM.
2. CIM Definition Standards were used for Mineral Resource classification and in accordance with CIM MRMR Best Practice Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
3. Extreme High-grade samples were capped to lower grades (Upper U 1000 ppm, V 400 ppm, Lower U 3000 ppm, V 1000 ppm) and then restricted using an outlier strategy where Upper composites were limited to U 400 ppm and V 300 ppm over 100 m and Lower composites were limited to U 2000 ppm and V 600 ppm over 100 m. Mineral grades were estimated into a 50x50x2 m block model using krige method.
4. Mineral Resources were tabulated within a resource limiting pitshell using $US 75/lb U price, recovery of 84.6% U; open pit mining cost of $1.50/t mineralization mined; processing and G&A cost of $6.30/t processed; pit slope of 32°. Bulk density value of 2.1 g/cm^3 was used for mineralized material.
5. The resource was estimated within distinct zones of elevated uranium concentration occurring within the host sediments. Vanadium is associated with uranium and is estimated within the same zones. There is no indication that Vanadium occurs outside of the elevated uranium zones in the Ivana deposit area in sufficient concentrations to justify developing estimation domains focused on Vanadium.

1.5 Proposed Development Plan

The proposed Ivana operation will consist of surface mine delivering feed to a nearby processing plant. The annual processing rate will be approximately 2.17 million tonnes per annum (“Mtpa”)(~6,300 tonnes per day; “tpd”). The average strip ratio (waste:ore) is approximately 1.5:1.

Table 1-2 presents the potentially excavated waste and plant feed tonnages. Plant feed may be delivered directly to the process plant or placed into stockpiles for blending purposes.

Table 1-2: Potentially Extractable Portion of the Mineral Resource

	kt	U_3O_8 (%)	V_2O_5 (%)
Waste stripped	34,756	-	-
Strip Ratio	1.48:1		
Plant Feed (diluted)	23,467*	0.038%	0.019%
**Assumes 3% dilution and ore loss*			

Note: cut-off grade of 75 ppm U used to define potentially extractable portion of Mineral Resource

The surface mine will be relatively shallow, with a maximum depth of 30 metres. The length of the mine will be approximately 3,000 metres with widths ranging from 100 to 400 metres.

Mining will be done with a fleet of two (5 cubic metre) excavators, a front-end loader and seven 31-tonne articulated trucks along with a fleet of support equipment. The materials mined are free digging unconsolidated gravels and sands, therefore drill and blast operations will not be required.

Mine waste materials will be used for construction activities on site (e.g., construction of the surface tailings management facility (“TMF”), in-pit cell divider berms, etc.). Waste materials not used in construction will be stockpiled outside of the footprint of the pit. Waste will be managed in the external stockpiles until it is used as in-pit backfill or for reclamation activities.

1.6 Processing & Recovery

Mined plant feed may be delivered directly to the processing plant or stockpiled. Stockpiles provide a surge capacity between the mining and processing, and enable blending, to manage the head grade of the process plant feed. Plant feed will then be processed in two stages; leach feed concentration; and then alkaline leaching.

The overall process plant recovery is 85% for uranium (derived from 89% leach feed concentrate preparation recovery and 95% subsequent alkaline leach circuit recovery); and 53% for vanadium (derived from 89% leach feed concentrate preparation recovery and 60% subsequent alkaline leach circuit recovery). Recoveries were determined through the mineralogical, metallurgical and process engineering test work program completed by The Saskatchewan Research Council (“SRC”), as detailed in the Blue Sky press release dated February 7, 2019 (Blue Sky 2019a).

Feed material will initially be processed through the Leach Feed Concentrate Preparation Plant, (“LFCPP”) a semi-mobile screening and scrubbing facility located at the proposed mining site. The LFCPP will separate fine material (<100 um) from the larger particles (>100 um) and scrub away and recover fine uranium and vanadium mineral particles coating the large particles, into a leach feed concentrate slurry. The rejected coarse fraction (approx. 77% of the plant feed mass from which most of the original uranium and vanadium has been stripped) will be dewatered, stockpiled, and backhauled by the mine fleet to a surface stockpile or backfilled into the mine excavation.

In the second process stage the slurry containing the fine fraction of the mineralized material will be pumped to the leach plant. An alkaline leach circuit (sodium carbonate and bicarbonate) will be used to dissolve uranium and vanadium from the leach feed minerals. No oxidant is required. Subsequently, uranium and vanadium will be separated by selective chemical precipitation, with uranium solids then calcined to U_3O_8 or UO_3 and vanadium solids calcined to V_20_5.

Tailings slurry from the alkaline leach circuit (approx. 23% of the plant feed mass and from which the majority of uranium and vanadium has been stripped) will initially be pumped to a TMF where it will settle and release water. This released water will be reclaimed and pumped to the water treatment circuit in the process plant where it will be further treated, resulting in solids that are pumped back to the TMF with the alkaline leach tailings. The final pH adjusted water will be returned to the process water tank for reuse. In later years, the fine tailings will be pumped into containment cells in mined out sections of the mine area, for co-disposal with mine waste and LFCPP reject. Long term storage of all waste material from mining operations will comply with all local and international regulations and requirements.

1.7 Infrastructure

The Ivana operation will take advantage of local infrastructure whenever possible. Employees will reside in local communities, most likely the town of Valcheta, approximately 25 km from the mine site. Grid power will be accessible to the project via the construction of a 30 km powerline. For the PEA it is assumed that process water will be supplied from on-site pumping wells. Ground water at the mine site is classified as non-potable for humans and animals but suitable for processing use. Future studies will further assess the local water resources.

Other site infrastructure will include maintenance shops, administration offices, a mine dry, diesel fuel storage, and warehouses.

1.8 Capital and Operating Cost

The life-of-mine capital and operating costs are summarized in Tables 1-3 and 1-4. The costs assume a fully owner-operated project. The closure and reclamation costs are estimated at $26.8 million and include costs for site remediation and final backfilling of the remaining mine excavation. These costs are commensurate with a PEA level study and have an accuracy of +/- 35%.

Table 1-3: Capital Cost Summary

Note: cost accuracy is commensurate with a PEA level study, with +/- 35% accuracy.

	Development ($M)	Sustaining ($M)	Total ($M)
Mine Development	$18.8	$11.3	$30.1
LFCPP, Process Plant	$61.8	$ 1.3	$63.1
Waste and Water Management	$5.4	$8.2	$13.7
Infrastructure	$3.8	$1.1	$4.9
Indirect, EPCM, Owner costs	$34.4		$34.4
Contingency (30%)	$35.4	$5.4	$40.8
Total	$159.7	$27.3	$187.0

Table 1-4: Operating Cost Summary

Area		Unit Cost (/t Feed)	Unit Cost ($/lb U3O8)*	Total LOM ($M)
Mining Cost, incl stockpile & rejects	$/t mined	$2.09	-	$116.6
Mining Cost, incl stockpile & rejects	$/t feed	$4.97	$7.08	$116.6
Processing Cost	$/t feed	$8.52	$12.15	$199.9
Waste & Water Management	$/t feed	$0.09	$0.13	$2.2
G&A	$/t feed	$1.92	$2.73	$45.0
Total Operating Cost	**$/t feed**	$15.50	$22.10	$363.7

* Unit cost does not include royalty, duty or vanadium credits.

1.9 Project Economics and Sensitivities

The economic results of the PEA are summarized in Table 1-5 on both a before-tax and after-tax basis. For the PEA Base Case a long-term uranium price of $75/lb U_3O_8 and a vanadium price of $7.50/lb V_2O_5 were used. Sensitivity to various uranium prices is shown in Table 1-5 while the vanadium price is kept fixed. Commodity pricing for base case and sensitivity pricing models is based on a review of historical average pricing, recent comparable peer studies, public disclosure of sales and contract prices, and industry surveys of price projections.

Uranium generates approximately 97% of the project's revenue stream.

Readers are cautioned that the PEA is preliminary in nature and is intended to provide an initial assessment of the project's economic potential and development options. The PEA mine schedule and economic assessment includes numerous assumptions and is based on both Indicated and Inferred Mineral Resources. Inferred resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the PEA results will be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. Additional exploration will be required to potentially upgrade the classification of the Inferred Mineral Resources to be considered in future advanced studies.

Table 1-5: Summary of Economics and Sensitivity

	Units	Uranium Price Sensitivity								
Price - U_3O_8	$/lb	$35.00	$45.00	$55.00	$65.00	**$75.00**	$85.00	$95.00	$105.00	$115.00
Price - V_2O_5	$/lb	$7.50	$7.50	$7.50	$7.50	**$7.50**	$7.50	$7.50	$7.50	$7.50
Pre-Tax										
NPV (0%)	$M	$13.4	$169.4	$325.3	$481.3	**$637.2**	$793.2	$949.1	$1,105.1	$1,261.0
NPV (8%)	$M	-$24.2	$74.8	$173.8	$272.8	**$371.8**	$470.7	$569.7	$668.7	$767.7
IRR	%	2.5%	19.7%	31.5%	41.4%	**50.4%**	58.8%	66.7%	74.2%	81.4%
After-Tax										
NPV (0%)	$M	-$5.2	$104.0	$204.4	$304.9	**$405.1**	$505.2	$605.3	$705.4	$805.4
NPV (8%)	$M	-$36.4	$34.1	$98.9	$163.6	**$227.7**	$291.2	$354.7	$418.3	$481.8
IRR	%	-1.1%	14.1%	23.6%	31.7%	**38.9%**	45.3%	51.3%	57.0%	62.4%
Payback	years	7.5	3.5	2.8	2.3	**1.9**	1.7	1.5	1.3	1.2

1.10 Conclusions and Recommendations

The Amarillo Grande Project demonstrates attributes well suited for a potential 11 year mining operation, including near-surface mineralization, favorable uranium grades, access to infrastructure and amenability to simple processing via pre-concentration and leaching.

Future work on Ivana will include additional infill drilling to upgrade Mineral Resources, as well as advanced engineering studies that will incorporate the ongoing comprehensive environmental base line study and additional metallurgical and process test works, as well as mine design optimization, detailed permitting assessment, among other items required for the completion of a Pre-Feasibility Study ("PFS"). Further de-risking and improvements to the project economics are expected as more detailed engineering and optimization studies are completed. Summary recommendations for the PFS program include an estimated budget of $5.55 million.

Other opportunities identified include the potential to expand mine feed at Ivana, particularly to the immediate west, and the exploration potential in the 30-40km surrounding areas and throughout the Amarillo Grande Project concessions, for considering a potential cluster of deposits with a central facility.

2 Introduction

2.1 Introduction and Terms of Reference

The purpose of this Technical Report is to summarize the results of an updated Preliminary Economic Assessment ("PEA") for the Ivana uranium-vanadium deposit at the Amarillo Grande Project ("AGP" or "the Project") in Rio Negro province, Argentina, under the guidelines of the Canadian Securities Administrator's National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and form 43-101F (CSA, 2023). This report includes supporting disclosure for a new Mineral Resource estimate for the Project, estimated in conformity with generally accepted CIM Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines (CIM, 2019) and reported according to the CIM Definition Standards on Mineral Resources and Mineral Reserves, (CIM, 2014).

This report was commissioned by Blue Sky Uranium Corporation, a mineral exploration company with its primary public listing on the TSX Venture Exchange under the symbol BSK ("Blue Sky Uranium", "Blue Sky", or "the Company"). Blue Sky owns a 100% interest in the Project.

The report supports the disclosure by Blue Sky in the news release dated February 22, 2024 entitled, "Blue Sky Uranium Announces a Positive New Preliminary Economic Assessment for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project, Argentina" (Blue Sky, 2024).

The PEA envisions a surface mining operation at the Ivana deposit followed by a simple two-step recovery process, entailing 11 years of uranium and vanadium production.

The PEA is preliminary in nature and is intended to provide an initial assessment of the project's economic potential and development options. The PEA mine schedule and economic assessment includes numerous assumptions and is based on both Indicated and Inferred Mineral Resources. Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the PEA results will be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. Additional exploration will be required to potentially upgrade the classification of the Inferred Mineral Resources to be considered in future advanced studies.

2.2 Definition of Terms

Unless otherwise stated, all units in this report are metric. All currency values are expressed in US dollars. Analytical results are reported as parts per million ("ppm") for uranium ("U") and vanadium ("V"). This report also states uranium and vanadium as ppm and percent (%) U_3O_8 and V_2O_5, respectively. The Mineral Resource estimate is also reported in pounds of contained U_3O_8. The conversion factor used herein for converting U in ppm to U_3O_8 in ppm is 1.179; the factor used for V in ppm to V_2O_5 in ppm is 1.785. One percent (%) is equivalent to 10,000 ppm.

2.2.1 Terminology: Project, Area, Prospect, Deposit

The Amarillo Grande Project owned by Blue Sky Uranium is a uranium-vanadium exploration project covering over 230,000 hectares, and stretching across about 145 km of Rio Negro Province, Argentina. The Amarillo Grande Project, as used in this report, refers to the regional exploration area, within which Blue Sky Uranium has conducted historical uranium programs, and is currently conducting exploration activities (Figure 4-1).

The Amarillo Grande Project includes four smaller sub-areas, named Santa Barbara, Anit, Ivana, and Bajo Valcheta, within which exploration is more advanced. Reference to those sub-areas in generality, in this report, will be to the "Ivana area" or "Anit area".

Within the Ivana area, the eleven land blocks detailed in Table 4-1 and shown in Figure 4-2 will be referred to as the "Ivana prospect". The areas mineralized with uranium and vanadium within the Ivana prospect, and on which the current Mineral Resource has been estimated, will be referred to as the "Ivana deposit". The proposed mining operation at Ivana, as described in this report, will be termed the “Ivana operation” or “the Operation”.

2.3 Qualified Persons and Site Visit

Independent consultants were commissioned to complete the Mineral Resource estimate, PEA and this Technical Report on behalf of Blue Sky. The consultants were selected for their expertise in the fields of geology, exploration, Mineral Resource estimation and classification, geotechnical, environmental, permitting, metallurgical testing, mineral processing, processing design, capital and operating cost estimation, and mineral economics. The consultants are considered independent Qualified Persons (“QP”s) as defined in the NI 43-101, by virtue of their education, experience, membership in good standing of appropriate professional associations and independent consulting relationships with Blue Sky Uranium.

Dr. Bruce Davis, Ph.D., F.AusIMM, conducted a site visit and geological review of the Ivana prospect on October 10 to 12, 2023. Chuck Edwards, P.Eng., FCIM, conducted a site visit to Ivana on April 21st and 22nd, 2018, and visited the INVAP S.E. (“INVAP”) facilities involved in the metallurgical testing described in Section 13.1 on April 24th, 2018. Mr. Edwards also regularly visited the Saskatchewan Research Council laboratory while overseeing the metallurgical testing programs described in sections 13.2 and 13.3.

Table 2-1 summarizes the QPs responsible for specific Sections of the report. Mr. Kuchling supervised the overall preparation of this report.

Table 2-1: Qualified Persons Sections of Responsibility

Qualified Person	Company	Report Sections of Responsibility
Ken Kuchling, P. Eng.	KJ Kuchling Consulting Ltd (“KJKCL”)	2-4, 15,16,19,21,22, 23, 24, 25, 27 and all subsections of 1, 21 and 26 not noted by other QP’s.
Bruce Davis, Ph.D., F.AusIMM		1.3, 5-12
Susan Lomas, P.Geo	Lions Gate Geological Consulting Inc. (“LGGC”)	1.4, 14
Chuck Edwards, P.Eng. FCIM	Chuck Edwards Extractive Metallurgy Consulting (“CEEMC”)	1.6, 13, 17, 21.2, 21.4.2, 26.1.3
Ken Embree, P.Eng.	Knight Piésold Ltd. (“KP”)	1.7, 18, 20, 21.3, 26.1.4., 25.1.5

2.4 Sources of Information and Data

In order to prepare the content of the report, the authors held discussions with personnel of Blue Sky, including Mr. Guillermo Pensado, VP Exploration & Development and Dr. David Terry, P.Geo., Director. Mr. Pensado and Dr. Terry are non-independent Qualified Persons for the Company.

Some information in this report remains unchanged from the previous Technical Report (Kuchling et al., 2019). In all cases the Qualified Person responsible for the Sections, as listed in Table 2.1, have reviewed the information, believe it to be current, materially accurate, and accept responsibility for it.

In addition, the information, conclusions, opinions and estimates contained herein are based on:

- Geological information supplied by Blue Sky Uranium, in the form of memos and reports prepared for the Company, and contributions from Ariel Testi, Exploration Manager for Blue Sky. That information is believed to be credible, and significant parts of critical reports or memos were translated from Spanish to English to verify that credibility, to the extent possible.

- Data, geological reports, maps, documents, Technical Reports and other information supplied by Blue Sky employees and consultants. The QPs used their experience to determine if the information from the previous Technical Report was suitable for inclusion in this Technical Report and adjusted information that required amending.
- Third party reports and papers as indicated in the text and detailed in Section 27, (References).
- Other experts as detailed in Section 3.
- The field observations from site visits.

2.5 Effective Date

The updated resource estimate includes data from additional drilling completed up to March of 2022. The effective date of the resource model is October 14, 2023. The effective date of this Technical Report is December 31, 2023.

3 Reliance on Other Experts

In the preparation of Section 4 of this report the Qualified Person has relied upon the opinions of Noemí Puente, Geologist, Property Manager for Blue Sky Uranium Corp., in regard to the validity of the properties discussed, and the opinions of Daniel Guzman, Geophysicist & Master in Environmental Engineering, Environmental Manager for Blue Sky, in regard to the validity of the environmental permits applicable to properties discussed. The legal and environmental information reported by both professionals was reviewed and approved by Guillermo Pensado, Geologist and non-independent Qualified Person, VP Exploration for Blue Sky Uranium Corp. Finally, Nicolas Ferla, partner at the legal firm Alfaro Abogados and independent legal counsel to Blue Sky and Minera Ceilo Azul, reviewed the information in Section 4 and confirmed the information to be correct.

4 Property Description and Location

4.1 General Description

The Amarillo Grande Project includes approximately 110 registered properties with a total area of over 230,000 hectares (to January 2024) and is 100% controlled by Blue Sky Uranium through its local wholly owned subsidiary Minera Cielo Azul S.A. The resource estimate for the Ivana deposit described in this report falls within the properties of the Ivana prospect, at the southernmost edge of the AGP, centered at latitude 40º25'S and longitude 66º10'W (or E 3,485,000 / N 5,525,000 Gauss Kruger Posgar 94 Zone 3) (Figure 4-1 and Figure 4-2). The mining properties comprise five Mine units and six "Demasías" or Over Claimed Units covering the remaining areas of the original properties after a legal survey. The total area covering the eleven mining properties covers 6,776.93 hectares, and all of them have been registered with the Provincial Mining Secretary as presented in Table 4-1.

Table 4-1: Properties of the Ivana Prospect

FILE #	NAME	TYPE	AREA (hectares)
38.002-13	Ivana VIII-A	Mine	1,400.00
44.331-19	Ivana VIII-A-1	Over Claimed Unit	7.67
38.003-13	Ivana VIII-B	Mine	1,600.00
44.332-19	Ivana VIII-B-1	Over Claimed Unit	16.24
40.005-15	Ivana VIII-D	Mine	500.00
44.333-19	Ivana VIII-D-1	Over Claimed Unit	66.74
41.048-16	Ivana VIII-F	Mine	1300.00
44.394-19	Ivana VIII-F-1	Over Claimed Unit	6.49
44.395-19	Ivana VIII-F-2	Over Claimed Unit	98.79
41.038-16	Ivana IX-A	Mine	1,700.00
44.393-19	Ivana IX-A-1	Over Claimed Unit	81.00
TOTAL AREA			**6,776.93**

4.2 Land Tenure

4.2.1 Regulatory Framework

Mining and mineral exploration in Argentina are subject to the National Mining Code, which is also regulated on a province-by-province basis by applicable provincial mining laws and regulations. The National Mining Code (the "Mining Code") and the Rio Negro Provincial Law No. 4941 (the "Mining Procedure Code"), regulates the exploration and mining permits of the Amarillo Grande Project.

Under the Mining Code and the Mining Procedure Code, an applicant for mineral rights must apply for an exploration permit or "cateo" corresponding to specific minerals or elements classified within defined Mineral Categories pursuant to Title One of the Mining Code. As per the Mining Code and Law 24.498 (1995) uranium is a nuclear mineral and is regulated by the same provisions as the First and Second Category minerals within the Mining Code, with some specific minor regulations included in Chapter XI of the Mining Code. Vanadium is also a First Category mineral. As per article 209 of the Mining Code (included in the above referenced Chapter XI), the Argentinean Federal State, through the National Commission of Atomic Energy ("CNEA"), has the first option to purchase nuclear minerals, under usual market conditions. Further, Section 210 of the Mining Code requests the prior approval from CNEA for export contracts, which can only be restricted for the satisfaction of the internal market, and satisfactory disclosure of the exported materials final destination.

The boundary locations of cateos are specified by corner co-ordinates on permit applications and therefore boundaries are not surveyed or marked out on the ground. The size of a cateo is measured in units of 500 hectares (“ha”) and can be from one to twenty units (10,000 ha) in size.

Following the permit application, surface landowners must be notified of the intent to acquire mineral rights in the area. Finally, and as a condition previous to the performance of any prospecting or exploration activity, the holder of a cateo or mining property must submit an environmental impact report for prospecting (“EIR1”) before the Provincial Mining Authority. An EIR1 allows a company to conduct prospecting exploration work of low impact such as mapping, soil or outcrop sampling and geophysical surveys. More intensive exploration work such as trenching or drilling requires a Phase 2 environmental impact report (“EIR2”) to be submitted to the Mining Authority. Following the acceptance of the initial EIR report the formal cateo is granted, along with an Environmental Resolution license (Resolutions Ambientales, or “RA” in Spanish) enacted by the Provincial Authority, which must be renewed at a minimum of every 2 years. Although environmental permits during the exploration phase are exclusively of provincial jurisdiction, mine development environmental permits must also conform to National Law #24.804 (the Nuclear Activity Act) and related regulations, in some technical aspects related to nuclear and radiological security.

The cateo permit holder can apply for conversion of the full concession area into Mining Exploitation concession or “Mine”. Granting of a Mine requires the properties be surveyed, and prior to that time their status is called “Discovery Manifestation” or “MD”. The size of the Mine unit, or “Pertenencia”, is 100 hectares for disseminated mineralization. In Rio Negro it is not permitted to apply for less than 100 hectares Pertenencias, therefore if any area of less than 100 hectares is remnant it can be covered by the permit holder with demasias or over claimed units, after surveying. Annual fees are payable to the Province in order to maintain a Mining Exploitation concession in good standing. The amount for disseminated mineralization is $46,113 Pesos (approximately US$50) per year for each Pertenencia.

When a mine starts production, there is a sliding royalty payable to the provinces with a maximum of 3% on the value of mineral production on an exploitation concession as indicated by National Mining Investment Law 24.196 and ratified by Provincial Laws 2.819 and 8.900. Rio Negro province applies a plain royalty of 3% since December 2023.

According to the Rio Negro Code of Mining Procedure, the mining authority cannot grant mining properties (cateos, Discovery Manifestations or Mines) within 50 metres of roads, pipelines, electrical lines or similar constructions. The titleholder could eventually, if needed, access such areas with a permit from a mining engineer and proof that there is no inconvenience to work in those areas.

Section 20.1 includes additional details on the legal framework and permitting required for mining.

4.2.2 Ivana Prospect, Property Tenure

The eleven Ivana area properties discussed in this report and detailed in Table 4-1 hold the status of Mines and corresponding demasías are in good legal standing. The original EIR2 for exploration at the Ivana deposit area, including geophysics and drilling work, were submitted, and accepted and granted by RA at the end of 2016 and early 2017, Those permits were renewed in 2018 and 2021, as required; and a new update for renewal was submitted by the Company on February 20, 2024 (see Table 4-2).

Mining properties overlap surface rights held by private individuals. All surface occupants have provided access for exploration work at Ivana by means of formal surface agreements. BSK and the Company have signed formal access and land use agreements with the land occupants or owners where the exploration programs are occurring, such as trenching and drilling. BSK and the Company maintain active agreements with landowners covering most of the area of the eleven mining properties and the entire area of current exploration.

There are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the Ivana prospect that have been disclosed to or that the Qualified Person, through his investigation, is aware of.

Table 4-2: Environmental Permits

FILE #	NAME	RA Resolution#	DATE GRANTED
38.002-13	Ivana VIII-A	RA N° 346	March 22, 2022
44.331-19	Ivana VIII-A-1	NA	
38.003-13	Ivana VIII-B	RA N° 369	March 28, 2022
44.332-19	Ivana VIII-B-1	NA	
40.005-15	Ivana VIII-D	RA N° 382	March 28, 2022
44.333-19	Ivana VIII-D-1	NA	
41.048-16	Ivana VIII-F	RA N° 361	March 23, 2022
44.394-19	Ivana VIII-F-1	NA	
44.395-19	Ivana VIII-F-2	NA	
41.038-16	Ivana IX-A	RA N° 416	April 05, 2022
44.393-19	Ivana IX-A-1	NA	

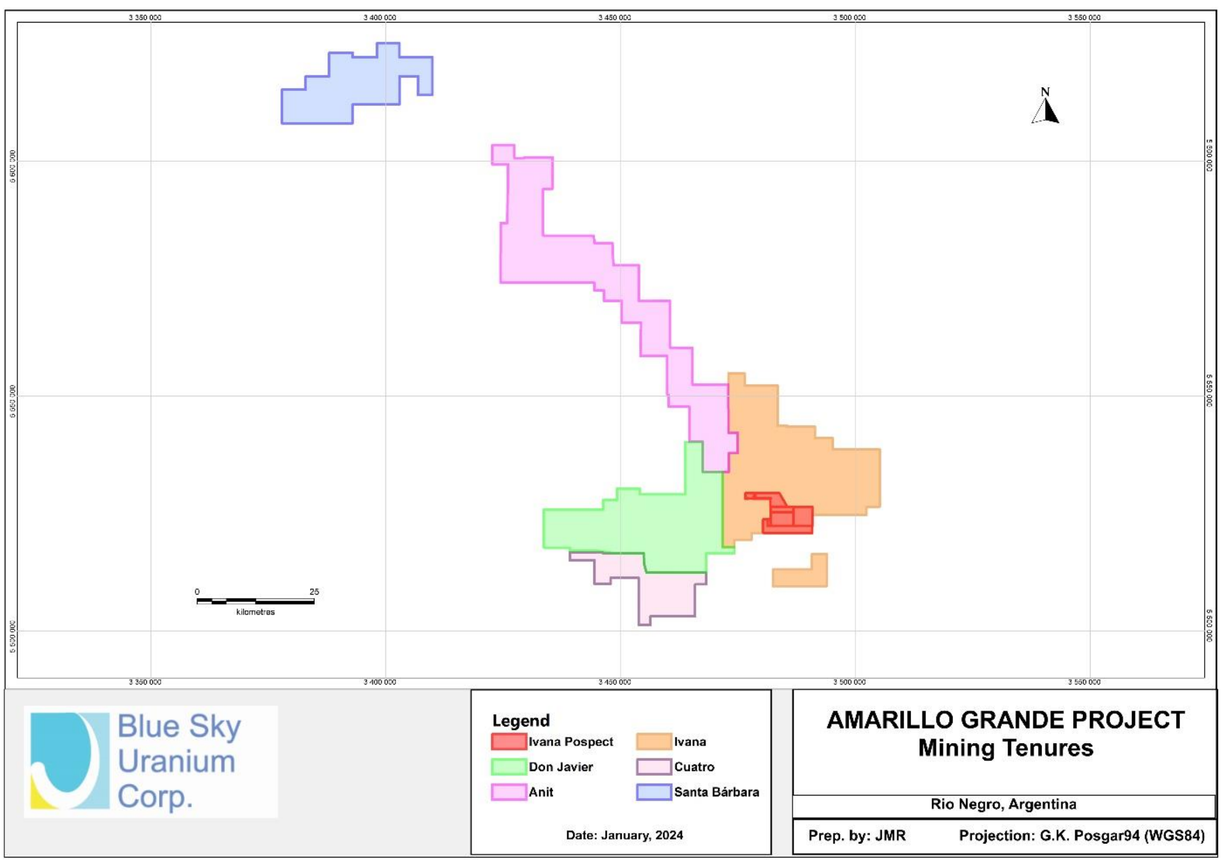


Figure 4-1: Amarillo Grande Project mining tenures, Rio Negro Province, Argentina (coordinates in Gauss Kruger Posgar 94 Zone 3). The Ivana prospect area shown in red is detailed in Figure 4-2.

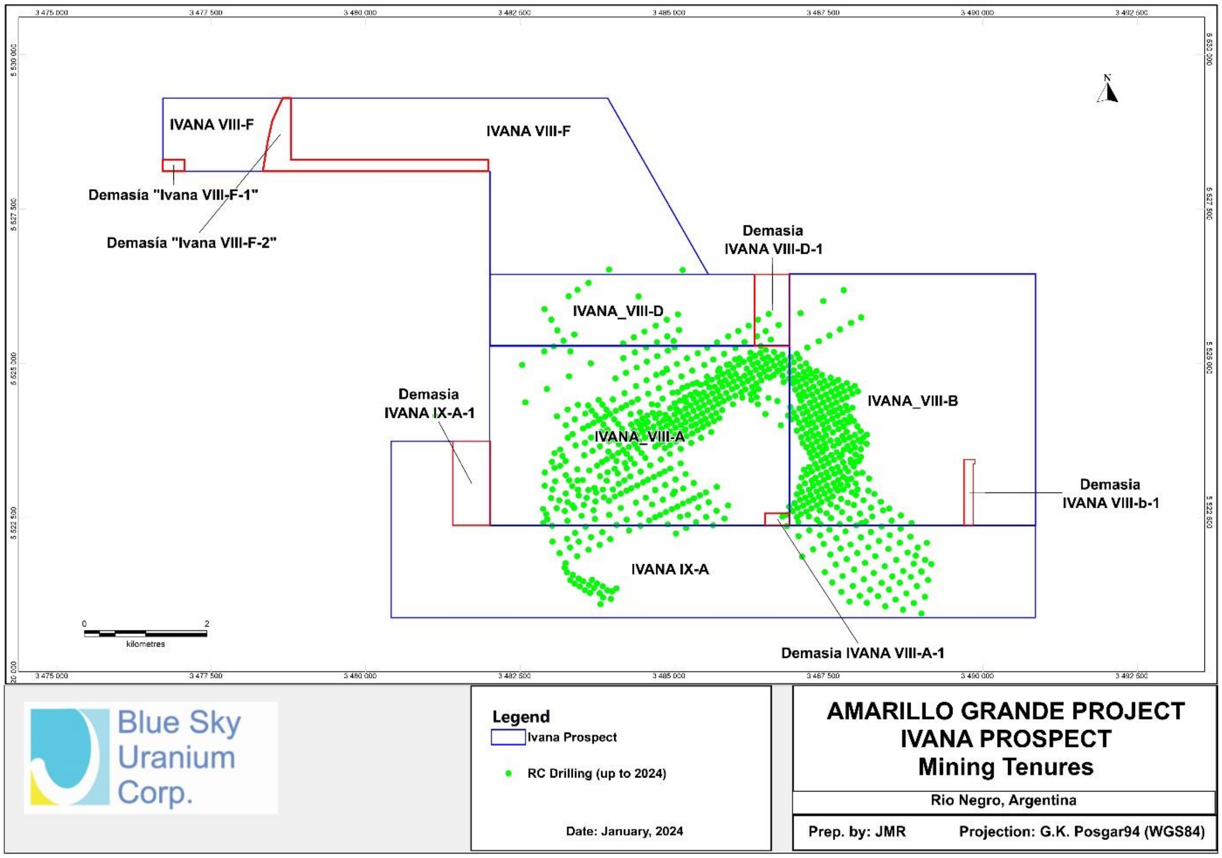


Figure 4-2: The Ivana Prospect. The Ivana deposit lies within the properties of the prospect. Figure 4-1 shows these properties in relation to the greater Amarillo Grande Project.

5 Accessibility, Climate, Local Resources, Infrastructure & Physiography

5.1 Accessibility

The Ivana prospect is located approximately 25 km north of the town of Valcheta in Rio Negro Province, Argentina (Figure 5-1). The Ivana area is accessed via Provincial Road #4, which is paved from Valcheta to within 10 km of the properties. Final access from Provincial Road #4 to Ivana is via dirt roads used by local ranchers.

Valcheta is the capital of the county with the same name and is located at the junction of Provincial Road #4 and National Road #23. National Road #23 connects to the deep ocean port of San Antonio Oeste, 120 km to the east. Viedma, the capital of the Rio Negro Province, is located 285 km east of Valcheta.

The rail line at Valcheta is operational and ultimately connects to the Federal Capital of Buenos Aires but is currently only used as a tourist attraction running once a week from Viedma to the ski centre of Bariloche, 540 km west of Valcheta.

San Antonio Oeste and Viedma have the closest airports; Viedma has scheduled flights to Buenos Aires.

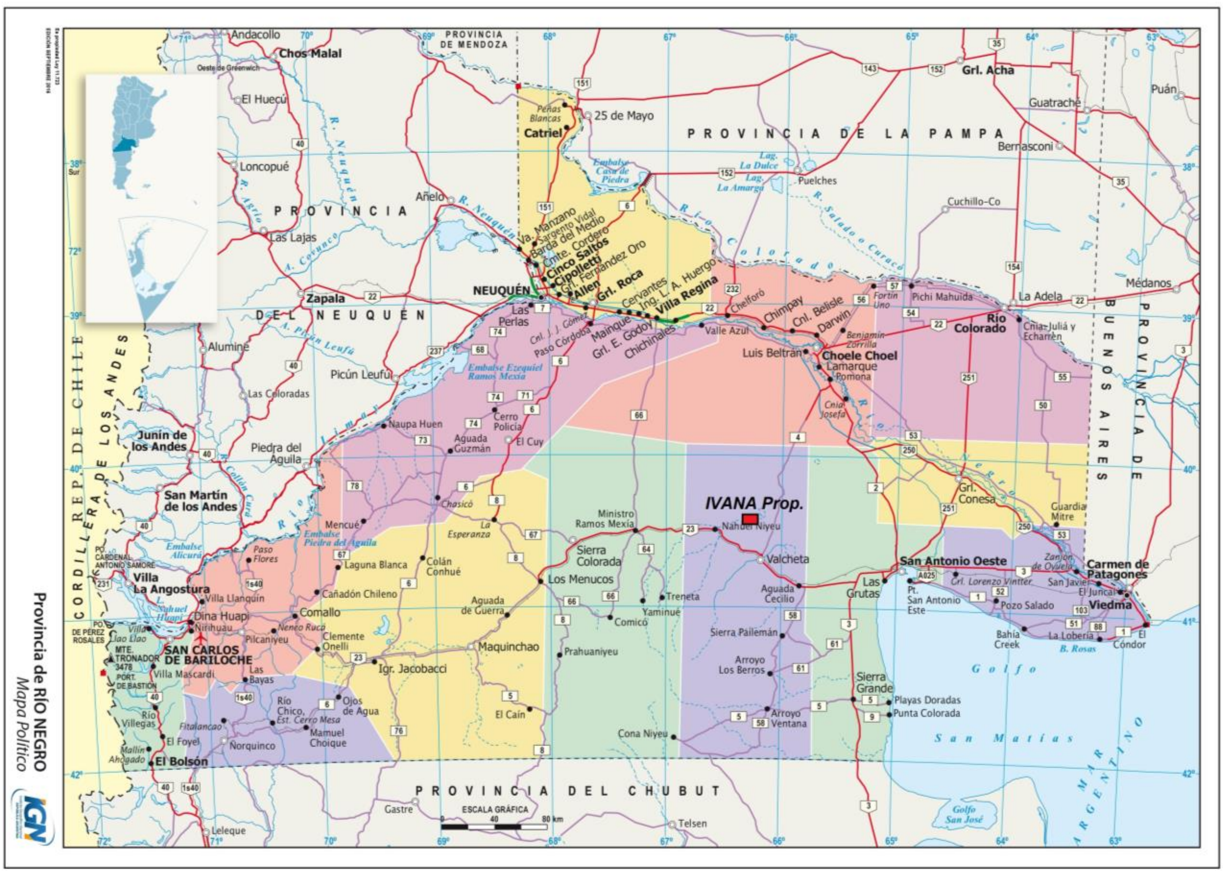


Figure 5-1: Location Map (Ivana area not to scale; Source: Instituto Geográfico Nacional, Argentina, reference Provincia de Río Negro - Mapa Político)

5.2 Site Topography, Elevation, Flora and Fauna

The Ivana area covers flat topography in a local depression with an average elevation of 100 m above sea level, and 100 m below the elevation of Valcheta (Figure 5-2). This depression or “bajo” is recognized as “Bajo de Valcheta” and connects to the northwest with “Bajo de Santa Rosa”. Both depressions are part of the northwest-southeast Bajo del Gualicho lineament. These bajos contain the lowermost portions of the alluvial fans descending from the North-Patagonia Massif, located to the southwest. These alluvial fans terminate at a series of ponds or “lagunas” caused by the closure of the fluvial system in the depressions. A low plateau separates the depressions of the Bajo del Gualicho lineament from the Rio Negro river to the north.

The soils at Ivana are described as entisol, meaning soils with no development of horizons and poor fertility. The area is covered by a low scrub consisting mostly of bushes known locally as jarilla (Figure 5-2).

The fauna is typical of northern Patagonia and includes guanacos, mountain lions, wild pigs, hares, foxes, turtles, lizards, and snakes.

Figure 5-2: Topography and vegetation typical of the Ivana area. Most of the vegetation seen in this view is known by the local name, jarilla. (Photo Credit: Blue Sky)

5.3 Climate

The climate is semi-arid with low annual precipitation, between 200 and 250mm, although with significant variability from year to year. Temperatures range from near freezing at night in southern winter months to over 30° Celsius during the day in southern summer months. The average daily temperature for the area is 14°-15° Celsius. The length of the operating season is 12 months.

5.4 Local Resources and Infrastructure

The southern portion of Rio Negro Province has access to power lines carrying energy produced at dams in the Cordillera region to the west, as well as deep-water ports at the Atlantic coast, and a railway and highway network with access to the main population and commercial centres of the Country. Tourist areas are concentrated at the coast to the east, or in the Cordillera to the west. The arid climate has made Valcheta a poor undeveloped county with low population density. Cattle or sheep ranching represent the main economic activities in the region, followed by industrial minerals mining (clays) and commercial services.

Sufficient surface area exists at the Ivana properties to conduct mining operations, including potential tailings storage areas, potential waste disposal areas, and potential processing plant sites. Surface use agreements with landowners will need to be negotiated prior to any development.

Fresh water is limited; however, saline groundwater is abundant and may be useful for mineral processing operations. It is important to note that the Ivana area is nearly 100 m below the elevation of Valcheta, within a closed hydrologic system. Therefore, any mining and processing activity developed in the area would likely have a low potential risk to local freshwater aquifers.

There is readily available labour to support mining operations, but some technical and administrative staff may need to be brought in from other parts of the Province or the Country. Valcheta is the principal commercial centre in the region and offers access to hospital, education, banking, and services like restaurants and motels.

5.5 Local Population

Valcheta County covers an area of about 20,500 km^2, with a population of 7,100 inhabitants in 2010, including 3,555 living in the town of Valcheta, resulting in a population density of <0.2 persons/km^2 (Censo Nacional de Población, 2010). The population outside of the town of Valcheta is represented by ranchers living at isolated ranches.

6 History

The earliest reported uranium exploration in Rio Negro Province, Argentina, was conducted by CNEA in the late 1960s in a small area in the western part of the province, west of El Cuy (Dr. Jorge Berizzo, written communication, 2/26/18). The broader potential for uranium mineralization in Rio Negro was recognized by Dr. Berizzo in 2006 when he led a small reconnaissance team on road prospecting traverses across potential Cretaceous sequences within the southeastern edge of the Neuquen Sedimentary Basin and discovered uranium mineralization in the area that became the Santa Barbara prospect. As a result of the discovery, a private Argentine company, Argentina Uranium Corporation ("AUC"), claimed exploration rights covering almost 500,000 hectares in a previously unknown uranium exploration terrain located where the southern edge of Cretaceous and Tertiary strata of the Neuquen Basin lap onto the North Patagonian Massif.

Shortly after the discovery, Blue Sky entered into an option agreement with AUC on two of its prospect areas, Anit and Santa Barbara. In 2008, Blue Sky acquired all of the outstanding shares of AUC and thereby acquired 100% interest in the Anit and Santa Barbara areas. Continued exploration work (see Section 9) led to the delineation of a principal uranium trend southeastward and cateos were claimed to cover the southernmost area, termed Ivana.

6.1 Historical Resources and Reserves

There are no historical uranium Mineral Resources or Reserve estimates prior to Blue Sky's work at Ivana, and there has not been any uranium production from the properties included in the Amarillo Grande Project.

7 Geological Setting and Mineralization

7.1 Regional Geology

The Amarillo Grande Project is situated near the boundary between the northwestern North Patagonian Massif (Paleozoic and Mesozoic basement) and the southeastern Neuquén Basin. The basement rocks contain units of Neoproterozoic-Cambrian metamorphic rocks, Ordovician to Devonian marine sequences, Permo-Triassic intrusives, and Triassic-Jurassic magmatic-volcanic units. Near-horizontal sequences of Late Cretaceous and Tertiary sedimentary and epiclastic volcanic formations, representing the thin distal edge of the Neuquén Basin, lap on to the basement rocks near the Project (Gregori et al., 2016). Quaternary alluvial-colluvial deposits are widely developed over the Project.

The North Patagonian Massif is characterized by the presence of several mylonitic belts and regional structural lineaments (Gregori et al., 2008). The basement at the AGP has older structures reactivated during the Neogene by tectonic inversion of Triassic normal faults (Folguera et al., 2015). Three main lineament orientations can be recognized: NE–SW trending, NW–SE trending and the E–W trending Huincul Fault zone. The NE-SW Nahuel Niyeu lineament is a structural zone about 25 km wide that includes the Tardugno, Musters and Huanteleo faults and the Nahuel Niyeu, Railer and Rana thrust sheets (Gregori et al., 2008). The Ivana prospect, in the southern end of the outline of the Amarillo Grande Project (see Figure 7-1), is located near the intersection of the NW-trending Bajo del Gualicho Lineament ("BGL") and the NE-trending Nahuel Niyeu lineament.

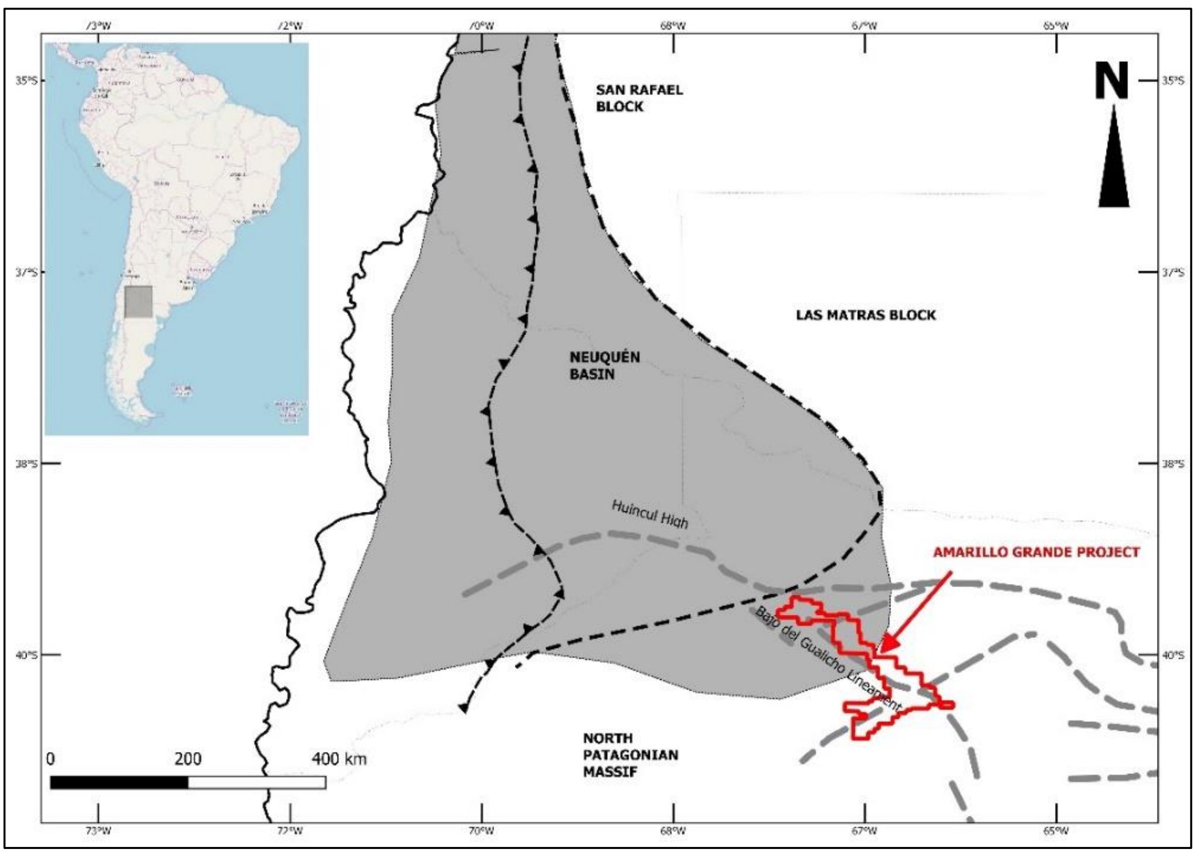


Figure 7-1: Location of the main morphotectonic features including the Andean thrust front, Huincul High, and Bajo del Gualicho Lineament, and the Amarillo Grande Project; modified from Gregori, et al., 2008. The gray shaded pattern is strata of the Neuquen Basin which lap unconformably onto the North Patagonia basement as illustrated in Figures 7-2 and 7-3. (Thorson et al., 2018)

The Neuquén Basin formed as a foreland basin related to the Andean thrust front and filled with Mesozoic and Cenozoic sedimentary and volcanic deposits. In the Late Triassic to Early Jurassic, the infill of the basin began in depocenters in the northern and northwestern parts of the basin, which were filled with volcanics, volcaniclastics, and coarse conglomerates. A subduction system began in the Early Jurassic and the basin went through a thermal subsidence post-rift stage that continued until the Early Cretaceous. During this regime, three major transgression–regression cycles, manifested as four stratigraphic groups, can be related to the Paleo-Pacific Ocean. The four groups comprise the Cuyo, Lotena, Mendoza and Rayoso Groups (Figure 7-2).

Deposition of the Cuyo Group began in the retroarc-sag phase of the Neuquén Basin (Early to Middle Jurassic) with a marine transgression that deposited the black shale facies of Los Molles Formation. The following regression culminated with fluvial and evaporite deposits in the central part of the basin. The Lotena Group accumulated with the next transgression-regression cycle, which consisted of continental sandstone, marine carbonate facies and evaporite units.

The Mendoza and Rayoso groups were deposited in the third cycle, which extended over the greatest time. The Mendoza Group comprises typical red beds, fluvial and eolian sandstones, and a black shale facies of the Vaca Muerta Formation. Near the end of deposition of the Mendoza Group a sharp sea-level drop resulted in continental, mixed, and marine siliciclastic facies. The Rayoso Group represents the last basinal stages of shallow-marine carbonates, fluvial and eolian sandstones, and evaporites. The Rayoso Group concluded with a thick sequence of continental clastic and evaporitic units.

The retroarc-sag phase ended during the Early Cretaceous and the tectonic regime transformed to compressive in the southern Central Andes (Ramos, 2010). Thereafter, the first synorogenic deposits of the Neuquén foreland basin were deposited from the migration of the orogenic front to the east. This new tectonic setting began at 100 Ma and developed the red beds of the Neuquén Group and Malargüe Group (Tunik et al., 2010). The Neuquén Group consists of several continental red bed formations of fine sandstones, siltstones, mudstone and minor conglomerates. The Malargüe Group is separated into two domains: western and eastern. The eastern region of the Malargüe Group recorded the first Atlantic ingression that was developed during Maastrichtian–Danian times (Late Cretaceous and early Paleocene) and is represented by the Allen, Roca-Arroyo, Barbudo and Carrizo Formations. The western facies of the Malargüe Group is represented by the Loncoche, Roca and Pircala Formations.

In the Cenozoic, the North Patagonian Massif basement structures were reactivated by tectonic inversion of Triassic faults (D'Elia et al., 2012), and the Neuquén Basin received deposition of continental fluvial volcaniclastic and epiclastic sediments separated by periods of erosion. Miocene and Pliocene units are interpreted as distal synorogenic successions associated with Andean uplift (Folguera et al., 2015). These deposits are dominated by fluvial conglomerates and sandstones arranged as five fan-shaped successions with younger units occurring to the east. This process generated extensive Neogene high-energy deposits, extending from the central Neuquén Basin to the Atlantic coast (Figure 7-3).

During the Eocene, the Neuquén and the Malargüe Groups were deformed and then covered by fluvial systems of the Chichinales Formation, developed during the Oligocene and early Miocene. The lower part of the Chichinales Formation contains brownish-gray tuffaceous sandstone, conglomerates, and thin layers of sandstone with carbonate cement and silicified wood. The Chichinales sequence continues with interbedded greyish-green to brownish mudstones with fine tuffaceous sandstone (Huyghe et al., 2014). East and southeast of the Amarillo Grande Project, estuarian sediments of Gran Bajo del Gualicho Formation, consisting of dark sands and tuffaceous mudstones, interfinger with the upper part of the Chichinales Formation (Reichler et al., 2010).

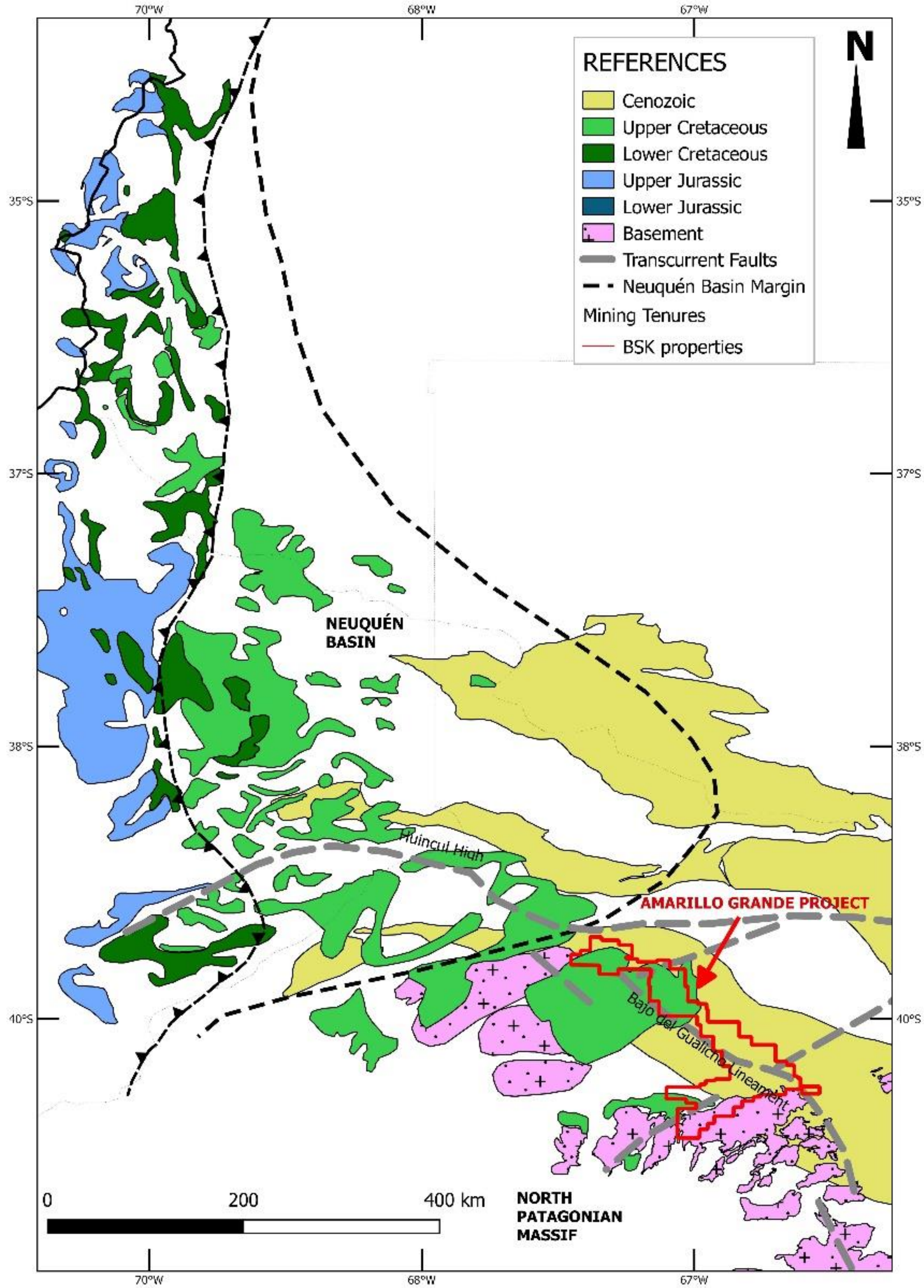


Figure 7-2: Regional geological map of the Neuquén Basin: Lower Jurassic (Precuyano, Cuyo and Lotena Groups); Upper Jurassic (Mendoza Group); Lower Cretaceous (Rayoso Group); Upper Cretaceous (Neuquén-Malargüe Groups); and Cenozoic (Chichinales, Gran Bajo del Gualicho and Río Negro Formations); modified after Legarreta et al, 1999 & Folguera et al, 2015. The overlap of Upper Cretaceouis and Cenozoic units related to the Neuquén Basin, southeastward beyond the Basin margin and onto the basement rocks, is illustrated in Figure 7-3. (Thorson et al., 2018)

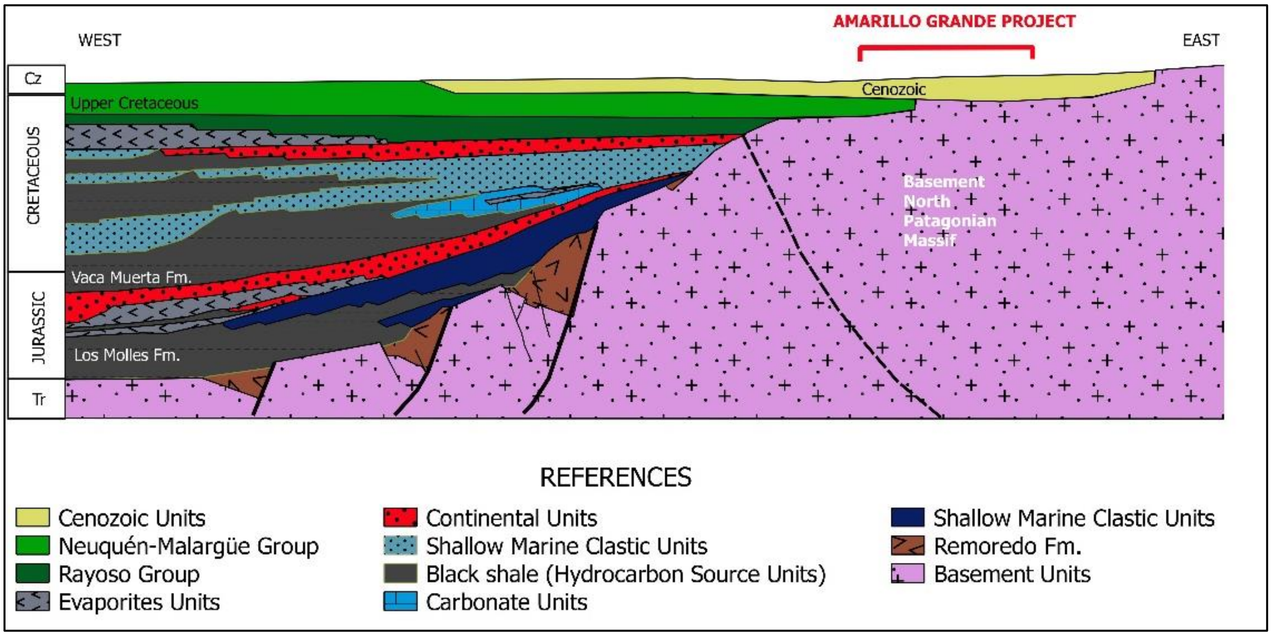


Figure 7-3: Schematic cross section of Neuquén Basin; modified after Legarreta et al, 1999 & Folguera et al, 2015. The overlap of Upper Cretaceous Neuquén and the Malargüe Groups, and Cenozoic units, beyond the nominal Neuquén Basin margin, and unconformably onto basement rocks, as illustrated in Figure 7-2, is shown diagrammatically above. The approximate location of the Amarillo Grande Project is also shown above; for a more detailed map view of the relation of the Cenozoic units with basement rocks at the Ivana prospect, see Figure 7-5. (Thorson et al., 2018).

The Ivana prospect is located near the intersection of two significant structural zones; the NW-SE Bajo del Gualicho Lineament and the NE-SW Nahuel Niyeu structure (Figure 7-4). The BGL is interpreted to be the deep-seated suture between the Nahuel Niyeu Cambrian forearc basin (≈520-510 Ma) and its source area (Greco et al., 2017). This lineament has exerted control on the development of local sedimentary sequences from Late Cretaceous to Quaternary times and may have controlled the location of both modern salars and paleo-salars (barren, highly evaporative ponds and salt-flats). The reducing diagenetic environment of the salars, both ancient and modern, may have had an effect on the localization of uranium occurrences by providing a reductant to precipitate U from oxidized solutions.

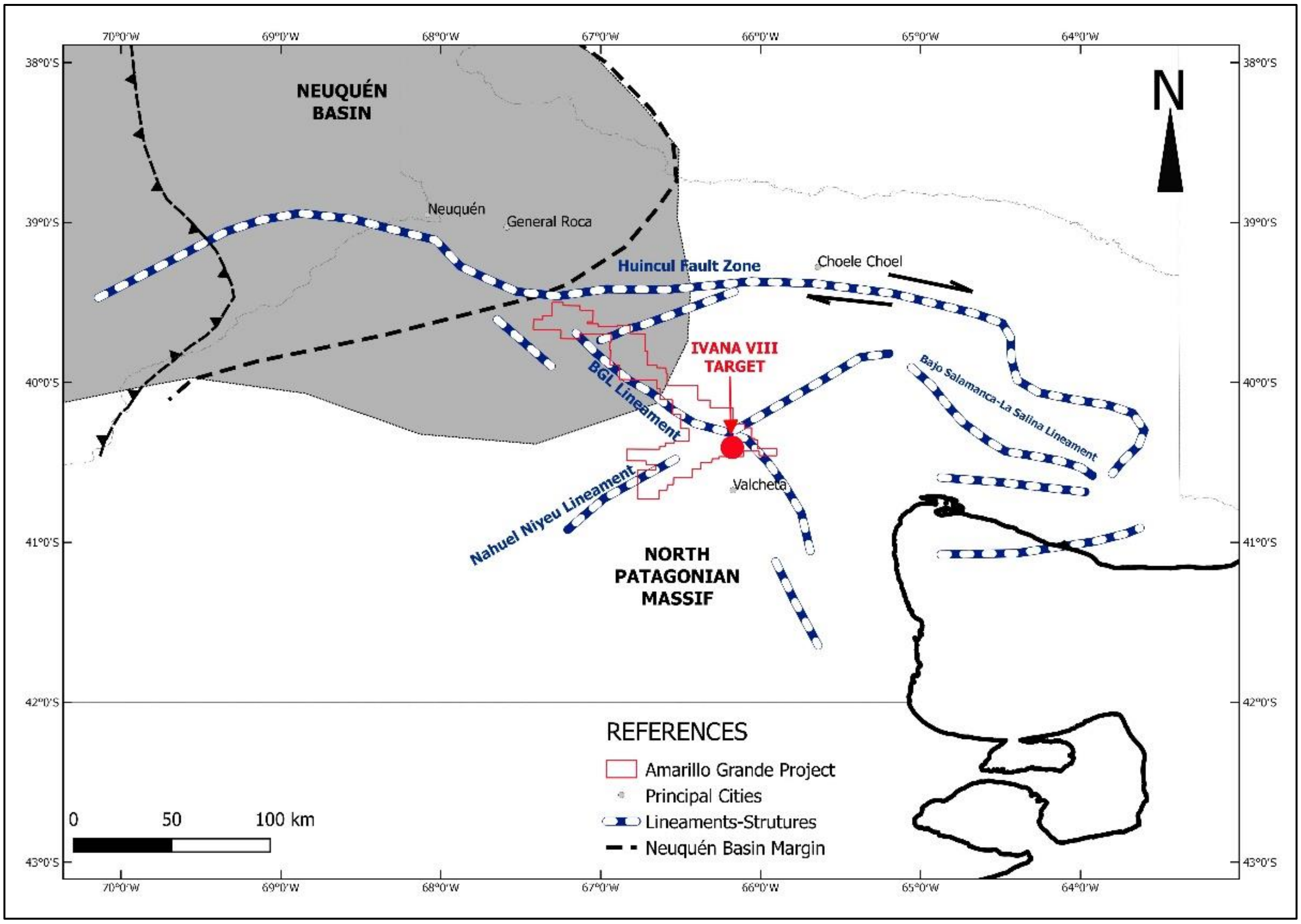


Figure 7-4: Regional North Patagonian mylonitic belts and lineaments; modified from Gregori et. al, 2008. (Thorson et al., 2018)

7.2 Property Geology

The strata present at the Ivana prospect are continental epiclastic and pyroclastic rocks of the Oligocene-early Miocene Chichinales Formation that were deposited unconformably over the rocks of the North Patagonian Massif, or over a marine sequence of Arroyo Barbudo Formation and red beds section of Neuquén Group (Figure 7-5).

The basement units are Nahuel Niyeu Formation (515-507 Ma) that comprises phyllites intercalated with metagreywackes, slates and lesser amounts of meta-igneous rocks with WNW-ESE and NE-SW fabric orientations. Near the Ivana prospect, isolated outcrops of Silurian-Devonian sandstone of the Sierra Grande formation unconformably overlie the Nahuel Niyeu rocks. Late Cretaceous red beds strata of the Neuquén Group, and marine transgressive strata of the Arroyo Barbudo Formation were described by Reichler, (2010) and confirmed by drill holes in the northern part of the Ivana prospect.

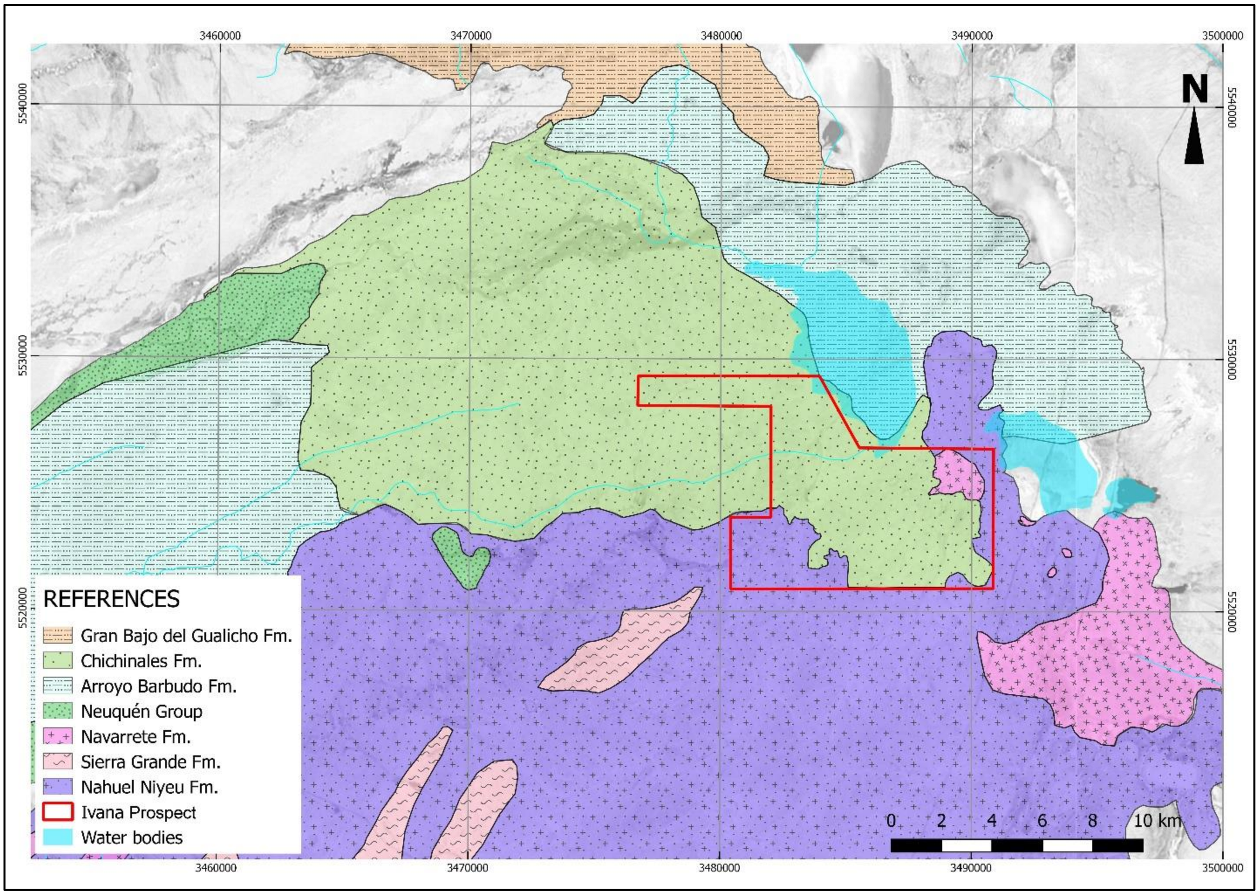


Figure 7-5: Property geology around the Ivana prospect (coordinates in Gauss Kruger Posgar 94 Zone 3); (Thorson et al., 2018)

The Chichinales Formation is generally comprised of soft tuffaceous poorly consolidated sandstone with mudstone and conglomerate intercalations. The formation is usually light-gray to brownish-gray colour but is black-coloured where impregnated with the amorphous carbonaceous material associated with primary uranium mineralization.

The Chichinales Formation has been divided into three members (Figure 7-6). The lower member, host to the Ivana uranium-vanadium mineralization, is commonly cross-bedded medium to coarse sandstone with silicified logs and fossil-wood debris. The lower Chichinales, at the Ivana prospect, contains layers of coarse, poorly sorted conglomerate, pebbly tuffaceous sandstone and small discontinuous layers and interbeds of mudstone and sandstone with carbonate cement.

The Middle Members contains characteristic paleosols in sequences of siltstone, mudstone and minor layers of fine sandstone. Finally, the Upper member comprises uniform thick sequences of coarse to fine tuffaceous sandstone and siltstone with interstratified mudstone at the bottom and mostly siltstone to fine sandstone at the top (Bjerg et al., 1997). Regionally some alteration patterns have been defined by diagenetic red beds style oxidation and gray reduction-bleaching in Chichinales sandstone.

Outside the Ivana prospect outlined in Figure 7-5, the upper part of the Chichinales interfingers with marginal marine sediments of the Bajo del Gualicho formation. Unconsolidated Quaternary deposits consisting of fine lacustrine salar sediments, sand dunes, and alluvial and colluvial accumulations cover parts of the area.

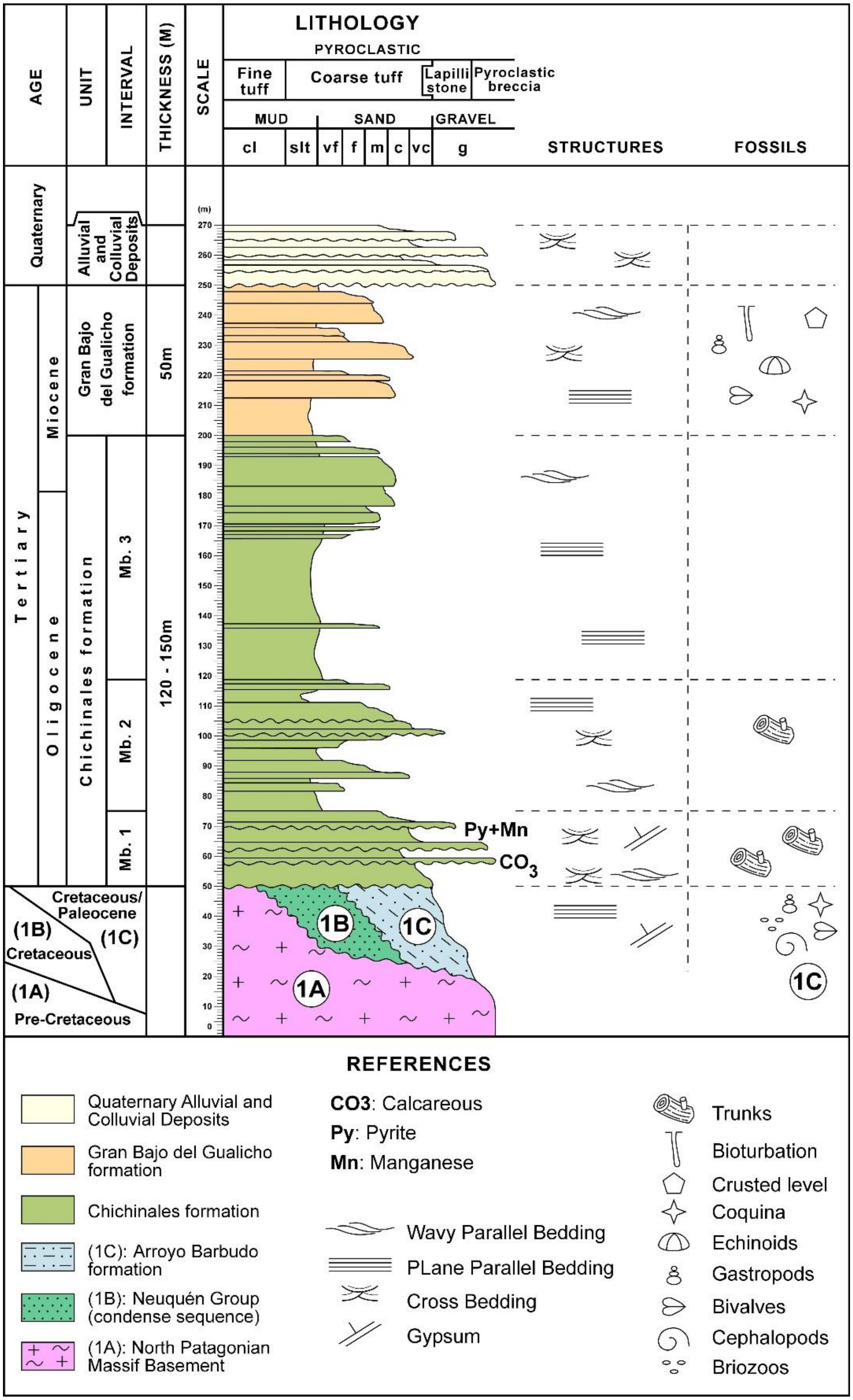


Figure 7-6: Schematic Stratigraphic Column at the Ivana prospect. (Thorson et al., 2018)

7.3 Mineralization

The uranium-vanadium mineralized horizons are hosted mostly in medium to coarse-grained, poorly consolidated sandstones, minor conglomerates, and mudstones of the lower Chichinales Formation; in weathered basement in fractures and secondary porosity; and in the regolith debris at the basement unconformity. Occasionally, uranium occurrences have been intercepted in the Arroyo Barbudo Formation and in red beds of the Neuquén group. The majority of uranium (~90%) in uranium-bearing minerals identified at Ivana is U^{+6} and therefore can be classified as secondary or oxide mineralization. The uranium mineralization has been divided into two types based on dominant uranium mineralogy and/or alteration and gangue mineralogy; 1) Oxide mineralization characterized by carnotite and oxide alteration minerals, and 2) Altered "primary" mineralization characterized by variant of coffinite, that has been named β-coffinite (beta-coffinite) by the Company and which contains mainly U^{+6} rather than U^{+4} which is normal for coffinite, and pyrite. These two varieties of uranium mineralization are associated with alteration assemblages that suggest aspects of at least two types of uranium deposits, and related depositional environments, are present in the Ivana deposit.

7.3.1 Oxide Mineralization

The oxide mineralization at Ivana is visibly dominated by carnotite, the yellow potassium uranium vanadate [$K_2(UO_2)_2(VO_4)_2 \cdot 3H_2O$] that occurs as coatings on pebbles and sand grains, and as disseminations in poorly consolidated sandstone and conglomerate. This mineralization style is closely associated with silicified or carbonized fossil wood and clusters of gypsum crystals that have grown in soft fine sediments. The most abundant uranium mineral identified by the QEMSCAN® work (Creighton, 2018) on "oxide" type mineralization, however, was β-coffinite (beta-coffinite), described in more detail in Section 7.3.2 below.

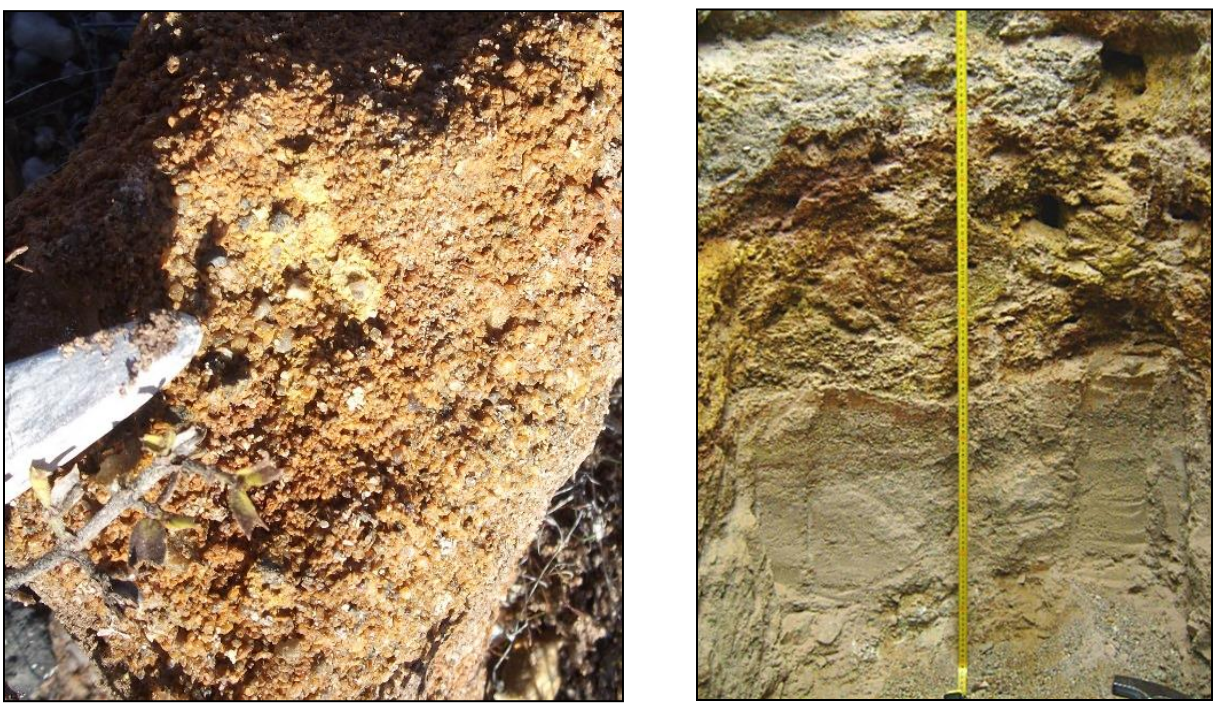


Figure 7-7: Oxide mineralization at the Ivana prospect; the yellow material in conglomerate and sandstone is carnotite, a potassium uranium vanadate. (Thorson et al., 2018)

The mineralogy of all secondary uranium (U^{+6}) minerals in the oxide mineralization at Ivana has not been completely determined. The term carnotite has been used in sample and RC drill cuttings descriptions as a field description for the yellow-coloured radioactive mineral. In a recent QEMSCAN analysis of samples from the Ivana deposit (Creighton, 2018) carnotite was confirmed and lesser tyuyamunite, leibigite, and a previously unreported uranium mineral were detected. Leibigite is a hydrated calcium-uranium carbonate [$Ca_2(UO_2)(CO_3)_3 \cdot 11H_20$] and appears to belong with the oxide mineralization, as does tyuyamunite, a hydrated calcium-uranium vanadate [$Ca(UO_2)_2V_2O_8 \cdot (5\text{-}8)H_2O$]. The "previously unreported uranium mineral" may be a complex mixture of a uranium mineral and a clay mineral such that the QEMSCAN cannot resolve a match with any known uranium mineral. For the present, the "previously unreported uranium mineral" is informally being called "ivanaite", after the Ivana deposit,

Oxide mineralization is associated with yellow or brown iron oxides derived from oxidized pyrite, and red iron oxides from altered iron or iron-titanium minerals, which are relatively common as disseminations in sandstones or as components in heavy mineral layers. The oxidation of these iron minerals has produced irregular iron oxidestained zones associated with oxide mineralization.

7.3.2 Altered Primary Mineralization

In the Ivana deposit altered primary mineralization has been found only in RC drill hole interceptions from 5-20 m in depth and has not been identified at the surface. The altered primary mineralization is characterized by disseminated pyrite and gray-coloured bleaching, and some of the primary mineralization contains a dark-brown to black vitreous carbonaceous looking material associated with disseminated pyrite, (Figure 7-8). The high-grade mineralization also contains smoky quartz grains, and minor natural organic carbon. Different forms of overgrowths of pyrite (Figure 7-9) have been documented including cubic crystals (10 µm) with overgrowths of sub-euhedral crystals (2 to 3 µm) and/or overgrowths of botryoidal pyrite (1 to 2 µm).

A preliminary mineralogical study of Ivana primary mineralization by Scanning Electron Microscope (“SEM”) identified predominantly coffinite with lesser amounts of possible uraninite and probable unidentified organic-uranium oxide complexes (Arce, 2017). A vanadium mineral was described as micaceous and tentatively identified as roscoelite [$K(V^{+3}, Al)_2(AlSi_3O_{10})(0H)_2$] and the carbonaceous material was characterized as "non-woody" amorphous organic matter (Arce, 2017).

A more recent QEMSCAN study of the primary uranium mineralization at Ivana (Creighton, 2018) recognized an anomalous coffinite-like uranium silicate, plus pyrite, but found no primary vanadium mineral. Coffinite has a formula of [$U(SiO_4)_{1-x}(OH)_{4x}$] and usually occurs as [$U(SiO_4)_{0.9}(OH)_{0.4}$] (Edwards, 2018a), but in the QEMSCAN samples tested from Ivana the “Si content is not consistent with the accepted composition of coffinite.” (Creighton, 2018). The anomalous "coffinite" was found to be susceptible to alkaline carbonate leaching without oxidation, from which Edwards (2018b) concluded that the anomalous "coffinite' is likely a hydrated U^{+6} silicate of possible U6+(SiO4)?(OH)? formula. Blue Sky Uranium has chosen to refer to the anomalous Ivana "coffinite" as β-coffinite (beta-coffinite) to simplify future discussions and avoid confusion (G. Pensado, 2018, written commun.) The Ivana primary mineralization appears to contain largely oxidized uranium in a ratio of about 10:90 (U^{+4}:U^{+6}; Carlevaris, 2018b).

The QEMSCAN study of the primary uranium mineralization from the Ivana deposit did not address the identity and character of the "non-woody carbonaceous material" shown in Figure 7-8, which occurs in parts of the primary mineralization and is shown as "reduced alteration with carbonaceous materials" in the cross sections A-A' and B-B' (Figures 7-11 and 7-12). The total organic carbon (“TOC”) content of composite samples of uranium-vanadium mineralization is quite low, from 360 to 1900 ug/g (0.036% to 0.19%; Carlevaris, 2018b).

SRC QEMSCAN results for Ivana samples from two composites representing the “oxide” and “altered primary” domains (Comp1 and Comp2) determined average relative mineral contents are similar with β-coffinite = 10.0, “uranium mineral” or ivanaite = 3.7, carnotite = 2.9, tyuyamunite = 1.1, and liebigite = 0.3.

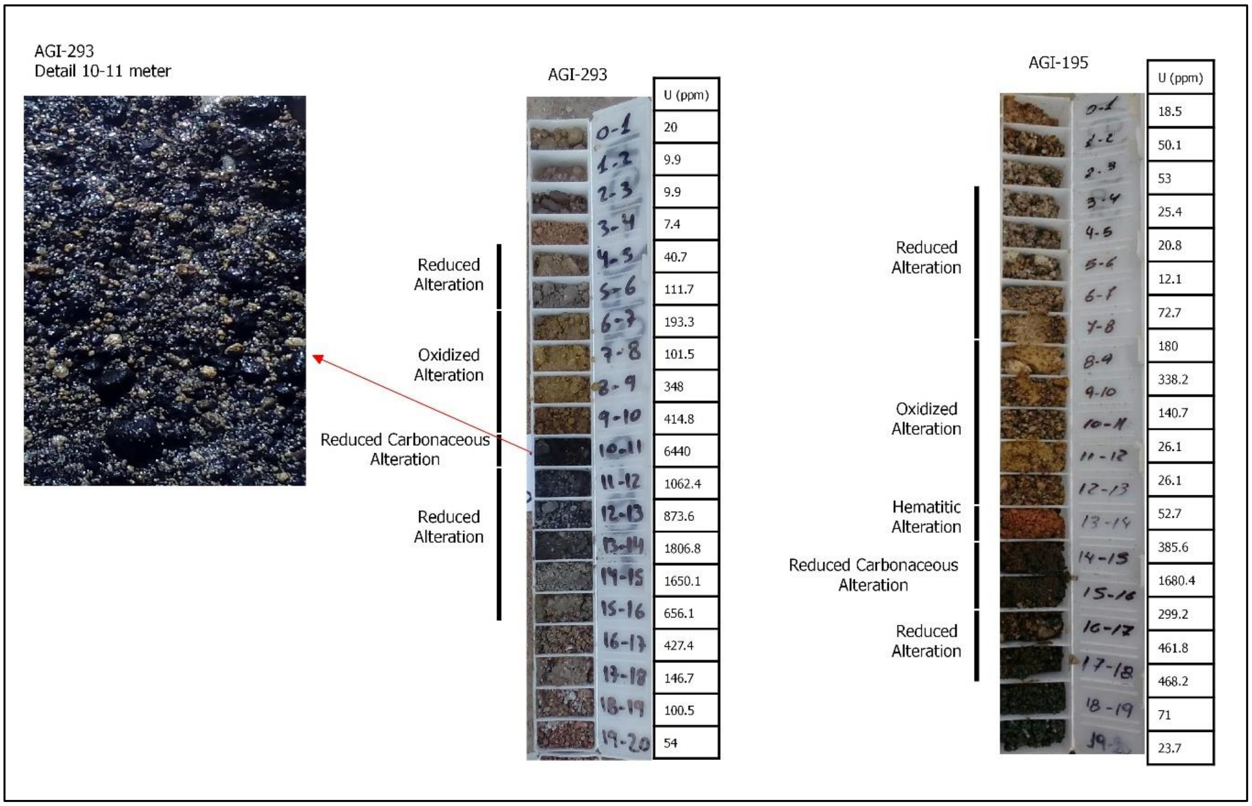


Figure 7-8: Altered primary mineralization and alteration appearance from drill holes AGI-293 and AGI-195; left, detail of appearance of vitreous "non-woody" carbonaceous matter from drill hole AGI-293, 10-11 m; center, cuttings chip tray from AGI-293 showing the alteration zones and uranium analyses (U ppm); right, cuttings chip tray from AGI-195 showing the alteration zones and uranium analyses (U ppm); from Arce, 2017.

7.4 Trace Element Geochemistry

An analysis of trace element geochemistry on 6,573 assay samples from 427 drill holes used for the Ivana initial Mineral Resource estimation (Thorson, et al., 2018) indicates that the Ivana uranium-vanadium mineralization shows strong positive correlations between uranium and Ag, As, Cd, Co, Mo, Re, S, Se, Th, Tl, and V. Selenium assays are commonly elevated in the Ivana mineralized zones; its concentration generally follows uranium grades. Selenium ranges from 10 to 1000 ppm with background values generally less than 1 ppm Se.

7.5 Alteration

Four alteration types have been defined at the Ivana prospect through the geological description and logging of RC cuttings samples: reduced alteration, reduced carbonaceous alteration, oxidized alteration and hematitic alteration.

Reduced alteration is characterized by light- to medium-gray colours of cuttings and by secondary porosity. Disseminations of pyrite are common but variable, as is undifferentiated carbonaceous material. This alteration appears to be associated with dissolution of carbonate and magnetite and is speculated to be the effects of aqueous organic acids associated with petroleum hydrocarbons.

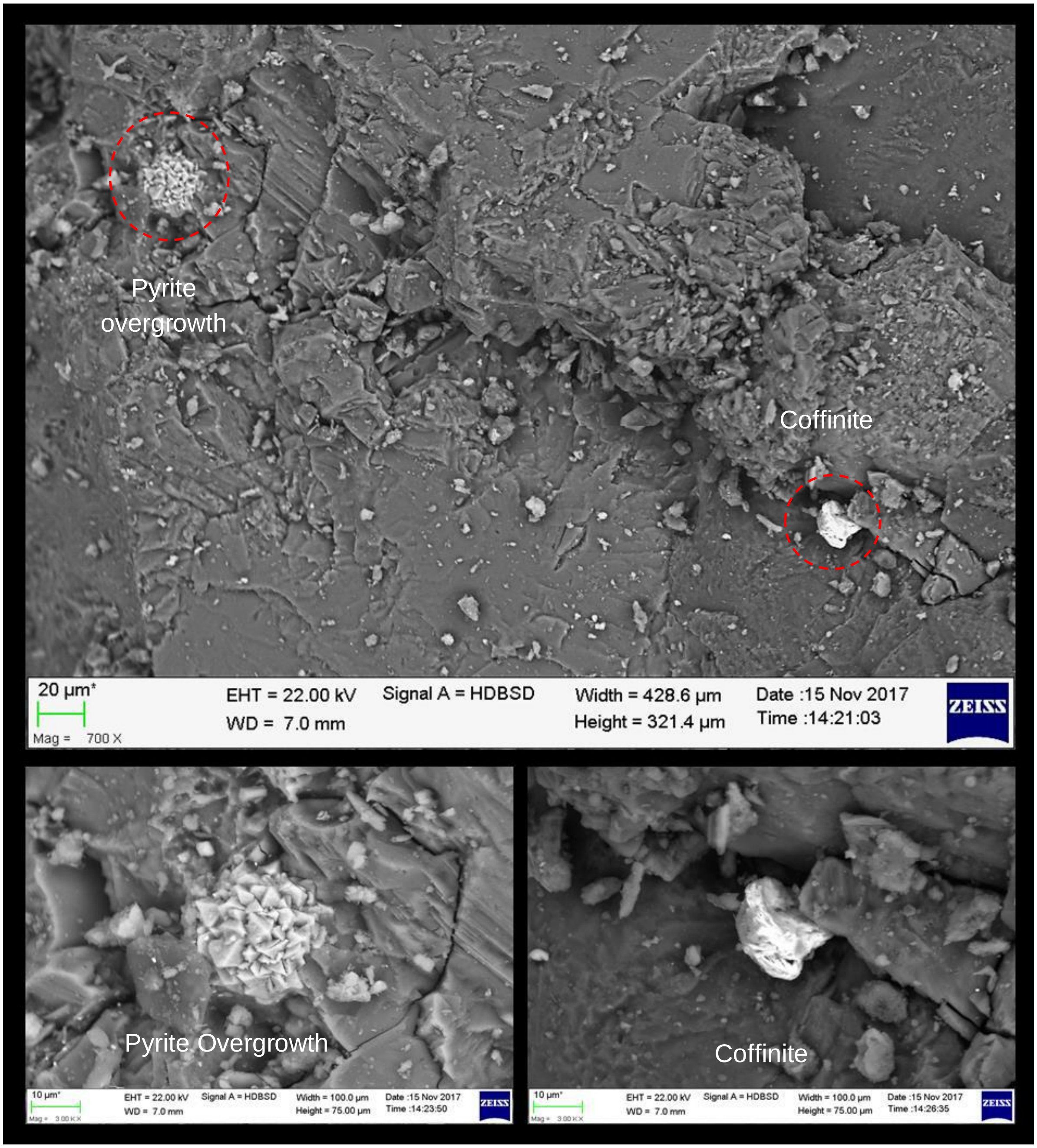


Figure 7-9: Scanning electron microscope images of Ivana primary mineralization from drill hole AGI-100, showing complex crystals of fine pyrite and a grain of "coffinite" ; from Arce, 2017. "Coffinite" in the Ivana mineralization has been recognized to be an anomalous coffinite-like mineral now referred to by Blue Sky Uranium as β-coffinite; see text for discussion.

Reduced carbonaceous alteration in cuttings is spatially associated with reduced alteration but is coloured dark brown to black by impregnation with carbonaceous material. The non-woody carbonaceous matter described by Arce (2017) and illustrated in Figure 7-8 is characteristic and abundant, as is disseminated pyrite.

Oxidized alteration contains limonitic iron hydroxides that give it a yellow to ochre colour in cuttings, apparently from the oxidation of magnetite and pyrite. Near redox boundaries more strongly coloured brownish-red cuttings reflect higher amounts of iron oxides and iron hydroxides in thin zones adjacent to the boundary.

Hematitic alteration is a variation of the oxidized alteration but characterized by intense red colours from hematitic iron oxides and possible iron enrichment in thin zones with limited distribution. Iron in these zones may be enriched from 2% to as high as 9% total iron.

The distribution of alteration types at Ivana commonly appears as a redox boundary or complex roll-front where tongues of oxidized alteration are penetrating and replacing reduced alteration, as in the cuttings examples in Figure 7-8. Note that some of the best uranium assays occur at the redox boundary between oxidized alteration and reduced carbonaceous alteration.

7.6 Distribution of Mineralization Types

In plan view the Ivana uranium-vanadium mineralization has a broad C-shaped pattern with some isolated outlying areas of weaker mineralization (Figure 7-10). Cross-sections help illustrate the distribution of both mineralization and alteration types (Figures 7-11, 7-12, and 7-13). The “C”-shaped channel controlled high-grade mineralization that is found mostly on the edges of a river channel where mudstone-sandstone ratios are increasing, and at a redox contact zone between yellow or ochre oxidized alteration and primary grayish to black reduced alteration.

The Ivana deposit is characterized by two stacked zones of uranium mineralization, the upper zone and the lower zone. The upper zone is comprised of oxidized mineralization, and the lower zone contains a mixture of oxidized and reduced primary-style mineralization. (See Figures 7-11, 7-12, and 7-13) The two zones occur together through most of the deposit but there are localized areas where only one zone is present.

These relationships support the interpretation that the oxide mineralization represents uranium and vanadium that has been oxidized and re-distributed from primary mineralization by oxygenated groundwater, and perhaps by fluctuations of rising and falling groundwater levels.

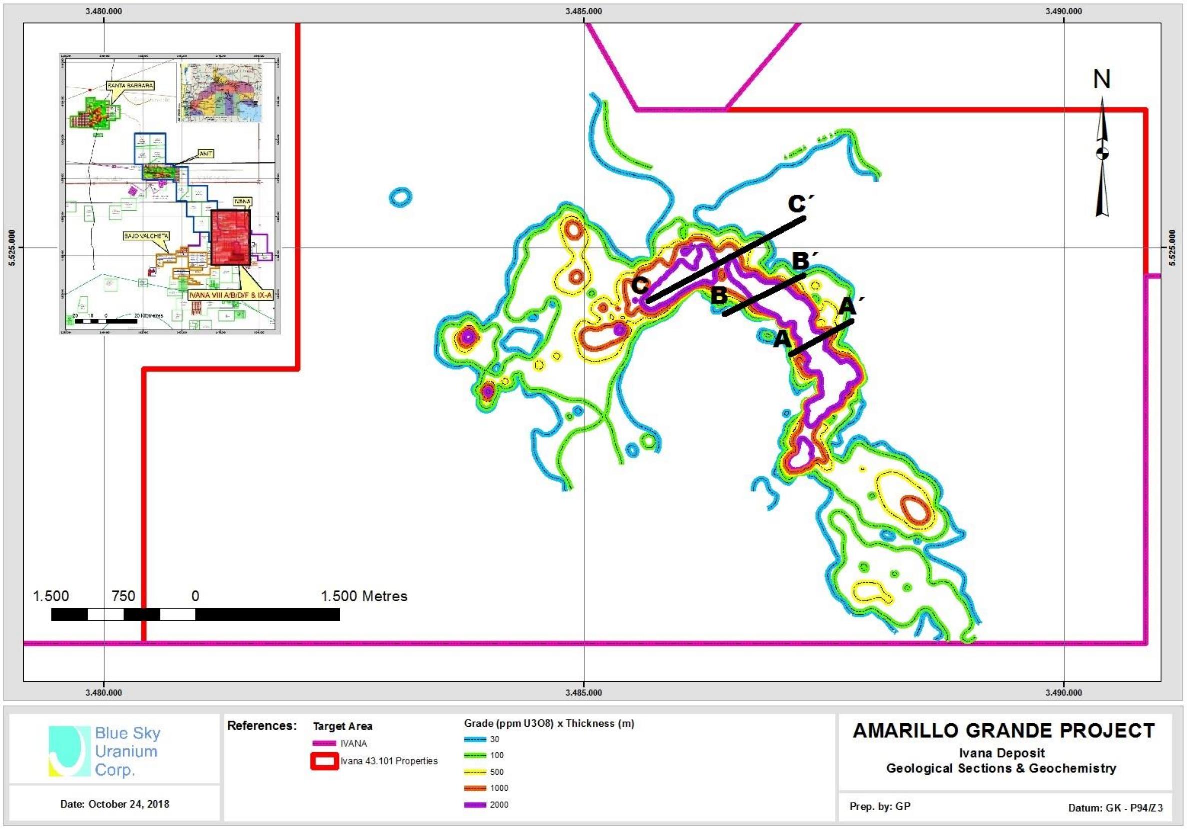


Figure 7-10: Thickness x grade map showing distribution of Ivana uranium mineralization and location of cross-sections A-A', B-B', and C'C'. For illustrative purposes; for current grade-thickness map see Figure 10-5. (Thorson et al., 2018)

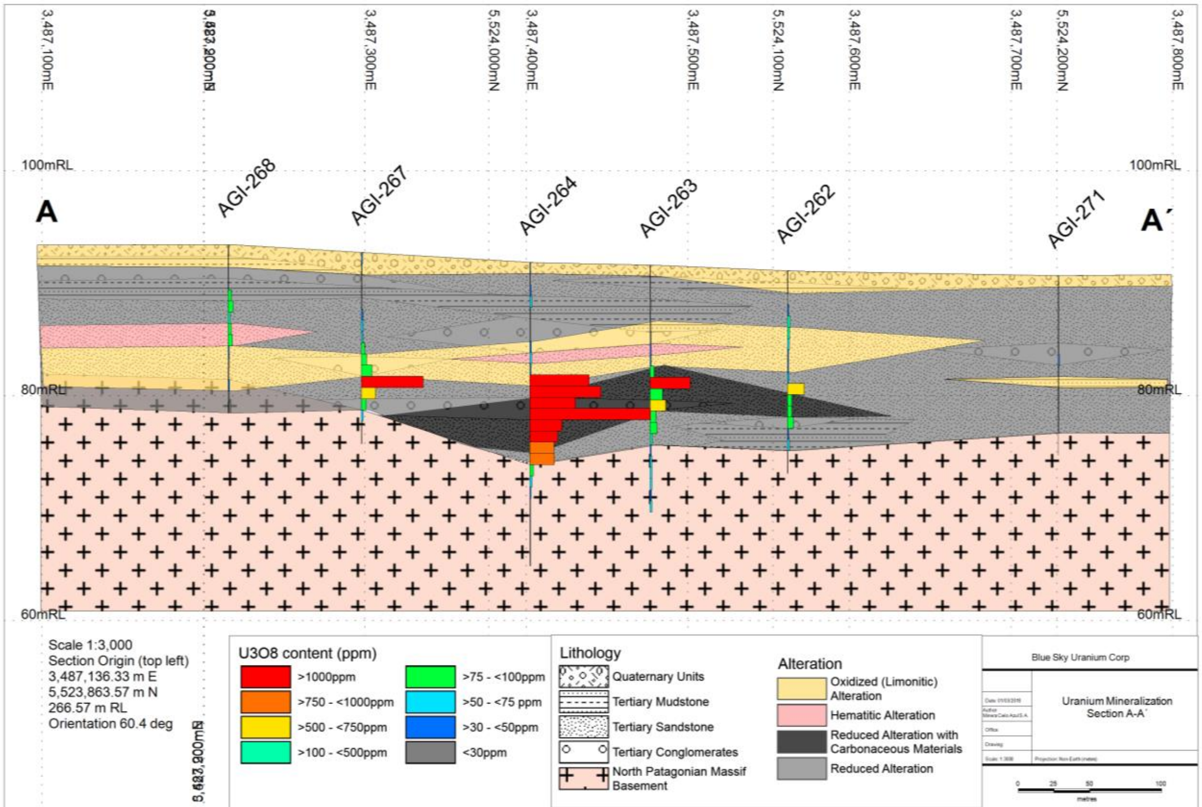


Figure 7-11: Cross section A-A' (Figure 7-10) illustrating high-grade primary uranium mineralization associated with reduced alteration and reduced carbonaceous alteration in the base of the Ivana paleo-channel. (Thorson et al., 2018)

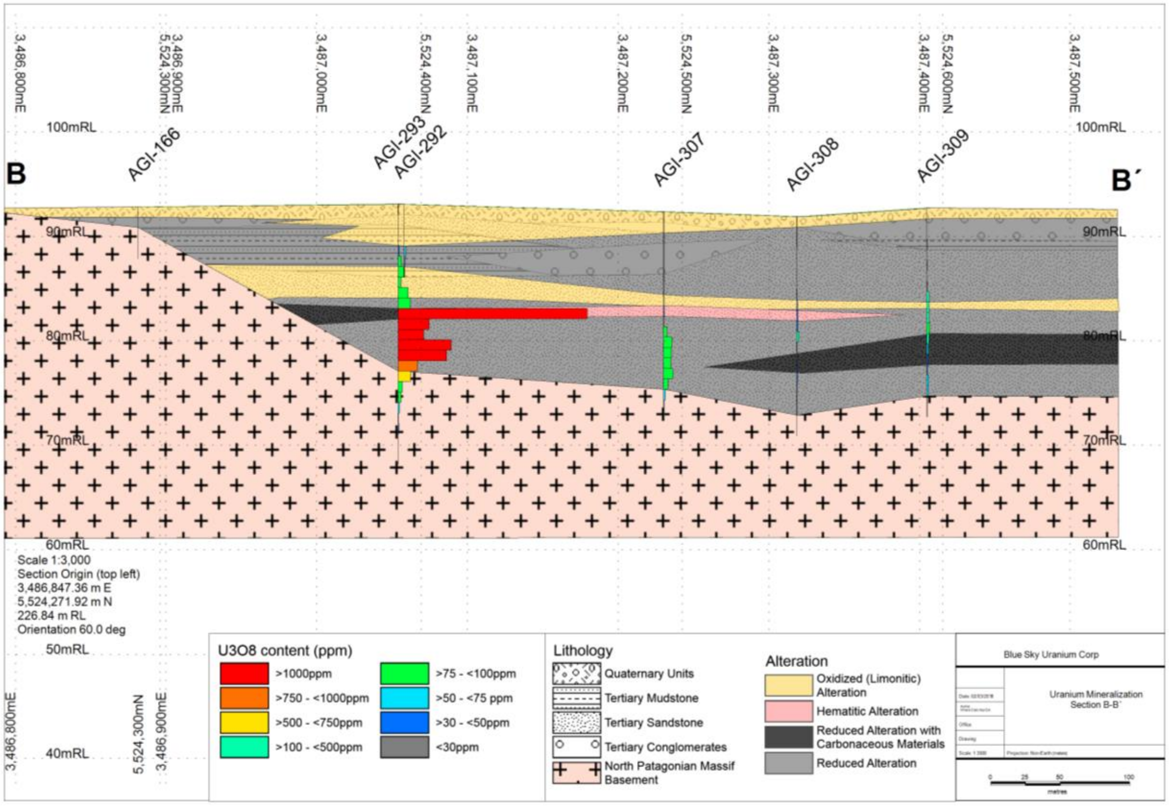


Figure 7-12: Cross section B-B' (Figure 7-10) illustrating high grade primary uranium mineralization associated with reduced alteration and reduced carbonaceous alteration in a steeper margin of Ivana paleo-channel. (Thorson et al., 2018)

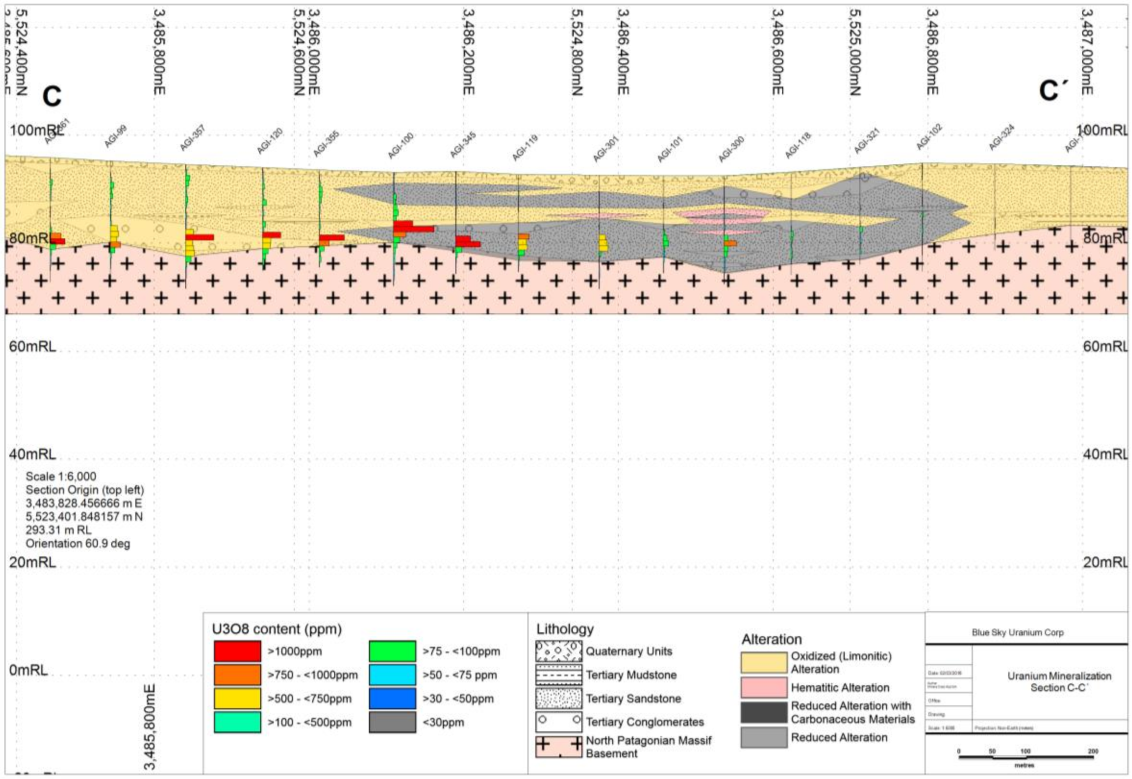


Figure 7-13: Cross section C-C' (Figure 7-10) showing the general flattened "C"-shaped distribution of reduced alteration, and both oxide and primary high-grade uranium mineralization along the bottom of the Ivana paleo-channel. (Thorson et al., 2018)

7.7 Comparison to other deposit types

The uranium-vanadium deposit at Ivana has similarities to other uranium deposits but does not fit the existing categories precisely. The Ivana oxide mineralization, consisting of carnotite and lesser other oxidized uranium+/-vanadium minerals coating pebbles and sand grains, and as disseminations in poorly consolidated sedimentary rocks, is similar to the surficial uranium deposits in Australia (Yeelirrie, and others) and Namibia (Langer-Heinrich)(see Section 8). However, most of the well-described surficial uranium deposits contain significant calcrete, layers of sand or gravel densely cemented with calcium or magnesium carbonates, often occurring above the uranium mineralization. The Ivana deposit contains layers of poorly consolidated sediments that are calcareous, but the strength of the calcite cement is far from being considered calcrete. The lack of calcrete layers at Ivana suggests that Ivana, in part, could be considered a surficial uranium deposit, but not a calcrete-type surficial uranium deposit. But, describing the Ivana uranium deposit as "surficial type" only describes the oxide part of the deposit, although the altered primary-type mineralization at Ivana is located near surface.

A large part of the Ivana uranium deposit, and the predominant amount of the pounds of U_3O_8, is altered primary-type mineralization, which is gray in colour, and contains smoky quartz, carbonaceous material and pyrite. This originally reduced primary mineralization in sandstone is very similar to the sandstone-hosted primary uranium mineralization on the Colorado Plateau, especially that from the Grants District, New Mexico, USA, where primary uranium mineralization occurs within reduced sandstone beds at some distance from any redox boundaries (see Section 8: Figure 8-5). The similarities to the Grants District are enhanced by the fact that the carbonaceous matter at Ivana is "non-woody" amorphous hydrocarbon, very similar in description to the "amorphous humic organic material" associated with uranium at Grants (Burrows, 2010). The organic material associated with uranium mineralization in many of the Colorado Plateau sandstone-hosted uranium deposits is carbonaceous fossil plant material with clearly recognizable "woody" textures and structures.

However, the Ivana uranium deposit does not occur stratigraphically well up in a basin filling sequence, like the Colorado Plateau sandstone-hosted uranium deposits. Instead, the Ivana deposit closely hugs the basement unconformity, like a basal channel uranium deposit, similar to the Blizzard deposit in Canada, or the Honeymoon and Four Mile deposits in Australia. So, although the primary uranium mineralization at Ivana is clearly a sandstone-hosted type deposit, it is most like a basal channel sandstone-hosted uranium deposit.

Further, the as-yet untested speculation that uranium occurrences in the Amarillo Grande Project may be related to one or more regional redox boundaries in the Chichinales Formation (Thorson, 2017), suggests some similarities to the huge uranium systems of Kazakhstan (see Section 8; Figure 8-3 and 8-4). The work to date at Ivana confirms that the Ivana uranium-vanadium deposit is, in part, a sandstone-hosted deposit, and, in part, a surficial deposit.

8 Deposit Types

The Ivana uranium-vanadium deposit has some of the characteristics of two types of uranium deposits widely recognized around the world: sandstone-hosted uranium deposits and surficial uranium deposits (see Section 7).

The US Geological Survey and the International Atomic Energy Agency ("IAEA") have classified uranium deposits into numerous different types based on their geology and host rocks (IAEA, 2009; Cox and Singer, 1992). The sandstone-hosted type, with its many variants, has been recognized for many years, but surficial uranium deposits are a relatively newly recognized uranium deposit type, new enough that they were not even mentioned by Cox and Singer (1992). Sandstone-hosted uranium deposits have accounted for approximately 30% of world uranium production (Burrows, 2010); surficial deposits, because of their recent recognition and lower grades, account for lower production and resources.

8.1 Sandstone-hosted Uranium Deposits

Sandstone-hosted uranium deposits are generally found in continental or marginal marine sedimentary rocks, often where permeable sandstones or conglomerates are confined between less permeable siltstone or mudstone strata. Uranium is precipitated under reducing conditions created by various reducing agents in the sandstone host such as carbonaceous material, hydrocarbons, sulfides (pyrite), or ferro-magnesian minerals like chlorite. Three of the sandstone-hosted uranium deposit types described by IAEA (2009) and Kyser and Cuney (2015a) are applicable for comparison with the deposit at Ivana: roll-front type, tabular type, and basal channel type.

Roll-front deposits occur as C-shaped or complexly curved mineral zones that are convex down the hydrologic gradient, with reductant-bearing sandstone on the down-gradient side and oxidized sandstone on the up-gradient side (Figures 8-1, 8-2). The interface between these mineral zones is a reduction-oxidation ("redox") chemical boundary. The mineralized zones may be elongate and sinuous, often parallel to the strike of the host-sandstone unit, and roughly perpendicular to the direction of deposition and groundwater flow. Examples can be found in: the Powder River Basin of Wyoming, USA; the Coastal Plain of Texas, USA; and Chu-Sarysu and Syrdarya Basins of Kazakhstan where mapable redox boundaries have been followed for hundreds of kilometres and contain many deposits of this type (Figure 8-3). These uranium deposits along regional redox boundaries can be truly huge deposits, as at Inkai, Kazakhstan where the proven and probable reserves are about 262 Mlbs of U_3O_8 at a grade of 0.04% U_3O_8 (Figure 8-4; Cameco, n.d.b).

Tabular deposits consist of sandstone-hosted uranium impregnations, which form irregularly-shaped masses within reduced sediments, generally near-parallel to bedding. The significant difference between tabular deposits and roll-front deposits is the occurrence of the tabular mass being completely separated from any oxidized zone. Tabular deposits may be modified by later oxidation, in the style of uranium deposits in the Grants District of the Colorado Plateau, New Mexico, USA (Figure 8-5), but the ore occurrence completely enveloped in reduced sandstone requires different uranium transportation chemistry than roll-front deposits.

Basal channel deposits are transitional between surficial-type and other sandstone-type uranium deposits, occurring in poorly consolidated, highly permeable, fluvial to lacustrine, carbonaceous gravels and sands deposited in paleovalleys directly incised into basement rocks. The Blizzard deposit in Canada (Boyle, 1982; Christopher, 2005) and the Four Mile uranium deposits in the Beverley district of Australia are typical basal channel uranium deposits.

At Blizzard, uranium mineralization occurs in a late Miocene paleo-channel eroded into an underlying Laramide-age intrusive complex. The paleo-channel is filled with a complex sequence of interfingering conglomerate, arkosic sandstone and mudstone containing abundant organic matter in the form of carbonaceous fossil plant material, capped by basalt. Most of the uranium mineralization is uranyl and uranous phosphate minerals such as saleeite [$Mg(UO_2)_2(PO_4)_2 \cdot 8\text{-}10(H_2O)$], ningyoite [$(U,Ca)_2(PO_4)_2 \cdot 1\text{-}2(H_2O)$], and autunite [$Ca(UO_2)_2(PO_4)_2 \cdot 8\text{-}10(H_2O)$], although there are reported small amounts of pitchblende (UO_2). A notable component of the Blizzard deposit is the presence of large amounts of limonite in the sandstone and conglomerate members of the sedimentary sequence that appears to be the oxidation product of diagenetic iron sulfide. Also notable is the occurrence of significant uranium mineralization in the regolith between the base of the paleo-channel and the underlying basement rocks. Figures 8-6 and 8-7 illustrate the concentration of uranium near the base of the paleo-channel at Blizzard. Christopher (2005) reported that the Blizzard deposit contained non-compliant indicated resources of about 4,700,000 Kg (10,360,000 lbs) of U_3O_8 at a grade of about 0.25% U_3O_8.

Australia contains several significant basal channel uranium deposits in the Frome Embayment Uranium Field of South Australia. The Honeymoon uranium deposit in the southern part of the Frome Embayment Uranium field occurs in Tertiary fluvial sediments in a paleochannel eroded into Precambrian basement (Figure 8-8). Mineralization is in porous, coarse-grained basal sands containing pyrite, humic carbonaceous material, and coffinite. Oxidized paleochannel sands are orange- to yellow-coloured, but reduced material is gray, or black where it contains high amounts of organic material.

The Four Mile portion of the Beverley uranium district, also in the Frome Embayment Uranium Field, contains two basal channel uranium deposits: Four Mile East and Four Mile West. Reduced ore at these deposits contains predominantly pyrite and uraninite associated in dark gray sediments coloured by high amounts of organic material (Skirrow, 2009).

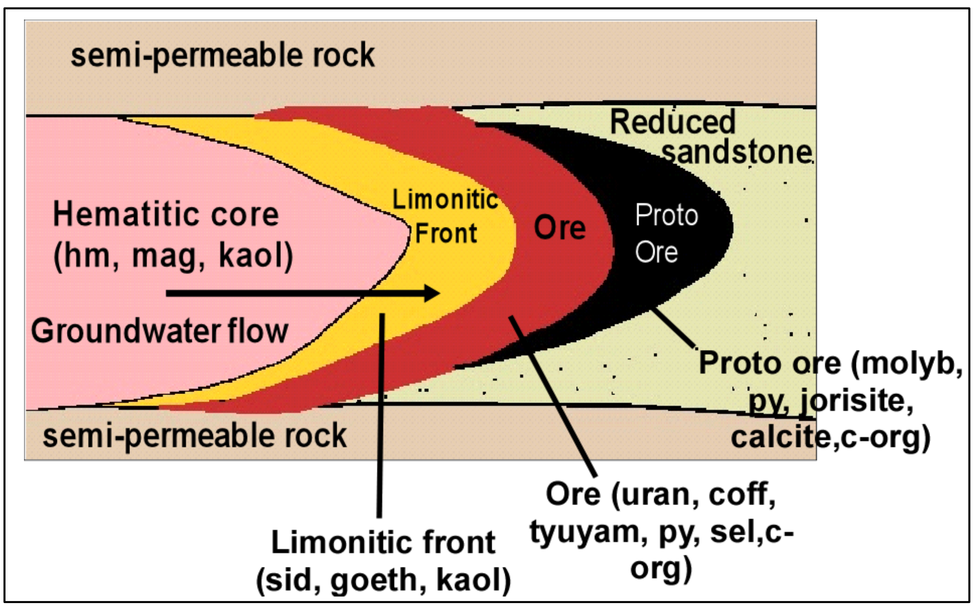


Figure 8-1: Simple roll-front uranium occurrence; reduced sandstone (right) contains some reductant (carbonaceous fossil plant material, hydrocarbons, pyrite or chlorite in advance of the roll-front chemical cell that is being driven from left to right by advancing oxidized groundwater containing U, V, Mo, Se, and other elements characteristic of roll front deposits; modified after Kyser and Cuney, 2015a.

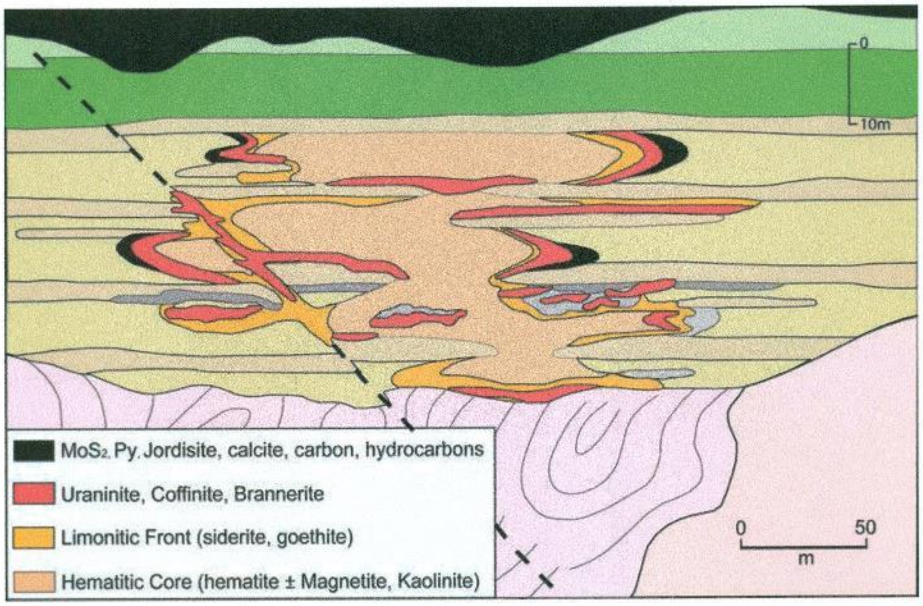


Figure 8-2: Complex geometry of roll-front deposits in a layered sequence of sandstone and shale cut by a fault; from Burrows, 2010. The uranium occurrence illustrated at the basement contact in the center is a diagrammatic representation of a possible basal-type deposit.

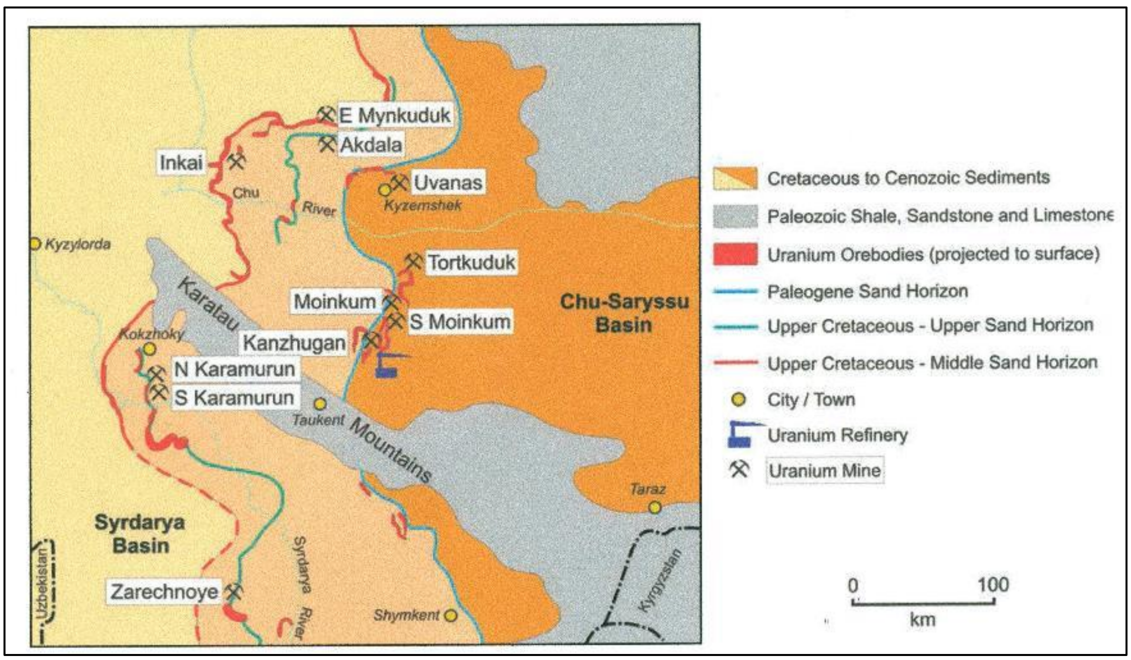


Figure 8-3: Redox boundaries and roll-front uranium deposits in Cretaceous and Paleogene sandstones of the Chu-Sarysu and Syrdarya Basins of Kazakhstan; from Burrows, 2010. Note that these regional roll fronts can contain uranium ore bodies over distances on the order of one hundred kilometres, as at Inkai, see Figure 8-4.

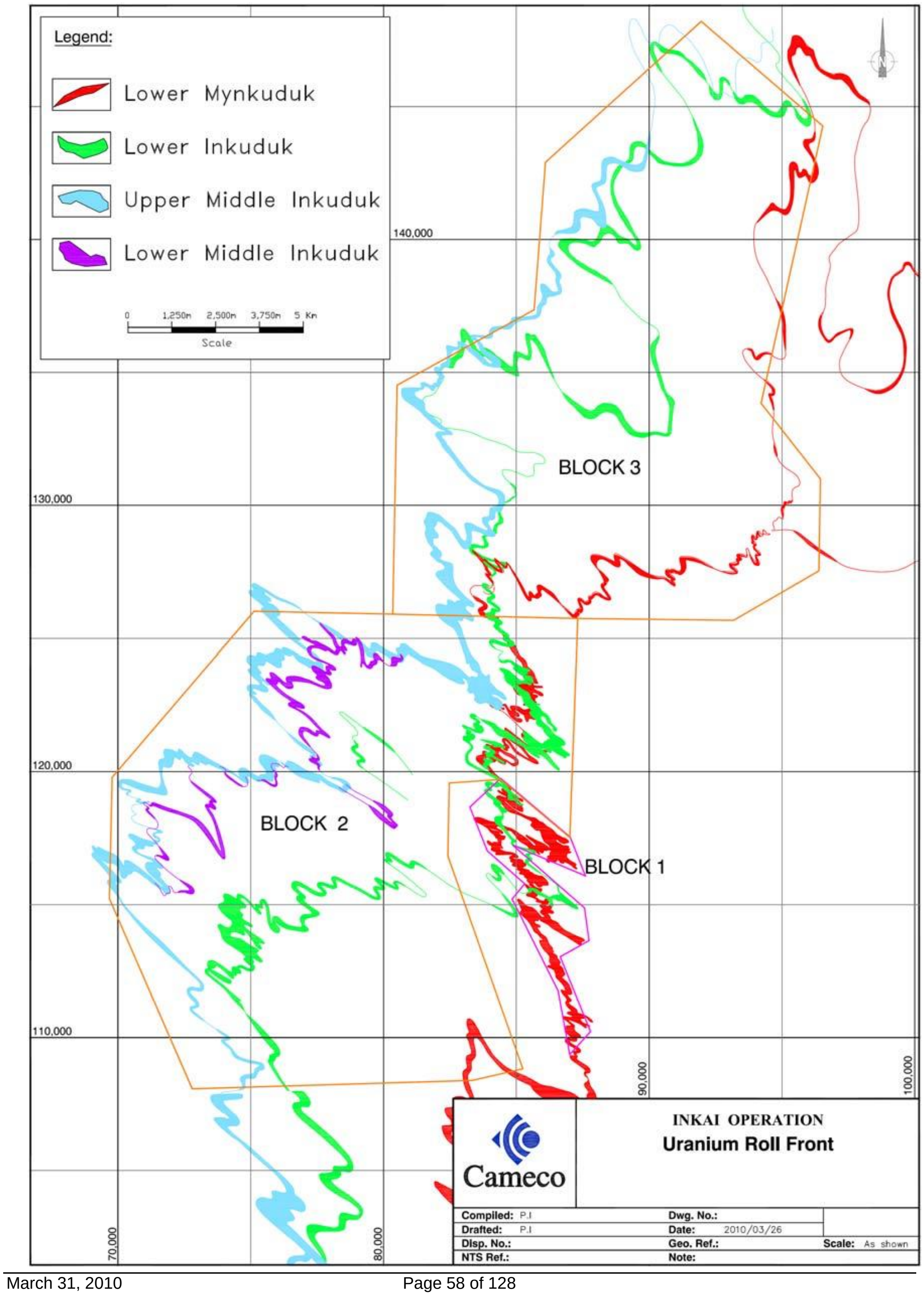


Figure 8-4: Inkai roll fronts, Kazakhstan; regional roll fronts containing uranium ore bodies over distances of one hundred kilometres and occurring at multiple stratigraphic levels; from Foldenauer and Mainville, 2009.

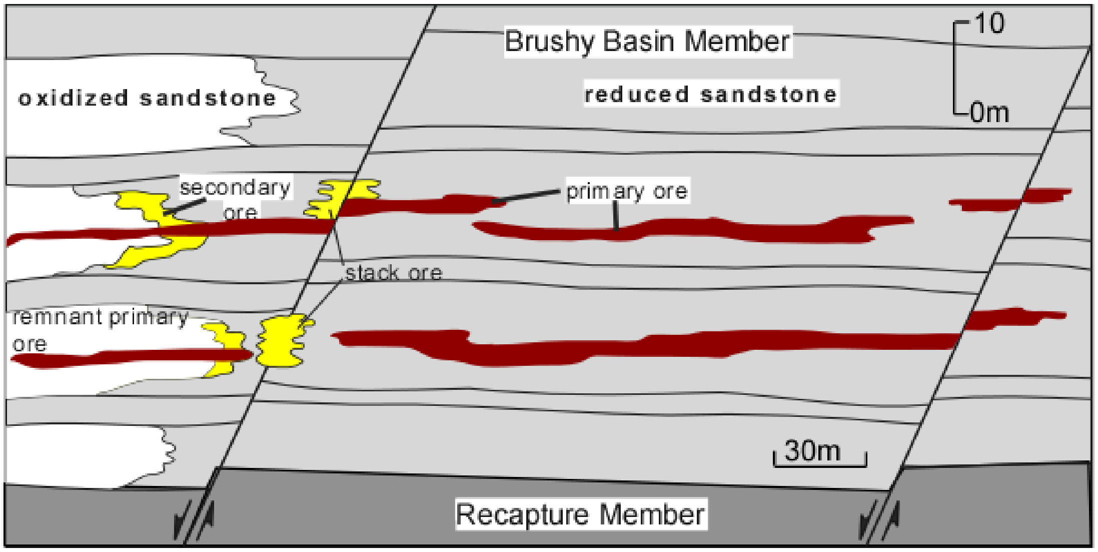


Figure 8-5: Tabular uranium deposits; diagrammatic representation of deposits in the Grants District, New Mexico, USA. Primary ore in tabular uranium deposits (centre) is completely enveloped in reduced sandstone containing pyrite and humic hydrocarbon; tabular uranium deposits (left) are being oxidized and altered to secondary ore by the later influx of oxidized groundwater to create roll-front type modifications of tabular deposits. Primary ore consists of coffinite, pyrite and black amorphous humic hydrocarbon impregnating sandstone; secondary ore is largely carnotite and other oxidized uranium-vanadium mineral species; from Burrows, 2010.

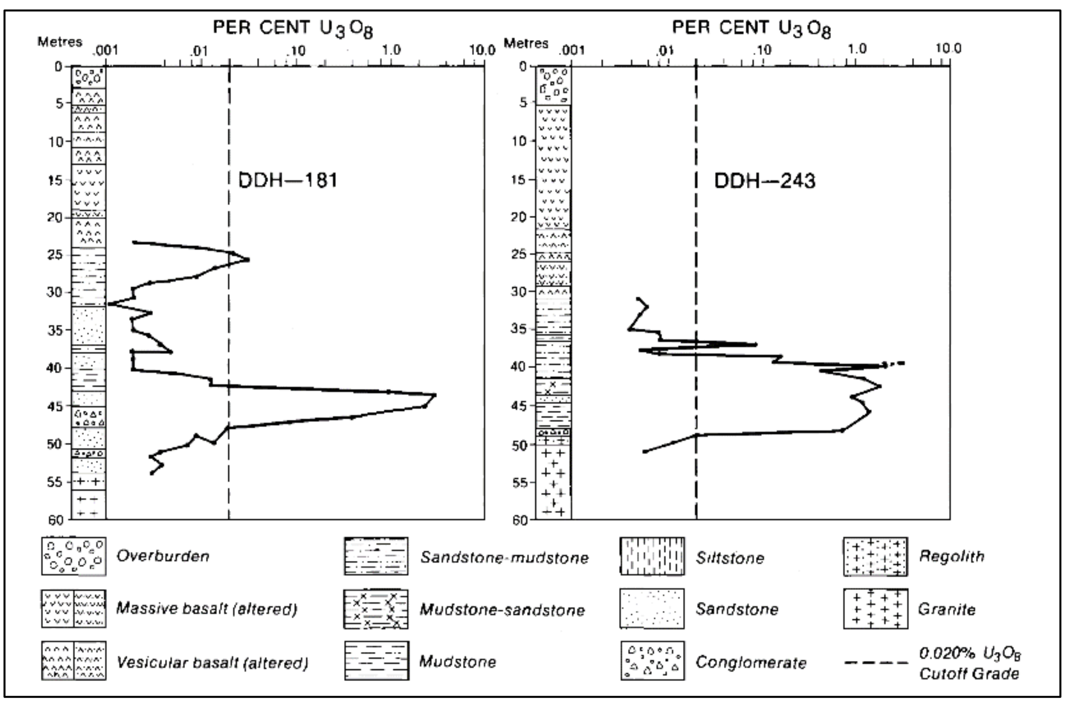


Figure 8-6: Representative stratigraphic drill logs and chemical assays for the Blizzard uranium deposit, British Columbia, Canada (Percent U_3O_8 scale in logarithmic); from Boyle, 1982.

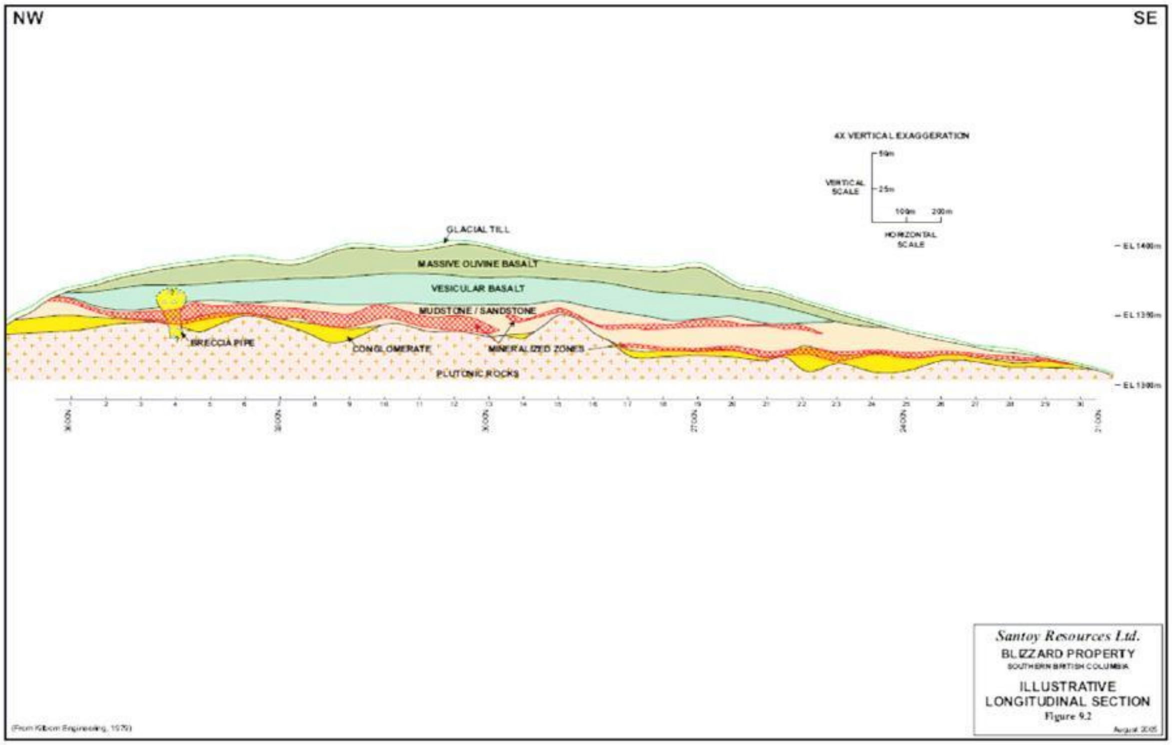


Figure 8-7: Longitudinal section through the Blizzard uranium deposit, British Columbia, Canada, showing the paleo-channel and uranium mineralization preserved beneath a capping of basalt; from Christopher, 2005.

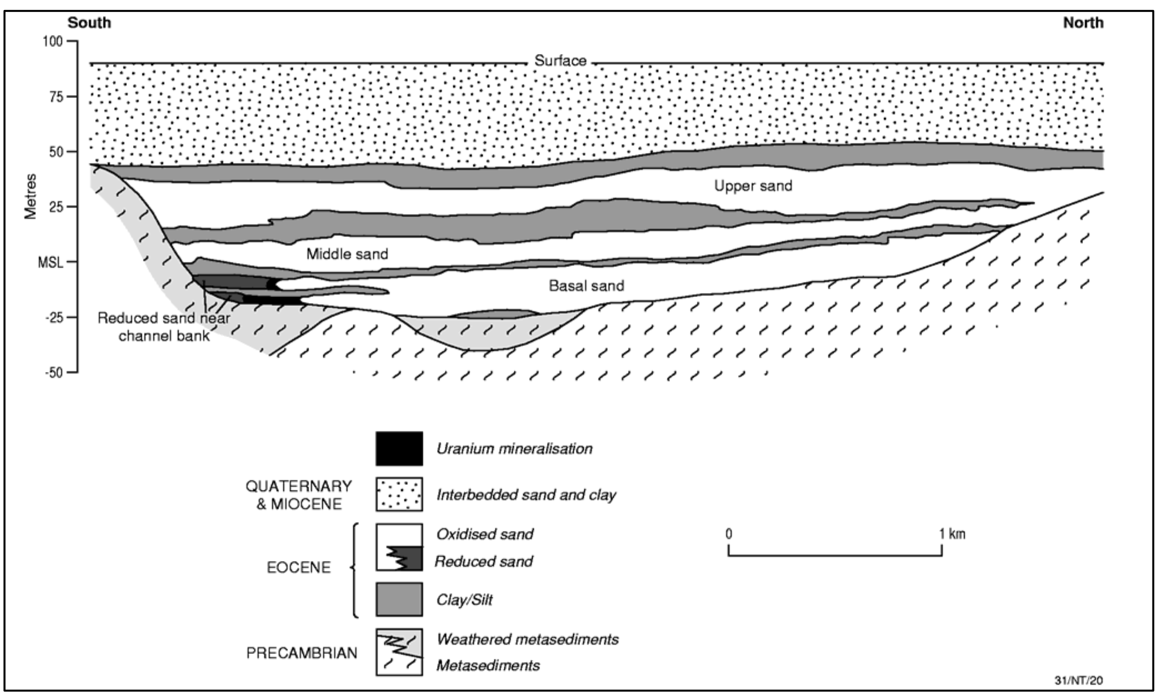


Figure 8-8: Diagrammatic cross section through the Yarramba paleochannels and the Honeymoon uranium deposit in the Frome Embayment Uranium Field, South Australia; MSL = mean sea level (from McKay and Meizitis, 2001).

8.2 Surficial Uranium Deposits

Surficial uranium deposits are broadly defined as young (Tertiary to Recent) near-surface uranium concentrations in sediments or soils (IAEA, 2009). These deposits usually have secondary cementing minerals including calcite, gypsum, dolomite, ferric oxide and halite. Surficial deposits have been found in a wide variety of environments, but the setting of the largest is hot-dry deserts where uranium mineralization is associated with calcrete (calcium and magnesium carbonates) cementing sand or gravel. The calcrete bodies are interbedded with Tertiary sand and clay, which are usually cemented by calcium and magnesium carbonates as well. The main uranium mineral is carnotite (hydrated potassium uranium vanadium oxide).

In Western Australia, surficial calcrete-related uranium deposits occur in valley-fill sediments along Tertiary drainage channels (e.g. Yeelirrie) and in playa lake sediments (Figure 8-9). These deposits overlie Archean granite and greenstone basement of the northern portion of the Yilgarn Craton. Calcrete uranium deposits also occur in the Central Namib Desert of Namibia, the largest being the Langer Heinrich deposit.

A variety of fixation mechanisms have been proposed for surficial uranium deposits (Otton, 1984) including:

1. disassociation of soluble complexes,
2. evaporative concentration of solute species in near-surface groundwaters,
3. change of valence state of U or V which decreases the solubility of the ore mineral,
4. mixing of waters creating local supersaturation with respect to ore minerals,
5. sorption by organic matter followed by reduction of U, and
6. sorption by silica, iron hydroxides or oxyhydroxides, and clay.

The Yeelirrie uranium deposit in Australia, now owned by Cameco, is an excellent example of the surficial-type deposit. The Yeelirrie deposit is a 9 km by 1.5 km horizontal sheet of poorly consolidated fine sediments in which the bulk of uranium mineralization is confined to an interval between 4 m and 8 m below the surface. Approximately 90% of the mineralization is in a zone 4 m thick, below the water table and at a transition between calcrete and an underlying alluvium consisting of red clay with disseminated detrital quartz grains and quartz-rich bands. IAEA (2009) reports that carnotite is the only important uranium mineral at Yeelirrie, occurring as a thin film coating cavities and fractures, or disseminated through earthy calcrete. Yeelirrie may be the world's largest reported surficial uranium deposit with measured and indicated resources of 128 Mlbs of U_3O_8 at an average ore grade of 0.15% U_3O_8. (Cameco, n.d.a).

The Langer-Heinrich uranium deposit in Namibia is another significant surficial deposit with reported 2021 ore reserves of about 84 Mlbs of U_3O_8 at a grade of 0.045% U_3O_8, using a cut-off grade of 250 ppm U_3O_8 (Paladin, 2024). The deposit is about 15 km long, located in a channel filled with fluvial sediments beneath a layer of calcrete (Figure 8-10). Uranium mineralization occurs as carnotite in thin films lining cavities and fracture planes, and as grain coatings and disseminations, in calcrete-cemented sediments. Mineralization is very near surface, and from 1 m to 30 m thick.

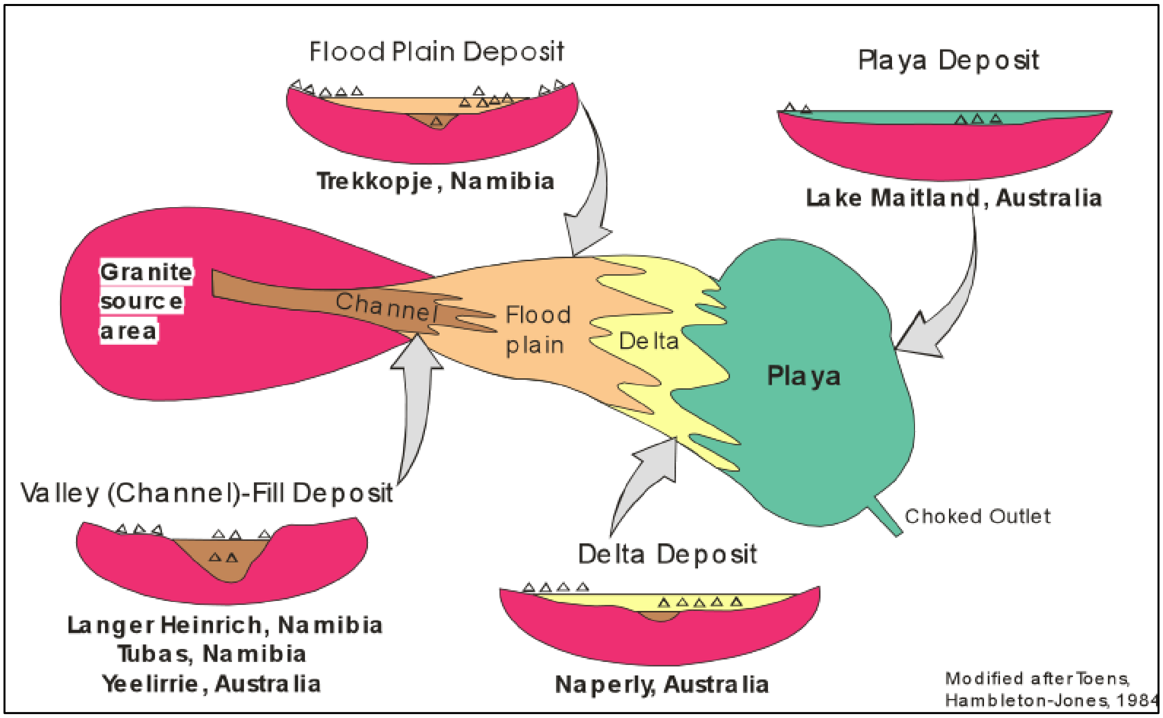


Figure 8-9: Surficial uranium deposits occurring in a wide variety of geological settings in desert environments; from Kyser and Cuney, 2015b.

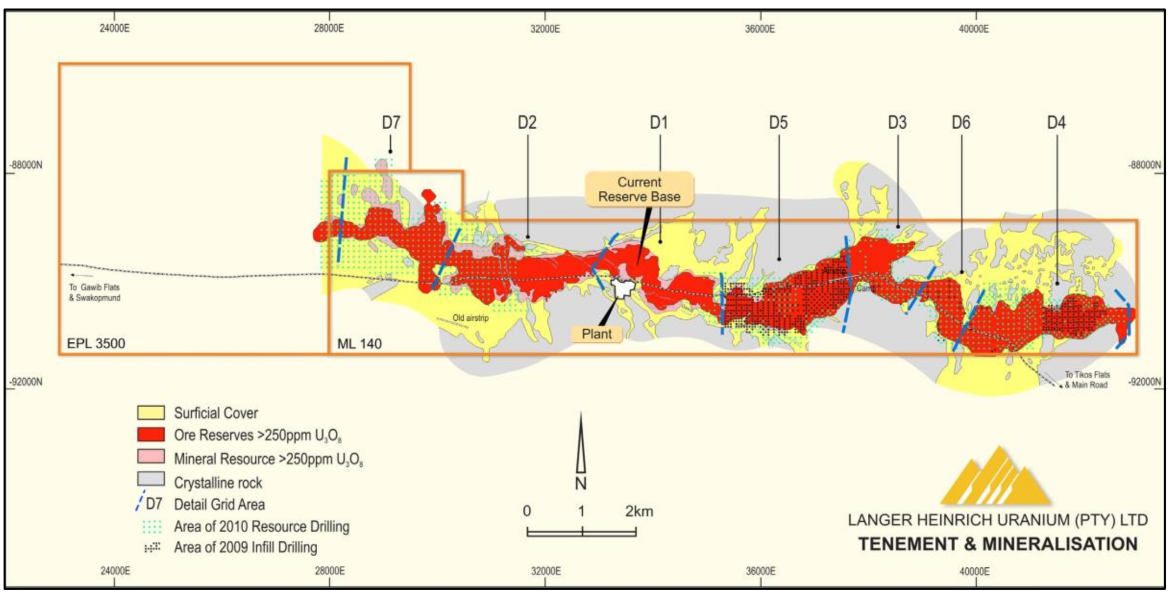


Figure 8-10: The Langer Heinrich uranium deposit, Namibia, along about 15 km of calcrete cemented paleochannels (Paladin, 2015).

9 Exploration

9.1 Early Regional Exploration

Shortly after entering into the option agreement with AUC for Anit and Santa Barbara, Blue Sky launched an aggressive exploration program that included surface traverse and car-borne radiometric surveys, radon gas soil surveys, pitting, trenching and auger drilling and sampling, as well as an airborne radiometric survey covering approximately 2,200 km^2 (Figure 9-1; Urquhart, 2007).

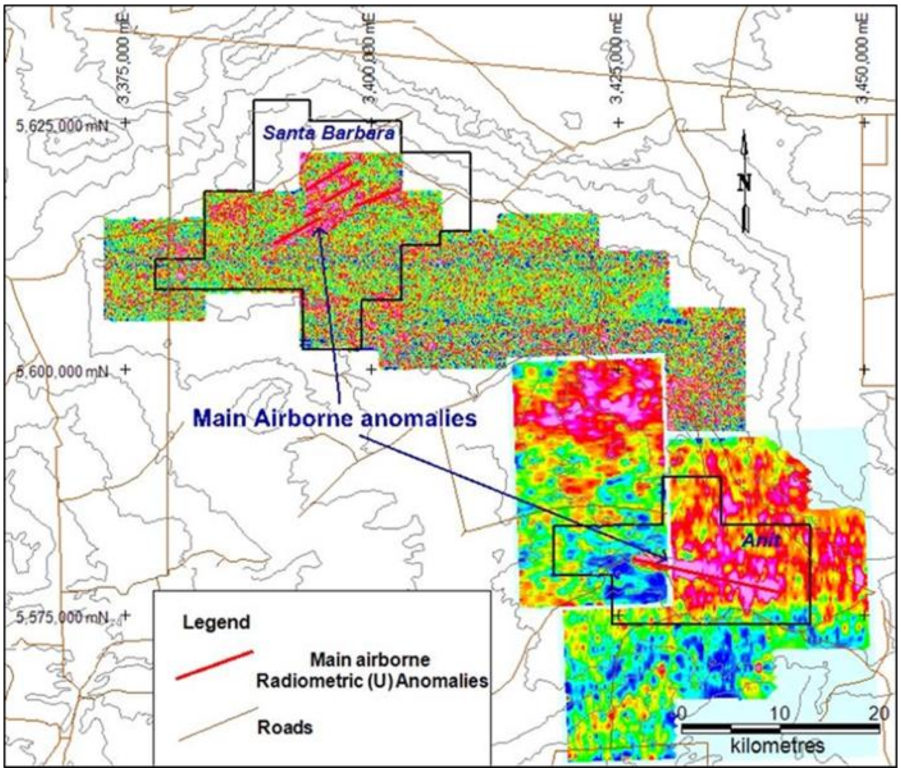


Figure 9-1: Airborne radiometric surveys flown in 2007 over the Santa Barbara and Anit areas (Urquhart, 2007).

The early exploration programs were successful in expanding the two initial target areas at Anit and Santa Barbara, and also led to the recognition of significantly more extensive exploration potential of the region. Follow-up exploration programs included systematic work to evaluate the economic potential of the Anit area, initially believed to be the more significant target. Regional exploration also included a second airborne radiometric survey, which was conducted in 2010 covering approximately 22,650 km^2 (APG, 2010). This airborne survey, covering almost ten times the area of the previous survey, confirmed that the exploration team had already recognized the regional potential of the district. The 2010 survey showed multiple well-defined uranium-equivalent radiometric anomalies, mainly along a northwest-southeast trend. Following the principal trend southeastward, the survey defined a new potential target area named Ivana (Figure 9-2) and cateos were claimed to cover the area.

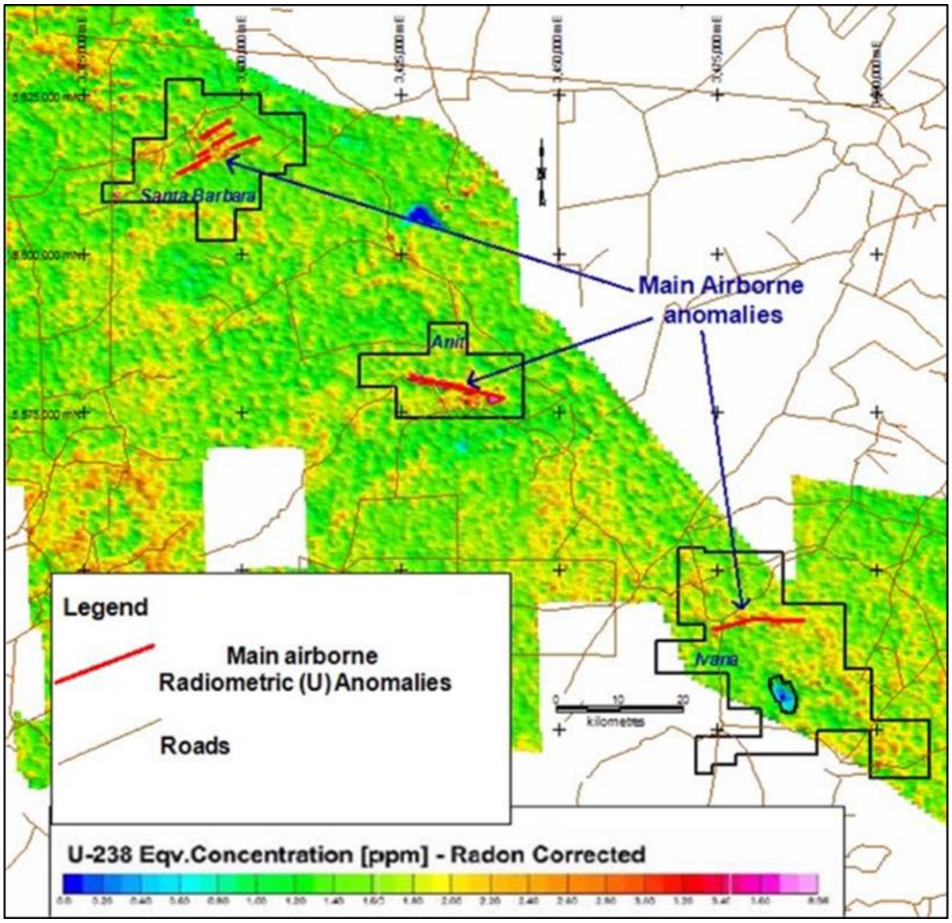


Figure 9-2: Airborne radiometric survey coverage over the Amarillo Grande Project; this radiometric map includes both the survey flown in 2007 over the Santa Barbara and Anit areas (Figure 9-1; Urquhart, 2007) as well as the survey flown in 2010 that extended airborne radiometric exploration and discovered the Ivana area (APG, 2010).

Exploration programs conducted on the Santa Barbara and Anit areas by Blue Sky Uranium through early 2012 are described in more detail in a NI 43-101 Technical Report entitled: Report on the Anit, Ivana and Santa Barbara Uranium Properties of Blue Sky Resources Corp., Rio Negro Province, Argentina, with effective date May 18, 2012 (Verley, 2012). Descriptions of the early work on Santa Barbara and Anit will not be repeated in this report as they are not considered relevant to the Ivana resource.

9.2 Ivana Exploration Pre-2012

After the airborne radiometric survey in 2010, the Blue Sky exploration team undertook a field program that included airborne radiometric anomaly follow-up with handheld scintillometer, water well sampling for geochemical characterization, and handheld radiometric traverse surveys. Hydro-geochemical anomalies located outside of the area covered by the airborne survey were also followed-up with handheld scintillometer surveys. Significant ground radiometric anomalies were detected in 2011 two to three kilometres outside of the airborne survey limits. Based on hydro-geochemical anomalies, another potential target area outside of the airborne survey was defined, located close to the outcropping basement, and cateos named Ivana VIII & Ivana IX were claimed over the area. Pit sampling confirmed the presence of uranium mineralization as carnotite in unconsolidated sediments. Additional prospecting was completed via 31 auger holes and down-hole gamma probe readings, as described by Verley (2012).

9.3 AREVA Participation

At the beginning of 2012, Blue Sky signed a Memorandum of Understanding ("MOU") with the French state-owned AREVA Mines Company ("AREVA") to jointly explore its portfolio of uranium projects in Argentina. The MOU established that AREVA could select one or two projects and earn 51% by funding exploration programs. AREVA funded almost US$3M in exploration at Blue Sky properties in Rio Negro and Chubut Provinces, which included geological mapping, geophysical surveys and core diamond drilling in the area southwest and north of the Ivana VIII property (Lescuyer, 2011). The MOU was terminated by AREVA in May 2014 and Blue Sky regained 100% control of the entire package of mining properties included in the Amarillo Grande Project. No final report of the AREVA exploration is available.

9.3.1 AREVA Geophysics

While AREVA did not explore the Ivana uranium-vanadium deposit area described in this report, their work did contribute to the exploration of the Ivana area.

AREVA's primary interest was an area to the west of the Ivana prospect named the Bajo Valcheta and extending into the Ivana area to the north of the Ivana prospect. In this area AREVA completed a geophysical survey (Sol, 2012) comprised of 4 diploe-dipole lines on which they measured resistivity and induced polarization ("IP") effect. The AREVA geophysical program identified the presence of low-resistivity (high-conductivity) surficial layers.

9.4 2014 to 2016

Due to challenging market conditions for exploration companies, Blue Sky maintained its property portfolio but did not carry out further exploration until mid-2016 when a Project-wide data review and compilation was completed (Pensado, 2016), and exploration resumed with a focus on the Ivana target.

9.5 2016 Onward

In 2016, Blue Sky re-evaluated the regional potential of the entire Amarillo Grande Project and launched a staged exploration program. The first stage of the new program was focused on reviewing the main potential targets explored previously, including the properties Ivana VIII A/B/D/F and Ivana IX-A, subject of this report, as well as the Anit and Santa Barbara prospect areas. Exploration work carried out at Anit and Santa Barbara contributed to the understanding of the overall Amarillo Grande uranium-vanadium system, and thus indirectly contributed to exploration at the Ivana prospect. Promising results from the first stage of the program resulted in focusing on the Ivana prospect with a follow-up program.

This Section is focused on the exploration and other work since 2016 at the Ivana prospect (Figure 4-2) that is considered relevant to the delineation of resources and development of the PEA. The exploration program included geophysical surveys over areas previously recognized by sampling, trenching or augering, to identify potential paleochannels, and to assist in definition of potential drilling targets.

9.5.1 ET Geophysical Survey

The Company selected an electrical survey procedure for exploration at Ivana based on a comparison of three methods: a Dipole-Dipole IP survey, which was previously carried out in the Ivana VIII property area by AREVA; a testing program of Electrical Tomography ("ET") at the Anit area; and a Vertical Electrical Sounding Survey conducted at the Anit area. Those programs all indicated that paleo-channels, potentially hosting uranium mineralization, were detectable high-conductivity features, likely due to higher porosity and the presence of salty water in the channel-fill material.

The survey methodology selected to be used at Ivana in 2016 was Electrical Tomography with the following technical parameters:

Table 9-1: Electrical Tomography Survey Technical Parameters

Receptor	Iris ELREC PRO (10 channels/Time Domain)
Transmitter	Iris VIP 5000
Generator	FEMA 5.5 KVA
Array	ET Pole-Dipole
Mode	"roll along"
D (a)=	15m
Movement	15m
Number of Dipoles (n)	10
Depth of survey	n10= na/3 approx. 50m
Infinite	>3*na

Four lines perpendicular to the interpreted paleo-channel orientation were laid out for the first survey (lines 8, 9, 10 and 11, about 9.5 km in total, Figure 9-3). The survey results confirmed high conductivity anomalies (or low resistivity, the inverse) generated from sub-horizontal layers, up to about 20 m thick, with values in general terms defined as over $50x10^{-3}$ Siemen/m. These high-conductivity units occur over low to medium conductivity basement identified in nearby outcrops and were interpreted as paleo-channels that could potentially contain deeper and more extensive carnotite mineralization similar to that observed on the surface. The ET results were presented as a "pseudo-section" from which an interpretation of the shallow surficial geology could be made. A good example was observed at ET Line 8, where trench sampling in 2011 over surficial radiometric anomalies (discovered with a hand-held scintillometer) had led to the discovery of shallow high-grade carnotite mineralization on the left (southwest) side of section (near data-point 240) (Figure 9-4). In the initial ground radiometric survey, anomalies had not been observed on the right (northeast) side of the ET line 8, but extensions of the surface-detected uranium mineralization were confirmed by drilling at depth.

Initially the drilling program was laid out along the ET geophysical survey lines in order to calibrate and adjust both the geological and geophysical interpretation as drilling progressed. The drilling (more thoroughly described in Section 10) confirmed the presence of a sequence of carnotite-mineralized fluvial sandstones and conglomerates, with minor siltstones, deposited above the unconformity on a 1-2-metre-thick regolith of basement lithologies. Drilling also discovered that the regolith was frequently mineralized with uranium, in similar concentrations to the overlying sediments.

The initial RC drilling program confirmed that the ET geophysical lines were useful in predicting both the presence and the relative depth of paleo-channels, and that uranium mineralization extended beyond the east ends of lines 8 and 9 (Herrera, 2017a). The ET geophysical surveying was amended to extend lines 8 and 9, and include line 12 (Herrera, 2017b, Figure 9-5), and finally to add lines 13 through 16 (Herrera, 2017c; Figure 9-3).

In addition to assisting in the identification of paleo-channels, the ET survey data can be interpreted and displayed in both resistivity and induced polarization (IP chargeability) sections (Figure 9-6). IP chargeability appears to detect pyrite related to primary-type uranium mineralization discovered between data-points 1770 and 2010 on ET line 15. IP interpretation of the ET survey data will be used to test for primary pyritic uranium mineralization as exploration at Ivana, and the greater Amarillo Grande Project, progresses.

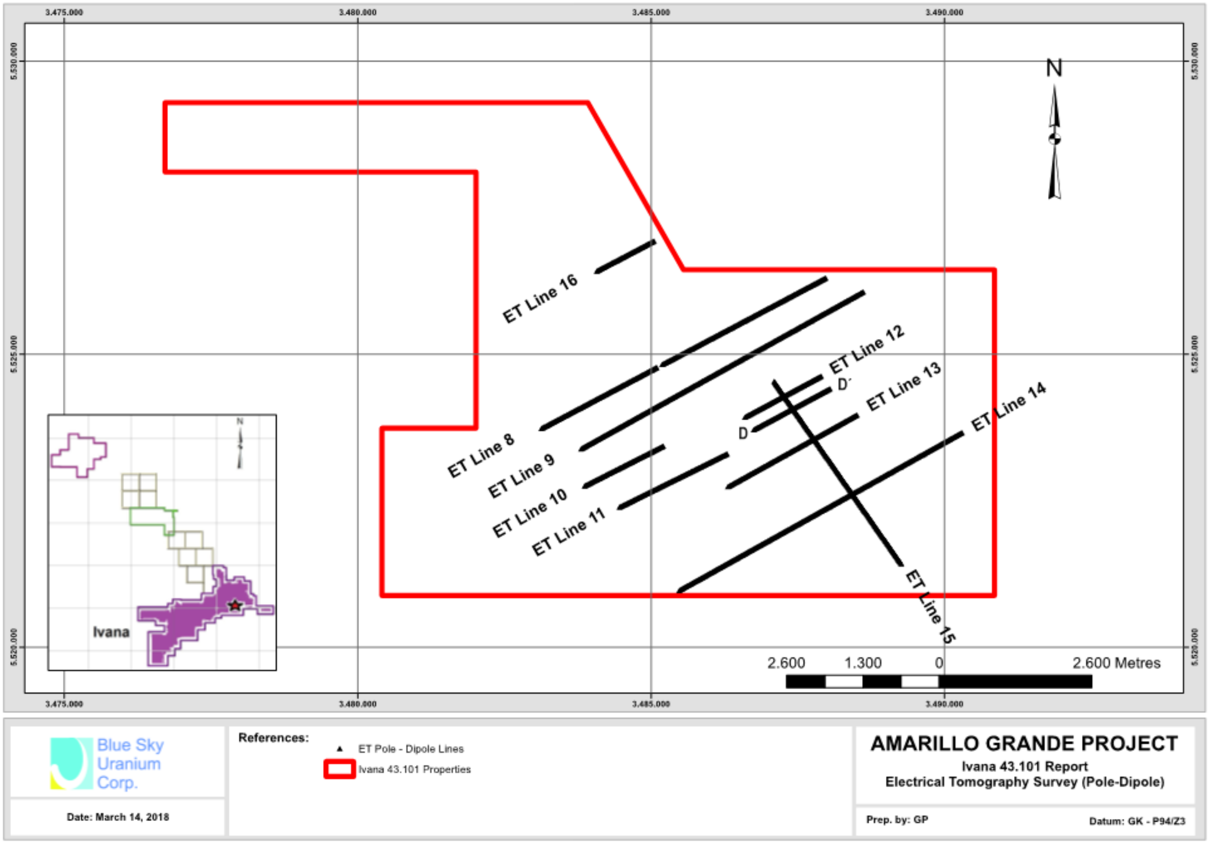


Figure 9-3: Locations of Electrical Tomography survey lines at the Ivana prospect. (Thorson et al., 2018)

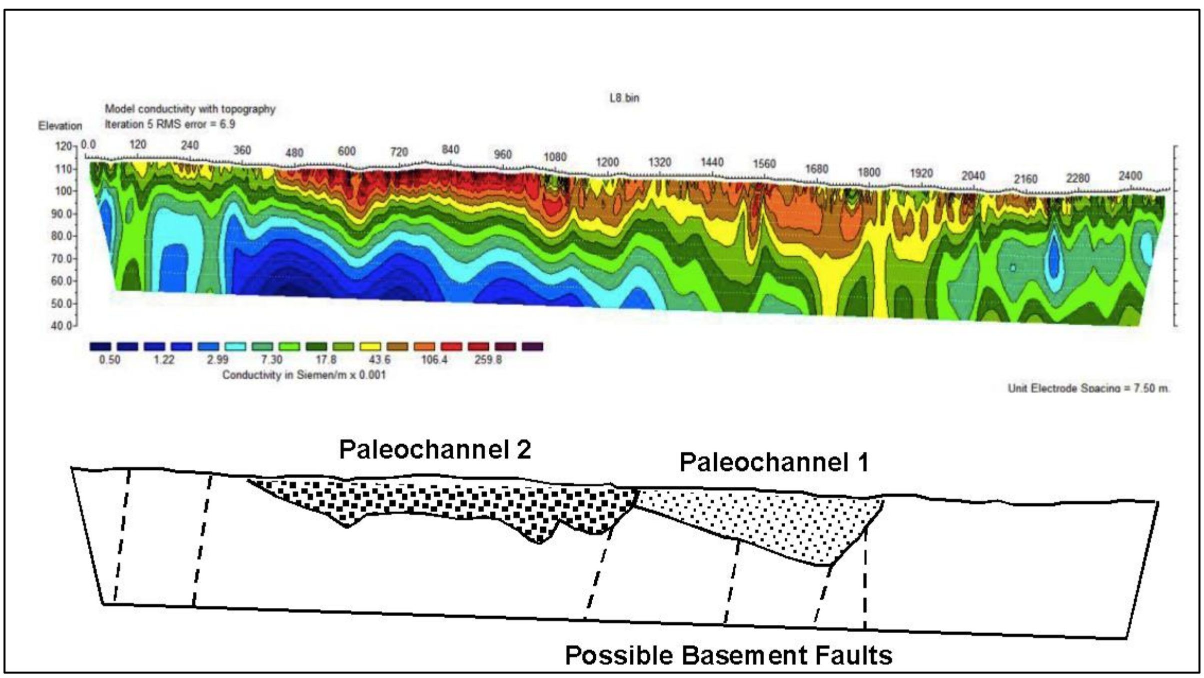


Figure 9-4: ET pseudo-section depicting the shallow surficial geology along ET line 8, with a proposed geological interpretation of the style that was used to guide RC drilling. (Thorson et al., 2018)

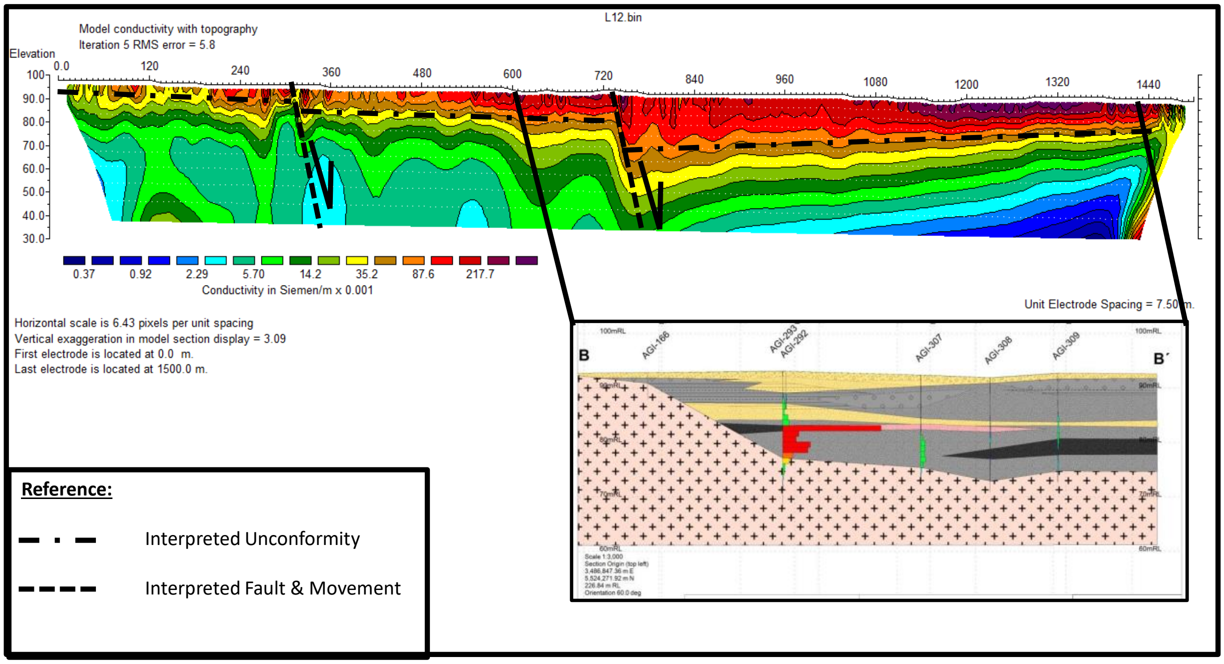


Figure 9-5: Pseudo-section for ET line 12 compared to the geological cross section constructed after drilling and assaying of holes drilled along that line; for explanation and discussion of the cross section, see Section 7. The ET geophysical survey was proven to be very effective in predicting the presence and relative thickness of paleochannels. (Thorson et al., 2018)

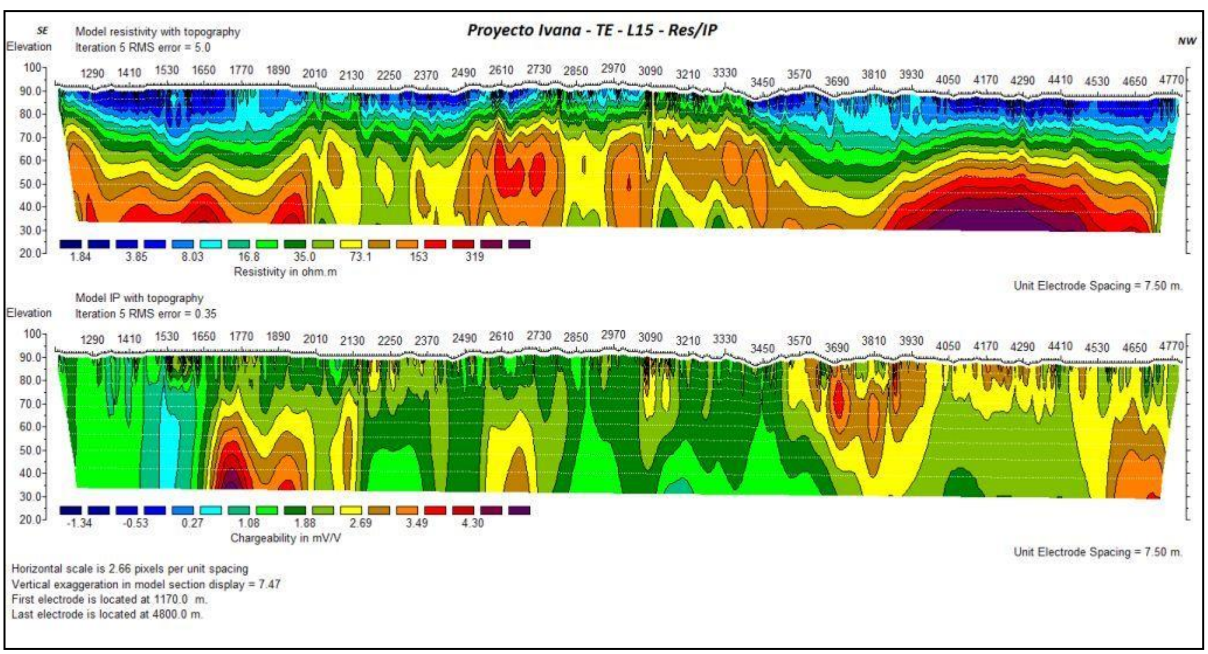


Figure 9-6: Resistivity and induced polarization effect (IP chargeability) interpretations for ET line 15 (upper and lower pseudo-sections, respectively); the resistivity section is the inverse of conductivity so the paleochannels are shown as areas of low-resistivity (cool colours, rather than warm colours as in Figure 9-2); the areas of pyritic primary uranium mineralization (confirmed by drilling) between data-point 1770 and 2010 appear to correlate with an IP chargeability anomaly. (Thorson et al., 2018)

9.5.2 Seismic Studies

At the Ivana prospect, a 1.2km seismic tomography section survey was conducted towards the conclusion of 2021 (Figure 9-3). The results revealed a robust correlation with the data derived from drillholes AGI-127 to AGI-121 (Figure 9-7). The lithological correlation demonstrated a strong alignment, exhibiting a distinct contact with basement units. Notably, there was a well-defined identification of conglomerate to coarse sandstone layers, characterized by significant porosity, with the data interpreted and displayed Vp/Vs ratio section. The Vp/Vs ratio, representing the ratio of compressional wave velocity (Vp) to shear wave velocity (Vs) in the subsurface, offers critical insights into the mechanical properties and composition of geological formations. The success of this study at Ivana has motivated the consideration of applying this method to surrounding uranium targets, where the depth of basement units is currently unknown. Furthermore, the aim is to utilize this technique to define anomalies related to conglomerates to coarse sandstone layers with good porosity, providing valuable insights for future exploration endeavors.

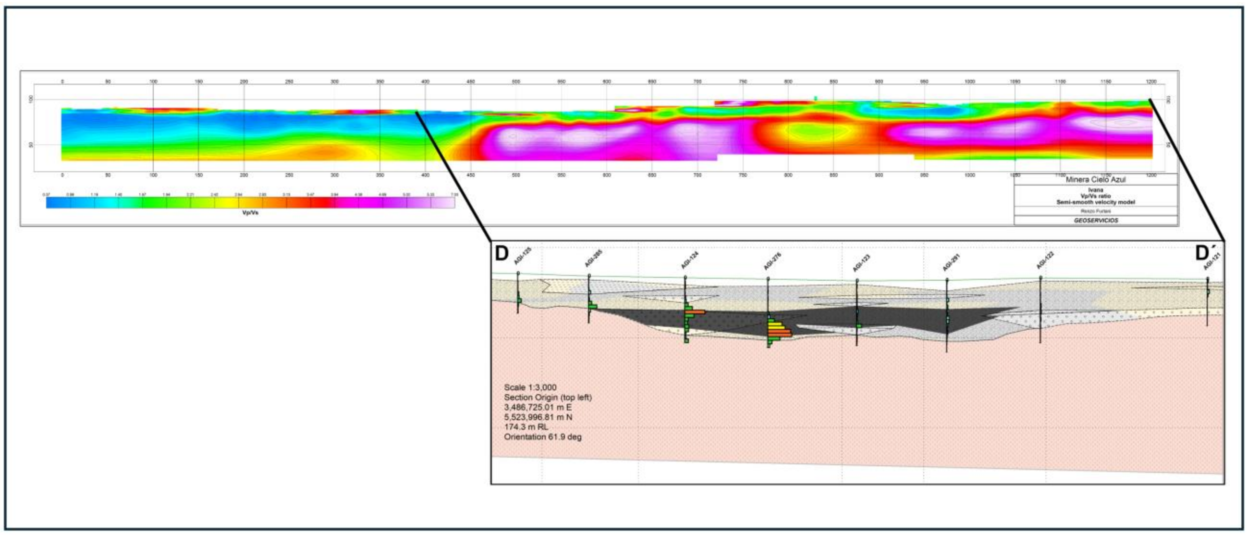


Figure 9-7: Ivana Deposit Seismic Section: Comparison with Geological Cross Section and Vp/Vs Analysis. This seismic geophysical survey effectively predicts the presence of coarse sandstone and conglomerate layers, accurately defining the basement contact. The analysis includes a detailed correlation with the geological cross section along the surveyed line. (Thorson et al., 2018)

9.5.3 Drilling, 2021-2022

Following the Mineral Resource estimate and PEA reported in 2019 (Kuchling et al., 2019), Blue Sky Uranium completed an additional 350 RC drill holes (Blue Sky, 2022), and results from this campaign were incorporated into the database used for the Mineral Resource estimate presented in this report. Details of all drilling campaigns can be found in Section 10 of this report.

9.5.4 Mineralogical, Metallurgical, and Process Engineering Studies

Mineralogical, metallurgical, and process engineering studies to support the Preliminary Economic Assessment presented in this report were conducted at SRC under the guidance of QP Charles Edwards, P.Eng. The work is summarized in Section 13, with preliminary QEMSCAN mineralogical descriptions incorporated in Section 7.

9.5.5 Density

Density determinations on the mineralized material are an integral part of a Mineral Resource estimate. A density figure of 1.84 g/cc was used in the initial Mineral Resource estimation (Thorson, et al., 2018) based on the best available data at that time. Twenty additional density measurements have been made on Ivana deposit mineralized material (Gurevich, 2018). The average of those density measurements (2.1 g/cc; 2.1 t/m^2) has been used in the Mineral Resource estimate that is the subject of this report. In 2022, an engineering firm conducted a comprehensive Standard Penetration Test ("SPT") program across 9 drill holes, totaling 40 metres. These SPT boreholes were strategically positioned within the open pit design area. The results of this study confirm the average density value utilized in the preceding report.

9.5.6 Recent Discoveries and Ongoing Exploration Near Ivana Deposit

Two key sectors are covered in the exploration efforts and recent discoveries near the Ivana Deposit.

First, adjacent to the deposit, exploration efforts have expanded to include the western sector, notable for its secondary uranium and vanadium-rich mineralization within weathered second porosity basement outcrop units.

Second, exploration advancements around the Ivana deposit revealed, 9 km to the northwest and at a depth of 30m, a 20-metre-thick redox front exhibiting reduced carbonaceous alteration in sandstones (Figure 9-7). This zone exhibits a U-Ag-Cu-W paragenesis with a N340° orientation, suggesting potential continuity with the mineralized front of the Ivana deposit. Noteworthy intercepts in the drilling program for this target included 1m @ 120ppm U_3O_8 at a depth of 46m in drillhole AGIC-01, and 0.35m @ 2880ppm Ag at a depth of 46m in AGIC-043, spaced approximately 700m apart (Blue Sky, 2023). Exploration in this area identified erratic mineralization, possibly indicating strong weathering that leached and mobilized uranium minerals. On-going exploration focuses on the linkage between the target and the Ivana deposit, involving isotopic lead sampling from the surface and subsequent geophysical studies.

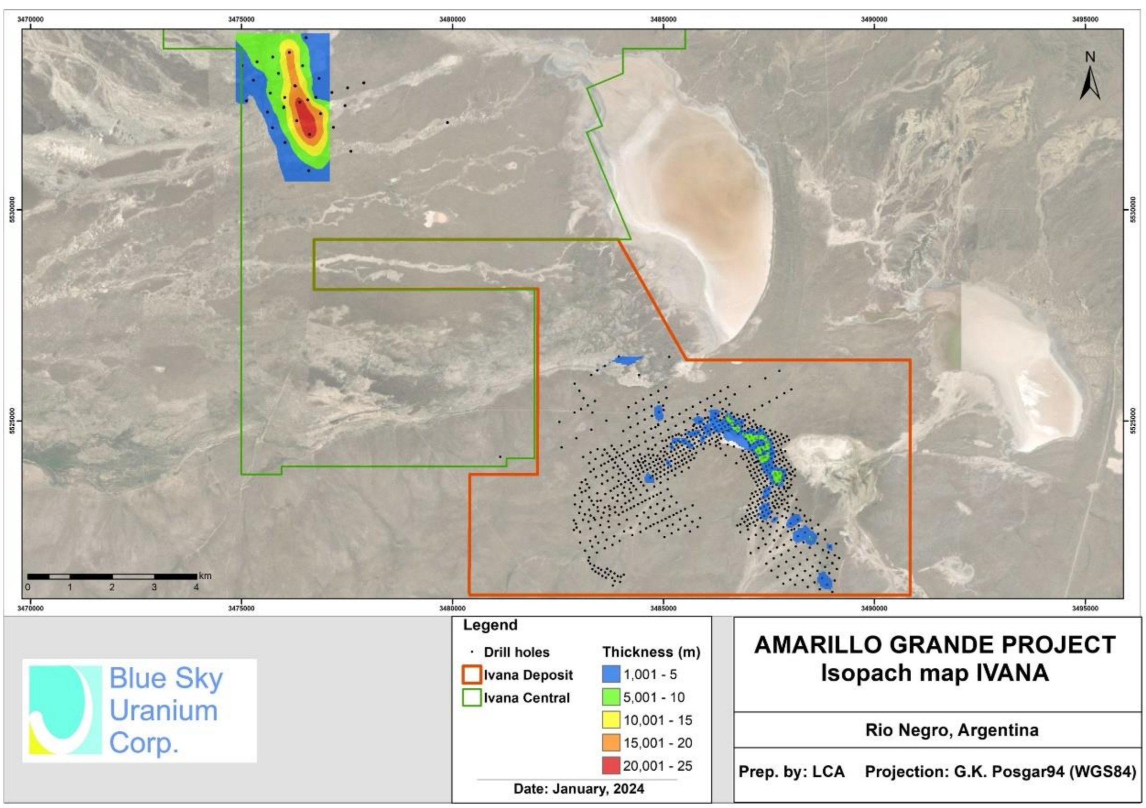
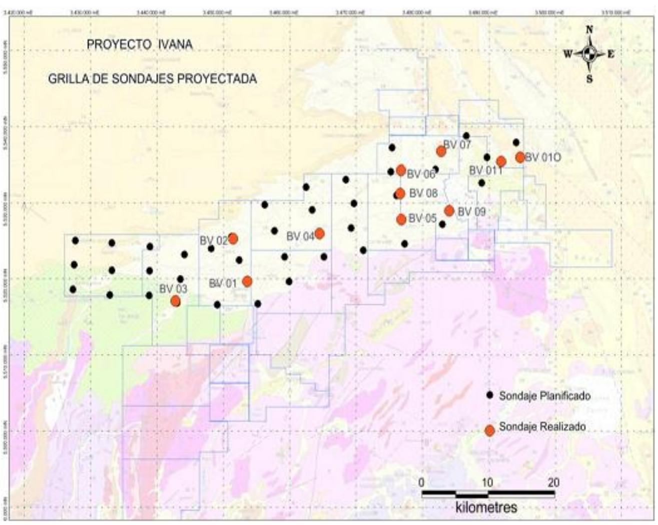


Figure 9-8: Isopach Map of Reduced Carbonaceous Sandstone Horizon Intercepted by Drill Holes in the Chichinales Formation at Ivana Deposit and Ivana Central Target.

10 Drilling

10.1 AREVA Joint Venture Drill Program

AREVA conducted diamond core drilling near the Ivana prospect between 2012 and 2014 as part of its joint venture agreement with Blue Sky. This included 11 diamond core holes at locations shown on Figure 10-1. Although this drilling identified small amounts of bleaching alteration in red-beds sedimentary rocks, it was not successful in finding uranium, with a maximum radiometric anomaly of 151 ppm eU (equivalent uranium) over a core length of 1 m (Bussandri, 2014). Some of the AREVA drill holes were located near the Ivana prospect (Figure 10-2) but did not intercept the mineralized horizons subsequently discovered by Blue Sky.



PROYECTO IVANA			
Pozo	Ubicación de Sondajes y Plataformas Profundidad (mts)	POSGAR WGS 84 FAJA 3 Este	POSGAR WGS 84 FAJA 3 Norte
BV_01	153	3453483,45	5519715,58
BV_02	280,5	3451346,67	5525178,35
BV_03	179	3442766,89	5517070,63
BV 04	185,5	3464303,34	5525866,74
BV05	162	3476651,52	5527776,58
BV06	110	3476530,29	5534070,86
BV07	262,5	3483765,2	5536241,61
BV08	122	3476087,4	5531054,15
BV09	130	3483960,917	5528856,13
BV10	188	3495163,323	5535892,33
BV11	251	3490158,509	5535834,85

Figure 10-1: Location of the AREVA diamond drill holes in the Bajo Valcheta area (Figure 4-1); red dots represents completed drill holes listed in the attached table, black dots are proposed locations that were not drilled. All completed holes completed were drilled vertically (Bussandri, 2014).

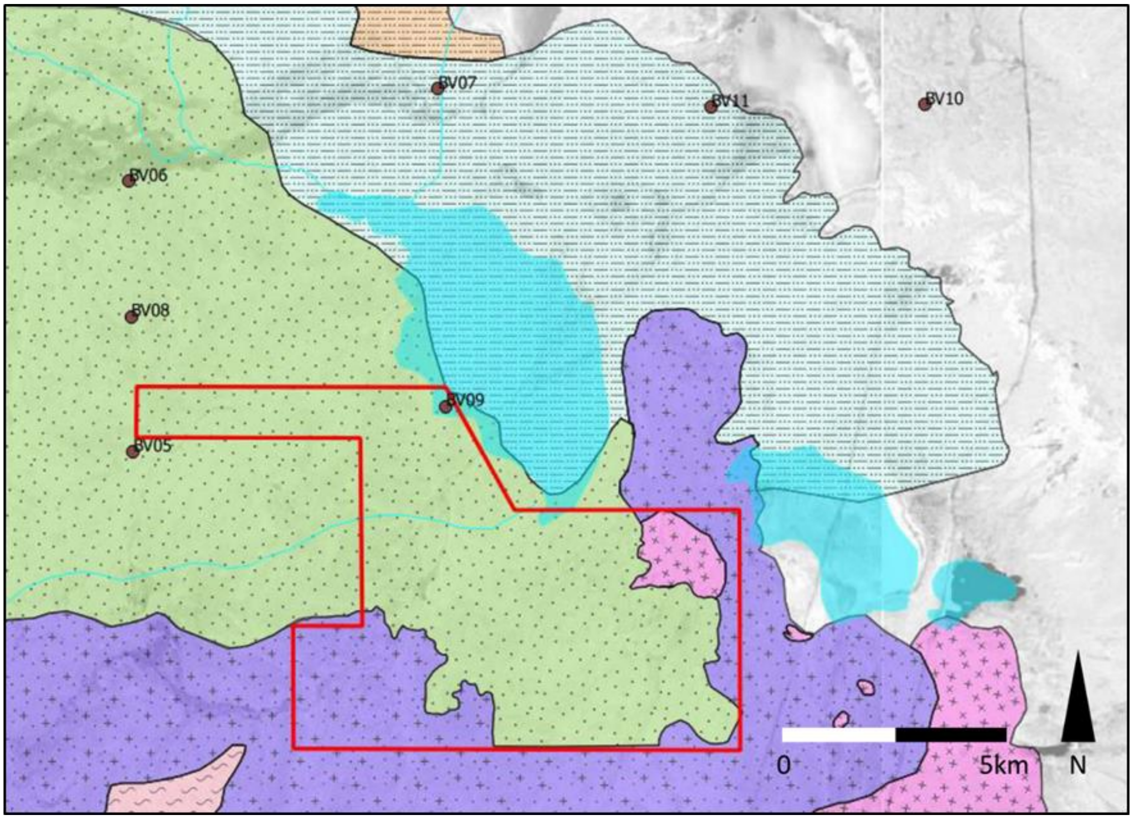


Figure 10-2: Locations of the AREVA diamond drill holes (2012 - 2014) in relation to the Ivana prospect; for geology legend, see Figure 7-5 (Thorson et al., 2018).

No other drilling exploration was done at these properties until January 2017, when the reverse circulation (RC) drilling program was launched.

10.2 Blue Sky Reverse Circulation Drilling Programs

Between January 2017 and January 2018, two phases of RC drilling were conducted, totalling 427 drill holes. Between January 2018 and October 2018, a third phase of RC drilling was conducted, confirming extensions of the Ivana deposit. An extensive fourth phase of RC drilling was conducted during 2021 and 2022. The assays from all four RC drilling programs were utilized in the Mineral Resource estimate documented in this report.

The first phase of RC drilling tested exploration potential, while the second phase followed-up on initial results and infilled the main area of economic potential. Subsequently, the third phase confirmed extensions of the Ivana deposit, while the fourth phase refined the known mineralization and deepened the understanding of the deposit's geological composition. In total, 10,869 metres were drilled across 836 holes as presented in Table 10-1. Collar locations, drill orientation data and significant intervals were summarized and reported previously (Kuchling, et al., 2019; Blue Sky, 2022). Plans and sections of the Ivana deposit are provided in Section 14.

The initial 98 holes were drilled by Cono Sur SA, an Argentine drilling company, using an ROC L8 drill rig from Atlas Copco, with a double cyclone for dust control during sampling. The remaining holes were drilled by Patagonia Drilling SA, another Argentine drilling company. The second phase drill rig was similar to the initial drill rig, but used a newer version, a FlexiRoc D65 drill, also from Atlas Copco, adapted for fine-mineralization control with a triple cyclone for better recovery of fines, and an automatic splitter. Both rigs were track-mounted and designed for reverse circulation drilling. All except two of the RC holes in the first two phases were vertical, as this direction was understood to be perpendicular to bedding and mineralized horizons. In both Phase III and Phase IV, continuity was maintained by employing the same equipment configuration, ensuring consistency and efficiency across the drilling campaigns. Locations of the phase three drill holes are shown on Figure 10-3.

Table 10-1: Blue Sky RC Drilling Programs at Ivana Properties used in the Resource Estimate

Exploration Phase	Drill Holes Completed	Metres Drilled	Average Depth	Year	Drilling Company
I	158	2,250	14.2	2017	Cono Sur SA (98 holes) Patagonia Drilling SA (60 holes)
II	269	4,327	16.0	2017-2018	Patagonia Drilling SA
III	61	1,043	17.1	2018	Patagonia Drilling SA
IV	348	3,249	9.3	2021-2022	Patagonia Drilling SA

The drilling depth varied throughout the four phases: from 2 m to 42 m in the initial two phases, 4 m to 49 m in the third phase, and between 3 m to 23 m during the fourth phase. The drilling bits diameter ranged between 5¼ inches and 5¾ inches, employing either tricone or frontal hammers depending on the drilling progress and recovery needs. Until hole AGI-193, every hole was finished with a 62mm casing for later down-hole gamma reading. The casing program was later limited to a few holes (for future test holes) due to the significant delays and problems while casing in water-saturated, poorly consolidated sandstones. Sampling was carried out every metre, after which the advance was paused in order to blow the hole clean and reduce probable contamination of the following sample. Every sample was weighed to monitor sample recovery.

The Phase I program was initially conducted as fences of holes, along or perpendicular to the geophysical surveying lines described in Section 9. Hole spacing ranged from 100 m in areas previously recognized as potential targets, to 200 m for prospecting new areas. Phase II followed-up a new target area to the east. It was initially drilled with 200 to 400 m spacing and later infilled with a 100 to 200 m pattern in higher potential zones during phase III. Phase IV completed the mineralized area with a 100 m grid and included the sector further to the west characterized by secondary uranium and vanadium-rich mineralization within weathered second porosity basement outcrop units. (Figure 10-3). The 100 m spacing was chosen to provide more detailed information in these areas, in response to the recommendations made in the 2019 PEA (Kuchling et al., 2019) which emphasized upgrading the categorization of Mineral Resources from Inferred to Indicated. The additional data improved the understanding of the subsurface geology and mineralization, improving the confidence in the Mineral Resource estimate.

Every collar was identified in the field using a plastic tube with a marker (Figure 10-4). The location and elevation of every hole was surveyed at the end of the program using a differential global positioning system ("DGPS") unit. Figure 10-5 displays the results of Phase IV drilling in grade times thickness contours.

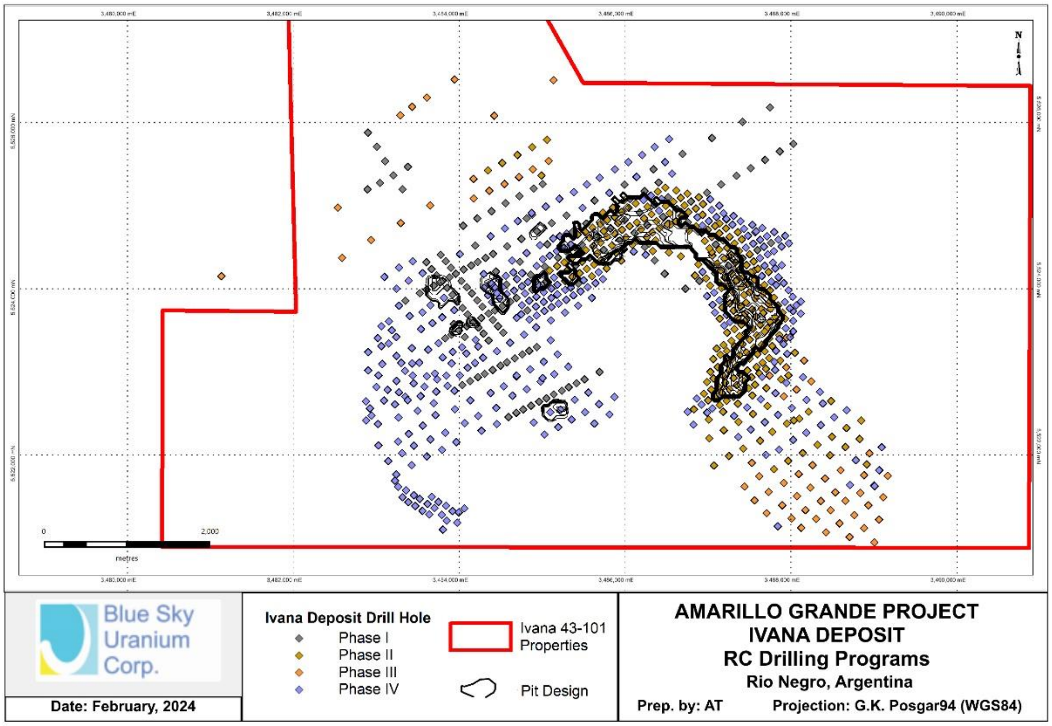


Figure 10-3: Ivana RC drill hole locations. Phase I, Phase II and Phase III, blue; Phase IV in green; shaded orange blocks are the resource blocks from the initial resource estimate.

Figure 10-4: Ivana drill hole site with markers (Photo Credit: Blue Sky)

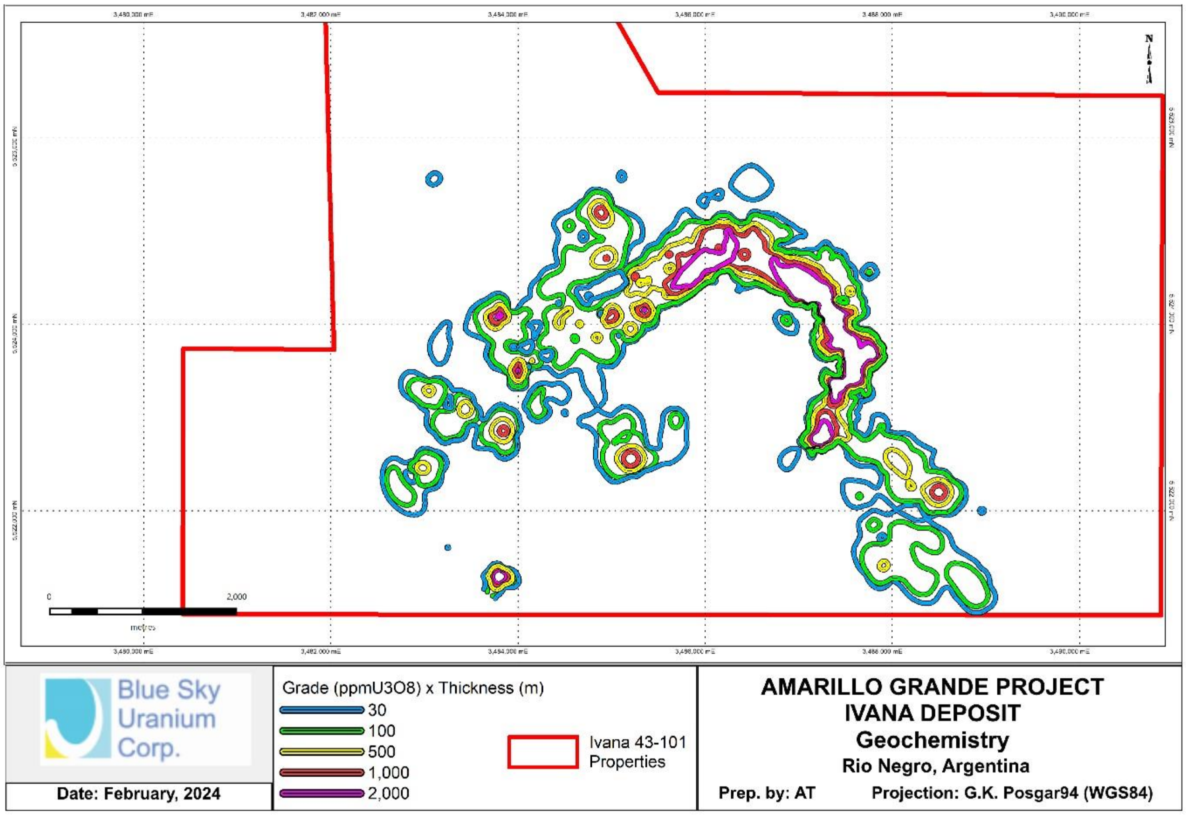


Figure 10-5: Ivana drill assay results as Grade x Thickness contours (ppm U_3O_8 x metre); this figure includes drill holes from all four phases of Ivana RC drilling.

11 Sample Preparation, Analysis and Security

11.1 Reverse Circulation Drill Sample Preparation

During the four RC drilling programs at Ivana samples were collected every metre. Two methodologies of sampling were applied during the RC drilling program due to the change of the rig as explained in Section 10.

The Roc L8 rig was used to drill holes AGI-001 to AGI-098. Samples were collected with a double cyclone sample recovery system to maximize the amount of sample fines that were collected. Even with two cyclones there were still periodic small losses of fine dust from the fine cyclone. Since the uranium mineralization was known at this point to be fine powdery carnotite it was expected that there would be unavoidable small losses from the sample that may be on the order of magnitude of a few grams per sample. The samples from the fine and coarse cyclones were combined, mixed, and weighed to monitor sample recovery. The combined sample was split several times through a riffle splitter to collect 2 representative smaller samples of about 3 kg each: one sample for assay and one sample as an archive sample. The rejects from the riffle splits were combined in one large plastic bag, labeled with the drill hole and depth interval.

The FlexiRoc D65 rig drilled holes AGI-099 to AGI-838. Samples were collected through the RC Kit cyclone sample recovery system connected to an automatic riffle splitter. The amount of fines-loss was reduced to a minimum by incorporating this type of cyclone. The riffle splitter was regulated to provide two smaller samples of about 3 kg each, one sample for assay and one sample as an archive sample. The rejects were directly collected at the bottom of the riffle splitter with an average weight of about 25 kg.

Dry samples were collected in 8 mil polyethylene bags of approximately 30 cm by 40 cm for the smaller samples, and 50 cm by 80 cm for the rejects. When the sample was wet the entire sample was collected, with no splitting, within a micropore sample bag. In this case, the smaller samples were prepared only once the sample was totally dry. Drying was done at the project site during summer, or, if the sample was still wet by the time of shipment to the lab, the entire sample was sent to the lab in order to be dried in an oven, then split when dry by lab personnel.

Each sample was labeled with a unique sample number and secured closed with staples, in the case of plastic bags, or tied, when micro-pore bags were used for wet samples. The labeled assay samples were collected in rice-bags for later shipment to the assay lab. The archive samples were also collected in rice-bags for storage in a secure facility at the project site.

A temporary sample of standard 1-liter volume was removed from the reject sample bag, placed in a plastic tray, and placed in a lead lined box for radiometric measurement with a hand-held scintillometer. The temporary radiometric sample was returned to the reject sample. A small sample of about 200 grams was removed from the reject sample for washing and geological description. This sample was discarded after use.

A small sample of about 10 grams was removed from the reject sample and placed in a plastic geological sample tray as a record of the interval drilled and sampled. The geological sample tray was labeled with the drill-hole number and interval for each sample.

Reject samples were stored at the drill site until assay results were received. Reject samples of uranium-mineralized material were preserved for possible future metallurgical studies.

11.2 Sample Chain of Custody and Security

The rice-bags containing samples for assay were stored at an on-site secure facility before shipment to the laboratory. Rice-bags were labeled with identification numbers that were then registered by a technician in a table along with the number of the samples contained in the bag. Dispatches to the assay laboratory were shipped when between 500 and 1,000 samples were accumulated. Due to Provincial Mining Authority regulations, an Official Rock Sample Transportation Certificate was prepared for each shipment, which included the total weight of samples, the mining property file numbers where those samples had been collected, as well as identification of the type of transportation and the final destination. This certificate was verified by authorities before shipment and verified by the laboratory when samples were received. Certificates verified by both parties are registered and filed at the Mining Authority.

Blue Sky Uranium used the same transportation contractor for all samples included in the Mineral Resource estimation. Blue Sky field personnel checked each sample shipment, prepared the list of samples shipped, and reported to the Company office the date of shipment, total samples, numbering of samples included, and the identification of Quality Assurance ("QA") and Quality Control ("QC") (QA/QC) samples.

Blue Sky personnel then informed the contracted assay lab of the expected date of arrival, the number of rice-bags and the identification of the samples included in the shipment. When received, the assay laboratory confirmed the reception of the shipment, and confirmed the number of samples included and correct sample numbers.

11.3 Geological Logging

Since the start of drilling on the Ivana prospect in January 2017, all RC drill chips have been logged in detail using standard industry practices. Geologists overseeing sample collection procedures set up azimuth and dip for each drill hole and validate the final depth. The geologists also logged the chips and cuttings at each drill hole site in one-metre intervals using standard binocular microscope and field equipment. Lithology, alteration type and intensity, colour, sulphide content, visual mineralization, and scintillometer survey reading were manually logged on paper field forms and transferred to Excel® spreadsheet files at the field camp. At the office, the information was migrated to a master database with validation controls.

The hand-held scintillometer was used to measure radiometric counts per second, and the count rates were recorded manually by a technician for every metre interval of the RC chips. Site geologists used the radiometric response as qualitative data only, to identify mineralization in the drill hole and to select intervals for priority geochemical sampling.

Geological cross section interpretation was carried out at the same time as the logging process. At the office, with the field log completed, the chips and log were reviewed and compared with nearby holes for supervision. The sample chips in sample trays are stored at the secure sample storage facility at the project site.

11.4 Assaying

Samples from drill hole AGI-001 to AGI-535 were analysed by Bureau Veritas Commodities Canada Ltd. ("BV") at their lab in Vancouver, BC, Canada. The BV subsidiary in Mendoza, Argentina, named ACME Analytical Laboratories Argentina S.A., was used for sample preparation.

RC samples received were initially organized following Blue Sky's numbering system and entered into the Laboratory Information Management System, re-labelled with internal codes and placed in new plastic bags. Every sample was weighed and if wet, dried in an oven. For those samples shipped while still wet, the whole sample was dried before splitting into a smaller sample.

Once dry, the sample was crushed to 80% passing 10 mesh, and then a 250g split was pulverized to 95% passing 150 mesh. At random intervals, and at the start of each shift, QC testing was completed on both crushed and pulverized material to ensure that the previous specifications were met.

Pulps generated were packaged in envelopes and sent by air-courier to the BV laboratory in Canada. Coarse rejects and pulps were stored at the Argentine lab. Most of the coarse rejects have been shipped back to the project facility for archive storage.

Samples received by BV were prepared and analyzed following internal procedure MA-200. Samples were digested to complete dryness with an acid solution of H_2O-HF-$HClO_4$-HNO_3 in the ratio of 2:2:1:1. Hydrochloric acid ("HCl") at 50% strength was added to the residue and heated using a mixing hot block. After cooling, the solutions were transferred to test tubes and brought to volume using dilute HCl. Samples splits of 0.25 g were analysed for 45 elements by means of Inductively Coupled Plasma Mass Spectrometry ("ICP-MS"). Samples over 4,000 ppm uranium were re-assayed after phosphoric acid leach by Inductively Coupled Plasma Atomic Emission Spectrometry ("ICP-AES").

Samples from AGI-536 to AGI-838 underwent analysis at the ALS Peru laboratory in Lima, Peru ("ALS Peru") with sample preparation conducted at the ALS Patagonia S.A. ("ALS Patagonia") laboratory in Santa Cruz, Argentina. ALS Patagonia's preparation facility holds accreditation to the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 9001:2008 standards for all relevant procedures. ALS Peru incorporates internal and external inter-laboratory test programs along with regularly scheduled internal audits meeting the requirements of ISO/IEC 17025:2017 and ISO 9001:2015 standards.

The procedure follows similar treatment to that of a previous laboratory (BV). Initially, the dry samples were crushed to 70% less than 2mm (10 mesh), then riffle split to obtain 250g, followed by pulverization to achieve better than 85% passing 75 µm (200 mesh).

Pulps generated from the samples were packaged in envelopes and dispatched via air-courier to ALS Peru. Coarse rejects and pulps were retained at ALS Patagonia, with most of the coarse rejects subsequently returned to the project facility for archive storage.

Geochemical analyses were conducted on the samples utilizing a 48-element multi-element analysis suite (ME-MS61L) employing four-acid digest methods (nitric, perchloric, and hydrofluoric acids with a final dissolution stage using hydrochloric acid), coupled with mass spectrometry technology.

Blank and references samples were introduced by Blue Sky initially, and both labs introduce their own internal blanks and reference samples. Both QA/QC procedures are detailed at Section 12.

Results were reported in three different digital certificate formats: CSV, XML and PDF. Assay certificates were archived in the Blue Sky database.

12 Data Verification

12.1 Database Validation

12.1.1 Collar Coordinate Validation

Validation of collar elevation data was done by comparing elevations from DGPS field surveys against the satellite photo digital elevation model. Most elevation differences in the collars were less than one metre, and there were no significant deviations between drill collars and the digital elevation model ("DEM").

12.1.2 Assay Verification

All the collars, surveys, geology and assays were exported from EXCEL® files into GEMS® software. There are no identical sample ID's, all FROM_TO data are zero or positive and no interval can exceed the total depth of the hole. To validate the data, the following checks were confirmed:

- The maximum depth of samples was checked against hole depth;
- The assay values were positive numbers; and
- The highest uranium and vanadium values and at least one random value from select drill holes were checked against the original assay certificate.

Reverse Circulation drilling recovery varied metre by metre and by rig and cyclone type with lows of around 7% to maximums of around three times the expected weights; however, averages over the holes were near 100%. There is no indication that grade is related to sample recovery.

12.2 QA/QC Protocol

A review of the QA/QC protocols was conducted prior to drilling and formalized in a detailed QA/QC manual developed by Blue Sky. Reviews were conducted by a Qualified Person. The procedures for reverse circulation drill cuttings processing, and the insertion of blanks and standards were examined. The QA/QC program has been conducted in accordance with industry best practice. After each batch of analytical results arrived, the QA/QC samples were reviewed by a Blue Sky geologist. The QP also reviewed this data on a regular basis. Remedial assay work for all QC failures validated the original results.

Assay results are sufficiently accurate and precise to support the estimation of Inferred Mineral Resources.

12.3 Geological Data Verification and Interpretation

Several geology variables were captured during core logging. Geology data verification involved determining that the geology designations were correct in each sample interval. This included the following:

- Examining "from – to" intervals for gaps, overlaps and duplicated intervals;
- Looking for collar and sample id mismatches; and
- Verifying correct geology codes.

A geological legend was provided and compared to the values logged in the database. The geological model is reasonable and adequate for use.

12.4 Assay Database Verification

The assay data from 39 randomly selected from pre-2020 drill holes that intersected the mineralization, representing approximately 10% of the database used for estimation of the original Inferred resource, was dumped from the GEMS software system and manually compared to the original assay certificates. No differences were discovered.

Subsequently, 25 drill holes from the 2020-2022 drill campaigns were selected at random. These holes represented slightly more than 5% of the infill drilling. The assay data from these holes was compared to the results in the original assay certificates. As in the previous drilling, no differences were found.

12.5 Conclusion

No irregularities in the uranium or vanadium samples or assays were identified by the QP's during the review of the drill data and assays. Observation of the drill cuttings during the site visits and inspection and validation of the data collected indicate that the drill data is adequate for interpretation and resource estimation.

13 Mineral Processing and Metallurgical Testing

Metallurgical test work was undertaken in three stages. In 2017 preliminary testing was undertaken at INVAP (see Section 13.1). In 2018-19 mineralogical (Section 13.2) and metallurgical testing (Section 13.3) was completed at SRC. A follow-up program, including bulk sample leach testing, has been in process at SRC since 2021 (Section 13.4).

The results of this test work are described in the following sections.

13.1 Preliminary Testing at INVAP

Preliminary metallurgical testing of the carnotite mineralization from the Ivana properties was done at INVAP, the Argentina state-owned company involved in nuclear technology, nuclear reactor construction, aerospace, and other complex industrial and medical systems. For additional information on the capabilities of INVAP, see the company website http://www.invap.com.ar/en/.

INVAP conducted alkaline carbonate leaching tests on composite samples from the Ivana drilling and reported 95% leaching of uranium and 60% leaching of vanadium in 3 hours at 80°C and no oxidation (Carlevaris, 2017). Consumption of sodium carbonate and sodium bicarbonate are reported to be low at less than 10 kg/t and less than 8 kg/t, respectively.

Exploratory studies were done on the separation of uranium and vanadium with ion exchange resins. Blue Sky Uranium reported the results of these tests in a press release dated January 22, 2018 (Blue Sky Uranium, 2018) The ion exchange process was not further pursued because of the local ground water brine that will be used as process water.

Further preliminary metallurgical testing at INVAP on samples of carnotite mineralization from Ivana showed that virtually all the uranium and vanadium mineralization occurs in mineral particles less than 100 µm diameter, and that scrubbing and wet screening could result in a higher-grade lower-mass concentrate with high recovery rates for uranium and vanadium. (Carlevaris, 2018a).

Prior tests carried out on Blue Sky Uranium's Anit deposit carnotite-mineralized material had shown similar upgrading from mineral scrubbing and wet screening (Furfaro, 2010).

13.2 Mineralogical Investigations at the Saskatchewan Research Council

In May 2018, Blue Sky Uranium sent two composite samples from Ivana drilling to SRC for QEMSCAN mineralogical analysis. Sample Comp1 was described as oxidized uranium mineralization from the Ivana deposit (Figure 13-1). Sample Comp2 was described as primary + oxidized mineralization from the Ivana deposit (Figure 13-2).

Figure 13-1: Photograph of Sample Comp1 (Edwards, 2018a)

Figure 13-2: Photograph of Sample Comp2 (Edwards, 2018a)

QEMSCAN analysis of these two samples identified five uranium-bearing minerals (Creighton, 2018; See Figures 13-3 and 13-4 below):

1. "Coffinite" - This mineral is similar to coffinite, but its Si content is not consistent with the accepted composition of coffinite. Coffinite is $(U^{4+},Th)(SiO_4)_{1-x}(OH)_{4x}$, normally observed to be $U(SiO_4)_{0.9}(OH)_{0.4}$. To dissolve the uranium in coffinite an alkaline carbonate leach requires an oxidant to oxidize the U^{4+} to U^{6+}. However, the Ivana "coffinite" releases its uranium without oxidation. Thus, Ivana "coffinite" is evidently $U^{6+}(SiO_4)_?(OH)_?$. For this project this mineral is referred to as "beta-coffinite."

2. Carnotite - Carnotite is $K_2(UO_2)_2(VO_4)_2 \cdot 3H_2O$. Both the uranium and vanadium in carnotite can be leached by an alkaline carbonate leach without oxidant.

3. Liebigite - Liebigite is $Ca_2(UO_2)(CO_3)_3 \cdot 11H_2O$, essentially a uraniferous limestone. The uranium in liebigite can be leached by an alkaline carbonate leach without oxidant.

4. Tyuyamunite – Tyuyamunite is $Ca(UO_2)_2(VO_4)_2 \cdot 5-8H_2O$, the calcium version of potassium-containing carnotite. Both the uranium and vanadium in tyuyamunite can be leached by an alkaline carbonate leach without oxidant. Note that liebigite and tyuyamunite are relatively rare globally. The SRC QEMSCAN has seldom identified liebigite in uranium-bearing samples, and this is the first time it has identified tyuyamunite.

5. Uranium "mineral", the fifth uranium bearing mineral identified, is the name SRC applied to mineral particles that contain uranium and other elements such as Ca, Mg, Na, Si, and Al, so it is not uraninite (UO_2). Current thinking is that the uranium "mineral" is uranium trapped in clays. Since both of the Blue Sky Uranium samples contain the "tight" clays illite and montmorillonite, one would expect that the uranium in the uranium "mineral" might not dissolve in an alkaline carbonate leach. Based on leaching test results, this does appear to be the case. For this project this mineral is referred to as "ivanaite."

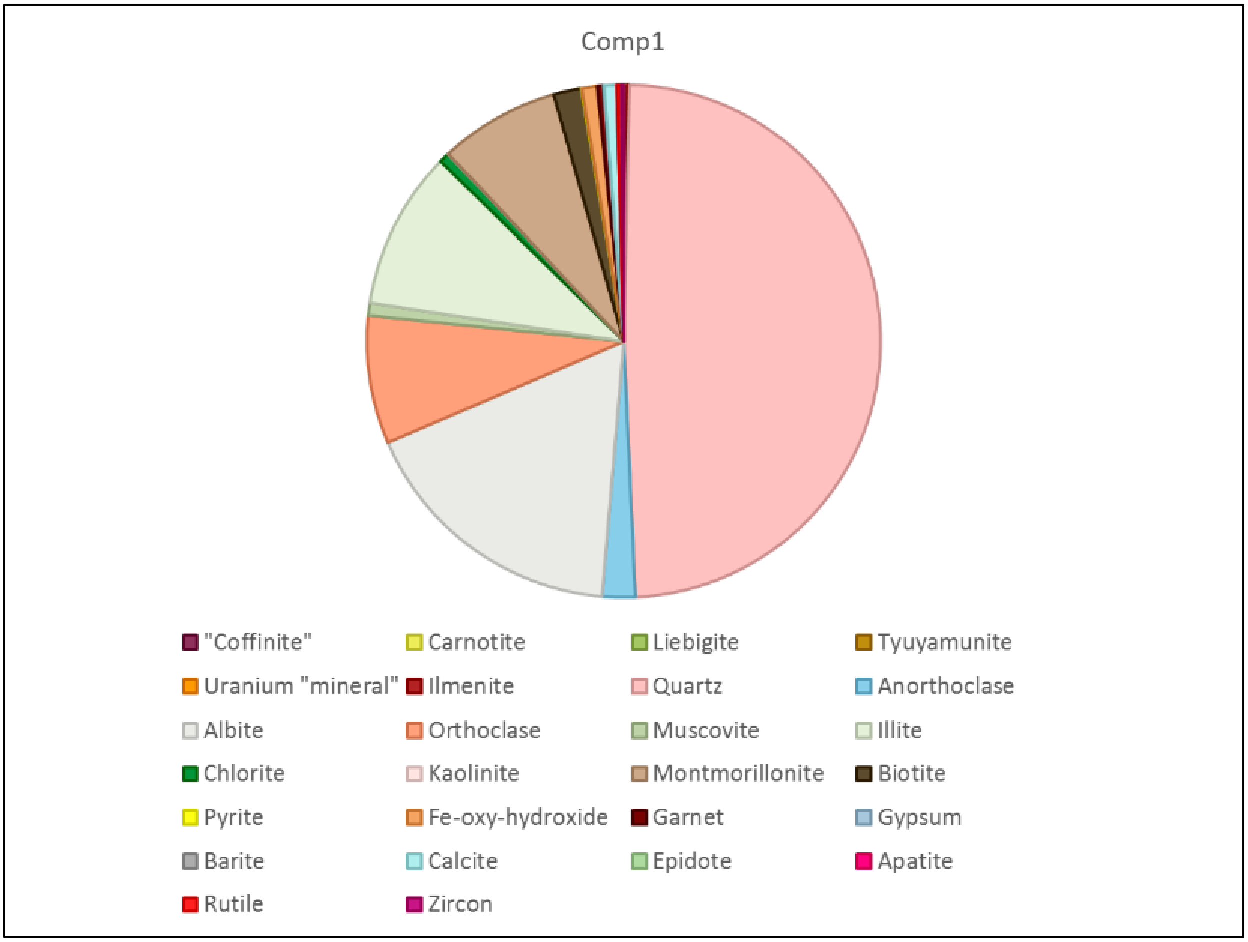


Figure 13-3: Comp1 Mineralogy; (Creighton, 2018)

Given this uranium mineralogy, with more than 90% of the uranium minerals containing uranium with the oxidized U+6 valence, no oxidant is needed in the Ivana mill leach process.

As for the grain size distribution of U ± V minerals, the SRC QEMSCAN data confirm that for both samples the grain size is <100 µm. A series of 50 screen tests at the Bureau Veritas local laboratory in Argentina, Acme Analytical Laboratories SA, showed that the minus 100 µm fraction constitutes on average 23 weight % of the Ivana raw mineralized material.

The uranium-vanadium ("U-V") mineralization in the representative composites can be classified into two main types:

1. The majority of U-V mineral particles occur as free mineral grains with a maximum particle size of 100 µm and,
2. The remainder of the U-V mineral particles occur as a coating adhering to larger coarse U-V-free granules in a size range from 100 to 6000 µm. The coating mineral particles have a maximum particle size of 100 µm.

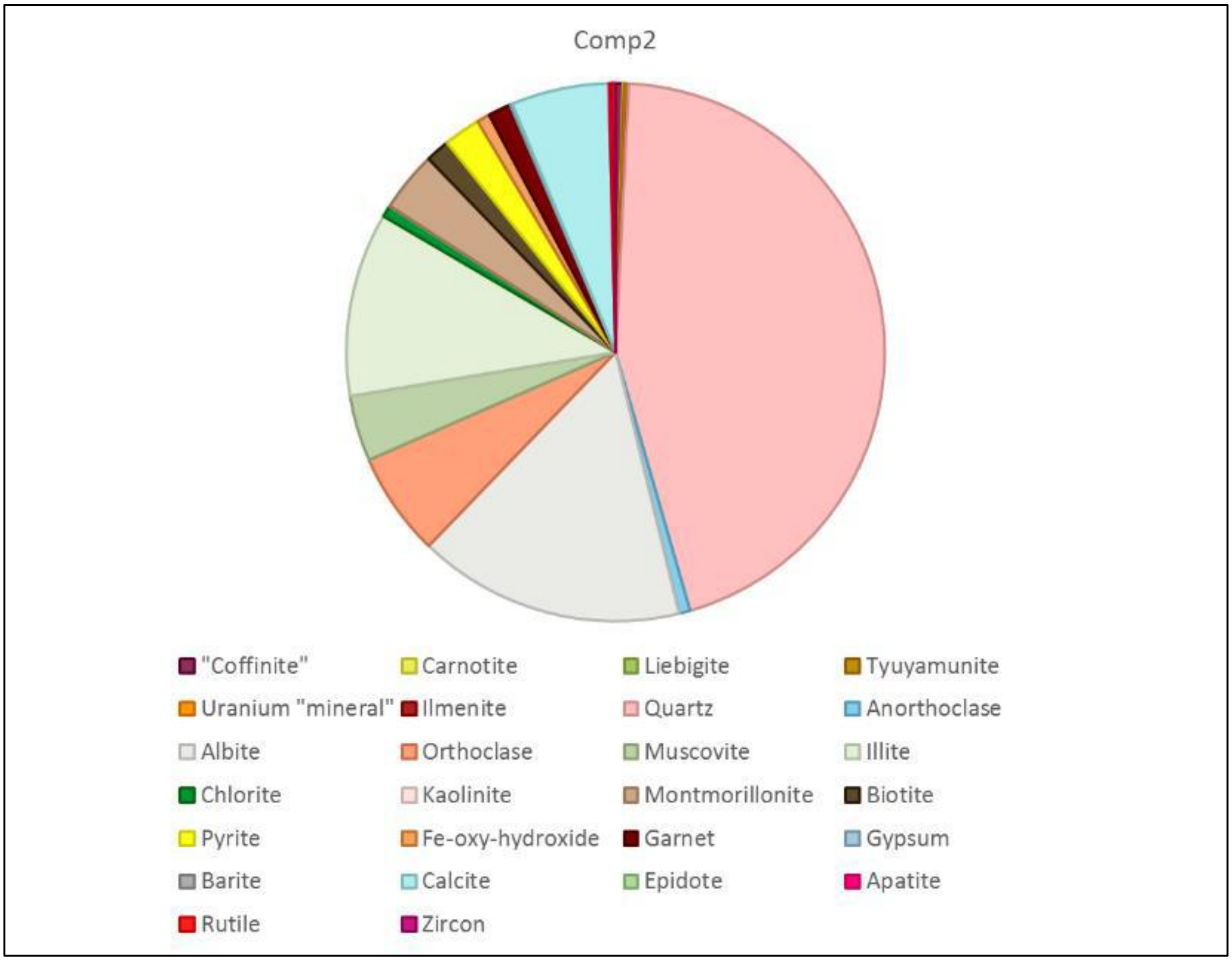


Figure 13-4: Comp2 Mineralogy; (Creighton, 2018)

13.3 Initial Leach Feed Concentrate and Alkaline Leach Test Programs at SRC

In July 2018, Blue Sky Uranium sent a large (40 kg) sample to SRC for leach feed concentrate preparation and alkaline leaching tests of the leach feed concentrate. This representative Ivana deposit sample was prepared from material from 12 selected reverse circulation drill holes. SRC assays for the sample are summarized in Table 13.1 (Oleniuk, 2018):

Table 13-1: SRC Assay Results for Leach Feed Composite Sample

Analyte	Grade (ppm)
U	470
U_3O_8	554
V	230
V_2O_5	411

13.3.1 Leach Feed Concentrate Preparation Optimization

Considering the uranium and vanadium minerals particle size data from SRC and INVAP led to a simple mill feed concentrate preparation process to recover and concentrate the coating particles along with the fine uranium and vanadium minerals particles, with U and V grades increased approximately four-fold, as shown in Figure 13-5.

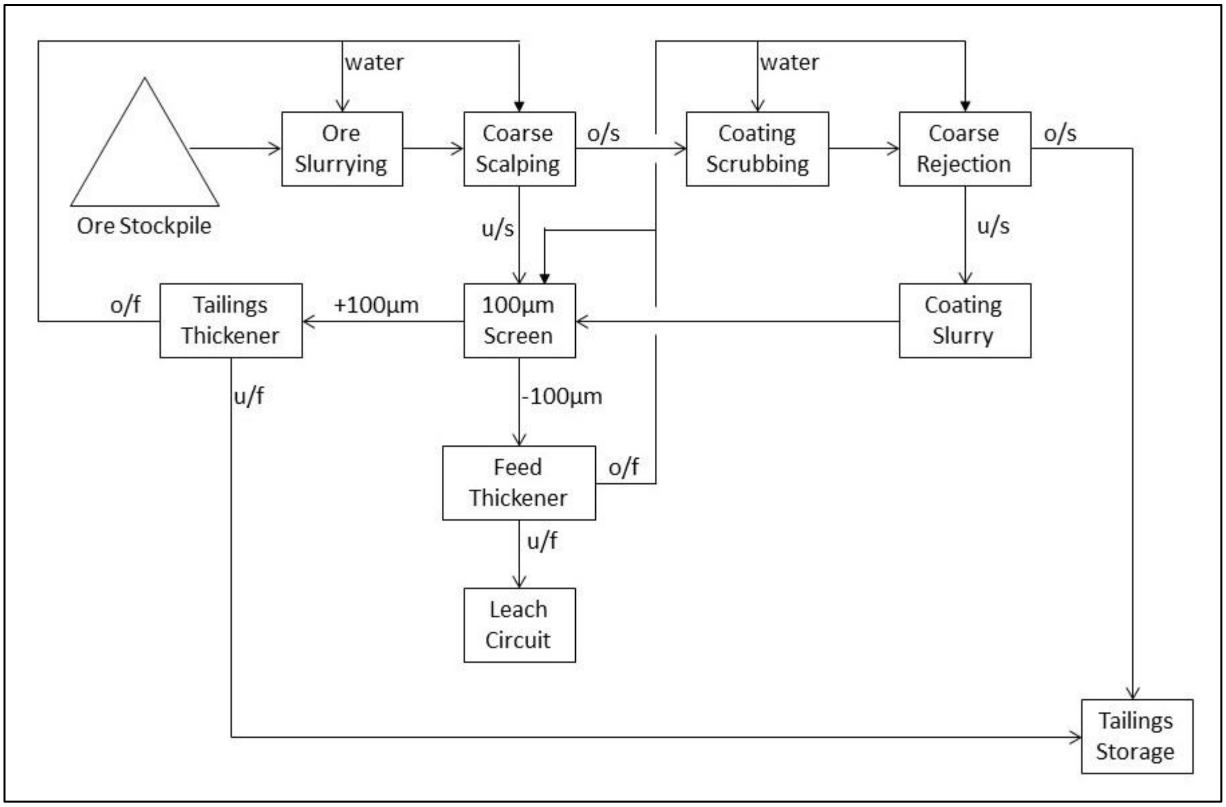


Figure 13-5: Initial Leach Feed Concentrate Preparation Process Flow Diagram

The leach feed concentrate preparation process uses operationally proven and simple wet screening and attrition scrubbing procedures. The 100 µm screen separation is a key unit operation of this process. It is a proven industrial scale process. Eldorado Nuclear's Beaverlodge Mill in northern Saskatchewan operated successfully for many years (April 1953 to June 1982) with the ultimate ore feed rate to the mill at 85 t/h and the ore ground to 88% minus 104 µm. In Namibia, the coating scrubbing process was used in Paladin Energy's Langer Heinrich mill. The mill started up in Q4 2006 and operated successfully until it was put in care and maintenance in Q2 2018 (Paladin, 2018).

For the initial leach feed concentrate preparation at SRC, coarse scalping and coarse rejection screens were 2.830 mm. The coating attrition scrubbing used a Denver Model D-12 flotation machine with a 1 L cell and attrition scrubber impeller. See Figures 13-6 to 13-8 below. The attrition scrubbing residence time was 10 minutes with a slurry density of 60% solids in deionized water. The uranium and vanadium mass recoveries to the leach feed concentrate were 84% and 82% respectively.

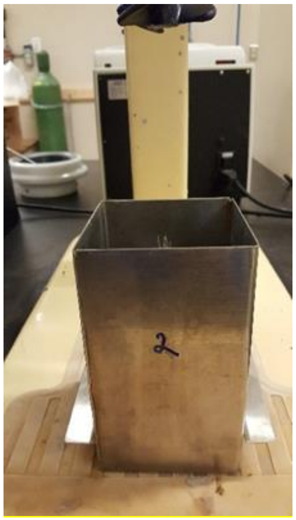


Figure 13-6: Attritioner Cell (1 L)
(Edwards, 2018b)

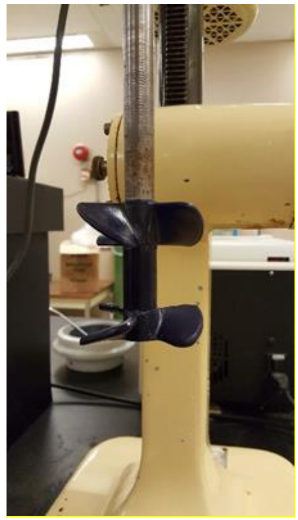


Figure 13-7: Attritioner Impeller
(Edwards, 2018b)

Figure 13-8: Attritioner in Operation
(Edwards, 2018b)

To increase the uranium and vanadium mass recoveries to the leach feed concentrate, 22 attrition scrubbing optimization test were completed using impeller speed (800, 1200 and 1700 rpm), attritioning slurry weight % solids (50%, 60%, 70% and 80%) in alkaline carbonate leach solution (60 g/L sodium carbonate and 10 g/L sodium bicarbonate), and attritioning time (4, 8 and 12 minutes) as variables. An optimized processing arrangement, shown below in Figure 13-9, was used in these tests. The optimum process conditions found were: 1200 rpm impeller speed, 70% solids and 12 minutes duration. Resulting mass recoveries to the leach feed concentrate improved to 89% for each of uranium and vanadium.

13.3.2 Alkaline Carbonate Leach Optimization

Uranium leaching may be either acidic (normally sulphuric acid) or alkaline (normally with a combination of sodium carbonate and sodium bicarbonate). Alkaline carbonate leaching was selected for the Ivana leach process because of the relatively high concentration of acid-consuming minerals in the leach feed.

The optimized leach feed concentrate process was used to prepare the feed for alkaline leach optimization tests. All leach tests used the same feed concentrate with 1274 ppm U_3O_8 and 910 ppm V_2O_5.

Leach test #1 was done at 80°C in a leach solution containing 50 g/L sodium carbonate and 20 g/L sodium bicarbonate to duplicate the leach test conditions used at INVAP; see Section 13.1 above. The SRC leach recovery results were 94.6% for U and 57.6% for V. This was a satisfactory match to the INVAP leach recoveries of 96% for U and 60% for vanadium.

The QEMSCAN results shown above in Section 13.2 indicate the presence of pyrite in the samples. Pyrite is deleterious in an alkaline carbonate leach because it will consume the sodium carbonate reagent:

$$4FeS_2 + 15O_2 + 16Na_2CO_3 + 14H_2O \rightarrow 4Fe(OH)_3 + 8Na_2SO_4 + 16NaHCO_3 \qquad \text{Equation 1}$$

A leach feed flotation test was done to check for sulphide flotation. The test used a high dose of both frother and collector, a high air flow rate, and a long duration in order to maximize sulphide flotation. Despite this, negligible sulphide floated.

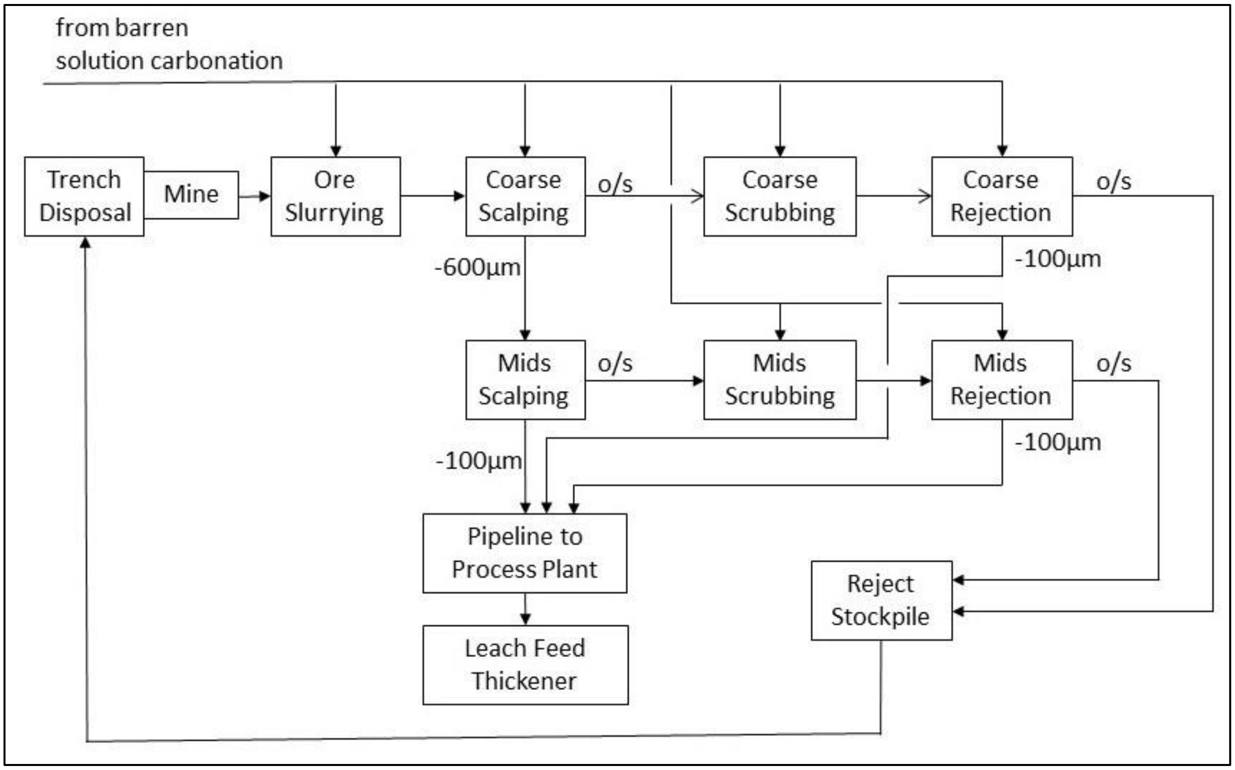


Figure 13-9: Optimized Leach Feed Concentrate Process Flow Diagram

To assure the absence of pyrite interference, leach test #2 was performed with the same conditions as leach test #1 (80°C in a leach solution containing 50 g/L sodium carbonate and 20 g/L sodium bicarbonate) but with addition of oxygen gas at 300 kPa. Compared to leach test #1, in leach test #2 U leach recovery was slightly reduced from 94.6% to 93.5%, but V leach recovery was substantially reduced from 57.6% to 36.3%. From these results it appears likely that the pyrite in the Ivana leach feed consists of particles with a pyrite core surrounded by an iron oxide coating. QEMSCAN would see these as pyrite particles, but the alkaline carbonate leach solution would see them as harmless iron oxide particles.

Leach tests #3 to #6 were performed to optimize leaching conditions. The variables in this optimization procedure were temperature and carbonate/bicarbonate ratio. The leach duration, based on the leach kinetics in leach tests #1 and #2, was held steady at 8 hours. Results were as follows:

Table 13-2: Leaching Optimization Tests

Test	Conditions			Leached after 8 hours	
	Temperature	Na_2CO_3	$NaHCO_3$	U	V
	°C	g/L	g/L	%	%
3	95	60	10	94.5	60.1
4	45	60	10	80.1	36.7
5	95	40	30	94.7	57.0
6	45	30	30	79.6	33.4

For both U and V leaching, the optimum conditions are: temperature = 95°C, carbonate/bicarbonate ratio = 60/10, and leach duration = 8 hours. In addition, under the optimized leach conditions, reagent consumptions are low: Na_2CO_3 = 3.2 kg/t and $NaHCO_3$ = 6.6 kg/t.

Process design is simplified because neither sulphide flotation nor introduction of oxygen to the leach is required.

13.4 Follow-Up Leach Tests Program at SRC

In April 2021, a second phase of process design tests commenced on a new composite bulk sample, with initial results reported by the Company in May 2023. Uranium and vanadium leach tests were completed on the ~294 kg composite bulk sample #2 prepared from RC chips from the Ivana deposit, which had an average of 530ppm U_3O_8 The optimized leach conditions were 60 g/L Na_2CO_3 and 10 g/L $NaHCO_3$, at 95˚C for 8 hours. Uranium recovery for the alkaline leach stage was 96%, vanadium recovery was 35%. Despite the positive leach test results, a review of the methodology indicated that the optimized pre-concentration steps had not been executed as planned. As a result, this bulk testing is being repeated prior to proceeding to the next process test phase. For the purposes of the resource estimate and PEA reported herein, the data from the initial testing program has been used.

13.5 Recommended Metallurgical Test Work for Next Project Stage

In the next stage of engineering for the project, the following laboratory metallurgical tests are recommended on two new process unit operations, membrane filtration and solvent extraction. The goal of incorporating these processing alterations is to reduce plant capital and operating costs.

13.5.1 Membrane Filtration

Membrane filtration is a two-stage process. The first stage is nanofiltration ("NF"). The feed to NF is the filtered loaded leach solution. The retentate from NF is a concentrated loaded leach solution which is fed to further processing. The permeate from NF is fed to the second stage, reverse osmosis ("RO") membrane filtration. The RO permeate is a is a clean water stream that is used primarily for washing the filtered solids from the extraction leach process. The RO retentate is pumped to the barren solution carbonation circuit for use as the leach solution.

13.5.2 Solvent Extraction

The solvent extraction ("SX") circuit separates the uranium and the vanadium and provides a loaded aqueous feed stream to each of the uranium and vanadium precipitation circuits. The SX organic consists of Aliquat 336 as extractant, in a carrier which is high vapour pressure, low aromatic content kerosene. Uranium extraction is at pH 11. Uranium is stripped with a strong sulphuric acid solution. Acid recovered from the uranium loaded strip solution by membrane filtration is recycled to uranium strip solution make-up. The resulting concentrated uranium loaded strip solution is the feed to uranium precipitation. Note that this SX process avoids the complex normal multi-stage uranium precipitation practice in alkaline leach plants of first precipitating sodium diuranate with sodium hydroxide, next dewatering the sodium diuranate, next redissolving the sodium diuranate with sulphuric acid, and then finally precipitating the final uranium product. Most of the vanadium in the SX feed solution is not extracted onto the organic and reports to the uranium raffinate stream. The small amount of vanadium extracted onto the organic is stripped with 50 g/L sodium carbonate solution at pH 11. The vanadium loaded strip solution joins the vanadium solution, and the combined streams are the feed to vanadium precipitation.

14 Mineral Resource Estimate

14.1 Introduction

The Mineral Resource estimate was prepared under the direction of Bruce Davis, PhD, FAusIMM, with the assistance of Susan Lomas, P.Geo. of Lions Gate Geological Consulting. This section of the technical report describes the Mineral Resource estimation methodology and summarizes the key assumptions considered by the Qualified Persons to prepare the Mineral Resource model for the uranium and vanadium mineralization at the Ivana Deposit within the Amarillo Grande Project in Argentina.

This is the third Mineral Resource estimate completed on the Ivana Deposit, and it has been estimated in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines* (CIM, 2019).

Mineral Resources are not Mineral Reserves and they do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into a mineral reserve upon application of modifying factors.

Estimations are made from 3D block models based on geostatistical applications using commercial mine planning software (Geovia GEMS 6.7.4). The project limits are based in the UTM coordinate system using a nominal block size measuring 50 m x 50 m x 2 m. The RC drill holes intersect the uranium mineralization of the Ivana deposit vertically to depths not exceeding 25 m below surface. The Mineral Resource estimate was generated using drill hole sample assay results and the interpretation of a uranium model that relates to the spatial distribution of uranium and vanadium. Interpolation characteristics were defined based on the geology, drill hole spacing, and geostatistical analysis of the data. The Mineral Resources were classified according to their proximity to the sample data locations and are reported, as required by NI 43-101, according to the CIM *Definition Standards for Mineral Resources and Mineral Reserves* (CIM, 2014).

This report includes estimates for Mineral Resources. No Mineral Reserves were prepared or reported.

14.2 Data

Blue Sky provided the final drill hole sample data for the Ivana deposit in January 2023. This comprised a series of Excel® (spreadsheet) files containing collar locations, down-hole survey results, geologic information and assay results for a total of 836 drill holes representing 10,869 m of drilling. Of these, 489 drill holes intersect the uranium mineralization and contribute to the estimation of Mineral Resources. All holes are RC drill holes. The distribution of uranium grades in the drill holes is shown in plan view in Figure 14-1.

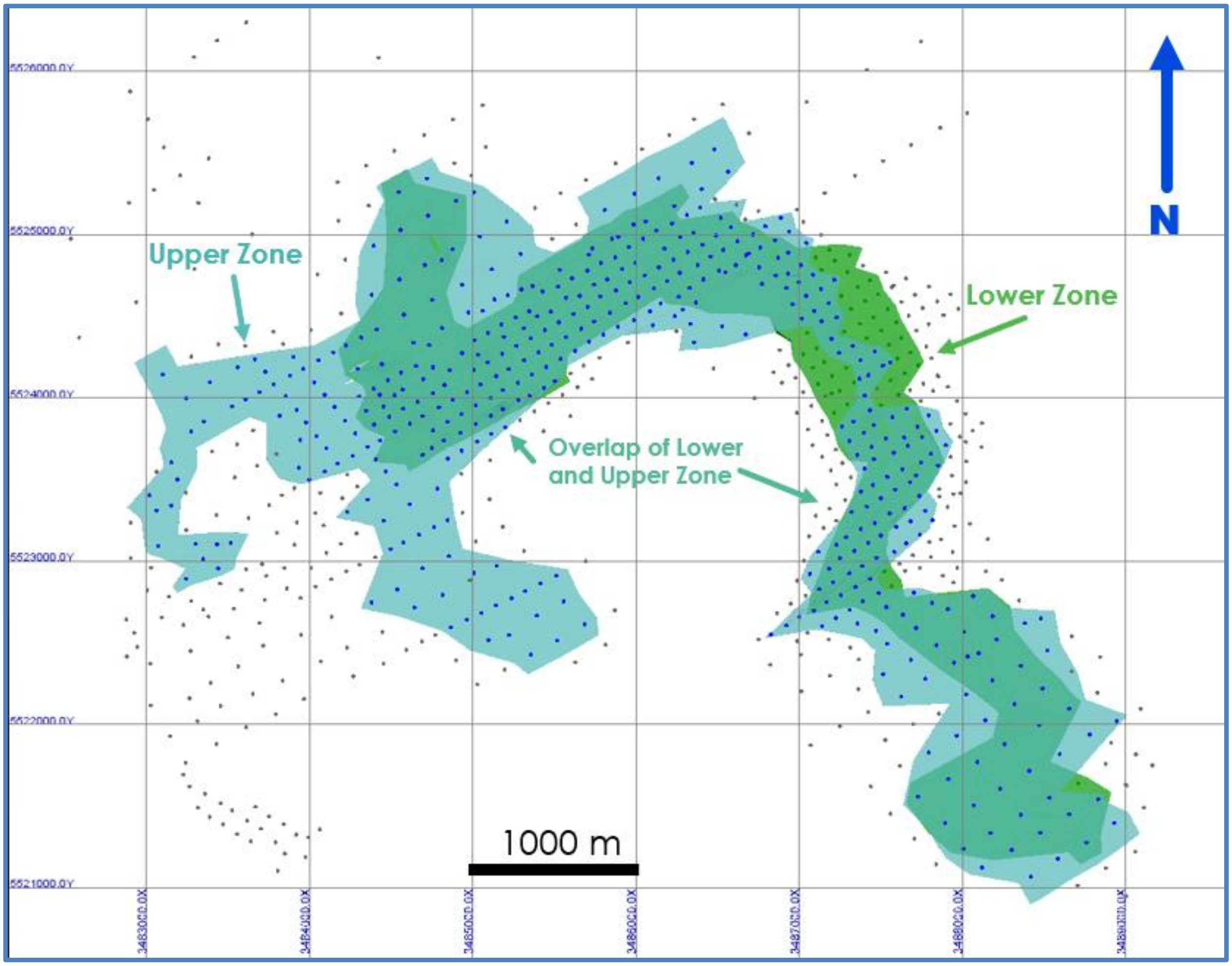


Figure 14-1: Plan View of Upper and Lower Zones Source: LGGC (2024)

There are 10,869 samples in the project database and 2,850 of them intersected the Upper and Lower zones of uranium mineralization. The samples were taken every 1 m down the RC drill holes.

Density testing was conducted by SEMAT Laboratory in Argentina (Gurevich 2018). The test estimated the in-situ density from 25 samples to be 2.1 t/m^3.

No topographic data was provided at the time of the Mineral Resource estimation. A topographic surface was generated to cover the area of the Mineral Resource estimation using the 3D coordinate data of the surveyed drill hole collars.

Geologic information, derived from observations during drill sample logging, provide lithology code designations for the various rock units present on the property.

14.3 Geological Model, Domains and Coding

The uranium mineralization is hosted in both the sedimentary and basement intrusive rocks. Two 3D wireframe domains were modelled at the Ivana deposit that encapsulated the uranium mineralization above 25 ppm uranium. The contact between the overlying sedimentary rocks and the basement rocks was modelled as a surface over the deposit area (Figure 14-2).

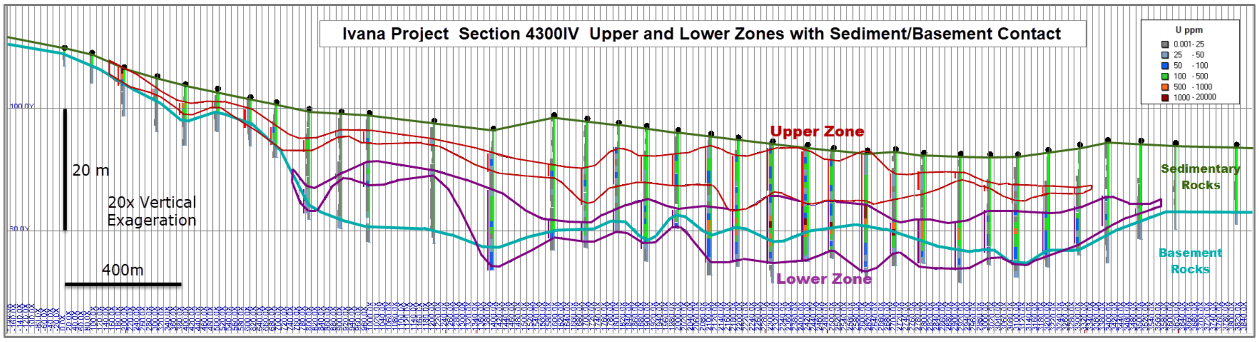


Figure 14-2: Section 4300, View of the Interpreted Upper and Lower Zones with Basement/Sediment Contact and Uranium Data in Drilling Source: LGGC (2024)

14.4 Compositing

Assay data were not composited for grade interpolation due to the uniform nature of the sampling. All samples were taken at 1 m intervals.

14.5 Exploratory Data Analysis

Exploratory data analysis ("EDA") involves the statistical summarization of the database to better understand the characteristics of the data that may control grade. One of the main purposes of this exercise is to determine if there is evidence of spatial distinctions in grade which may require separation and isolation of domains during interpolation. The application of separate domains prevents unwanted mixing of data during interpolation and, therefore, the resulting grade model will better reflect the unique properties of the deposit. However, applying domain boundaries in areas where the data is not statistically unique may impose a bias in the distribution of grades in the model.

A domain boundary, which segregates the data during interpolation, is typically applied if the average grade in one domain is significantly different from that of another domain. A boundary may also be applied if there is evidence that a significant change in the grade distribution has occurred across the contact.

The two zones at Ivana, the upper and lower zone, have distinct grade distributions and a hard boundary was placed between them during grade interpolation.

14.5.1 Basic Statistics by Domain

The summary statistics for the uranium and vanadium assay data, included in the Mineral Resource estimate, are shown in Table 14-1. The data shows the lower zone average uranium grades is about four times higher than in the upper zone. The vanadium grades are similar in both zones.

Table 14-1: Summary of Basic Statistics for Assays included in the Mineral Resource Estimate

Element (ppm)	Zone	Number	Mean	Min	Q25	Q50	Q75	Max	Coef of Variation
Uranium	Upper	1257	62.8	2.8	26.1	35.9	61.6	1964.6	1.8
Uranium	Upper	1593	253.9	4.8	37.5	75.4	210.8	17780	2.8
Vanadium	Lower	1257	93.5	10	47	71	120	1110	0.8
Vanadium	Lower	1593	90.8	7	31	55	97	2086	1.6

14.5.2 Contact Profiles

Contact profiles evaluate the nature of grade trends between two domains: they graphically display the average grades at increasing distances from the contact boundary. Those contact profiles that show a marked difference in grade across a domain boundary indicate that the two datasets should be isolated during interpolation. Conversely, if a more gradual change in grade occurs across a contact, the introduction of a hard boundary (e.g., segregation during interpolation) may result in a much different trend in the grade model; in this case, the change in grade between domains in the model is often more abrupt than the trends seen in the raw data. Finally, a flat contact profile indicates no grade changes across the boundary; in this case, hard or soft domain boundaries will produce similar results in the model.

A series of contact profiles were generated to evaluate the nature of uranium and vanadium across the uranium-based grade shell boundary. Abrupt changes in grade occur in uranium at the domain boundary. There is little evidence of changes in grade for vanadium due to the shell being based on uranium grades and not vanadium.

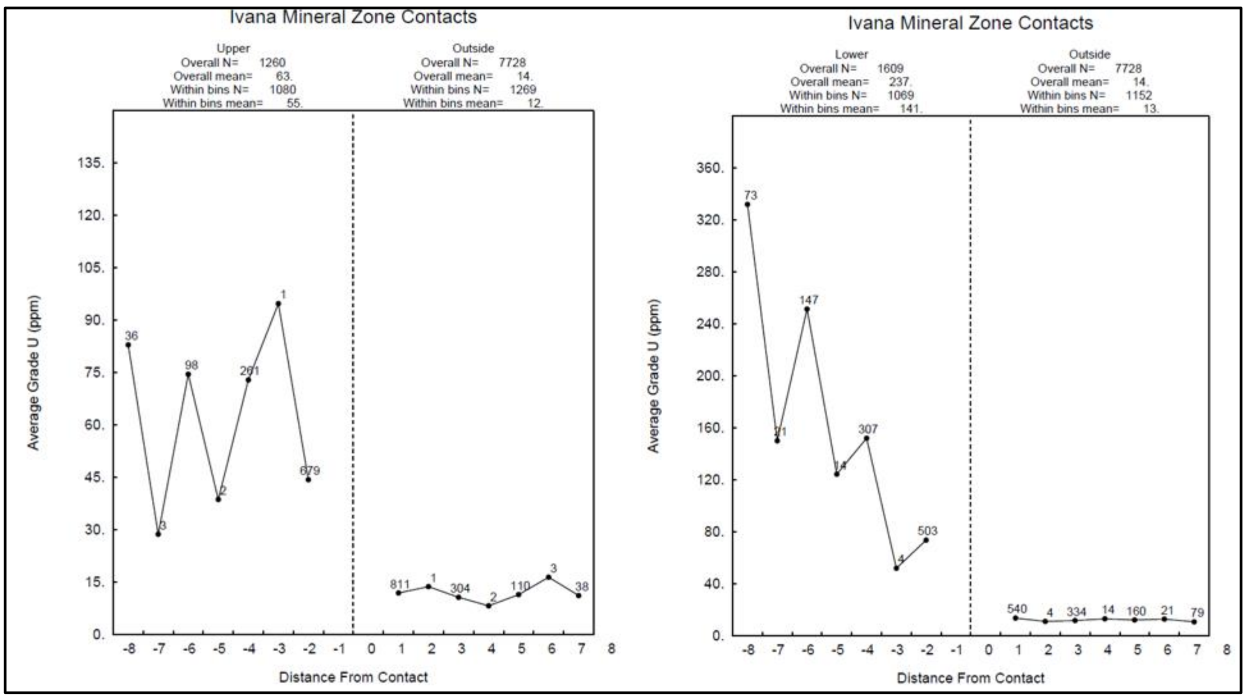


Figure 14-3: Contact Profiles for Samples Inside vs. Outside the Uranium-Based Grade Shell domains for Uranium Source: LGGC (2024)

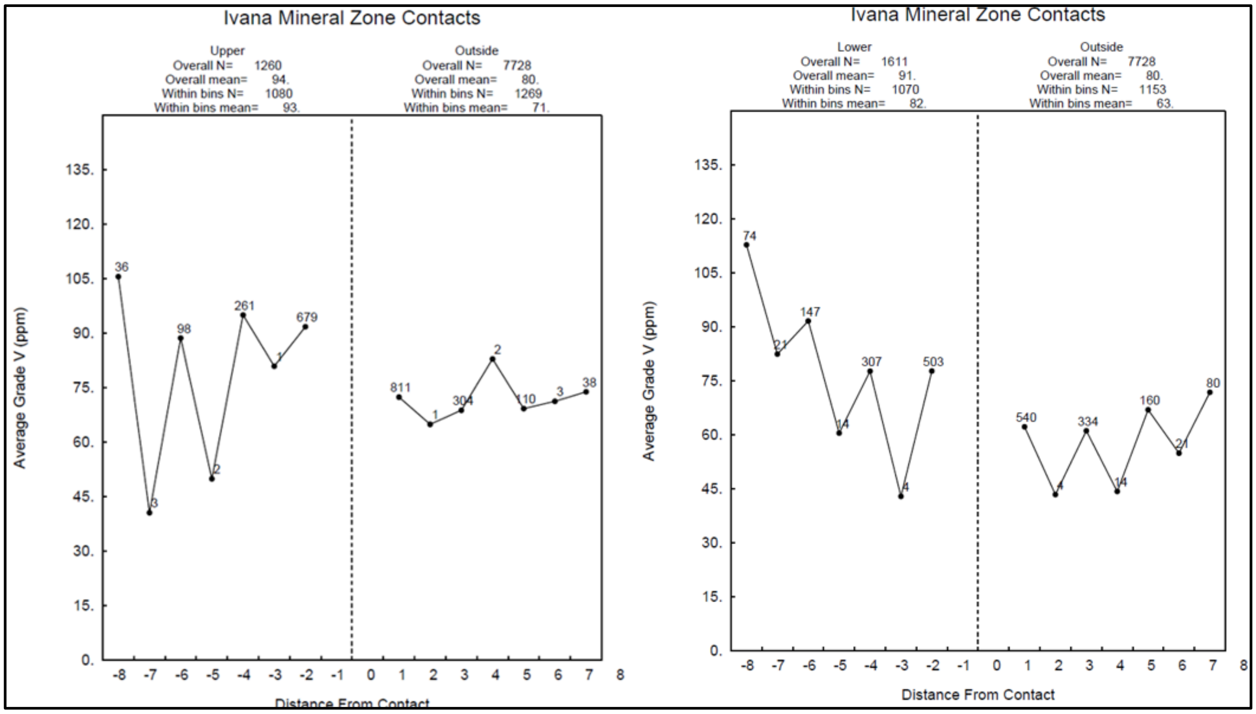


Figure 14-4: Contact Profiles for Samples Inside vs. Outside the Uranium-Based Grade Shell domains for Vanadium Source: LGGC (2024)

14.5.3 Conclusions and Modelling Implications

The results of the EDA indicate that the uranium and vanadium grades within the upper and lower zone solids are significantly different than those in the surrounding area, and that the two zones should be treated as distinct or hard domains during block grade estimations.

14.6 Evaluation of Outlier Grades

Histograms and probability plots for the distribution of uranium and vanadium were reviewed to identify the presence of anomalous outlier grades in the assay database. Following a review of the physical location of potentially erratic samples in relation to the surrounding sample data, it was decided that these would be controlled during block grade interpolations using a combination of traditional top-cutting and also applying outlier limitations. An outlier limitation controls the distance of influence of samples above a defined grade threshold. During grade interpolations, samples above the outlier thresholds are limited to a maximum distance-of-influence of 100 m horizontally and 6 m vertically. The grade thresholds for uranium and vanadium are shown in Table 14-2.

Overall, these measures result in a 6% reduction in contained uranium in both the upper and lower zones combined. The high metal loss for uranium is due to a combination of a skewed distribution of data and the spacing of drill holes. These measures are considered appropriate for a deposit with this distribution of delineation drilling.

Table 14-2: Treatment of Outlier Sample Data

Element (ppm)	Zone	Max	Cap (ppm)	No.	Outlier Limit (ppm)	No.
Uranium	Upper	1,965	1000	4	400	14
Uranium	Lower	17,780	3000	13	2000	22
Vanadium	Upper	1,110	400	10	300	26
Vanadium	Lower	2,086	1000	6	600	23

14.7 Variography

The degree of spatial variability in a mineral deposit depends on both the distance and direction between points of comparison. Typically, the variability between samples increases as the distance between those samples increases. If the degree of variability is related to the direction of comparison, then the deposit is said to exhibit anisotropic tendencies which can be summarized with the search ellipse. The semi-variogram is a common function used to measure the spatial variability within a deposit.

The components of the variogram include the nugget, the sill and the range. Often samples compared over very short distances, even samples compared from the same location, show some degree of variability. As a result, the curve of the variogram often begins at some point on the y-axis above the origin: this point is called the *nugget*. The nugget is a measure of not only the natural variability of the data over very short distances but also a measure of the variability which can be introduced due to errors during sample collection, preparation, and the assay process.

The amount of variability between samples typically increases as the distance between the samples increases. Eventually, the degree of variability between samples reaches a constant, maximum value: this is called the *sill*, and the distance between samples at which this occurs is called the *range*.

In this report, the spatial evaluation of the data was conducted using a correlogram rather than the traditional variogram. The correlogram is normalized to the variance of the data and is less sensitive to outlier values, generally giving better results.

Correlograms were generated using the commercial software package Sage 2001© developed by Isaaks & Co. Multidirectional variograms for uranium and vanadium were generated from the distributions of data located inside the uranium-based grade shell domains in the north and south areas of the deposit. Variogram domains divide the mineralized zones into Domain 10 which is East-West dominant and Domain 20 which outlines area where the mineralization is dominantly trending north-south. (Figure 14-5). The variogram trends are summarized in Table 14.-3.

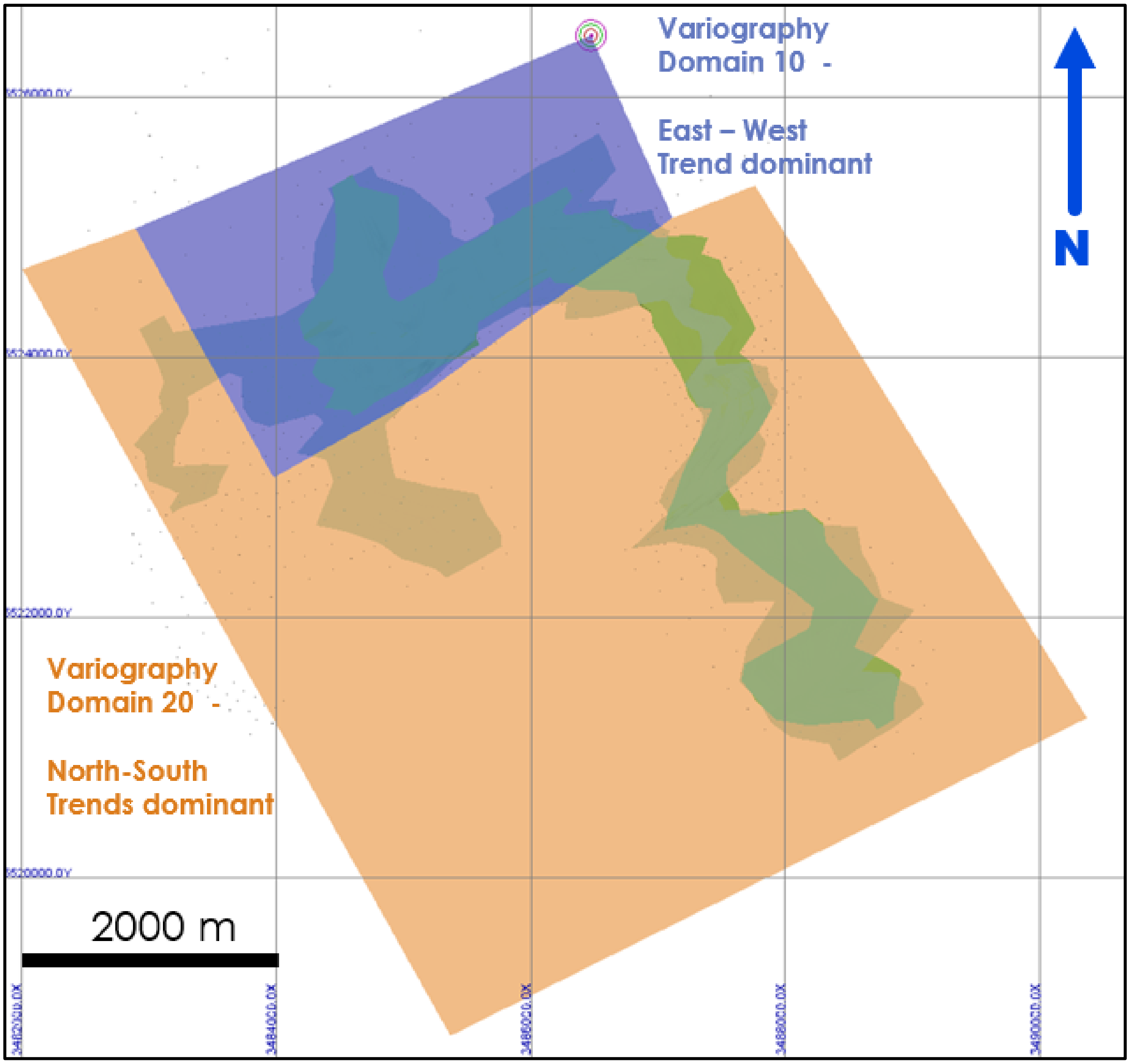


Figure 14-5: Variogram Domains Source: LGGC (2024)

Table 14-3: Variogram Parameters

				1st Structure			2nd Structure		
Element	**Nugget**	**Sill 1**	**Sill 2**	**Range (m)**	**Azimuth (°)**	**Dip**	**Range (m)**	**Azimuth (°)**	**Dip**
Uranium North Area (10-EW) Upper	.004	0.837	0.160	3.7	90	90	5	90	90
	Spherical			85.6	331	0	917.9	38	0
				60	61	0	472	128	0
Uranium North Area (10 EW) Lower	0.105	0.740	0.154	3.5	90	90	2.4	90	90
	Spherical			81.4	314	0	3170	37	0
				124.6	44	0	660.7	127	0
Uranium South Area (20 NS) Upper	0.365	0.540	0.095	5	90	90	2.3	90	90
	Spherical			109.1	270	0	868.2	328	0
				144	360	0	144.4	58	0
Uranium South Area (20 (NS) Lower	0.300	0.625	0.075	5	90	90	8	90	90
	Spherical			77	350	0	1547	317	0
				117	80	0	295	47	0
Uranium South Area (20)	0.392	0.460	0.149	6	90	90	2.2	90	90
	Spherical			64.6	323	0	1706	335	0
				133.5	53	0	159.3	65	0
Vanadium North Area (10 EW) Upper	0.012	0.813	0.176	3.3	90	90	5	90	90
	Spherical			148.3	52	0	18977	314	0
				55.6	142	0	1372	44	0
Vanadium North Area (10 EW) Lower	0.151	0.347	0.501	5.4	90	90	5.6	90	90
	Spherical			143.4	341	0	348.8	19	0
				36.9	71	0	252.7	109	0
Vanadium South Area (20 NS) Upper	0.353	0.503	0.145	4.3	90	90	4.4	90	90
	Spherical			49.6	3	0	5881	24	0
				133.6	93	0	573.6	114	0
Vanadium South Area (20 NS) Lower	0.213	0.634	0.153	3.7	90	90	10.4	90	90
	Spherical			17.2	322	0	1473	334	0
				341.7	52	0	239.4	64	0

Note: Correlograms conducted on 1 m sample data.

14.8 Model Setup and Limits

A block model was initialized in Geovia GEMS, and the dimensions are defined in Table 14-4. The selection of a nominal block size measuring 25 x 25 x 2 m is considered appropriate with respect to the current drill hole spacing as well as the selective mining unit size typical of an operation of this type and scale.

Table 14-4: Block Model Limits

Direction	Minimum	Maximum	Block Size(m)	# of Blocks
X (east)	3,482,850	3,489,400	50	131
Y (north)	5,521,400	5,525,750	50	87
Z (elevation)	138	286	2	74

Blocks in the model were coded on a majority basis with the upper and lower domain codes. Geovia GEMS software uses a percent model to of the block inside the solid to account for the volume of the block inside.

Only blocks that were more than 51% below the topography surface were available for coding to either the upper or lower mineralized domains.

14.8.1 Interpolation Parameters

The block model grades for uranium and vanadium were estimated using ordinary kriging ("OK") as the main method while blocks were also estimated using inverse distance squared ("ID^2") and nearest neighbour ("NN") methods for validation purposes. The results of the OK estimation were compared with the Hermitian Polynomial Change of Support model ("Herco"; also referred to as the Discrete Gaussian Correction). This method is described in more detail in section 14.9.

The estimation parameters for the various elements in the resource block model are shown in Table 14-5.

Table 14-5: Interpolation Parameters

Element	Search Ellipse[1] Range (m)			# of Composites		
	X	**Y**	**Z**	**Min/block**	**Max/block**	**Max/hole**
Uranium	400	400	100	3	8	2
Vanadium	400	400	100	3	8	2

[1] Ellipse orientation with long axes N-S and W-E and vertical short axis.

14.9 Validation

The results of the modelling process were validated using several methods. These include a thorough visual review of the model grades in relation to the underlying drill hole sample grades, comparisons with the change of support model, comparisons with other estimation methods and grade distribution comparisons using swath plots.

14.9.1 Visual Inspection

A detailed visual inspection of the block model was conducted in both section and plan to ensure the desired results following interpolation. This includes confirmation of the proper coding of blocks within the upper and lower shell domains. The estimated uranium and vanadium grades in the model appear to be a valid representation of the underlying drill hole sample data.

14.9.2 Model Checks for Change of Support

The relative degree of smoothing in the block model estimates were evaluated using the Discrete Gaussian of Hermitian Polynomial Change of Support method (Rossi and Deutsch, 2014).

With this method, the distribution of the hypothetical block grades can be directly compared to the estimated (OK) model through the use of pseudo-grade/tonnage curves. Adjustments are made to the block model interpolation parameters until an acceptable match is made with the Herco distribution. In general, the estimated model should be slightly higher in tonnage and slightly lower in grade when compared to the Herco distribution at the projected cut-off grade. These differences account for selectivity and other potential ore-handling issues which commonly occur during mining.

The Herco distribution is derived from the declustered composite grades which have been adjusted to account for the change in support, going from smaller drill hole composite samples to the large blocks in the model. The transformation results in a less skewed distribution but with the same mean as the original declustered samples.

The Herco analysis was conducted on the distribution of uranium in the block model and level of correspondence was achieved in all cases.

An example showing the distribution of the uranium models in the Upper and Lower domains is shown in Figure 14-6.

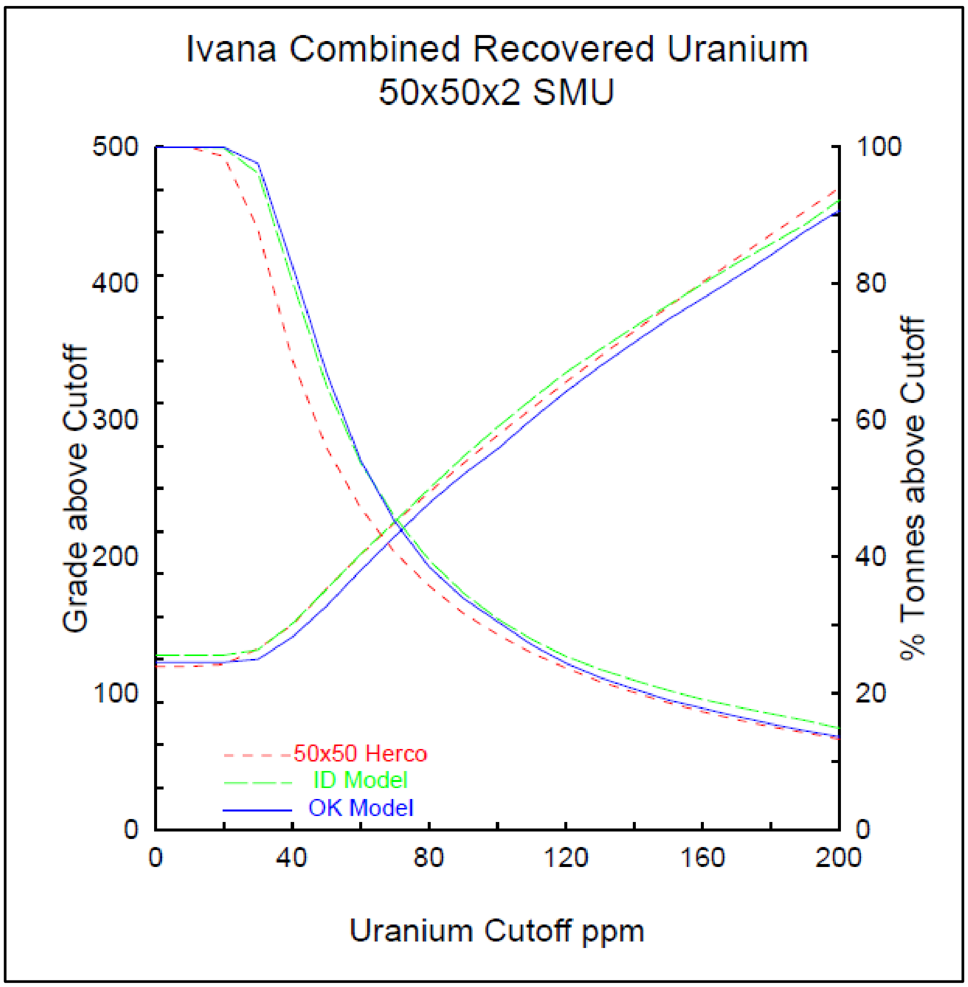


Figure 14-6: Herco Grade/Tonnage Plot for the Combined Upper and Lower Zone Uranium Models Source: LGGC (2024)

14.9.3 Swath Plots (Drift Analysis)

A swath plot is a graphical display of the grade distribution derived from a series of bands, or swaths, generated in several directions through the deposit. Grade variations from the OK model are compared using the swath plot to the distribution derived from the inverse distance (ID^2) and declustered (NN) grade model.

On a local scale, the NN model does not provide reliable estimations of grade, but, on a much larger scale, it represents an unbiased estimation of the grade distribution based on the underlying data. Therefore, if the OK model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend should be similar to the NN distribution of grade.

Swath plots have been generated in three orthogonal directions for all models. An example of the uranium distribution in east-west swaths is shown in Figure 14-7.

There is good correspondence between the models in most areas. The degree of smoothing in the OK model is evident in the peaks and valleys shown in the swath plots. Areas where there are large differences between the models tend to be the result of "edge" effects, where there is less available data to support a comparison. The validation results indicate that the OK model is a reasonable reflection of the underlying sample data.

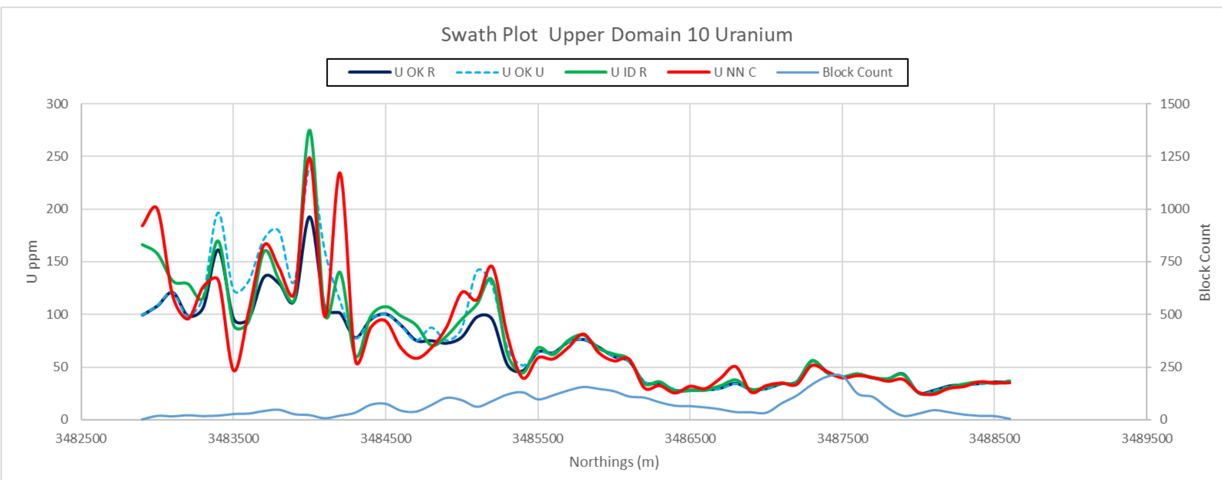


Figure 14-7: Swath Plot of Upper Zone Uranium OK, ID2 and NN Models by Northings Source: LGGC (2024)

14.10 Resource Classification

The Mineral Resources for the Ivana Deposit within the Amarillo Grande Project were classified in accordance with the CIM *Definition Standards for Mineral Resources and Mineral Reserves* (CIM, 2014). The classification parameters are defined relative to the distance between uranium sample data and are intended to encompass zones of reasonably continuous mineralization that exhibit the desired degree of confidence. These parameters are based on visual observations and statistical studies. Classification parameters are based primarily on the nature of the distribution of uranium data as it is the main contributor to the relative value of the deposit.

At this stage of project evaluation, the data supports resources in the Indicated and Inferred category. There are no Mineral Resources included in the Measured categories.

14.10.1 Indicated and Inferred Mineral Resources

Mineral Resources in the Inferred category include blocks that are located within a maximum distance of 200 m from a drill hole and in the Indicated category for blocks within 100 m of 2 drill holes.

Solids were built to encompasses model blocks that are included in the Inferred category and another one for the Indicated category. This step insures consistency of classification across the deposit.

CIM *Definition Standards for Mineral Resources and Mineral Reserves* (CIM, 2014) define a Mineral Resource 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. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling."

The "reasonable prospects for eventual economic extraction" requirement generally implies that quantity and grade estimates meet certain economic thresholds and that Mineral Resources are reported at an appropriate cut-off grade that takes into account extraction scenarios and processing recovery.

A resource-limiting pit shell was generated using the following technical and economic parameters:

- Operating costs:
    - Mining mineralization: open pit US$1.50/t
    - Processing: US$4.00/t
    - G&A: US$2.30/t
- Pit slope: 32 degrees.
- Prices: US$75/lb U_3O_8
- Metallurgical recoveries: 84.6%.

The estimate of Inferred and Indicated Mineral Resources is presented in Table 14-6. Based on the assumed uranium price of $75/lb U_3O_8, operating cost of $7.80/tonne and process recovery of 84.6%, a base case cut-off grade is estimated to be 60 ppm. A cut-off of 100 ppm uranium was used to report the Mineral Resources in Table 14-6 to align with the PEA study. The results of the Mineral Resource estimate tabulated using 60 ppm cut-off are included in the table of sensitivities (Table 14-7) and represents a difference of about 9% in pounds of contained U_3O_8.

The distribution of the base case Mineral Resource is shown from a series of planimetric viewpoints in Figures 14-8, 14-9 and 14-10 and in sections in Figure 14-11 and 14-12.

The QPs are not aware of factors related to environmental, permitting, legal, title, taxation, socio-economic, marketing, or political issues which could materially affect the Mineral Resource.

Table 14-6: Estimate of Indicated and Inferred Mineral Resource reported at 100 ppm Uranium Cut-off

Zone	Class	Tonnes (Mt)	Average Grade				Contained Metal	
			U (ppm)	U_3O_8 (%)	V (ppm)	V_2O_5 (%)	U_3O_8 (Mlb)	V_2O_5 (Mlb)
Upper	Indicated	2.0	122	0.014	110	0.020	0.6	0.9
Lower	Indicated	17.6	358	0.042	104	0.019	16.4	7.2
Total	**Indicated**	**19.7**	**333**	**0.039**	**105**	**0.019**	**17.0**	**8.1**
Upper	**Inferred**	**1.4**	**167**	**0.020**	**170**	**0.030**	**0.6**	**0.9**
Lower	**Inferred**	**4.2**	**293**	**0.035**	**90**	**0.016**	**3.2**	**1.5**
Total	**Inferred**	**5.6**	**262**	**0.031**	**109**	**0.019**	**3.8**	**2.4**

1. The effective date of the Mineral Resource is October 14, 2023. The QPs for the Mineral Resource estimate are Susan Lomas, P.Geo. of Lions Gate Geological Consulting (LGGC) and Dr. Bruce Davis FAusIMM.
2. CIM Definition Standards were used for Mineral Resource classification and in accordance with CIM MRMR Best Practice Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
3. Extreme High-grade samples were capped to lower grades (Upper U 1000 ppm, V 400 ppm, Lower U 3000 ppm, V 1000 ppm) and then restricted using an outlier strategy where Upper composites were limited to U 400 ppm and V 300 ppm over 100 m and Lower composites were limited to U 2000 ppm and V 600 ppm over 100 m. Mineral grades were estimated into a 50x50x2 m block model using krige method.
4. Mineral Resources were tabulated within a resource limiting pitshell using $US 75/lb U price, recovery of 84.6% U; open pit mining cost of $1.50/t mineralization mined; processing and G&A cost of $6.30/t processed; pit slope of 32°. Bulk density value of 2.1 g/cm^{3}was used for mineralized material.
5. The resource was estimated within distinct zones of elevated uranium concentration occurring within the host sediments. Vanadium is associated with uranium and is estimated within the same zones. There is no indication that Vanadium occurs outside of the elevated uranium zones in the Ivana deposit area in sufficient concentrations to justify developing estimation domains focused on Vanadium.

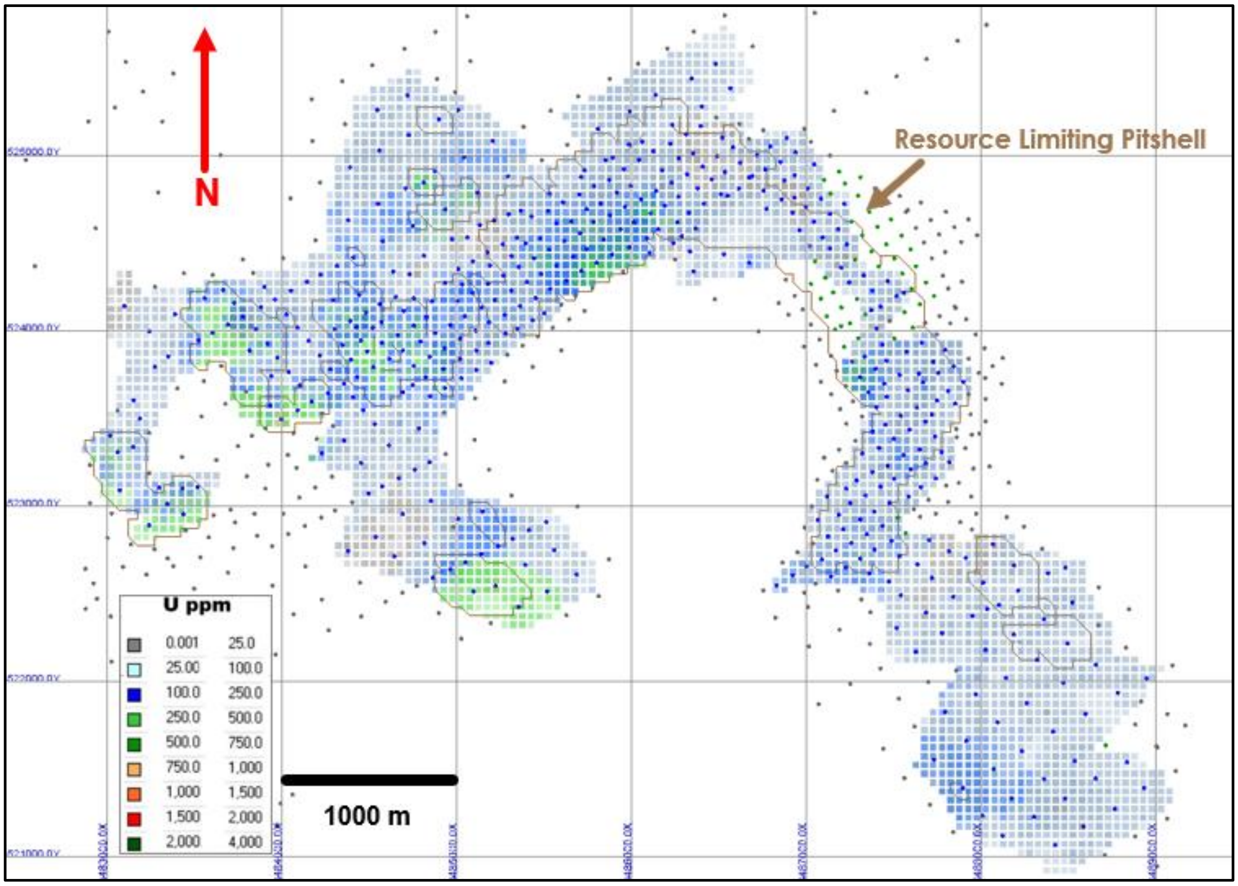


Figure 14-8: Plan View of Base Case Mineral Resource within the Upper Zone, Block Grades U ppm Source: LGGC (2024)

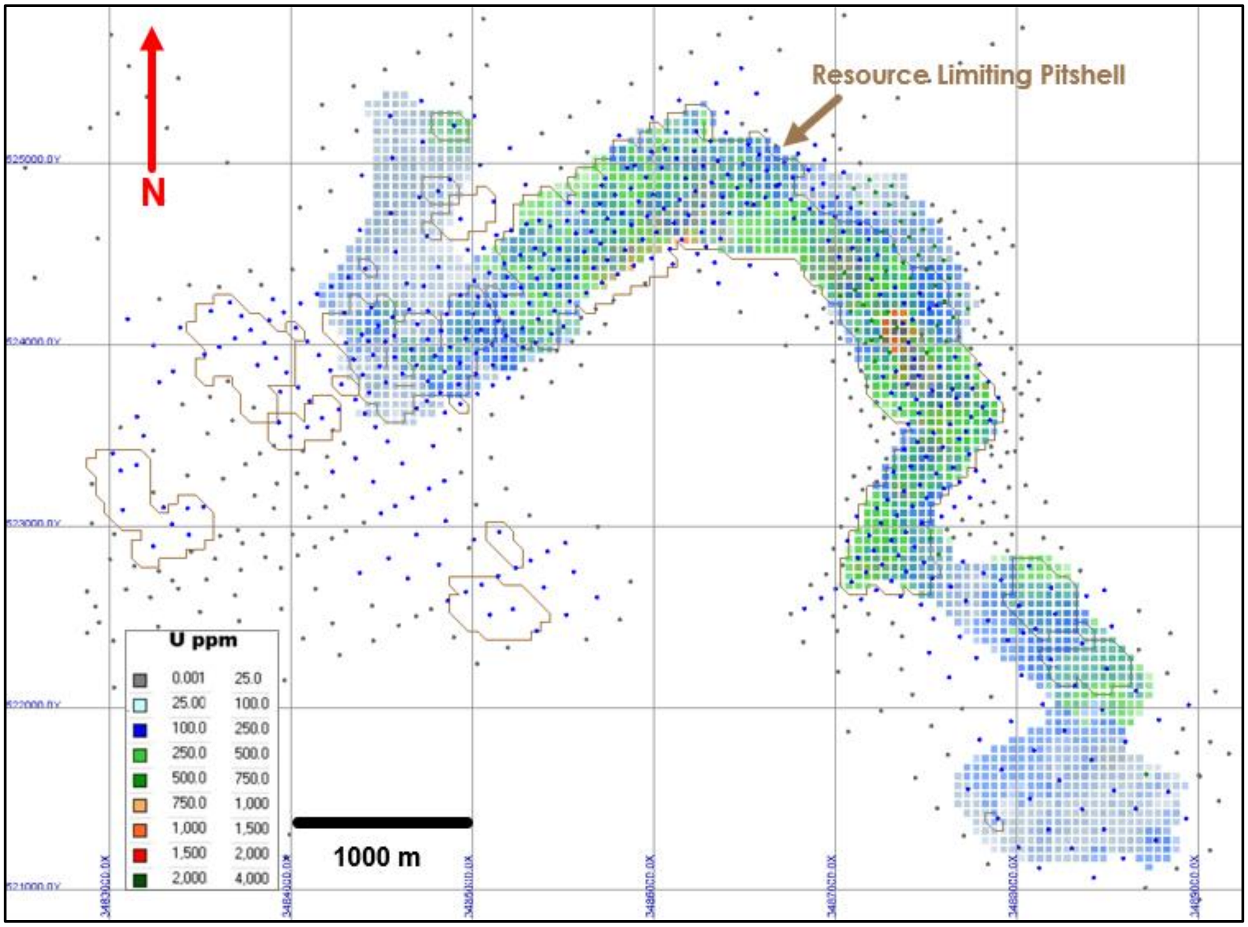


Figure 14-9: Plan View of Base Case Mineral Resource within the Lower Zone, Block Grades U ppm Source: LGGC (2024)

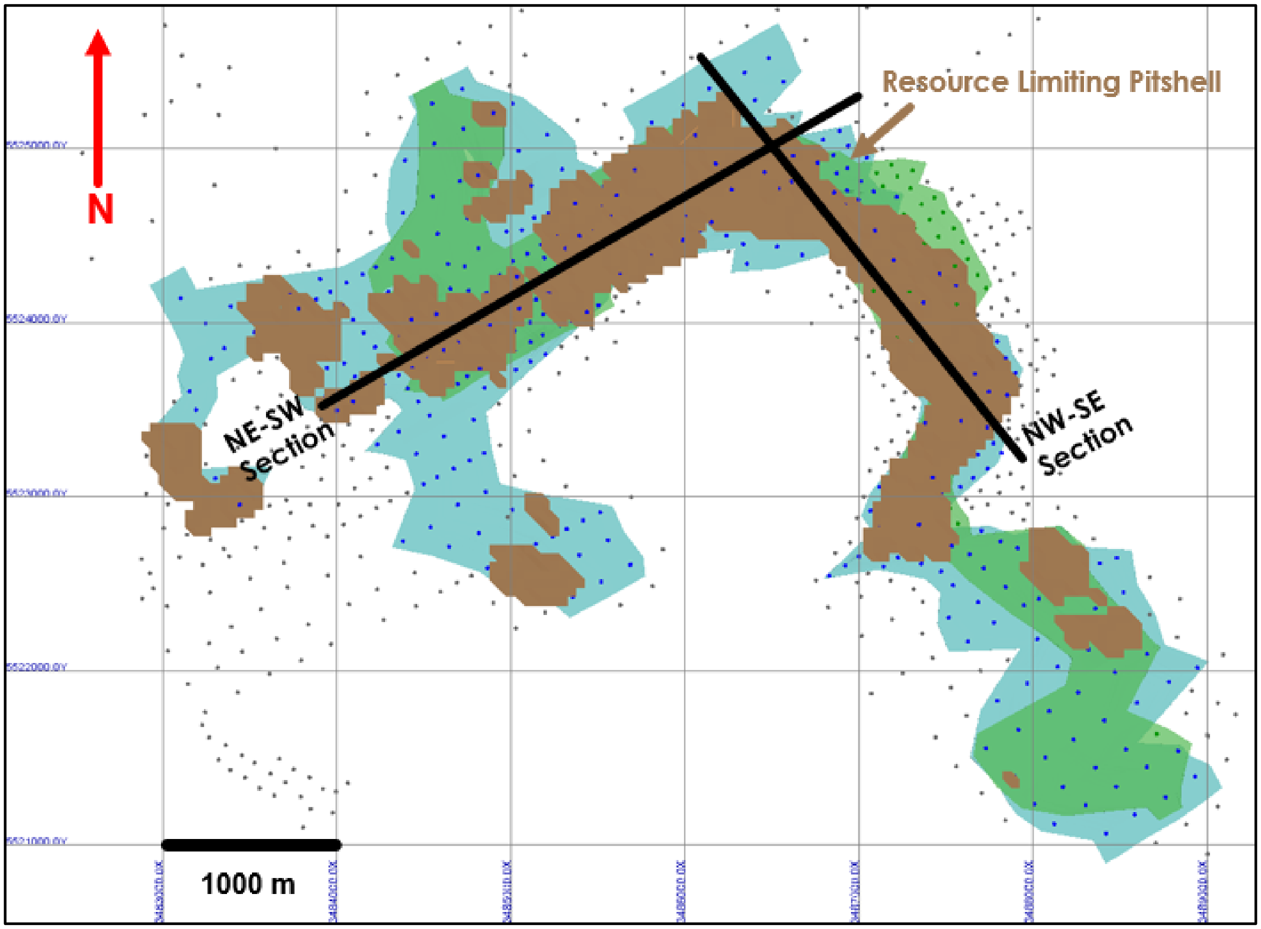


Figure 14-10: Plan View of Base Case Mineral Resource with NE-SW and NW-SE Section Lines Source: LGGC (2024)

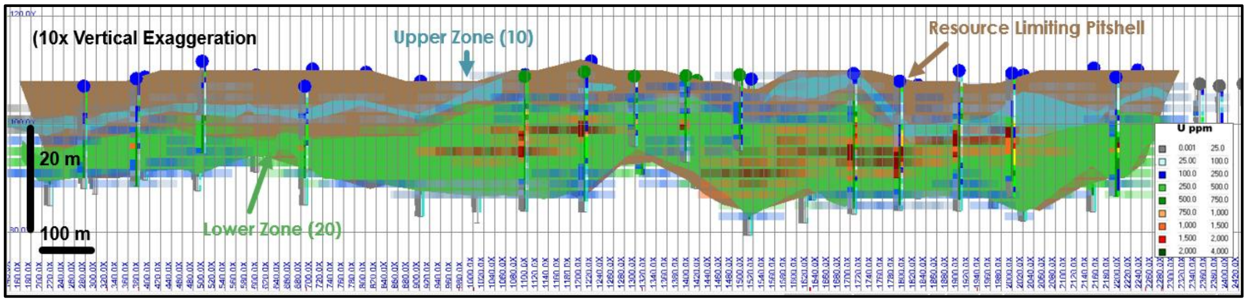


Figure 14-11: NW-SE Section View of Base Case Mineral Resource Showing U ppm Block Grades, Upper and Lower Zones and the Resource Pitshell. Source: LGGC (2024)

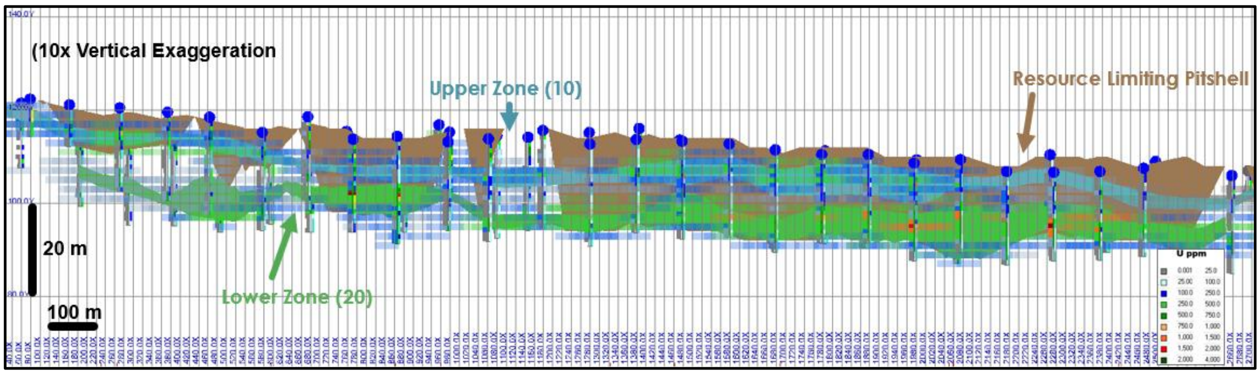


Figure 14-12: NE-SW Section View of Base Case Mineral Resource Showing U ppm Block Grades, Upper and Lower Zones and the Resource Pitshell Source: LGGC (2024)

14.10.2 Sensitivity of Mineral Resources

The sensitivity of Mineral Resources is demonstrated by listing resources at a series of cut-off thresholds as shown in Table 14-7.

Table: 14-7: Mineral Resources Declared at 100 ppm U Cut-off and Additional Grade Cut-offs for Comparative and Sensitivity Purposes

Zone	Cut-off	Class	Tonnes	U OK C	U_3O_8 (ppm)	U_3O_8 (%)	U_3O_8 (lb)	V OK C	V_2O_5 (ppm)	V_2O_5 (%)	V_2O_5 (lb)
10	60	Indicated	5,500,000	93	110	0.011	1,300,000	97	173	0.017	2,100,000
20	60	Indicated	21,300,000	310	365	0.037	17,200,000	99	176	0.018	8,300,000
All	60	Indicated	26,800,000	266	313	0.031	18,500,000	98	176	0.018	10,400,000
10	60	Inferred	2,400,000	129	152	0.015	800,000	152	272	0.027	1,400,000
20	60	Inferred	5,100,000	256	302	0.030	3,400,000	89	158	0.016	1,800,000
All	60	Inferred	7,500,000	215	254	0.025	4,200,000	109	195	0.019	3,200,000
10	80	Indicated	3,500,000	107	126	0.013	1,000,000	106	189	0.019	1,500,000
20	80	Indicated	19,700,000	330	389	0.039	16,900,000	101	181	0.018	7,800,000
All	80	Indicated	23,200,000	296	349	0.035	17,900,000	102	182	0.018	9,300,000
10	80	Inferred	1,800,000	147	173	0.017	700,000	160	286	0.029	1,200,000
20	80	Inferred	4,600,000	277	327	0.033	3,300,000	90	161	0.016	1,600,000
All	80	Inferred	6,400,000	240	283	0.028	4,000,000	110	197	0.020	2,800,000

Zone	Cut-off	Class	Tonnes	U OK C	U_3O_8 (ppm)	U_3O_8 (%)	U_3O_8 (lb)	V OK C	V_2O_5 (ppm)	V_2O_5 (%)	V_2O_5 (lb)
10	60	Indicated	5,500,000	93	110	0.011	1,300,000	97	173	0.017	2,100,000
20	60	Indicated	21,300,000	310	365	0.037	17,200,000	99	176	0.018	8,300,000
All	60	Indicated	26,800,000	266	313	0.031	18,500,000	98	176	0.018	10,400,000
10	60	Inferred	2,400,000	129	152	0.015	800,000	152	272	0.027	1,400,000
20	60	Inferred	5,100,000	256	302	0.030	3,400,000	89	158	0.016	1,800,000
All	60	Inferred	7,500,000	215	254	0.025	4,200,000	109	195	0.019	3,200,000
10	90	Indicated	2,700,000	114	135	0.013	800,000	110	197	0.020	1,200,000
20	90	Indicated	18,600,000	345	406	0.041	16,600,000	103	183	0.018	7,500,000
All	90	Indicated	21,300,000	315	372	0.037	17,400,000	104	185	0.018	8,700,000
10	90	Inferred	1,600,000	157	185	0.018	600,000	165	295	0.029	1,000,000
20	90	Inferred	4,400,000	285	336	0.034	3,200,000	90	160	0.016	1,500,000
All	90	Inferred	6,000,000	251	296	0.030	3,900,000	110	196	0.020	2,600,000
10	**100**	**Indicated**	**2,000,000**	**122**	**144**	**0.014**	**600,000**	**110**	**196**	**0.020**	**900,000**
20	**100**	**Indicated**	**17,600,000**	**358**	**422**	**0.042**	**16,400,000**	**104**	**186**	**0.019**	**7,200,000**
All	**100**	**Indicated**	**19,700,000**	**333**	**393**	**0.039**	**17,000,000**	**105**	**187**	**0.019**	**8,100,000**
10	**100**	**Inferred**	**1,400,000**	**167**	**196**	**0.020**	**600,000**	**170**	**303**	**0.030**	**900,000**
20	**100**	**Inferred**	**4,200,000**	**293**	**345**	**0.035**	**3,200,000**	**90**	**160**	**0.016**	**1,500,000**
All	**100**	**Inferred**	**5,600,000**	**262**	**309**	**0.031**	**3,800,000**	**109**	**195**	**0.019**	**2,400,000**
10	110	Indicated	1,600,000	126	148	0.015	500,000	110	196	0.020	700,000
20	110	Indicated	16,900,000	369	435	0.044	16,200,000	105	188	0.019	7,000,000
All	110	Indicated	18,500,000	348	410	0.041	16,700,000	106	188	0.019	7,700,000
10	110	Inferred	1,100,000	181	214	0.021	500,000	176	315	0.031	800,000
20	110	Inferred	4,100,000	299	353	0.035	3,200,000	90	161	0.016	1,400,000
All	110	Inferred	5,200,000	274	323	0.032	3,700,000	109	194	0.019	2,200,000
10	125	Indicated	1,200,000	131	155	0.015	400,000	112	200	0.020	500,000
20	125	Indicated	15,900,000	385	454	0.045	15,900,000	107	191	0.019	6,700,000
All	125	Indicated	17,100,000	367	433	0.043	16,300,000	107	192	0.019	7,200,000
10	125	Inferred	900,000	197	232	0.023	500,000	184	328	0.033	600,000
20	125	Inferred	3,700,000	318	375	0.038	3,000,000	94	167	0.017	1,400,000
All	125	Inferred	4,600,000	295	347	0.035	3,500,000	111	198	0.020	2,000,000
10	150	Indicated	600,000	133	156	0.016	200,000	113	201	0.020	300,000
20	150	Indicated	14,400,000	411	484	0.048	15,300,000	111	197	0.020	6,300,000
All	150	Indicated	15,000,000	399	471	0.047	15,500,000	111	198	0.020	6,500,000
10	150	Inferred	500,000	236	278	0.028	300,000	206	368	0.037	400,000
20	150	Inferred	3,200,000	348	411	0.041	2,900,000	98	175	0.018	1,200,000

Zone	Cut-off	Class	Tonnes	U OK C	U_30_8 (ppm)	U_30_8 (%)	U_30_8 (lb)	V OK C	V_2O_5 (ppm)	V_2O_5 (%)	V_2O_5 (lb)
10	60	Indicated	5,500,000	93	110	0.011	1,300,000	97	173	0.017	2,100,000
20	60	Indicated	21,300,000	310	365	0.037	17,200,000	99	176	0.018	8,300,000
All	60	Indicated	26,800,000	266	313	0.031	18,500,000	98	176	0.018	10,400,000
10	60	Inferred	2,400,000	129	152	0.015	800,000	152	272	0.027	1,400,000
20	60	Inferred	5,100,000	256	302	0.030	3,400,000	89	158	0.016	1,800,000
All	60	Inferred	7,500,000	215	254	0.025	4,200,000	109	195	0.019	3,200,000
All	150	Inferred	3,700,000	332	391	0.039	3,200,000	114	203	0.020	1,700,000

Note: Not limited inside a pit shell due to shallow nature of deposit (<25 m from surface).

14.11 Summary and Conclusions

Based on the current level of exploration, the Ivana Deposit contains Indicated Mineral Resources of 19.7 million tonnes (“Mt”) at a grade of 333 ppm U (0.039 % U_3O_8) with 105 ppm V (0.019% V_2O_5) and Inferred Mineral Resources of 5.6 Mt at a grade of 262 ppm U (0.031 % U_3O_8) with 109 ppm V (0.019% V_2O_5).

15 Mineral Reserve Estimates

Section 15 (Mineral Reserve Estimate) is not applicable to this technical report on Mineral Resources. There are no Mineral Reserves estimated for the Ivana deposit.

16 Mining Methods

The Ivana uranium-vanadium deposit is shallow and flat-lying, hence it is amenable to conventional surface mining methods. The materials to be excavated from the mine are comprised of unconsolidated free digging sands and gravels.

A conceptual mine plan and production schedule have been provided for the PEA. The development of this plan entailed several technical aspects:

1. Complete pit optimization analysis to select an optimal shell for the mine design.
2. Create a conceptual mine design.
3. Select mining phases to facilitate production scheduling.
4. Prepare life-of-mine production and processing schedules.
5. Estimate mining equipment fleet and manpower requirements.

The operation of the Ivana mine will require the excavation of two types of materials:

- **Waste Material**: barren or low-grade material that will either be hauled to a waste dump outside the mine, backfilled into the excavated mine, or used to construct the initial tailings cell. Additional test work will confirm that the mined waste meets legal and environmental requirements for disposal as indicated by local and international authorities.
- **Plant Feed:** material above the economic cut-off grade that will be hauled either to the Leach Feed Concentration Preparation Plant ("LFCPP") or to feed stockpiles for blending purposes. It should be noted that the term "ore" is not used in this PEA to describe the mineralized material to be processed; instead, the term "plant feed" is used.

16.1 Mine Optimization

A series of pit optimization analyses were undertaken on the resource block model using the Indicated and Inferred Mineral Resource categories. The pit optimization process creates a series of nested shells each containing mineralized material that is economically mineable according to a set of physical and economic parameters.

The optimizations were run using the uranium and vanadium block grades and the economic parameters shown in Table 16-1.

The results of the optimization analysis are shown graphically in Figure 16-1. The optimizations were carried out for revenue factors ranging from 0.19 to 1.0. The revenue factor of 1.0 corresponds to the commodity prices shown in Table 16-1.

As shown in Figure 16-1, the operational cashflows curves flatten off beyond Revenue Factor 0.88. This is due to the addition of lower grade plant feed at higher revenue factors. Although the plant feed tonnage increases, the economics of this additional material are becoming marginal.

For mine design purposes the revenue factor 1.0 shell was selected. This shell contains approximately 25 Mt of plant feed and 37 Mt of waste, for a strip ratio of 1.5:1.

Table 16-1: Optimization Parameters

	Unit	Value
Uranium Price (U_3O_8)	$/lb	$75.00
Uranium Price (U)	$/lb	$88.44
Vanadium Price (V_2O_5)	$/lb	$7.50
Vanadium Price (V)	$/lb	$13.39
Discount Rate for optimization		8.0%
Waste Mining Cost	$/t waste	$2.50
Ore Mining Cost	$/t feed	$2.50
Ore Grade Control/Other Cost	$/t feed	$0.60
(+) Processing Cost (Pre-Concentration)	$/t feed	$8.30
(+) Processing Cost (Leaching)	$/t feed	$0.00
(+) Processing Cost (Tailings Disposal)	$/t feed	$0.00
(+) G&A Cost	$/t feed	**$3.66**
Costs for COG	$/t feed	**$12.56**
Mining Dilution	%	3.0%
Mining Ore Loss	%	3.0%
Metallurgy		
Uranium Recovery	%	84.6%
Vanadium Recovery	%	52.5%

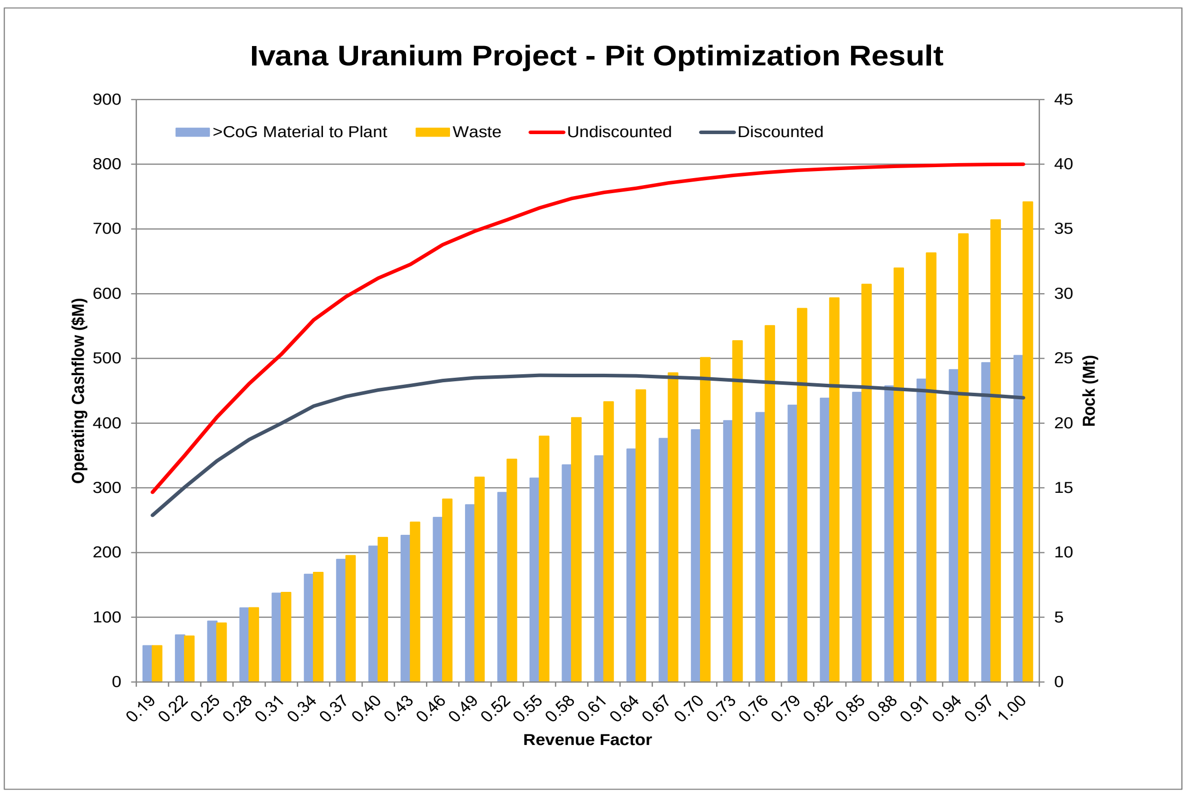


Figure 16-1: Summary of the Mine Optimization

The RF 1.0 shell is shown in Figure 16-2. At lower revenue factors, some of the smaller satellite deposits are not evident. For mine design and scheduling, some of these smaller isolated zones were omitted from the mine plan due to their small size, lower grade, higher strip ratio, and in general their marginal economics. However, they could be reintroduced with further drilling, better geological definition, and more favorable economics in the future.

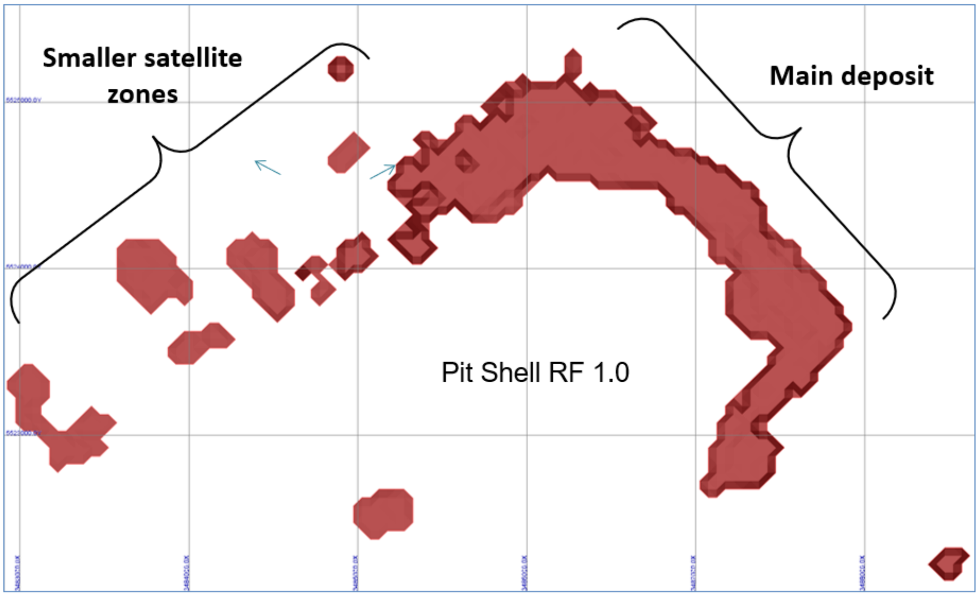


Figure 16-2: Plan View of the RF 1.0 Shell Source: KJKCL (2024)

16.2 Mine Layout

The conceptual mine design used to prepare the PEA production scheduling is shown in Figure 16-3. The mine is approximately 3,000 metres long and generally ranges in width from 100m to 400m. The layout also shows the satellite pits that have been included in the production plan.

To optimally schedule the mining tonnages and to accelerate access to higher grade material, the mine was sub-divided into multiple phases or mining areas. These phases are also shown in Figure 16-3.

The waste material and plant feed tonnages within each mining area are summarized in Table 16-2. The higher grades are encountered near the centre of the deposit (Areas 1 to 3), while lower grades are found along the northwest side (Areas 8, 9, 10). The initial starter excavation will be located in the central part of the deposit, Areas 1 and 2.

The plant feed tonnage of 23.5 Mt (potentially mineable tonnage) consists of 83% Indicated Mineral Resource and 17% of Inferred Resource. There is no Measured Resource within the pit.

A general site layout showing the mine, roads and waste dumps is provided in Figure 18-1.

16.2.1 Geotechnical Studies

No geotechnical field investigations have been completed at this stage of the project.

The mine excavation is shallow, ranging from 20 to 30 metres in depth. A wall slope angle of 30 degrees was used based on experience mining within similar sands and gravels.

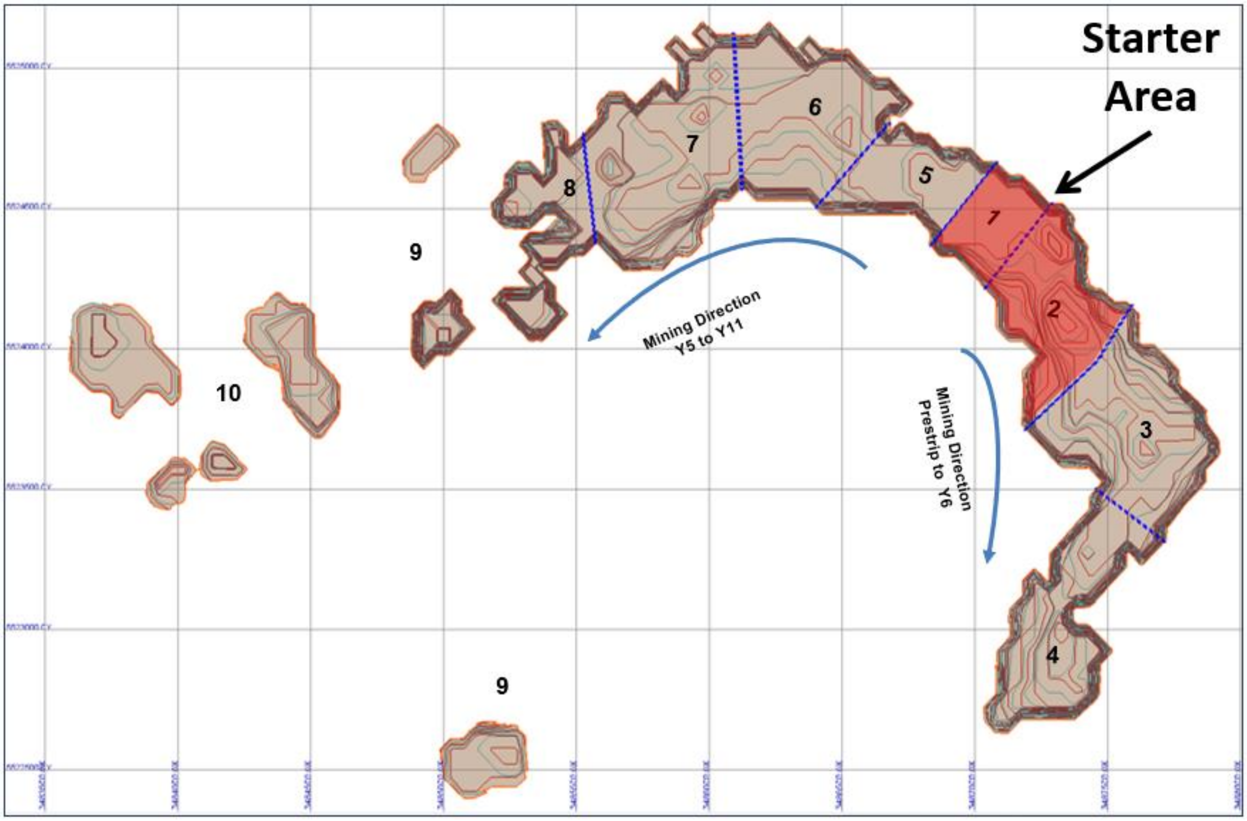


Figure 16-3: Final Mine Design Source: KJKCL (2024)

Table 16-2: Potentially Mineable Portion of the Resource

Mining	> 75 ppm U			<75ppm U	Total	Stripping
Area	**kt**	**U (ppm)**	**V (ppm)**	**kt**	**kt**	**Ratio**
Area 1	1,765	485	135	1,525	3,290	0.86
Area 2	3,178	426	92	3,189	6,368	1.00
Area 3	4,629	423	138	5,563	10,192	1.20
Area 4	2,787	261	187	5,082	7,869	1.82
Area 5	1,541	288	86	2,845	4,387	1.85
Area 6	2,570	304	69	5,567	8,137	2.17
Area 7	4,598	241	58	5,828	10,427	1.27
Area 8	909	191	47	3,502	4,410	3.85
Area 9	979	174	179	1,321	2,300	1.35
Area 10	511	145	167	333	844	0.65
Total	**23,467**	**326**	**109**	**34,756**	**58,223**	**1.48**

Note: the potentially mineable tonnages utilized in the PEA contains Inferred Resources. The reader is cautioned that Inferred Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that value from such Resources will be realized either in whole or in part.

Note: A Uranium cut-off grade of 75 ppm is used for defining waste and plant feed for scheduling purposes.

16.2.2 Hydrogeological Studies

No detailed hydrogeological studies have been completed at this stage assessing groundwater conditions. However, based on exploration drilling results, the groundwater table is approximately 7-10 m below surface. Therefore, dry mining conditions are expected in the upper elevations of the mine, gradually trending to wetter conditions at depth.

16.2.3 Mining Dilution and Ore Losses

During mining operation, some waste dilution and ore loss will occur. The amount of dilution that occurs will be dependent on the nature of the mineralized zones being mined. Better definition of the shape of the ore zones can be done with grade control drilling during operations. For this PEA study, no detailed dilution assessment has been completed. An assumed 3% dilution and 3% ore loss was applied.

16.3 PEA Production Schedule

The PEA mine production schedule consists of one year of pre-stripping and then 11 years of commercial mining operations. Table 16-3 presents the life-of-mine conceptual mining schedule. The processing schedule is described in Section 16.4.

Approximately 2.37 Mt of waste will be pre-stripped in Year -1 from the upper benches of the initial phases. This waste will be used to build the initial external fine tailings cell prior to the start of processing operations.

Annual mining rates for waste and plant feed will peak at 5.6 Mt per year in Years 6 to 8 of the operation. This corresponds to daily mining rates of about 15,000 t/day of feed and waste.

The mining advance direction will initially be from the centre area towards the south (see Figure 16-3). Once the south end of the mine is depleted, mining will then progress along the north side of the deposit. Figure 16-4 summarizes the mining area sequence and timing.

Table 16-3: PEA Mine Production Schedule

Period	Plant Feed (COG 75 ppm)			Waste			Total	Stripping
	kt	U (ppm)	V (ppm)	kt	U (ppm)	V (ppm)	kt	Ratio
Prestrip	130	175	142	2,370	10	26	2,500	N/A
1	1,770	471	129	2,330	10	17	4,100	1.32
2	2,170	369	107	2,730	16	27	4,900	1.26
3	2,170	409	105	2,730	16	27	4,900	1.26
4	2,170	525	157	2,730	13	19	4,900	1.26
5	2,170	310	113	3,230	9	16	5,400	1.49
6	2,170	252	187	3,430	7	16	5,600	1.58
7	2,170	314	84	3,430	11	27	5,600	1.58
8	2,170	215	55	3,430	9	12	5,600	1.58
9	2,170	217	72	3,330	20	34	5,500	1.53
10	2,170	279	39	3,130	10	13	5,300	1.44
11	2,037	176	135	1,886	6	8	3,923	0.93
Total	**23,467**	**319**	**107**	**34,756**	**12**	**22**	**58,223**	**1.48**

Note: the potentially mineable tonnages utilized in the PEA schedule contains Inferred Resources. The reader is cautioned that Inferred Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that value from such Resources will be realized either in whole or in part.

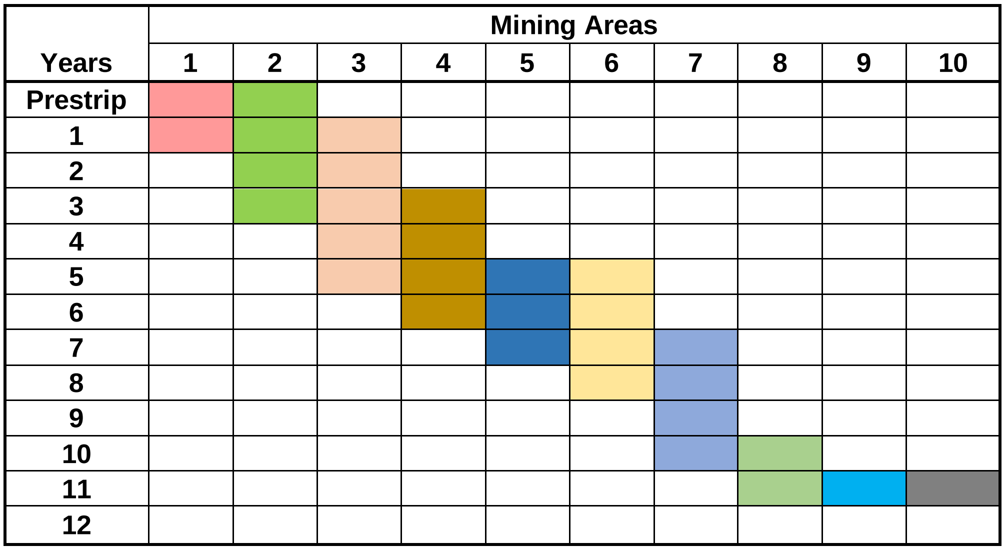


Figure 16-4: Mining Area Sequence by Year

As the individual mining phases are depleted, waste storage capacity will be created within the mine for waste disposal. Waste materials that will be backfilled into the mine include mine waste, coarse rejects from the Leach Feed Concentrate Prep Plant, and tailings.

For the tailings and LFCPP Reject backfill, containment cells will be constructed using mine waste materials. Once the backfilled mine areas are full, they will be buried by trucked waste and/or LFCPP Rejects. This enables progressive reclamation to occur on a continuous basis. Waste material management is described in more detail in Section 18.

The first phases 1 and 2 are mined out by the end of Year 3. Mine backfilling can commence in Year 3-4. Every year or two additional backfilling space is created as another phase is mined out.

16.4 Processing Schedule

The target processing rate through the Leach Feed Concentrate Prep Plant is 2.17 million tonnes per annum ("Mtpa", or approximately 6,300 tonnes per day ("tpd") (see Table 16-4). Feed material from the mine may be delivered directly to the plant or placed into stockpiles.

From time to time, material will be moved from the stockpiles to the plant. It will be important to maintain relatively consistent daily head grades to the plant to ensure efficiency of the recovery process. Extreme peaks or dips (+/-10% variation) in head grade are to be avoided.

16.5 Mining Practices

It is assumed that the Ivana Operation will be an owner-operated conventional surface mine. While contract mining is a future option, it has not been considered at this time. Various mining activities will be undertaken as part of the mine operations scope, as described in the following sections.

16.5.1 Drilling and Blasting

No drilling and blasting operations will be required due to the unconsolidated nature of the sands and gravels being mined.

Table 16-4: Processing Schedule (Conceptual)

Period	2.17 Mtpa		
	kt	U (ppm)	V (ppm)
Prestrip			
1	1,770	471	129
2	2,170	369	107
3	2,170	409	105
4	2,170	525	157
5	2,170	310	113
6	2,170	252	187
7	2,170	314	84
8	2,170	215	55
9	2,170	217	72
10	2,170	279	39
11	2,167	176	135
Total	**23,467**	**319**	**107**

16.5.2 Loading and Hauling

Diesel powered hydraulic backhoe excavators with 5 m^3 buckets will be used to dig the waste and feed materials. The excavators will load the 31-tonne articulated haul trucks with 4 pass loading. Articulated trucks are assumed due to potential trafficability issues when mining below the groundwater table.

Loading operations will also be supported by a wheel loader with a 5 m^3 bucket. This unit is a backup loading unit and available for stockpile and LFCPP Reject re-handling operations.

16.5.3 Stockpiling

The mined feed will either be hauled directly to the process plant feeder or to nearby stockpiles. The stockpiles will be used for blending purposes. When needed, a front-end loader will be used at the stockpile to transfer material directly to the feeder or to reload the trucks.

16.5.4 LFCPP Reject Backhaul

The Leach Feed Concentration Prep Plant will produce a coarse reject product as part of the attrition scrubbing process. The quantity of this rejected material will be about 77% of the plant feed tonnage.

This material is sand-like, free draining, and will be backhauled by the mine trucks that delivered feed to the plant. The LFCPP Rejects will either be hauled to the external LFCPP stockpile or backfilled in mined-out cells within the mine area.

Once floor space is created after mining out phases AM and AW, backfilling operations can follow behind the mine face advance. The mining sequence will endeavour to backfill as much of the LFCPP reject, mine waste, and fine tails as possible.

A dedicated front-end loader (5 m^3) will be maintained at the LFCPP pile to load the mine trucks.

16.5.5 Mine Dewatering

The mine will likely experience groundwater seepage at depth. An allowance has been included in the operating and capital costs for a groundwater inflow dewatering system to pump water from sumps located at depressions within the mine area.

Staged skid or trailer mounted centrifugal pumps will be used to remove water from the mine sump locations on every level during the mine development.

16.5.6 Support Equipment

The primary mining operations will be supported by a fleet of support equipment consisting of bulldozers, graders, water trucks, as well as maintenance and service vehicles. A list of major and support equipment is provided in Table 16-5.

16.5.7 Waste Storage Area

The sequencing of the surface mine will endeavour to backfill as much LFCPP Reject and tailings material in the excavated sections of the mine during operations as possible (see Section 18.2). This will enable early reclamation of the Starter Tailings Management Facility ("TMF") and allow for progressive reclamation of tailings storage areas during operations. The majority of the mined waste material will be placed into a single waste storage area to the southwest of the mine (see Figure 18-1).

Some of the mined waste material will be used to construct the TMF embankments, separation berms within the mine area for backfilling, and closure covers during reclamation. A portion of the waste stored in the waste storage area will be re-handled at closure to complete backfilling and reclamation of the mine.

The waste management strategy is summarized in Section 18.

16.6 Mine Equipment

The mine operations at Ivana will employ methods and technologies used at other locations globally where similar material and climatic conditions are found. Table 16-5 lists the mine equipment fleet requirements on an annual basis.

Table 16-5: Mining Equipment Fleet

	-1	1	2	3	4	5	6	7	8	9	10	11
Excavator, 5 cu.m	2	2	2	2	2	2	2	2	2	2	2	2
Wheel Loader 5 cu.m		1	1	1	1	1	1	1	1	1	1	1
Haul Truck ADT 30 t class	4	4	5	5	5	6	6	6	7	7	7	6
Personnel Van	2	2	2	2	2	2	2	2	2	2	2	2
Crane, Grove 40T	1	1	1	1	1	1	1	1	1	1	1	1
Dozer (D275A)	2	2	2	2	2	2	2	2	2	2	2	2
Mechanic & Welding Truck	1	1	1	1	1	1	1	1	1	1	1	1
Excavator, 5 cu.m	1	1	1	1	1	1	1	1	1	1	1	1
Fuel & Lube Truck	1	1	1	1	1	1	1	1	1	1	1	1
Grader 12H-class 12' blade	2	2	2	2	2	2	2	2	2	2	2	2
Flat Deck w Hiab	1	1	1	1	1	1	1	1	1	1	1	1
Light Plant	4	4	4	4	4	4	4	4	4	4	4	4
Pickup Truck	4	6	6	6	6	6	6	6	6	6	6	6
Pit Water Pumps	4	4	4	4	4	4	4	4	4	4	4	4
Forklift	1	1	1	1	1	1	1	1	1	1	1	1
Wheel Loader 5 cu.m	1	1	1	1	1	1	1	1	1	1	1	1
Tractor 375/4WD	1	1	1	1	1	1	1	1	1	1	1	1
Water Truck (HM400)	1	1	1	1	1	1	1	1	1	1	1	1

16.7 Support Facilities

The Ivana mine will require mine offices, change house facilities, maintenance facilities, warehousing and cold storage areas. The mine office will provide for mine management, engineering, geology, mine maintenance services.

A maintenance shop which will provide mine support services will be located near the plant site. The mine maintenance facility will consist of a truck shop which will include a wash facility, tire shop, welding equipment and a dedicated preventive maintenance bay. The facility will have adjoining indoor parts storage and tool crib.

A fuel and lube station will be conveniently located near the maintenance facility and main haul road for equipment access.

A mobile truck mounted fuel and lube system will be available to service less mobile equipment in the field.

16.8 Mining Manpower

The Ivana mining operation will require a workforce ranging approximately 105 personnel, as summarized in Table 16-6. Manpower numbers will fluctuate as mining volumes and equipment operating hours change.

The mining operations manning list includes all aspects involved with the surface mine operations, including:

- Senior mine and maintenance supervision
- Office technical staff, engineering, geology, surveying, etc.
- Clerical, maintenance planning, training
- Mine operations crews
- Mine support crews
- Mine maintenance crews

Table 16-6: Mining Manpower

	-1	1	2	3	4	5	6	7	8	9	10	11
Truck Drivers	15	15	18	18	20	23	23	23	24	25	25	20
Excavator 1 Operators	5	5	5	5	5	6	6	6	6	6	6	4
Loader 2 Operators		2	3	3	3	3	3	3	3	3	3	3
HD Mechanic	4	9	10	10	11	12	12	12	12	12	12	10
Pit Services		1	1	1	1	1	1	1	1	1	1	1
Grader Operator		4	4	4	4	4	4	4	4	4	4	4
Dozer Operator		8	8	8	8	8	8	8	8	8	8	8
Water Truck Operator		4	4	4	4	4	4	4	4	4	4	4
Utility Operators		4	4	4	4	4	4	4	4	4	4	4
Mine Superintendent	1	1	1	1	1	1	1	1	1	1	1	1
Mine Foremen		8	8	8	8	8	8	8	8	8	8	8
Mine Clerk	1	1	1	1	1	1	1	1	1	1	1	1
Equipment Trainer	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance Foreman		4	4	4	4	4	4	4	4	4	4	4
Shop Foreman		1	1	1	1	1	1	1	1	1	1	1
Maintenance Clerk	1	1	1	1	1	1	1	1	1	1	1	1
Planner		1	1	1	1	1	1	1	1	1	1	1
Welder	2	2	2	2	2	2	2	2	2	2	2	2
Gas Mechanic	1	1	1	1	1	1	1	1	1	1	1	1
Fuel and Lube Person	2	2	2	2	2	2	2	2	2	2	2	2
Partsman		1	1	1	1	1	1	1	1	1	1	1
Laborer	1	4	4	4	4	4	4	4	4	4	4	4
Chief Mine Engineer	1	1	1	1	1	1	1	1	1	1	1	1
Senior Pit Engineer	1	1	1	1	1	1	1	1	1	1	1	1
Project Engineer	1	1	1	1	1	1	1	1	1	1	1	1
Geologist	2	2	2	2	2	2	2	2	2	2	2	2
Surveyor	1	1	1	1	1	1	1	1	1	1	1	1
Survey Technician	1	1	1	1	1	1	1	1	1	1	1	1
Mine Technician	1	1	1	1	1	1	1	1	1	1	1	1
Ore Control Techician	1	2	2	2	2	2	2	2	2	2	2	2
Total	43	90	95	95	98	103	103	103	104	105	105	96

17 Recovery Methods

17.1 Process Selection

Uranium leaching may be either acidic (normally sulphuric acid) or alkaline (normally with a combination of sodium carbonate and sodium bicarbonate). Alkaline carbonate leaching was selected for the Ivana leach process because of the relatively high concentration of acid-consuming minerals in the leach feed. The processing route selected for the Ivana operation uses processes commonly used in alkaline carbonate leach plants globally, while including some innovative processes to optimize plant performance.

17.2 Summary

The Ivana Operation is a proposed uranium-vanadium mine and process plant in Rio Negro Province, Argentina. Processing will be by alkaline carbonate leach with uranium peroxide precipitation followed by calcination to tri-uranium octoxide (U_3O_8) or uranium trioxide (UO_3), and with ammonium metavanadate precipitation followed by calcining to vanadium pentoxide (V_2O_5). This section describes the process plant. Process design criteria will be refined in the future based on the results of ongoing exploration and process testing.

17.3 Process Plant Summary

Over its 11-year operating life, the conceptual process plant is designed to process 23.5Mt of uranium-vanadium process plant feed, grading on average 0.038% U_3O_8 (319 ppm U) and 0.019% V_2O_5 (107 ppm V).

The conceptual process plant design feed rate is 2.17 Mtpa. Uranium production averages 1.5 Mlb U_3O_8 per year and totals 16.5 Mlb U_3O_8 over the life of mine. Vanadium production averages 0.5 Mlb V_2O_5 per year and totals 5.2 Mlb V_2O_5 over the life of mine.

Process plant recovery is 85% for uranium (derived from 89% leach feed concentrate process recovery and 95% recovery in the subsequent process unit operations); and 53% for vanadium (derived from 89% leach feed concentrate process recovery and 59% recovery in the subsequent process unit operations).

The conceptual process plant design can accommodate fluctuations in feed grade which are expected over the project life.

17.4 Process Plant Description

Mined mill feed material will be stockpiled to provide a surge capacity between the mine operations and the processing operations, and to enable ore blending if and as required to manage the grade of the process plant feed.

17.4.1 Leach Feed Concentrate Preparation Plant

The first stage of processing is leach feed concentrate production. Virtually all of the uranium and vanadium mineralization in the mined material occurs in particle sizes less than 100µm. The Leach Feed Concentrate Preparation Plant has two functions. First, to separate the -100µm material from the larger barren particles; and second, to scrub away and recover the -100µm uranium and vanadium mineral particles coating the larger barren particles. Figure 17-1 shows the conceptual leach feed concentrate process flow diagram.

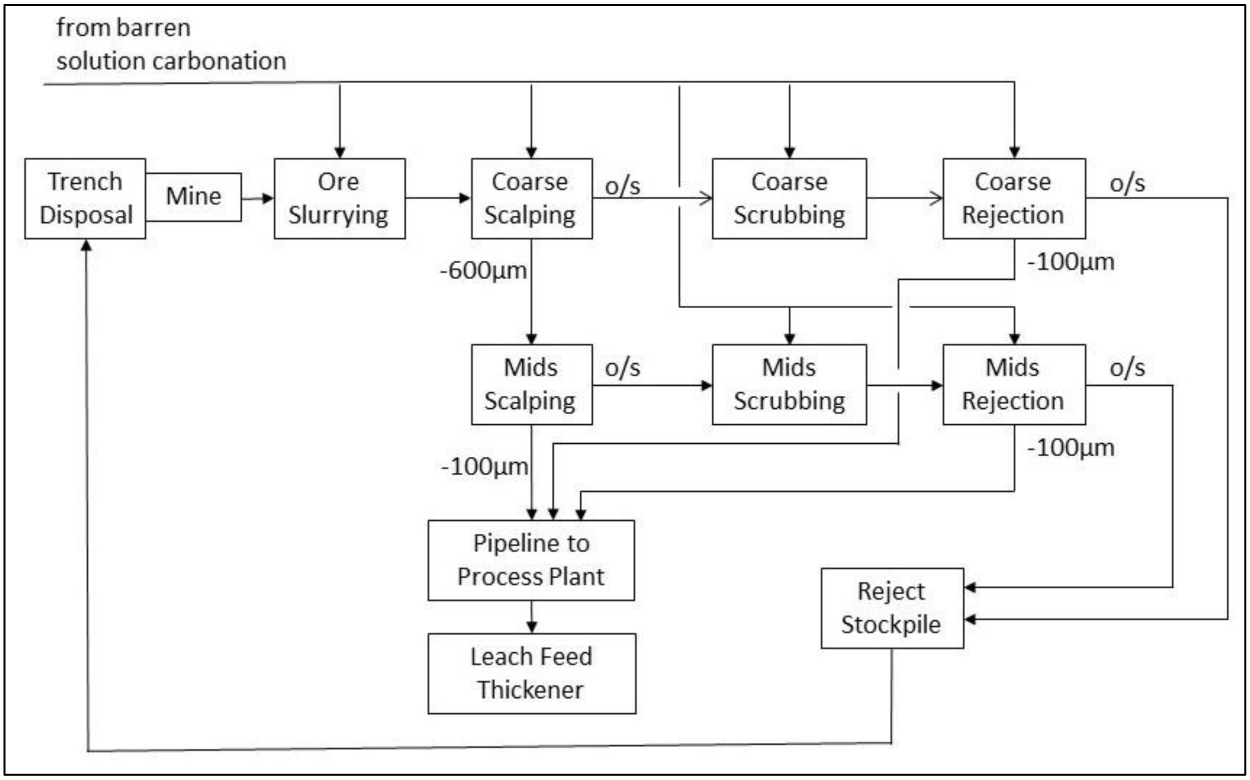


Figure 17-1: Leach Feed Concentrate Preparation Process Flow Diagram

The Leach Feed Concentrate Preparation Plant is a semi-mobile screening and scrubbing facility, located near the proposed mining site. Mineralized material reclaimed from the mine stockpiles is slurried and passed over a 600µm scalping screen. The 600µm oversize is the coarse fraction. The coarse fraction is scrubbed in a series of attrition scrubbers. The scrubbed coarse material is rejected by screening at 100µm. The mids fraction is scalped over a 100µm screen. The mids fraction is scrubbed in a second series of attrition scrubbers. The scrubbed mids material is rejected by screening at 100µm.

Note that separating the coarse fraction and the mids fraction at 600µm gives two +100µm fractions of approximately equal mass, simplifying the design and operation of the scrubbing and rejection unit operations. The rejected coarse fraction and mids fraction resemble a clean coarse sand and are sent to a reject stockpile for onsite disposal. The U grade of each of the rejected coarse fraction and the rejected mids fraction is less than 0.03% U.

In the leach feed concentrate preparation process the mass recovery from mined material to leach feed concentrate averages approximately 23%. The leach feed preparation process recovers 89% of the uranium and vanadium mineralization from the mined material. Thus, the leach feed concentrate preparation process increases the leach feed grade approximately fourfold relative to the mined material.

17.4.2 Process Plant

The slurry containing the -100µm fraction of the mined material is pipelined to the leach feed thickener in the process plant.

Figure 17-2 shows the conceptual process plant layout.

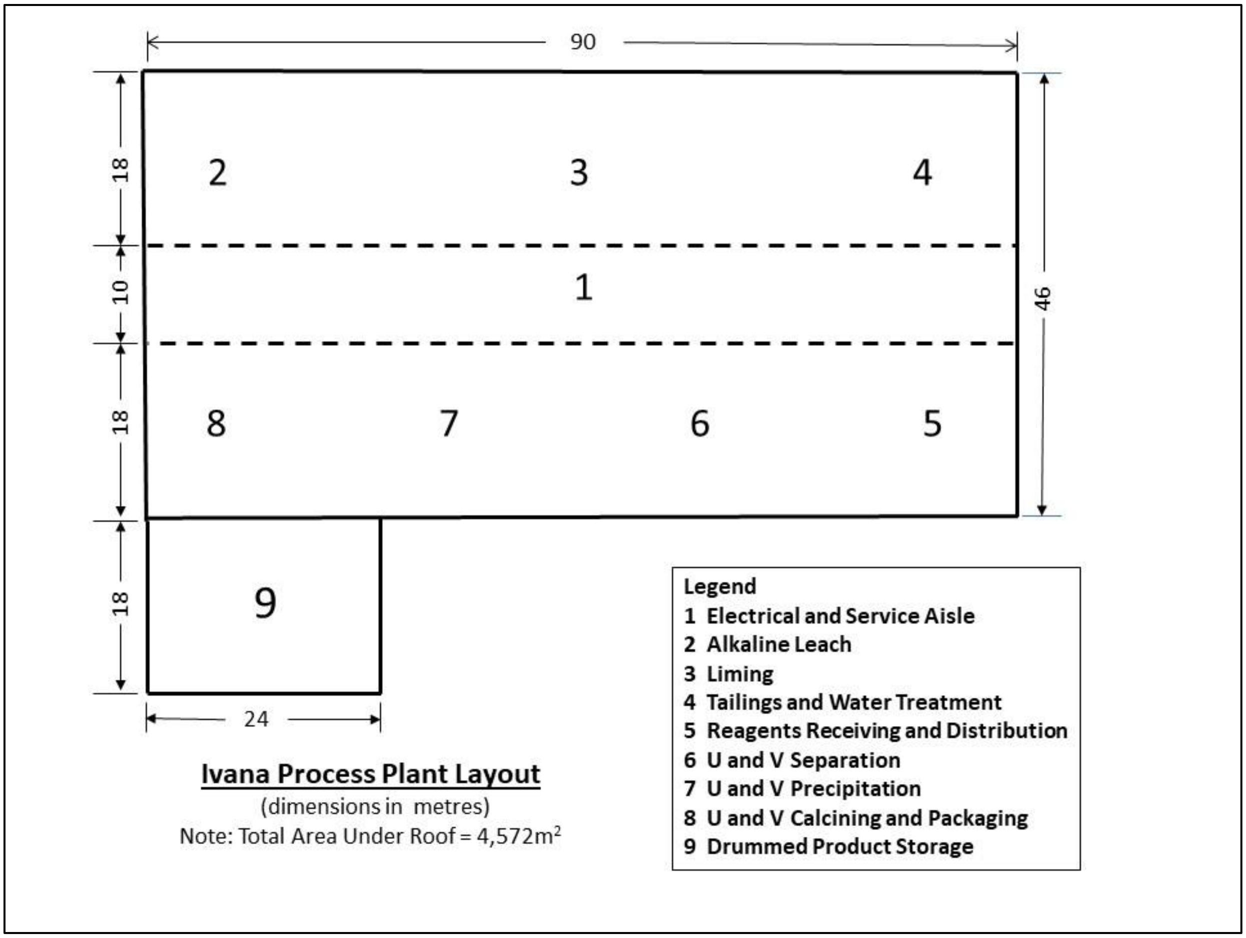


Figure 17-2: Conceptual Process Plant Layout.

Figure 17-3 shows the conceptual process plant process flow diagram.

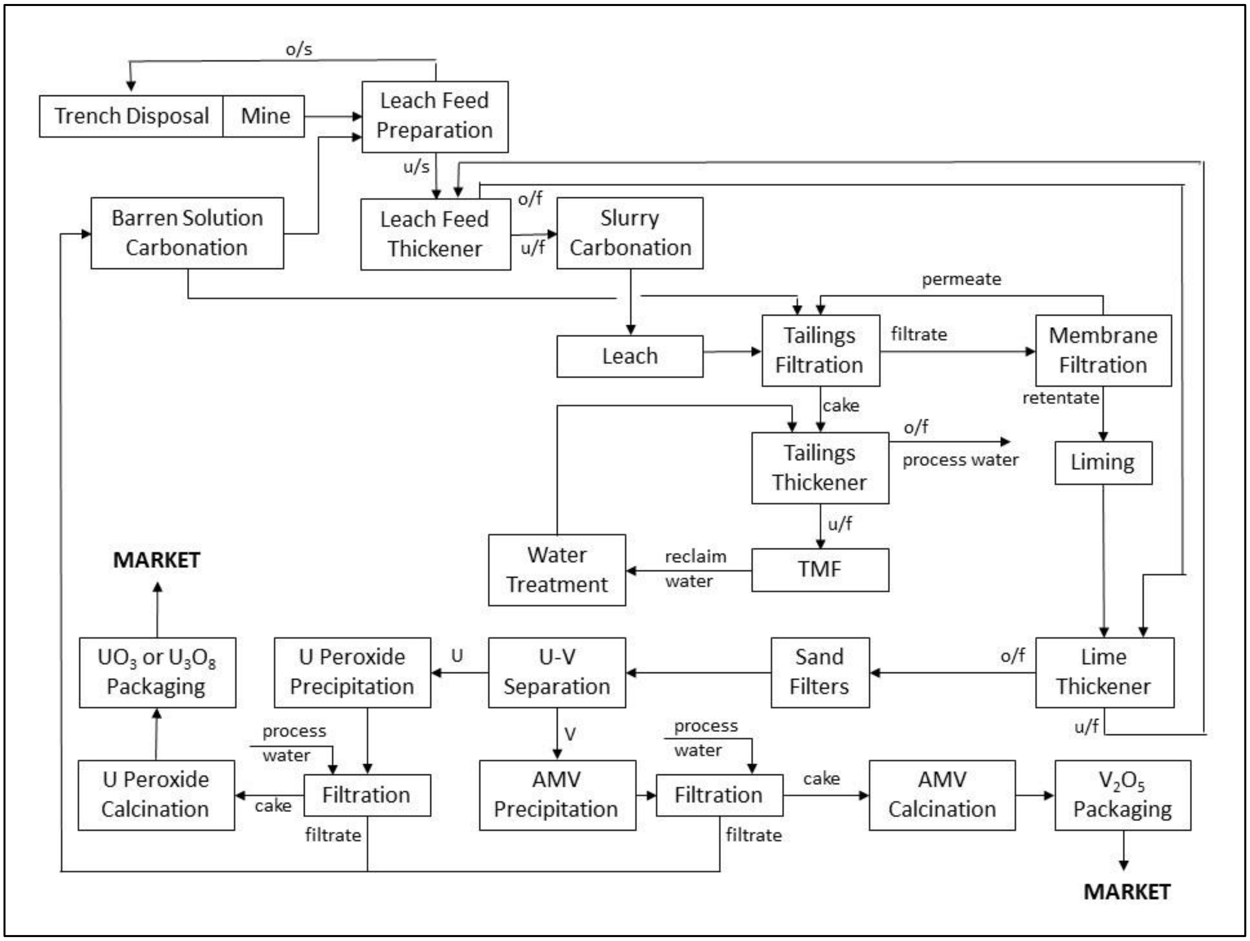


Figure 17-3: Conceptual Process Plant Process Flow Diagram

Leach feed thickener overflow is pumped to the lime thickener feed well. Leach feed thickener underflow is pumped to slurry carbonation, where flue gas from the site steam boilers is mixed into the slurry to dissolve carbon dioxide from the flue gas.

The carbonated slurry feeds the alkaline carbonate leach circuit where uranium and vanadium are dissolved from the leach feed minerals. The alkaline carbonate leach runs at 95°C and is heated by steam injection. No oxidant is required. Tests using oxygen as oxidant did not increase uranium leach recovery, and decreased vanadium leach recovery.

The slurry feed to the alkaline carbonate leach circuit will pass through a pipe-in-pipe heat exchanger to recover heat from the slurry exiting the alkaline carbonate leach circuit.

The alkaline carbonate leach circuit product slurry feeds tailings filtration. The filter cake is pumped to the tailings thickener. Filtrate is pumped to membrane filtration. The membrane permeate, essentially clean water, is used as the secondary wash for tailings filtration. The membrane retentate, a relatively low flow rate and a more concentrated pregnant solution, is pumped to liming.

In this circuit, lime slurry is added to reduce bicarbonate ion concentration and to precipitate impurities such as sulphate ion, molybdenum, iron, thorium, and radium. The resulting slurry is pumped to the lime thickener.

Lime thickener underflow is pumped to the leach feed thickener to recover any uranium unintentionally precipitated in the lime circuit. Lime thickener overflow solution is polished in sand filters, from which it enters the U-V separation circuit. Figure 17-4 shows the conceptual U-V separation process flow diagram.

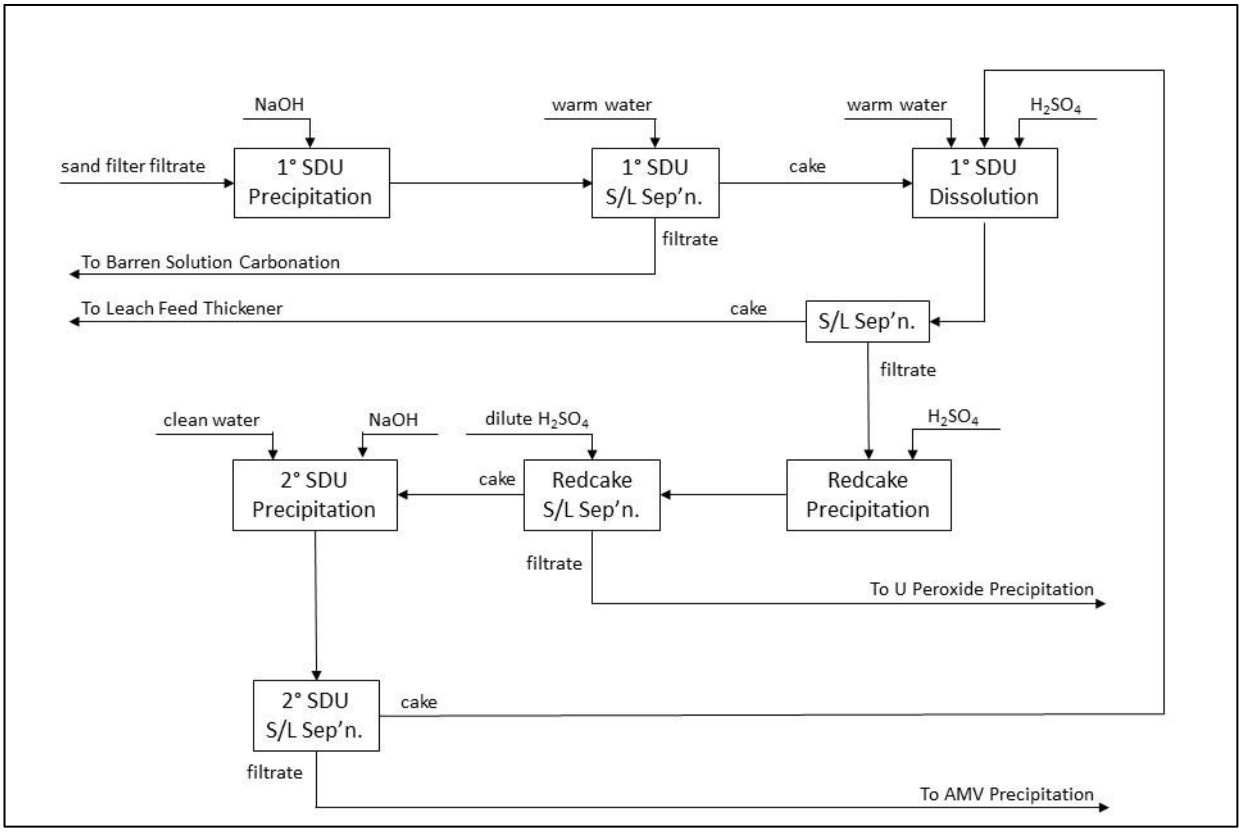


Figure 17-4: Conceptual U-V Separation Circuit Process Flow Diagram

Note 1: SDU is sodium diuranate, $Na_2U_2O_7$
Note 2: Redcake is sodium hexavanadate, $Na_4V_6O_{17}$

As shown, in the U-V separation circuit, uranium and vanadium are separated by selective chemical precipitation.

The uranium solution from the U-V separation circuit passes to the uranium peroxide precipitation stage, where dissolved uranium is precipitated with hydrogen peroxide. The uranium precipitate, uranium peroxide, is $UO_4 \cdot 2H_2O$. The uranium precipitate solids are filtered from the barren solution using process water as cake wash, then calcined to U_3O_8 or UO_3, packaged in steel drums and shipped to market.

The vanadium solution from the U-V separation circuit passes to the ammonium metavanadate (AMV) precipitation stage, where dissolved vanadium is precipitated with ammonium hydroxide. The vanadium precipitate, ammonium metavanadate, is NH_4VO_3. The vanadium precipitate solids are filtered from the barren solution using process water as cake wash, then calcined to vanadium pentoxide (V_2O_5), packaged in steel drums and shipped to market.

The combined barren solution undergoes carbonation, where flue gas from the site steam boilers is mixed into the solution to dissolve carbon dioxide from the flue gas. The carbonated barren solution is pumped to the leach feed concentrate preparation plant, and to tailings filtration as the primary cake wash.

Tailings thickener underflow is pumped into the starter TMF. In the starter TMF the tailings slurry settles and consolidates, releasing entrained water. This released water is reclaimed and pumped to the water treatment circuit in the process plant. In this circuit the water is treated first to precipitate dissolved radium, then to precipitate any remaining dissolved sulphate ion, molybdenum, iron, and thorium. Finally, the solution pH is adjusted to 7.0 (that is, neutral). The resulting low-density slurry is pumped to the tailings thickener, in which the water treatment precipitate solids settle for pumping into the TMF, along with and mixed into the alkaline carbonate leach tailings. Tailings thickener overflow is pumped to the process water tank, in which the pH is adjusted to 7.0.

18 Project Infrastructure

The Ivana Uranium-Vanadium operation at the Amarillo Grande Project will utilize existing regional infrastructure to the greatest degree possible. Existing infrastructure at site is minimal.

The proposed site layout is configured for optimal construction access and operational efficiency. The siting of primary buildings allows easy access from the site access road, with proximity to the mining areas. Local mine roads will be constructed around the mining and waste management areas. The proposed locations for the Starter Tailings Management Facility (TMF) and stockpiles (Waste Rock, Leach Feed Concentrate Preparation Plant (LFCPP) Reject and Surface Soil) are close to their sources to minimize pumping and haul distances and construction earthwork volumes.

A plan with the site infrastructure is shown on Figure 18-1. This plan shows the location of the backfilled mining areas, Waste Rock Storage Area, Process Plant, Starter TMF, and other site infrastructure.

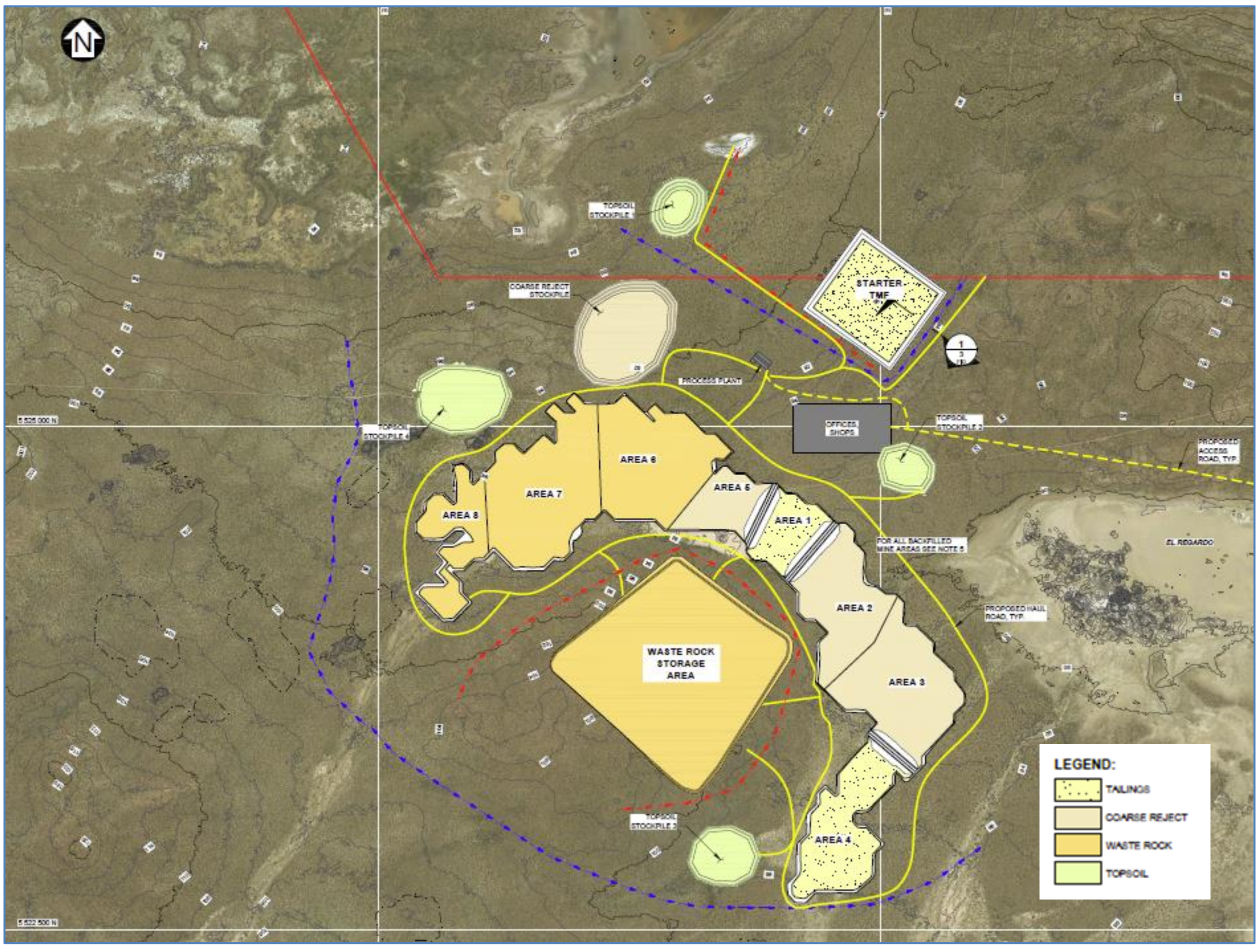


Figure 18-1: Site Plan Source: KP (2024)

18.1 Building and Site Infrastructure

Various earthworks, buildings, and facilities are required to support the mining and processing operation:

- Site access and haul roads
- Process plant
- Electrical power distribution via overhead power lines

- Starter Tailings Management Facility (TMF)
- Site water management facilities (diversion ditches, collection ditches, ponds)
- Security building with first aid office
- Administration office complex
- Maintenance shop
- Mine dry change house
- Truck shop
- Warehouse and laydown yards
- Diesel fuel storage and refueling station
- Sewage treatment plant
- Fire water system

18.1.1 Site Roads

A site access road will be located along the east side of the Process Plant and will connect with provincial road RP4, which runs north from the town of Valcheta. This will be the route for public access as well as for outgoing concentrate shipments.

The nearest community is Valcheta with a population of about 5,000. The majority of the workforce will reside in this community. No operating camp accommodation is planned at the mine site.

Various haul roads will be used to move material from the mining areas to the LFCPP, to the mill feed stockpile area, and to the Waste Rock Storage Area. A haul road will also connect the LFCPP Reject discharge pile and the Reject Stockpile.

18.1.2 Power Supply

The Ivana operation will be supplied with grid power. A 30 km power line will be constructed connecting with the regional power grid at Valcheta or Federal Road No. 3. The connected load for tailings, reclaim and water management pump systems is estimated at 90 kW (equivalent to 765 MWhr/year).

18.1.3 Process Water Supply

Process water will be reclaimed from the supernatant pond at the Starter TMF (Phase I) and the active backfill cells at the mining areas (Phase II). Makeup water will be sourced from dewatering in the active mining areas and groundwater wells that will pump directly to the Process Plant.

Makeup water requirements are approximately 10 to 11 L/sec in Phase I of operations and 8 to 9 L/sec in Phase II of operations.

18.2 Waste Management

18.2.1 Waste Management Strategy

Granular deposits and weathered/rippable bedrock (unconsolidated to weakly consolidated sand/gravel) will be excavated from the mineralized zone via surface mining methods to establish the mine area. The plant feed material will initially undergo a wet screening and scrubbing process to remove unmineralized coarser particles that are unsuitable for the alkaline leach portion of the uranium and vanadium recovery process (i.e. particles larger than 100 µm). The coarse material removed through scrubbing and screening (LFCPP Reject) comprises on average 77% of the mass of the mineralized material.

The remaining 23% of mineralized material is in the finer fraction (particles smaller than 100 µm). This material will undergo alkaline leaching to remove and recover uranium and vanadium. The residue from the leach process will be re-pulped to a solids content of approx. 40% solids by weight and managed as slurry tailings.

Plant feed will be processed at an annual rate of 2.17 Mtpa (approximately 6,300 tpd) for a period of 11 years, totalling 23.5 Mt of plant feed.

LFCPP Reject and tailings will be stored in separate external surface facilities for the first three years of operations (Phase I). The LFCPP Reject material will be stored in a surface stockpile and tailings will be stored in an engineered TMF (the Starter TMF). From Year 4 onwards (Phase II), LFCPP Reject and tailings will be stored in decommissioned mining areas. LFCPP Reject stored on surface will be re-handled at closure and backfilled into the mining area.

Waste material (barren material) generated during mining will initially be stored on surface in the Waste Rock Storage Area. Mined waste will also be stored in depleted mining areas and will be used to construct the starter TMF embankments, separation berms within the mine (to contain tailings in decommissioned cells while development of adjacent mine areas is ongoing), and closure covers for the Starter TMF and backfilled mine areas. Approximately 35 Mt of mined waste will be generated over the life of mine.

The waste production schedule is summarized in Table 18-1.

Table 18-1: Waste Management Strategy

Period	Waste Production Schedule (Mtonnes)			
	Plant Feed	LFCPP Reject (77%)	Tailings (23%)	Waste Rock
Prestrip	0.13	0.10	0.03	2.37
1	1.77	1.36	0.41	2.33
2	2.17	1.67	0.50	2.73
3	2.17	1.67	0.50	2.73
4	2.17	1.67	0.50	2.73
5	2.17	1.67	0.50	3.23
6	2.17	1.67	0.50	3.43
7	2.17	1.67	0.50	3.43
8	2.17	1.67	0.50	3.43
9	2.17	1.67	0.50	3.33
10	2.17	1.67	0.50	3.13
11	2.04	1.57	0.47	1.89
TOTAL	**23.47**	**18.07**	**5.40**	**34.76**

Source: KP (2024)

18.2.2 Design Basis

The basic design criteria for waste and water management are summarized in Table 18-2.

Table 18-2: Design Criteria Summary

Parameter	Units	Value
Average Plant Throughput	tpd	6,000
Design Life	yrs	11
Total Plant Processing Tonnage	Mt	23.5
LFCPP Reject Fraction (>100 µm)	%	77
Total Tonnes LFCPP Reject	Mt	18.1
LFCPP Plant Reject Placed Density (assumed)	t/m^3	2.0
Tailings Fraction (<100 µm)	%	23
Total Tonnes Tailings	Mt	5.4
Tailings Solids Content	%	40
Final Tailings Settled Density (assumed)	t/m^3	1.3
Total Tonnes Mined Waste Material	Mt	34.8
Mined Waste Placed Density (assumed)	t/m^3	2.0
Starter TMF Embankment Crest Width	m	20
Starter TMF Embankment Upstream Slope	-	2.5H:1V
Starter TMF Embankment Downstream Slope	-	2H:1V
Mine Area Separation Berm Crest Width	m	25
Mine Area Separation Berm Side Slopes	-	2H:1V

Source: KP (2024)

18.2.3 Starter Tailings Management Facility (Phase I)

The Starter TMF has the following specific features for tailings and water management:

- Embankment constructed with waste material from pre-stripping of the mine.
- Low-permeability core zone (sourced from local borrow sources) to minimize seepage.
- Filter and transition zones (processed from waste material and local borrow sources) to limit migration of fines through the embankment.
- Reclaim of process water.
- Seepage collection system.
- Non-contact water diversion ditches to route non-contact water around the Starter TMF.

The Starter TMF will be constructed to contain the first three years of tailings with associated water management. The Starter TMF location at the site is shown on Figure 18-1.

18.2.3.1 Starter TMF Cross-Section

The Starter TMF is created by constructing an impoundment that is approx. 500 m x 500 m and 10 m high, using mined waste material and local borrow sources for its construction.

The embankment will be constructed with 2H:1V downstream and 2.5H:1V upstream side slopes with a minimum embankment crest width of 20 m. The embankment will be constructed using waste material from mining activities with a low-permeability core zone sourced from local borrow sources (5 m thick) with a 1 m thick layer of transition zone and 1 m thick layer of filter zone material processed from waste material and local borrow sources on the upstream side of the embankment, to prevent the migration of fines.

The Starter TMF will be reclaimed during operations as tailings deposition moves to backfilling of decommissioned mine areas. TMF reclamation includes a closure cover on the surface of the tailings and revegetation of exposed erodible materials.

The Starter TMF cross-section is shown on Figure 18-2.

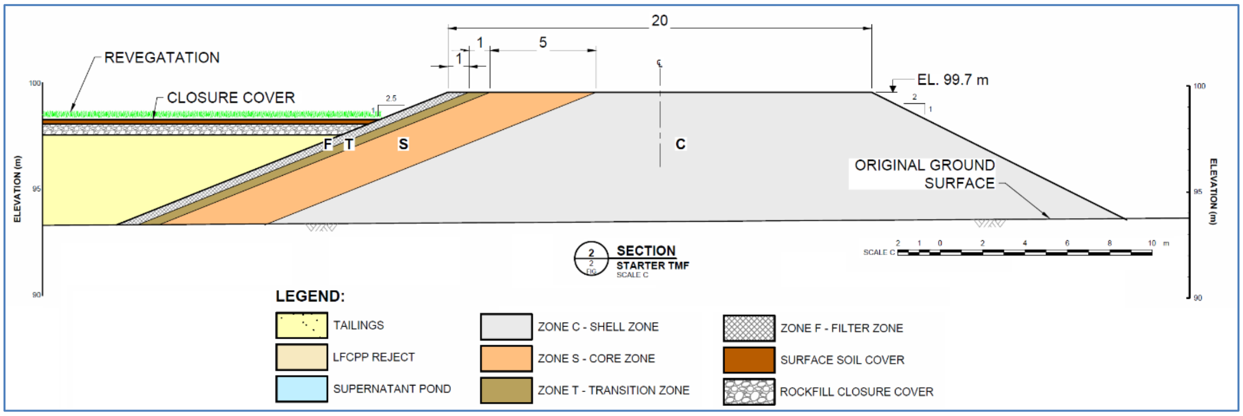


Figure 18-2: Starter TMF Cross-Section Source: KP (2024)

18.2.4 Mine Backfill (Phase II)

From Year 4 onward, the waste management plan will entail the backfilling of LFCPP Reject, tailings, and waste rock into separate decommissioned mine areas. This operation will have the following features:

Tailings:

- Separation berms will be constructed for tailings storage cells (Areas 1 and 4) using waste material generated from active mining operations, LFCPP Reject, and other borrow materials.
- Low-permeability core zone to minimize seepage.
- Filter and transition zones to limit migration of fines through the berms.
- Tailings slurry will be pumped from the Process Plant to the active backfilling area. Water will be reclaimed from the supernatant pond to the Process Plant.
- Seepage will be pumped back to active backfilling areas along any with groundwater inflows (dewatering).

LFCPP Reject:

- LFCPP Reject will be backhauled from the Leach Feed Concentrate Preparation Plant.
- It can be used as construction material for tailings separation berms.
- It will also be placed directly into LFCPP storage cells (Area 2, 3, and 5).

Mine Waste Rock:

- In addition to the Waste Rock Storage Area on surface, mine waste rock will be placed directly into available storage cells (Areas 6, 7, and 8) during operations.

18.2.4.1 Mine Area Separation Berm Cross-Section

Separation berms will be constructed in active mining areas to contain deposited slurry tailings. The berms will be constructed with 2H:1V side slopes with a minimum embankment crest width of 25 m. The embankments will be constructed with low-permeability core zones (5 m thick). Filter and transition zones (1 m thick), processed from local borrow sources, will be constructed on either side of the core zone with waste material from mining used to construct the shell zones of the embankments.

A cross-section of the mine area separation berm is shown on Figure 18-3.

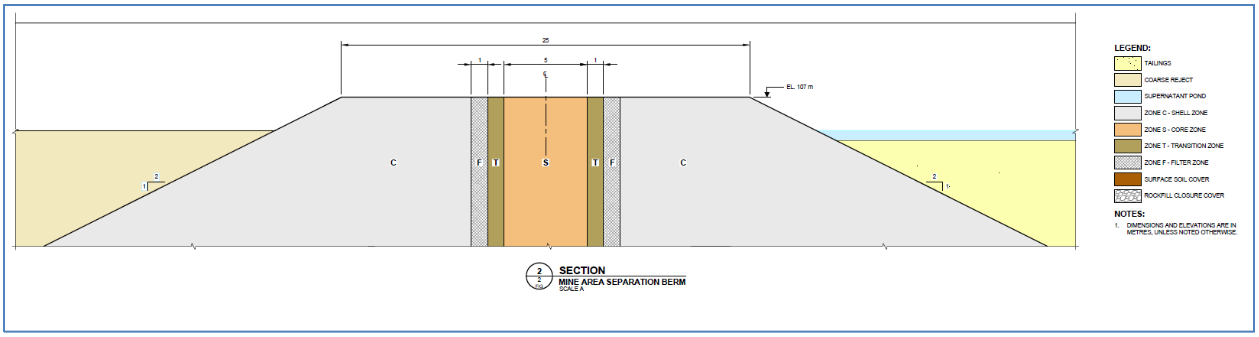


Figure 18-3: Mine Area Separation Berm Source: KP (2024)

18.3 Site Water Management

Site water will be managed through a system of collection ditches and ponds. Non-contact water will be diverted around site infrastructure to the maximum practical extent. Contact water will be collected in ponds and either evaporated or pumped to the active tailings deposition area (which will function as the site water management pond).

Due to the arid climate (Mean Annual Precipitation = 248 mm, Mean Annual Evapotranspiration = 482 mm), the site functions in an annual average deficit for water. Makeup water to meet Process Plant water requirements will be sourced from inflows to the mining areas (dewatering) and local groundwater wells.

The water management strategy for the two phases of waste management (i.e. surface storage and mine backfill) is described below.

18.3.1 Phase I (Years 1-3)

For Phase I, LFCPP Reject will be stockpiled on surface in an area close to the Process Plant and the mine area to minimize haul distances during operations, and for re-handling at closure. Tailings will be pumped to the Starter TMF located to the north of the Process Plant.

The TMF supernatant pond will be used as the main water management pond for Phase I. Seepage from the TMF will be collected in a seepage collection pond downstream of the TMF and recycled to the Starter TMF. Dewatering flows from the mine will be pumped to the TMF pond.

For Phase I the project will operate in an average annual deficit. Makeup water requirements to account for this deficit are approximately 10 to 11 L/sec. This volume will be sourced from groundwater wells which will pump directly to the Process Plant for use in mill operations. The water management strategy for Phase I is shown as a schematic on Figure 18-4.

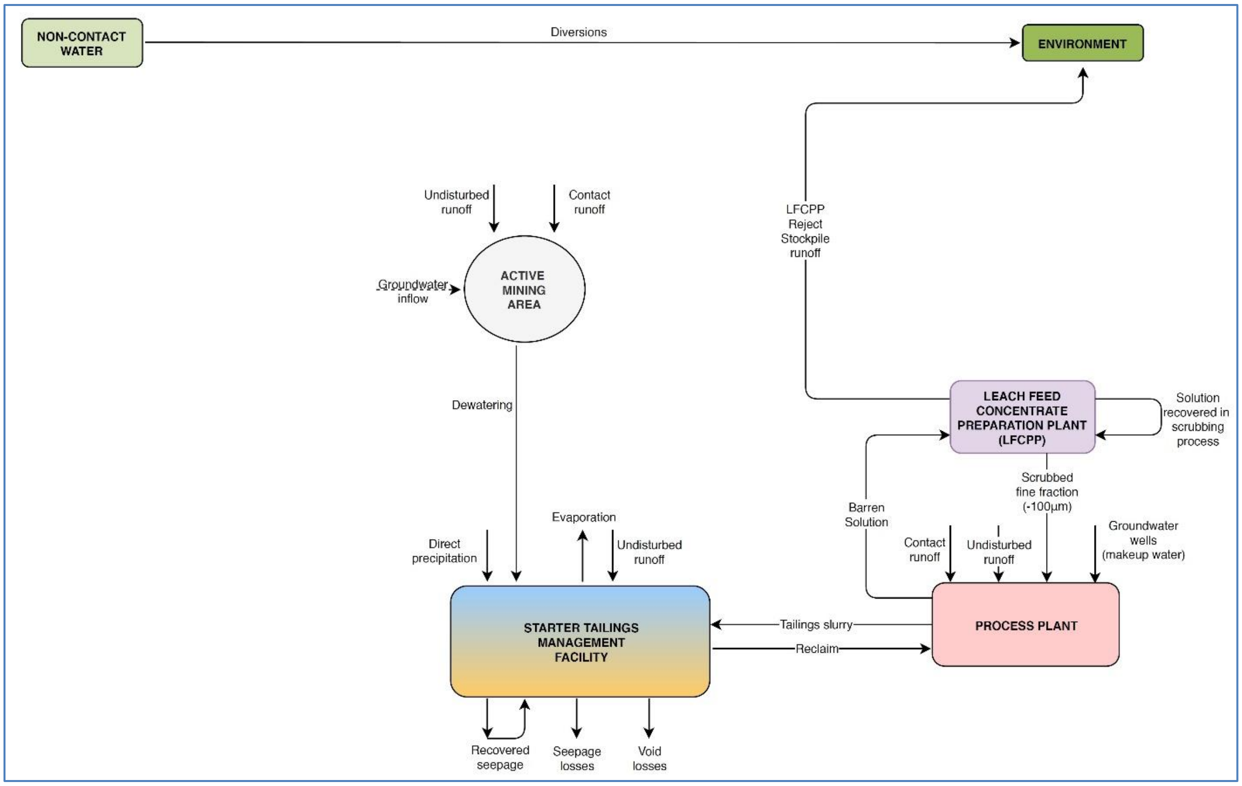


Figure 18-4: Phase I Water Management Flow Schematic Source: KP (2024)

NOTES:

1. Facilities are not drawn to scale.

The starter TMF will be decommissioned and reclaimed in a manner which satisfies closure and reclamation requirements for the operation.

18.3.2 Phase II (Years 4-11)

From Year 4 onwards, LFCPP Reject and tailings will be backfilled into separate decommissioned mine areas. Engineered berms will be constructed for the mined-out areas that will contain tailings (Areas 1 and 4) to allow for ongoing mining in adjacent areas, and to minimize seepage of supernatant water to areas where active mining is in process.

During this time, LFCPP Reject will be placed directly into other storage cells (Area 2, 3, and 5).

Backfilling of tailings and LFCPP Reject will move sequentially from area to area as the areas are mined out and become available for backfill.

Groundwater seepage and dewatering flows from active mining areas will be pumped to the active tailings backfilling cell, which will be used for water management. This pond will move to different cells along with active backfilling operations. Once cells have been backfilled completely, they will be reclaimed in accordance with the closure and reclamation strategy and backfilling will progress to the next available cell (along with water management infrastructure).

Like Phase I, groundwater wells will be used to makeup the average annual deficit. Makeup water requirements are anticipated to be in the order of 8 to 9 L/sec for Phase II. The water management strategy for Phase II is shown as a schematic on Figure 18-5.

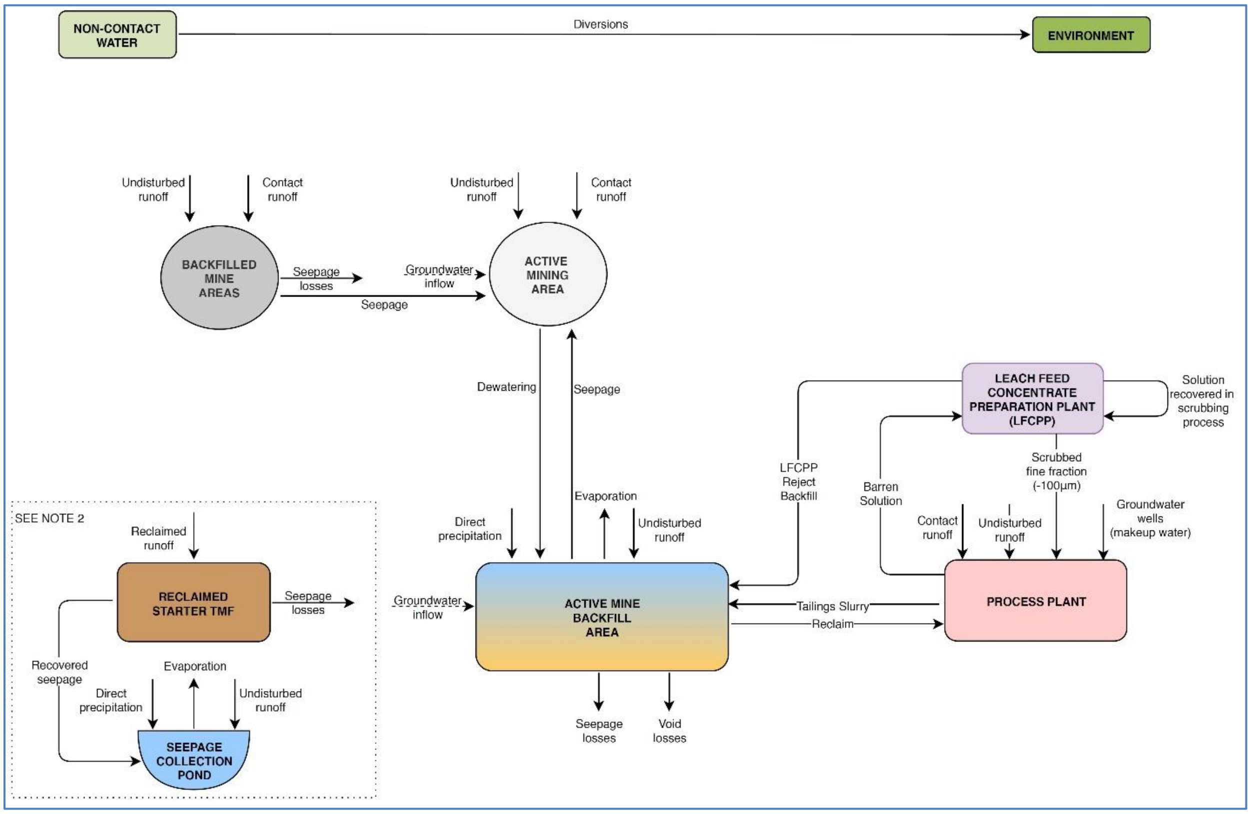


Figure 18-5: Phase II Water Management Flow Schematic Source: KP (2024)

NOTES:

1. Facilities not drawn to scale.
2. Seepage Collection Pond and reclaimed Starter TMF are shown for reference only and do not contribute to site wide water balance for Phase II.

18.3.3 Site Wide Water Balance

A preliminary water balance model was prepared to estimate the magnitude of annual surplus or deficit at site, and to provide a summary of required annual makeup water volumes from groundwater wells. The model was developed for average annual conditions for both Phase I and Phase II of the waste and water management strategy.

The preliminary water balance indicates that the site will operate in an annual deficit condition with annual deficits of approx. 350,000 m^3/year in Phase I and 300,000 m^3/year in Phase II. The makeup water for these deficit volumes will be sourced from groundwater wells and pumped to the Process Plant.

18.4 Waste and Water Management Recommendations

Recommendations for the next phase of engineering for the project are summarized below:

- Complete geotechnical and hydrogeological site investigation programs at the Starter TMF, Mine, and Process Plant to support a Pre-Feasibility level design and to comply with regulatory requirements.
- Complete testing on embankment construction materials to confirm material parameters.

- Complete testing on LFCPP Reject and tailings materials to confirm suitability for the proposed management strategy, and to estimate material parameters for stability modelling and confirm design assumptions (dry density, specific gravity, etc.).
- Optimize design of Starter TMF embankments and mine area separation berms (materials, zonation modelling, crest width, embankment slopes, etc.).
- Complete seepage and stability analyses for Starter TMF and backfilled mine areas to confirm designs comply with regulatory requirements for static and seismic stability.
- Evaluate hydrometeorology for the area to define return period precipitation events, etc.
- Develop a monthly water balance and evaluate climate variability conditions.
- Complete dam classification for the Starter TMF embankments and mine area separation berms to provide guidance on the selection of appropriate seismic design criteria and inflow design flood (IDF).
- Complete a seismicity assessment to define seismic hazard design parameters for the operation.
- Develop a full closure plan for the waste and water management facilities based on the final design configuration.
- Investigate groundwater supply options for make-up water.

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19 Market Studies and Contracts

19.1 Market Studies

Blue Sky Uranium Corp. has not completed any detailed market studies to date. However, an overview of the nuclear industry based on public sources is provided below.

19.1.1 Uranium Market Overview

The nuclear energy sector was formally recognized as a critical component for bringing global energy-related carbon dioxide emissions to net zero by 2050 (“Net Zero 2050”) at the 28th UN Climate Change Conference of the Parties (COP28) in December 2023. In addition, at the conference 24 countries signed up to a nuclear industry pledge, with a goal of tripling global nuclear energy capacity by 2050 (World Nuclear News, 2023).

This commitment represents a significant challenge for the entire nuclear cycle, from the production of raw uranium to nuclear energy generation, and nuclear fuel disposal. By the end of 2023, a total of 32 countries were operating 436 nuclear power plants representing 25% of the low-carbon electricity worldwide. Another 62 nuclear reactors are in construction, as well as 113 planned and 328 proposed: many of them at newcomer nuclear countries (IAEA, n.d.; NEA/IAEA, 2023).

The total uranium required to feed the existing plants represented 65,651 tonnes of U in 2023 (equivalent to 170.6 Mlb U_3O_8). Primary uranium production covered approximately 74% of the requirements in 2022, comprising 128.2 Mlb U_3O_8. This primary supply deficit is expected to be reduced to 10% by 2025 based on the expected production increases from cutbacks in recent years that were due to both low prices and COVID-19, as well as the opening of new mines that have been waiting for higher uranium prices before starting production. However, this supply deficit reduction may be unsustainable over the longer term due to mineral reserve depletion and limited new discoveries.

The gap between primary production and uranium demand is addressed by secondary supply sources: civil stockpiles held by utilities and governments (NEA/IAEA, 2023), as well as private companies. However, some of the stockpiles controlled by governments and utilities are expected to be retained for energy security purposes and those controlled by private companies may be reduced by higher prices and long-term contracts.

As a result, the uranium primary supply chain looks challenging when considering the actual and future requirements.

19.1.2 Nuclear Sector in Argentina

The nuclear sector in Argentina has existed since the middle of the 20th century. The country has three nuclear power reactors in operation, with an additional one planned, two proposed, and a Small Modular Reactor (“SMR”) in construction. The first commercial nuclear power reactor began operating in 1974 and collectively the three operating plants, including CANDU 6 and a Siemens designs, produce 1667 MWe.

The SMR has been developed by CNEA as well as Argentine technology company INVAP and others, since 1984, as a modular 100 MWt simplified pressurised water reactor designed to be used for electricity generation (27 MWe gross, 25 MWe net) or as a research reactor or for water desalination. The prototype SMR will be followed by a larger version, possibly 200 MWe with potential to upscale to 300 MWe. Additionally, five research reactors are in operation, and two under construction. The nuclear technology developed within Argentina is well recognized worldwide and its reactors and technology have been exported to many countries. As an example of the country’s acknowledged expertise, since 2019 the

General Director of the International Atomic Energy Agency has been the Argentina Ambassador Rafael Grossi.

Argentina produced uranium from 7 different mines, from the 1950´s until 1999 when the Sierra Pintada mine was placed into standby due to market conditions. The uranium production was always for self-supply, and the cumulative production was 2,582t U (~6.7Mlb U_3O_8). The country has not restarted its primary production and imports 100% of its uranium requirements. As reported in the Redbook 2022 (NEA/IAEA, 2023), Argentina imports on average 220t U annually (~0.57Mlb) as oxide concentrates. This is converted to uranium dioxide by the local company Dioxitek S.A., controlled by the Federal Government and Mendoza Province (http://www.dioxitek.com.ar/). The nuclear fuel is produced by another Argentine company, Conuar S.A., controlled by a private company and the Federal Government (http://www.conuar.com/). Every year Conuar imports low-enriched uranium for manufacturing the slightly or low enriched uranium fuel required for the reactors Atucha II and Carem SMR.

As detailed in the Argentine Mining Code, uranium is legally designated a nuclear mineral in Argentina (Ministry of Justice, n.d.). Article 209 of the Code states that the Argentinean Federal State, through the CNEA, has the first option to purchase, under prevailing market conditions, nuclear minerals. Further, Section 210 of the Code requires approval from CNEA for export contracts, including approval of the final destination and use of the exported material; export can only be restricted to fill internal (national) market requirements.

19.1.3 Vanadium Market Overview

Vanadium is principally used (92%) as a steel strengthening alloy for use in tool making, girders, oil and gas industry, between others. In recent years, following the energy transition requirements, vanadium has seen a consumption increase due its application in redox flow batteries used for stationary energy storage at wind or solar clean energy farms.

Vanadium is produced mainly as a co-product, as slag from ferrovanadium ores at iron smelters, representing +70% of the worldwide production. China and Russia are the main producers of vanadium slag. Approximately 18% of vanadium is produced from mines, whereby the main vanadium mineral reserves are in China, Russia, South Africa, Australia, and Brazil. This metal is also recycled from used vanadium products as fuel catalysts, representing about 12% of the total vanadium production. Argentina has no primary vanadium production and imports its requirements, mainly used for steel strengthen for products used in the oil and gas industry.

The global consumption of vanadium is driven by its application as a steel strengthener, which drives its growing demand of about 2.9% through this decade. This demand seems to be well covered by production, at least until 2029 (Office of the Chief Economist, 2023) with the potential for new battery applications to further influence the market (CRU, 2022).

However, the vanadium market, which seems to be in equilibrium currently, is viewed as potentially risky by many countries due to dependence on a limited number of geopolitical suppliers, including China (which produces about 60% of the world vanadium production), followed by Russia (with approximately 17%). As a result, the vanadium supply chain has been considered as critical by many countries.

19.2 Commodity Pricing

Commodity price assumptions were evaluated by Blue Sky Uranium Corp, incorporating a review of historical average pricing, recent comparable peer studies, public disclosure of sales and contract prices, and industry surveys of price projections. The pricing assumptions are deemed reasonable by the Qualified Person.

19.2.1 Uranium

Historically, the uranium price is quoted by various sources on a spot and long-term spot basis. The need for security of supply has generally resulted in utilities and producers entering into long-term contracts for the majority of uranium consumed as nuclear fuel, with the contract pricing for uranium typically significantly higher than spot pricing. However, this was partially changed in recent years when producers started to cut back or stop production due to low market prices. Producers also incorporated changes in the long-term contracts that reduced to them to mid-term and incorporated new economic conditions such as a combination of fixed and market related pricing, or some kind of annual reference index for floor/ceiling prices.

The spot price has shown an upsurge, reflecting the supply deficit after years of production cutbacks, an international geopolitical scenario risking the supply chain, and the resurgent interest in nuclear energy generation. In general terms, long-term contracts between utilities and producers have shown similar upside trends.

Blue Sky's market review has resulted in the Ivana PEA being based on a long-term uranium price of $75/lb U_3O_8.

Figure 19-1: U pricing @ January 17, 2024 (Source: www.tradingeconomics.com/commodity/uranium).

19.2.2 Vanadium

Based on the fundamentals of the vanadium market outlook observed from different sources, the price of vanadium is expected to be relatively stable for the next decade.

The Ivana PEA is based on a vanadium price of $7.50/lb ($V_2O_5$). Vanadium, which will be leached along with the uranium processing, will represent a credit on the Ivana production. It is expected to comprise only ~3% of the Ivana operation revenue stream.

19.3 Contracts

At the effective date of this study, no marketing or sales contracts are in effect for the Ivana operation.

20 Environmental Studies, Permitting, and Social or Community Impact

20.1 Legal and Institutional Framework

In Argentina, environmental and social permits required to carry out activities for mining purposes are legally framed at the national level by the following:

- Provisions of articles 41, 43, and 124 of the Constitution of the Argentine Nation and supplementary legislation
- General Environmental Law No. 25.675
- Title 13, Section 2 of the National Mining Code
- The National Law of Environmental Protection for Mining Activities No. 24.585, which replaces article 282 of the aforementioned Code, and
- National Law No. 24.804, which regulates Nuclear Activity and its Regulatory Decree No. 1390/1998, complementing Title 11, Section 2 of the National Mining Code.

In the legal and institutional framework, the Decree of Necessity and Urgency, DNU-2023-70-APN-PTE, issued on December 20, 2023 by the National Executive Power, is also taken into account, along with consideration of Titles 3 and 9. This decree defines mining as an activity of “transcendental importance” (Title IV, Chapter IX, Article 97)".

At the provincial level in Rio Negro, the relevant legislation is:

- The Constitution of the Province of Río Negro, Section V: Natural Resources, articles 78 and 79, and Section VII: Environmental Policy, articles 84 and 85,
- The Law on Environmental Impact Assessment of the Province of Río Negro, Law No. 3.266, its amending Provincial Law No. 3.335 and its Regulatory Decree for the mining sector No. 1.224/02,
- The new Provincial Code of Mining Procedures, as sanctioned by Provincial Law No. 4.941, which repealed and replaced Provincial Law No. 3,673, and
- Resolution AM No. 252/22, of the Mining Secretary, related to participatory water sampling.

20.1.1 Uranium Mining

In Argentina, uranium is considered a nuclear mineral, as established by the Mining Code, Article 206. Article 207 requires those who exploit mines containing nuclear minerals to submit to the authorities a "Plan for the restoration of the natural area affected by the waste; and to neutralize, preserve, or safeguard liquid or solid tailings and other products containing radioactive elements."

Nuclear activity in Argentina is governed by two specific regulations: Decree Law No. 22.498/56, ratified by Law No. 14.467; and Law No. 24.804 "National Law on Nuclear Activities." Article 16 of the latter law assigns to the Nuclear Enforcement Agency (Autoridad Regulatoria Nuclear, or “ARN”) the power to "issue regulations related to radiological and nuclear safety." Law No. 25.018 then establishes the framework for the management of radioactive waste (tailings and sludge) and designates CNEA as the enforcement agency.

Regulation AR 10.1.1. (Basic Radiological Safety Regulation), issued by ARN, classifies mining facilities as Class I Facilities in Article 47. This classification requires the acquisition of a license from ARN to initiate the operational phase of a facility or the execution of a facility's lifecycle, including construction, commissioning, decommissioning, or any other phase deemed licensable by the regulatory authorities.

Additionally, Regulation AR 10.1.1. specifies the maximum exposure doses to ionizing radiation for individuals. This consideration is essential throughout the construction, operational, and closure phases of the Operation.

20.1.1.1 International Regulations and Guidelines

The US Environmental Protection Agency ("EPA") Code of Federal Regulations ("CFR") Part 192 "Health and Environmental Protection Standards for Uranium and Uranium Mill Tailings" provides good practice guidelines, as it establishes permissible radiation emission values for managed sites associated with uranium mining waste.

20.1.2 Permits for the Exploitation Stage

The necessary permits for developing the Operation's exploitation stage are presented below:

Table 20-1 Permit Requirements

Permit
Approved Environmental Impact Statement (EIS) – Approval order
Public hearing
Environmental insurance
Drawings approved by the Rio Negro College of Engineers
As-built drawings sealed by the Rio Negro College of Engineers
Drawings approved (Fit for construction) by the Municipal Commission
Drawings approved (As-built) by the Municipal Commission
Rio Negro Fire Department certificate for fire protection systems
Municipal authorization
Water permit / Water use concession
Effluent discharge permit
Hazardous waste generator
Household waste generator
Pathogenic waste generator
RX Equipment Authorization (in case a clinic is built in the Operation site)
Certificate or registration at the National Register of Chemical Precursors
Fuel. Registration at the Register of Fuel Dispensers for Own Use
Fuel. Registration at the Register of Companies of the National Program for Control of Losses of Aboveground Storage Tanks for Hydrocarbons and Derivatives
Agreements with National / Provincial Highway Departments
Archaeological and Paleontological Heritage Rescue Permit
Radiofrequency Authorization
Participatory Water Sampling

20.2 Current Permit Status of The Ivana Prospect

The local subsidiary of Blue Sky Uranium, Minera Cielo Azul S.A., has the following mining concession titles pertaining to the Ivana Operation, as discussed in Section 4:

Table 20-2: Mining Concessions of the Ivana Prospect

SM Proceedings[1]	SAyDS Proceedings[2]	Name	Type	RA resolution[3]	Date granted
38.002-13	44.073-14	Ivana VIII-A	Mine	RA No. 346	March 22, 2022
44.331-19	NA	Ivana VIII-A-1	Over Claimed Unit	NA	NA
38.003-13	44.071-14	Ivana VIII-B	Mine	RA No. 369	March 28, 2022
44.332-19	NA	Ivana VIII-B-1	Over Claimed Unit	NA	NA
40.005-15	6.468-16	Ivana VIII-D	Mine	RA No. 382	March 28, 2022
44.333-19	NA	Ivana VIII-D-1	Over Claimed Unit	NA	NA
41.048-16	85.133-17	Ivana VIII-F	Mine	RA No. 361	March 23, 2022
44.394-19	NA	Ivana VIII-F-1	Over Claimed Unit	NA	NA
44.395-19	NA	Ivana VIII-F-2	Over Claimed Unit	NA	NA
41.038-16	6.479-16	Ivana IX-A	Mine	RA No. 416	April 5, 2022
44.393-19	NA	Ivana IX-A-1	Over Claimed Unit	NA	NA

Ref:

1 Mining Secretariat

2 Secretariat of Environment and Sustainable Development

3 Environmental resolution

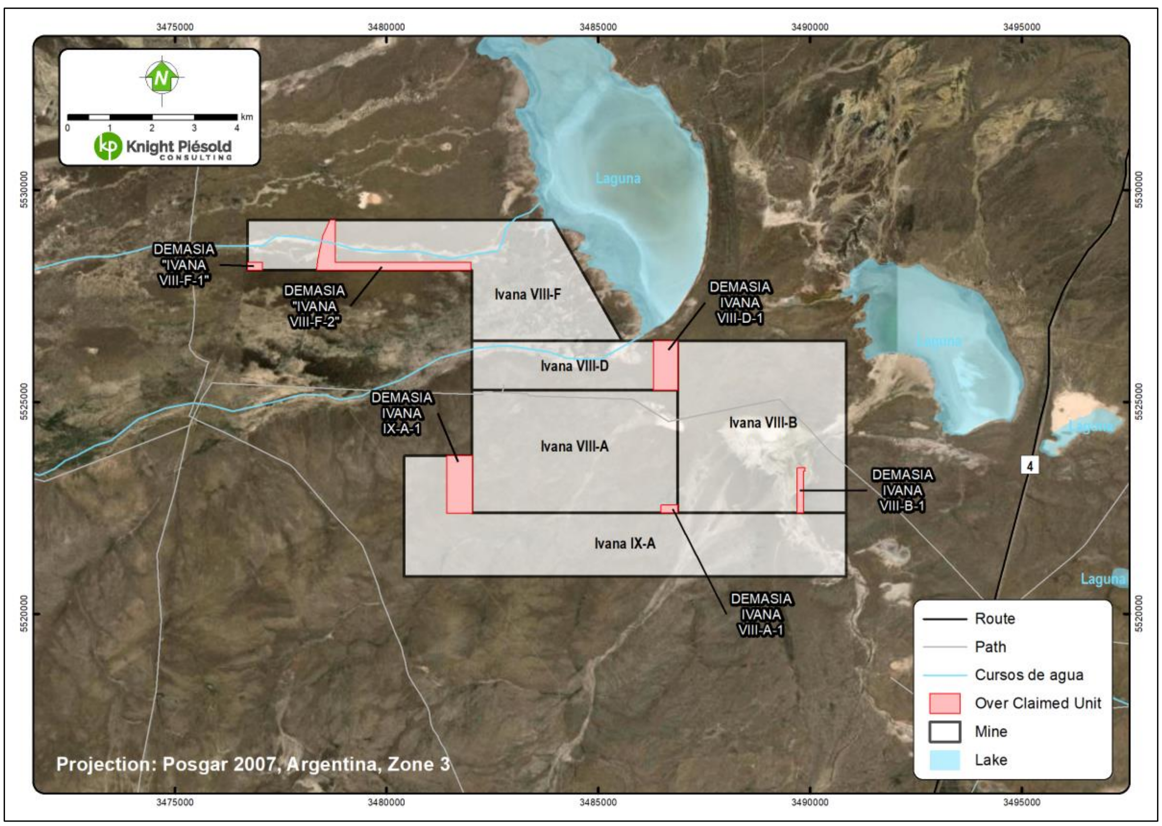

Figure 20-1: Mining properties comprising the Ivana Operation Source: KP (2024)
Controlled by Blue Sky Uranium through its local wholly owned subsidiary Minera Cielo Azul S.A.

For each concession, Minera Cielo Azul S.A. has submitted the following documents:

- The exploration stage Environmental Impact Report and the respective biannual updates, leading to the approval of exploratory activities by the Secretary of Environment and Sustainable Development through the issuance of the relevant Environmental Resolutions (RA), as shown in Table 20-2.
- The Good Practices Statement, within the framework of Social Responsibility, which has been received without observations by the Secretary of Mining, in compliance with the provisions of current legislation.
- Integrated Baseline Study for the entire set of properties, to the Secretary of Mining, the Secretary of Environment and Sustainable Development, the Provincial Department of Waters, and the Secretary of State for Culture of the province of Rio Negro.

In compliance with the provisions of the National Mining Code in articles 26, 32, 33, and 146, Minera Cielo Azul S.A. has agreed to and signed "Easement Agreements for Mining Prospecting and/or Exploration" with the surface owners of the properties of the Ivana prospect.

20.3 Environmental Studies

The environmental studies conducted up to the date of this document's preparation correspond to those mandated by the current legislation for the Environmental Impact Reports at the prospecting and exploration Stages (EIR1 and EIR2).

The Environmental Impact Reports and the associated updates include:

- Geomorphological, geological, and soil descriptions
- Hydrological and hydrogeological studies
- Climate descriptions
- Descriptions of biological components
- Surface Paleontological Prospecting Monitoring
- Socioeconomic studies

Between October 2021 and March 2023, an integrated Environmental Baseline was developed, including environmental and social components of the Ivana operation. This document was submitted to the authorities of the province of Rio Negro in December 2023. Currently, water quality, biotic component, and socioeconomic aspects are being monitored.

20.3.1 Geology

The description of the geology of the Project area at both regional and local levels is presented in Section 7 of this document.

20.3.2 Water Quality and Water Resources

The prospect is located within an endorheic basin, which is an advantage for its environmental management in future stages of exploitation and closure.

Surface water quality was monitored monthly between October 2021 and March 2023, and groundwater between March 2022 and March 2023. Currently, periodic monitoring is being conducted on a quarterly basis.

Surface water quality is predominantly alkaline in pH, and conductivity indicates strong mineralization at all sites, with high concentrations of metals, total dissolved solids, and other parameters, exceeding the guideline levels established by Law 24.585 for all defined uses and at all sites analyzed.

Regarding groundwater, the physiographic characterization was developed considering two scales: regional, covering the Bajo de Valcheta basin; and local, focused on the Ivana operation, using data from a specifically constructed piezometric network. According to Law No. 24.585, groundwater quality is not suitable for human consumption, livestock drinking, or irrigation due to natural contents of uranium, vanadium, aluminum, zinc, boron, arsenic, and total dissolved solids ("TDS").

20.3.3 Climate and Air

A detailed climate and meteorology analysis was conducted at the Ivana operation using data obtained from the weather station located at the Ivana VIII-D property and the San Antonio Oeste Aero weather station. Data from July 6, 2021 to May 31, 2023 was considered and the analyzed variables included temperature, precipitation, wind speed and direction, relative humidity, atmospheric pressure, and radiation. The climate was determined to be cold desert with warm summers, according to the Köeppen's climate classification BWk type (Dry climate with potential evaporation greater than precipitation and with all monthly mean temperatures below 0°C). The average annual temperature stands at 14.4° C, with the highest recorded temperature reaching 43.9° C (January 2023), and the lowest -12.40° C (May 2022).

An air quality and environmental noise study was also conducted in April 2022, considering 8 monitoring sites. The results were analyzed according to current regulations.

20.3.4 Biological Components

A study was conducted to characterize the flora, fauna, and limnology in the area, to obtain initial information about the biota. A total of 53 species of vascular plants were identified, and 73 species of vertebrates, including birds, mammals, and reptiles, were recorded. Limnological sampling was carried out at two mining properties within the Ivana operation, selecting five representative sites for sampling aquatic biota and assessing physicochemical water parameters.

Nine bird species, six mammal species, and one reptile species were determined to be included in a conservation category, according to the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES"). The flora comprised 13 species of conservation interest according to PlanEAR (Preliminary Red List of Argentine Endemic Plants).

20.3.5 Landscape and Protected Natural Areas

A landscape study was conducted for current conditions, calculating indicators of quality, fragility, sensitivity, and visual absorption capacity from specific control points. The survey was conducted in October 2021, using 42 observation sites to characterize landscape units. Six landscape units were identified and described individually, using internationally recognized methodologies and standardized methods developed by specialists.

No other areas of importance for conservation were identified, including AICAs (Areas of Importance for Bird Conservation) or Ramsar sites (areas designated under the Ramsar Convention, an international treaty focused on the conservation and sustainable use of wetlands).

20.3.6 Paleontology and Archaeology

The paleontological assessment was based on studies conducted by Minera Cielo Azul S.A. since 2016, complying with legal requirements for the exploration stage. The area is rated as having no risk to paleontological heritage, with low paleontological sensitivity.

The archaeological survey included a combined strategy of directed and random sampling. The archaeological situation assessment establishes that the Operation has low archaeological sensitivity.

20.3.7 Socio-Economic Studies

These studies include a comprehensive analysis of the socio-economic, demographic, and cultural context in both the study area and surrounding areas, considering variables such as education, health, housing, and economic activities. An analysis was conducted on the perception of the population and stakeholder groups regarding the operations of Minera Cielo Azul S.A. in the Ivana Deposit, where the activity is considered a key development driver by the government.

Relevant socio-economic, cultural, and environmental aspects were identified and analyzed, as well as economic activities and the social organization within the Project's influence area. This analysis aimed to facilitate local participation from the early stages of the Project, promoting balanced and proactive coexistence with the community.

Based on data collected in the initial stages of exploration at Ivana, the “Direct Influence Area” encompasses the rural area of the Valcheta department and the urban area of the town of Valcheta. Stakeholder groups identified in this area are small and medium-sized agricultural producers, as well as surface holders.

The “Indirect Influence Area” of the Project covers the town of San Antonio Oeste, the administrative center of the homonymous department in the Atlantic Region, along with other towns in the Southern Region, such as Sierra Colorada and Ministro Ramos Mexía in the 9 de Julio Department. Additionally, the town of Viedma, the provincial capital, is considered an “External Influence Area”.

“Unsatisfied Basic Needs” were evaluated as a key indicator to measure the population's access to essential infrastructure services (e.g., education, health, culture, recreation, and transportation).

Regional economic information was analyzed, addressing key sectors such as agriculture, livestock, tourism, energy, mining, and the food industry, considering economic, social, and cultural aspects.

20.4 Waste and Tailings Management

Waste and tailings management is described in Section 18.

20.5 Water Management

The water management strategy and site water balance are described in Section 18.

20.6 Project Closure

20.6.1 Closure Regulation, Standards and Guidelines

Mine closure planning will be governed by: the provincial and national legislation of Argentina; international regulations and guidelines; the commitments made in the Environmental Impact Report, its updates, and associated Environmental Impact Statements; and Minera Cielo Azul S.A.'s corporate policies and standards.

While Resolution 161/2021 (General guidelines for mine closure with guarantees in the Argentine Republic) exists at the national level, the province of Río Negro does not adhere to it. Therefore, the national legal framework applicable to Río Negro is governed by Law No. 24.585, which establishes that: "the Environmental Management Plan must include actions related to the cessation and abandonment of exploitation, and post-closure monitoring of operations."

The province of Río Negro establishes through Decree No. 1224/2002 that the Environmental Management Plan must include measures and actions for environmental impact mitigation, rehabilitation, and restoration for the closure stage of the deposit.

Additionally, Argentine Regulation AR 10.1.1 (established by ARN) sets the dose of exposure to ionizing radiation for nuclear waste, which must be considered in the closure phase.

20.6.2 Closure Plan

The closure plan will be designed to ensure long term stability of both physical and chemical properties of the site and return the site to its pre-mining state in order to blend with the surrounding environment. Specific closure items will include:

- Reagents and supplies will be removed and will be returned to suppliers, sold to other operations, disposed of in approved waste facilities, or transported to a certified company for disposal.
- All buildings and foundations will be demolished and covered to approximate as closely as possible the pre-mining landscape topography.
- Ditches and ponds will be backfilled and regraded.
- Mechanical systems (pumps, pipelines, etc.) will be removed and sold to other operations or transported to a certified company for off-site disposal.
- Where excavations or construction of berms and walls were required, these will also be regraded to approximate pre-construction land contours. If soil contamination is detected around any facility, remediation alternatives will be evaluated and applied.
- The remaining mine areas will be filled with the sterile material including remains of the LFCPP Reject Stockpile and Waste Rock material, subject to government authorization.
- Remaining tailings will be covered using material from the LFCPP Reject Stockpile, the Waste Rock Storage Area, and the Surface Soil Stockpiles.
- All exposed erodible surfaces will be revegetated.

Active closure is expected to take one year, with a further five years of monitoring for a total 6-year closure period.

20.6.3 Closure Plan Implementation Costs

Based on the measures defined in 20.6.2, a preliminary estimate of the Operation closure cost has been made at approximately US $26.8 Million.

As part of the preparation of the Environmental Impact Statement (“EIS”) for the Operation’s exploitation stage, a conceptual closure plan will be developed, serving as a basis to refine closure costs. Subsequent updates to the EIS for the exploitation stage will refine the closure plan until reaching a detailed engineering level, specifying closure measures and associated costs.

A significant portion of the closure costs will be absorbed during the mine operation, as the active cells in the in the pit will be backfilled to the greatest degree during the Operation exploitation phase. These progressive reclamation costs are not included in the preliminary closure cost estimate.

Table 20-3: Preliminary Closure Cost Estimate

Item	Unit	Quantity	Unit Cost ($ USD)	Total ($M USD)
Equipment, building and structure dismantling, removal and demolition	LS	1	$1,000,000	$1.0M
Removal of ditches	m	17,500	$6.0	$0.1M
LFCPP Backfill to Mine Area from Stockpiles	m^3	2,300,000	$4.2	$9.7M
Waste Rock Backfill to Mine Area from Stockpile	m^3	1,900,000	$4.2	$8.0M
Soil Cover for backfilled Mine Areas and Waste Rock Storage Area	m^3	350,000	$4.0	$1.4M
Waste Rock Cover for backfilled Mine Areas	m^3	300,000	$4.1	$1.2M
Revegetation of reclaimed surfaces and footprints	m^2	2,300,000	$0.9	$2.1M
Subtotal Direct Cost ($M)				**$23.5M**
Construction Mobilization/Demobilization	%		4%	$0.9M
EPCM	%		10%	$2.4M
Subtotal Indirect Costs ($M)				**$3.3M**
Total Closure Costs ($M)				**$26.8M**

21 Capital and Operating Costs

21.1 Capital Costs

The capital cost estimate addresses the engineering, procurement, construction and start-up of the Ivana operation, which consists of a surface mine, a leach feed concentrate preparation plant, a leach process plant, a tailings management facility and ancillary support facilities.

The capital cost estimate was developed to a level commensurate with that of a Preliminary Economic Assessment in order to evaluate the Ivana operation overall viability. After inclusion of the contingency, the capital cost estimate is considered to have an accuracy of ±35%, Q1 of 2024.

The total estimated cost to design, procure, construct and commission the facilities described in this report is $159.7 million. Table 21-1 summarizes the project development capital cost. The capital cost includes a contingency allowance of $35.4 million.

Sustaining capital represents capital expenses for additional costs and equipment purchases that will be necessary during the operating life of the project. Sustaining capital is not included in the normal operating cost. Sustaining capital is estimated to be $27.3 million, including a contingency allowance of $5.4 million.

No provision has been included in the capital cost to offset future cost escalation.

Table 21-1: Project Capital Cost Summary

	Development ($M)	Sustaining ($M)	Total ($M)
Mine Development	$18.8	$11.3	$30.1
LFCPP, Process Plant	$61.8	$1.3	$63.1
Waste and Water Management	$5.4	$8.2	$13.7
Infrastructure	$3.8	$1.1	$4.9
Indirect, EPCM, Owner costs	$34.4		$34.4
Contingency (30%)	$35.4	$5.4	$40.8
Total	$159.7	$27.3	$187.0

21.1.1 Mine Capital Cost

The mine capital cost has been subdivided into four areas: (i) pre-stripping (ii) mining equipment, (iii) other mine development and (iv) freight and spares.

The mine capital cost estimate is mainly developed from first principles, determining quantities and equipment operating hours and applying unit pricing. Unit pricing information is derived from in-house databases.

All costs are in Q1-2024 US dollars.

Table 21-2 summarizes the initial mine capital costs incurred in the two years of development.

Table 21-2: Mining Capital Cost Summary

	Year -2 ($k)	Year -1 ($k)	Develop ($k)	Sustaining Y1+ ($k)	Total ($k)
21.1.1.1 - Mine Pre-stripping		$2,966	$2,966		$2,966
21.1.1.2 - Mine Equipment	$12,638	$675	$13,313	$9,457	$22,769
21.1.1.3 - Other Mine Capital		$1,580	$1,580	$1,143	$2,723
21.1.1.4 - Freight (Mine)	$885	$47	$932	$662	$1,594
Total Mine Capital	$13,523	$5,268	$18,791	$11,261	$30,052

Costs shown do not include contingency

21.1.1.1 Pre-stripping

The study assumes that pre-stripping will be undertaken in Year -1 by the owner-operated fleet (see Table 21-3). Waste will be stripped from the mine to expose mill feed prior to the commencement of commercial production. The mined waste will also be used to build the starter TMF as well as on-site roads and laydown pads as needed.

Table 21-3: Pre-Stripping Cost

		Year -1
Waste Mined	t	2,370,000
Mill Feed mined	t	130,000
Total Mined	Mt	2,500,000
Cost	$k	$2,966
Unit cost	$/t	$1.19

21.1.1.2 Mining Equipment

The procurement of mining equipment assumes that all equipment will be newly purchased by the owner. Equipment pricing used in the study is from in-house databases; no vendor quotations were solicited for the PEA.

Most of the equipment is procured in Year -2 and delivered to site to be available for pre-stripping works in Year -1. Table 21-4 list the equipment fleet and life-of-mine equipment capital cost.

Additional sustaining costs will be incurred as the mine expands, or haul lengths increase, thereby requiring additional equipment. In addition, some equipment replacements will also occur over time.

Table 21-4: Mining Equipment Capital Cost

Equipment	Year -2 ($k)	Year -1 ($k)	Sub-total ($k)	Sustaining Y1+ ($k)	LOM Total ($k)
Excavator, 5 cu.m	$1,337		$1,337	$1,337	$2,674
Wheel Loader 5 cu.m		$553	$553		$553
Haul Truck ADT 30 t class	$2,334		$2,334	$5,251	$7,585
Personnel Van	$243		$243		$243
Crane, Grove 40T	$547		$547		$547
Dozer (D275A)	$1,993		$1,993	$1,993	$3,987
Mechanic & Welding Truck	$479		$479		$479
Excavator, 5 cu.m	$669		$669		$669
Fuel & Lube Truck	$1,057		$1,057		$1,057
Grader 12H-class 12' blade	$1,702		$1,702		$1,702
Flat Deck w Hiab	$182		$182		$182
Light Plant	$146		$146	$146	$292
Pickup Truck	$243	$122	$365	$729	$1,094
Mine Water Pumps					
Forklift	$91		$91		$91
Wheel Loader 5 cu.m	$553		$553		$553
Tractor	$97		$97		$97
Water Truck (HM400)	$965		$965		$965
Initial Equipment Capital	$12,638	$675	$13,313	$9,457	$22,769

21.1.1.3 Mine Development Costs

The details for the mine development activities are shown in Table 21-5. This includes the construction of on-site haul roads, purchase of office supplies, stockpile preparation, and water management.

Table 21-5: Mine Development Capital Cost

	Year -2 ($k)	Year -1 ($k)	Sub-total ($k)	Sustaining Y1+ ($k)	Total ($k)
Haul Road to Plant Site		$182	$182		$182
Haul Road to Waste Dump		$182	$182		$182
Haul Road to Tailings Cells		$182	$182		$182
Haul Road (Other)		$182	$182		$182
Crushed Aggregate Capping		$122	$122		$122
Mine Area Pumping Equipment		$122	$122		$122
Mine Area Water Pipelines		$122	$122	$170	$292
Office Equip and Software		$243	$243		$243
Radio Communications + GPS		$122	$122		$122
Survey Equipment & Software		$122	$122		$122
Sustaining Miscellaneous				$972	$972
TOTAL		$1,580	$1,580	$1,143	$2,723

21.1.1.4 Freights and Spares

Freight and spares cost are based on a factor of 7% of the equipment purchase costs.

Table 21-6: Freights and Spares

	Year -2 ($k)	Year -1 ($k)	Total ($k)	Sustaining ($k)	LOM Total ($k)
Freight and Spares	$885	$47	$932	$662	$1,594

21.2 Process Plant Capital Cost

The estimated capital costs for the processing plant are showing in Table 21-7, including plant equipment costs based on new purchases.

Indirect and owner's capital costs are summarized in Table 21-8.

Table 21-7: Processing Plant Capital Cost

	Pre-development ($'000)	Sustaining ($'000)
Leach Feed Concentrate Prep Plant and Pipeline	$2,489.0	
Alkaline Leaching & Membrane Plant	$5,093.2	
U/V Separation	$1,621.7	
U/V Precipitation	$1,179.0	
Calcining and Packaging	$2,947.5	
Reagent Receiving and Storage	$2,593.8	
Water Distribution	$1,080.7	
Utilities	$934.0	
Total Delivered Equipment Cost	$17,939.1	
Labour	$31,772.7	
Mobile Equipment	$8,842.5	
Building	$3,275.0	
TOTAL DIRECT COSTS	$61,829.4	$**12,707.0**

Note: Contingency is applied globally and not included above.

Table 21-8: Indirects and Owner's Capital Cost

	Pre-development ($'000)	Sustaining ($'000)
Construction Indirects	$17,210.4	
EPCM	$11,474.4	
Owner's Costs	$5,737.2	
TOTAL	$17,210.4	

Note: Contingency is applied globally and not included above.

21.3 Infrastructure Capital Cost

Infrastructure capital costs include general site development, tailings management facility, on-site and off-site infrastructure. The infrastructure capital cost has been subdivided into two areas: (i) Waste and Water Management Facilities and (ii) Site Infrastructure. These cost estimates are primarily based on database costs, recently quoted vendor costs, or previous project experience costs.

Table 21-9 summarizes the initial Waste and Water Management capital costs of $5.4 million and sustaining capital costs of $8.2 million, without contingency.

Table 21-9: Waste and Water Management Capital Cost

	Development ($k)	Sustaining ($k)	Total ($k)
TMF Earthworks	$3,399.9	$2,070.1	$5,470.0
Mechanical Pump and Pipeworks	$876.5	$367.4	$1,243.9
Site Wide Water Management	$492.4	$211.3	$703.7
TMF Progressive Reclamation	0.0	0.0	0.0
Mine Backfill Costs	0.0	0.0	0.0
Construction Mobilization/Demobilization	$190.8	$288.7	$479.4
EPCM	$476.9	$721.6	$1,198.5
Total	$5,436.5	$8,226.7	$13,663.2

Notes: Contingency is applied globally and not included above.

Table 21-10 summarizes the Site Infrastructure capital costs including development and sustaining capital costs, without contingency.

Table 21-10: Site Infrastructure Capital Cost

	Development ($k)	Sustaining ($k)	Total ($k)
Powerline	$1,458.6		$1,458.6
Truck Shop	$729.3		$729.3
Offices & Dry	$729.3		$ 729.3
Warehouse	$243.1		243.1
Fuel Storage	$303.9		$303.9
Access Road, Security, parking	$243.1		$243.1
Sewage Treatment	$121.6		$121.6
Miscellaneous		$1,100.0	$1,100.0
Total	$3,828.8	$1,100.0	$4,928.8

Note: Contingency is applied globally and not included above.

21.4 Operating Costs

The project operating cost estimate includes the cost of mining, processing, waste management, and G&A services. No head office costs are included in the operating cost estimate. The life-of-mine average operating cost for the Project is summarized in Table 21-11.

Table 21-11: Project Operating Cost Summary (Average)

Area		Unit Cost (/t Feed)	Unit Cost ($/lb U3O8)*	Total LOM ($M)
Mining Cost, incl stockpile & rejects	$/t mined	$2.09	-	$116.6
Mining Cost, incl stockpile & rejects	$/t feed	$4.97	$7.08	$116.6
Processing Cost	$/t feed	$8.52	$12.15	$199.9
Waste & Water Management	$/t feed	$0.09	$0.13	$2.2
G&A	$/t feed	$1.92	$2.73	$45.0
Total Operating Cost	**$/t feed**	$15.50	$22.10	$363.7

* Unit cost does not include royalty, duty or vanadium credits.

21.4.1 Mining

Mine operating costs are derived from a combination of first principles calculations with an in-house equipment database for all major and supporting equipment operating parameters, and include fuel, consumables, labor ratios, and general parts costs.

Annual production tonnes, waste tonnes and, loading and hauling hours are calculated based on the capacities of the loading and hauling fleet. Fleet requirements for loading, hauling and support are derived from the loading and hauling operating hours.

Operating labor man-hours are categorized for the different labor categories such as operators, mechanics, electricians, etc. The mining cost also includes costs for all mine salaried staff, consumables, and software and fleet management systems' licensing and maintenance.

The diesel fuel price assumed is $1.00/litre. The electric power cost assumed is $0.06/kwh.

Stockpiling re-handling of plant feed is included in the mine operating cost.

No drill and blast costs are required due to the unconsolidated nature of the deposit.

The annual mine operating cost is summarized in Table 21-12. Unit mining costs by years are shown in Table 21-13 and averages $2.09/tonne mined over the life of the project.

Table 21-12: Annual Mine Operating Cost

		Total LOM	-1	1	2	3	4	5	6	7	8	9	10	11
Direct Mining Costs (by Activity)			**Capitalized**											
Drilling	$ ('000)													
Blasting	$ ('000)													
Loading	$ ('000)	$12,897	319	390	968	1,147	1,146	1,149	1,240	1,264	1,264	1,262	1,247	1,222
Hauling	$ ('000)	$45,313	804	1,172	2,882	3,477	3,503	3,820	4,418	4,507	4,494	4,692	4,837	4,821
Services/Roads/Dumps	$ ('000)	$37,805	855	859	3,453	3,440	3,439	3,444	3,437	3,433	3,433	3,429	3,427	3,429
General, Supervision & Technical	$ ('000)	15,013	390	404	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365
Allowance	$ ('000)	$ 5,551	118	141	433	471	473	489	523	528	528	537	544	542
Total Operating Cost	$ ('000)	$116,579	2,487	2,966	9,101	9,900	9,926	10,266	10,982	11,097	11,084	11,285	11,420	11,379
Direct Mining Costs (by Cost Element)														
Operating Labour	$ ('000)	$13,665	204	255	1,053	1,153	1,153	1,201	1,302	1,302	1,302	1,326	1,350	1,350
Maintenance Labour	$ ('000)	$6,476	144	144	530	558	558	586	614	614	614	614	614	614
Supervision & Technical	$ ('000)	$13,408	330	330	1,219	1,219	1,219	1,219	1,219	1,219	1,219	1,219	1,219	1,219
Non-Energy Consum & Parts	$ ('000)	$49,819	999	1,420	3,645	4,106	4,125	4,320	4,736	4,814	4,805	4,937	5,023	5,000
Fuel	$ ('000)	$23,021	455	406	1,799	1,971	1,976	2,029	2,166	2,198	2,195	2,231	2,249	2,232
Electric Power	$ ('000)	$1,763	81	81	160	160	160	160	160	160	160	160	160	160
Leases & Outside Services	$ ('000)	$2,875	156	189	261	261	261	261	261	261	261	261	261	261
Allowance	$ ('000)	$5,551	118	141	433	471	473	489	523	528	528	537	544	542
Total Operating Cost	**$ ('000)**	$116,579	**2,487**	2,966	9,101	9,900	9,926	10,266	10,982	11,097	11,084	11,285	11,420	11,379

Table 21-13: Unit Mine Operating Costs

		Total LOM	-1	1	2	3	4	5	6	7	8	9	10	11
Direct Mining Costs (by Activity)														
Drilling	$/t mat'l													
Blasting	$/t mat'l													
Loading	$/t mat'l	$0.23	0.16	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.25
Hauling	$/t mat'l	$0.81	0.47	0.70	0.71	0.71	0.78	0.82	0.80	0.80	0.84	0.88	0.91	0.98
Services/Roads/Dumps	$/t mat'l	$0.68	0.34	0.84	0.70	0.70	0.70	0.64	0.61	0.61	0.61	0.62	0.65	0.88
General, Supervision & Technical	$/t mat'l	$0.27	0.16	0.33	0.28	0.28	0.28	0.25	0.24	0.24	0.24	0.25	0.26	0.35
Allowance	$/t mat'l	$0.10	0.06	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.10	0.10	0.10	0.12
Total Operating Cost (mined mat'l)	$/t mat'l	$2.09	1.19	2.22	2.02	2.03	2.10	2.03	1.98	1.98	2.02	2.08	2.15	2.58
Total Operating Cost	$/t feed	$4.97		5.14	4.56	4.57	4.73	5.06	5.11	5.11	5.20	5.26	5.24	4.98
Direct Mining Costs (by Cost Element)														
Operating Labour	$/t mat'l	$0.25	0.10	0.26	0.24	0.24	0.25	0.24	0.23	0.23	0.24	0.25	0.25	0.30
Maintenance Labour	$/t mat'l	$0.12	0.06	0.13	0.11	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.14
Supervision & Technical	$/t mat'l	$0.24	0.13	0.30	0.25	0.25	0.25	0.23	0.22	0.22	0.22	0.22	0.23	0.31
Non-Energy Consum & Parts	$/t mat'l	$0.89	0.57	0.89	0.84	0.84	0.88	0.88	0.86	0.86	0.88	0.91	0.94	1.10
Fuel	$/t mat'l	$0.41	0.16	0.44	0.40	0.40	0.41	0.40	0.39	0.39	0.40	0.41	0.42	0.50
Electric Power	$/t mat'l	$0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Leases & Outside Services	$/t mat'l	$0.05	0.08	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.07
Allowance	$/t mat'l	$0.10	0.06	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.10	0.10	0.10	0.12
Total Operating Cost	**$/t mat'l**	$2.09	1.19	2.22	2.02	2.03	2.10	2.03	1.98	1.98	2.02	2.08	2.15	2.58
Total Operating Cost	**$/t feed**	$4.97		5.14	4.56	4.57	4.73	5.06	5.11	5.11	5.20	5.26	5.24	4.98

21.4.2 Processing

The process plant operating costs are summarized in Table 21-14. Manpower is estimated at 28 people, including 11 technical and supervisory, 9 operators and 8 maintenance workers.

For the purposes of the economic modelling, the processing cost has been estimated at $13.83 per lb U_3O_8 in product or $8.52 per tonne of mill feed, without contingency.

Table 21-14: Ivana Process Plant Operating Costs

	Annual Cost ($k)	$/lb U_3O_8 in product	$/t mill feed
Fixed Costs	$4,782.8	$3.58	$2.20
Fuel	$115.3	$0.09	$0.05
Alkaline Leach	$9,118.9	$6.83	$4.21
Membrane Plant	$707.4	$0.54	$0.33
U/V Separation	$687.8	$0.51	$0.31
U/V Precipitation, Calcining, Packaging	$1,103.0	$0.83	$0.51
Waste and Tailings	$1,959.8	$1.47	$0.90
TOTAL	$18,474.93	$13.83	$8.52

21.4.3 General and Administrative (G&A)

The administration cost has been estimated to a PEA level and includes costs for management, accounting, training, health & safety, and environmental.

The administration manpower list is shown in Table 21-15 and peaks at 58 staff. The corresponding annual G&A cost is $4.09 million per year, as shown in Table 21-16.

Table 21-15: Administration Manpower List

	-1	1	2	3	4	5	6	7	8	9	10	11
General Manager	1	1	1	1	1	1	1	1	1	1	1	1
Manager – Finance	1	1	1	1	1	1	1	1	1	1	1	1
Manager – HSE	1	1	1	1	1	1	1	1	1	1	1	1
Superintendent – Account	1	1	1	1	1	1	1	1	1	1	1	1
Payroll Clerks	2	2	2	2	2	2	2	2	2	2	2	2
Accounts Payable Clerks	2	2	2	2	2	2	2	2	2	2	2	2
Accounts Rec Clerks	1	1	1	1	1	1	1	1	1	1	1	1
IT Clerks	2	2	2	2	2	2	2	2	2	2	2	2
Purchasers	2	2	2	2	2	2	2	2	2	2	2	2
Safety Inspectors	2	2	2	2	2	2	2	2	2	2	2	2
Trainers	1	1	1	1	1	1	1	1	1	1	1	1
Environmental Tech's	2	2	2	2	2	2	2	2	2	2	2	2
Community Liaison	1	1	1	1	1	1	1	1	1	1	1	1
Security	16	16	16	16	16	16	16	16	16	16	16	16
Warehousemen	8	8	8	8	8	8	8	8	8	8	8	8
Shipping & receiving	1	1	1	1	1	1	1	1	1	1	1	1
Site Laborers, Janitorial	5	5	5	5	5	5	5	5	5	5	5	5
Lab Supervisor	1	1	1	1	1	1	1	1	1	1	1	1
Lab Technicians	4	4	4	4	4	4	4	4	4	4	4	4
Total Admin Personnel	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**

Table 21-16: Annual G&A Cost Summary

G&A Breakdown by Activity		
	Annual ($k)	**$/t plant feed**
Management Salaries	$455.4	$0.21
Administration	$1,482.2	$0.69
HSE and Gov't Relations	$612.8	$0.29
Camp, Travel, Transport	$480.1	$0.23
Site Services	$864.9	$0.41
Port and Off Site		
Head Office		
Allowance	$194.8	$0.09
Total G&A Cost	$4,090.2	$1.92

22 Economic Analysis

The potential economics of the Project was evaluated using a discounted cashflow analysis based on life of mine revenue and cost estimates. The cashflow analysis relies on the capital and operating costs described in Section 21.

Revenue assumptions are described in Section 22.1.1.

The financial evaluation uses a discount rate of 8% as a base case and was discounted back to the commencement of construction in Year -2.

The reader is cautioned that the PEA is preliminary in nature and is includes revenue from Inferred Mineral Resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability and there is no certainty that the PEA outcomes will be realized.

22.1 Summary

The economic analysis results are summarized in Table 22-1 and indicate an after-tax net present value (“NPV”) of $227.7 million at an 8% discount rate, an after-tax internal rate of return (“IRR”) of 38.9% and a 1.9-year payback period.

Table 22-1: Financial Results Summary

	Before Tax ($M)	After Tax ($M)
NPV0%	$637.22	$405.15
NPV5%	$453.12	$282.37
NPV8%	$371.76	$227.71
NPV10%	$326.42	$197.12
IRR	50.4%	38.9%
Payback (years)	n/a	1.9

The economics are based on long term metal prices of $75.00/lb U_3O_8 and $7.50/lb V_2O_5. The revenue is mainly derived from uranium with a vanadium by-product. The uranium generates 97% of the total revenue. Figure 22-1 provides a graph of the cumulative NPV8% over the life of the project.

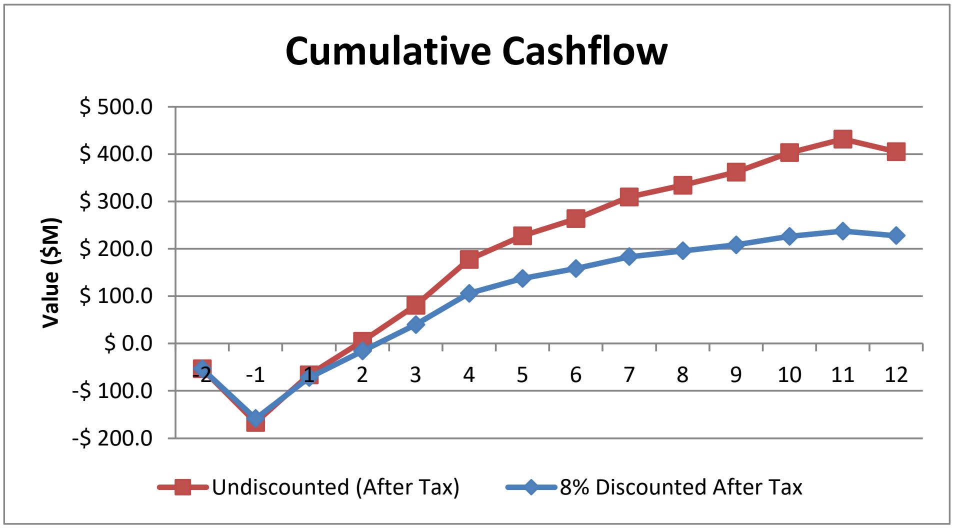

Figure 22-1: Cashflow Profile (NPV8%)

22.1.1 Metal Prices and Revenue Assumptions

The Project's base case commodity input assumptions are summarized in Table 22-2.

The uranium and vanadium pricing basis is described in more detail in Section 19. Although Blue Sky Uranium has not completed any market studies to date, a review was made of commodity pricing being used by industry peers and industry analysts as well as public disclosures of sales and contract prices and a historical average pricing. Market analysts are forecasting high long-term prices due to the new reactor construction and uranium demand growth.

The annual revenue profile is shown in Figure 22-2. For the first 5 full operating years, revenues average $146 million per year, of which 97% is derived from uranium sales.

Table 22-2: Commodity Price Assumptions

Uranium (U_3O_8)	75.00	$/lb
Vanadium (V_2O_5)	7.50	$/lb

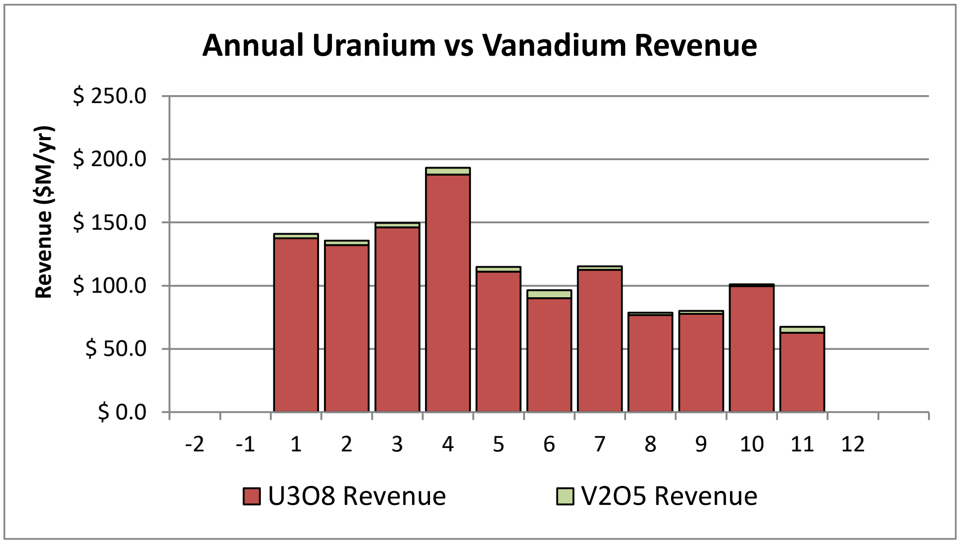

Figure 22-2: Annual Revenue

22.1.2 Metallurgical Recoveries

The Ivana operation's process recovery assumptions for both processing stages are summarized in Table 22-3.

Table 22-3: Recovery Assumptions

	LFCPP Recovery	Leaching Recovery	Net Recovery
Uranium (U_3O_8)	89.0%	95.0%	84.6%
Vanadium (V_2O_5)	89.0%	59.0%	52.5%

22.1.3 Capital Costs

Total life-of-mine capital costs are estimated at $187.0 million as outlined in the Capital and Operating Cost Section 21. Most of the initial capital costs are incurred over a two-year construction period. Initial development cost is estimated to be $159.7 million, while life-of-mine sustaining costs are approximately $27.3 million.

22.1.4 Operating Costs

The project annual operating costs are consistent from year to year since mining and processing tonnages are relatively consistent. Figure 22-3 presents the annual operating cost breakdown. Approximately 55% of the annual operating cost consists of processing charges while mining comprises 32% of the total operating cost.

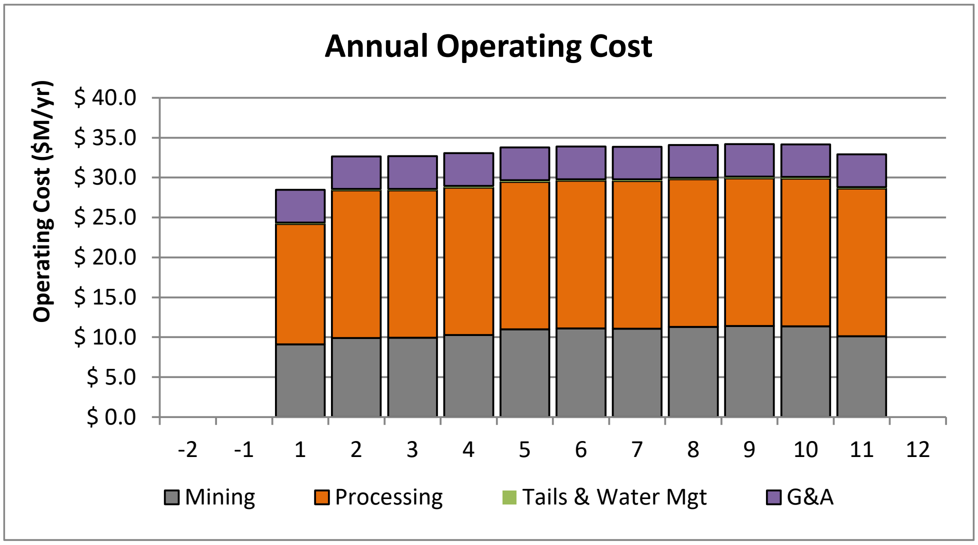

Figure 22-3: Annual Operating Costs

22.1.5 Income Taxes, Royalties, Export Duties

Mining operations in Argentina are subject to several tiers of taxes. The following is a summary of the significant taxes applicable to the Ivana Project.

22.1.5.1 Federal taxes

Income tax is levied on net taxable income from Argentine or from foreign sources obtained by Argentine residents. Corporations pay 35% on their net taxable income at the end of the tax year.

22.1.5.2 Value added tax ("VAT")

This tax is levied on the sales price of movables in Argentina, on contracts for the performance of works and services in general, and on imports of movables. VAT is generally a refundable tax and hence it has not been included in the economic analysis.

22.1.5.3 Export Duties

The export duties applicable may change over time as dictated by current governments. For the purposes of this PEA, a 4.5% export duty was applied to 50% of the value of uranium produced. It is assumed that 50% of the production would be exported and 50% would remain in-country.

22.1.6 Royalty

A royalty of 3% has been assumed in the cashflow model.

Deductible costs for calculating the royalty do not include mining costs but will include:

a) Transportation, freight and insurance costs until delivery of the finished product.

b) Costs of crushing, milling, processing and any other treatment process enabling the sale of the final product obtained from the mine working.

c) Sales costs incurred until the final product is sold.

d) Administrative costs until delivery of the final product, less extraction costs.

22.2 Cash Flow Summary

The estimated annual life of mine ("LOM") cash flow for the Amarillo Grande Project is summarized in Table 22-4. The table provides life of mine revenue, operating cost, capital costs, and taxes.

A closure and reclamation allowance of $26.8 million is included in the cashflow model after the final year of commercial operation.

Table 22-4: Project Cash Flow Summary

		LOM
REVENUE		
Uranium	US$(M)	1,234.4
Vanadium	US$(M)	38.9
Total Revenue	US$(M)	1,273.3
OPERATING COST		
Mining Cost, incl stockpile & rejects	US$(M)	116.6
Processing Cost	US$(M)	199.9
Tailings and Water Management	US$(M)	2.2
G&A	US$(M)	45.0
Total Operating Cost	**US$(M)**	363.7
CAPITAL COST		
Mine	US$(M)	30.1
Process Plant	US$(M)	97.5
Waste & Water Management	US$(M)	13.7
Other Infrastructure	US$(M)	4.9
Contingency	US$(M)	40.8
Total Capital Cost	**US$(M)**	187.0
CASH FLOW		
Revenue	US$(M)	1,273.3
(-) Operating Cost	US$(M)	(363.7)
(-) Working Capital	US$(M)	0.0
(-) Royalties	US$(M)	(30.8)
(-) Export Duties	US$(M)	(27.8)
(-) Income Taxes	US$(M)	(232.1)
(-) Capital Spending	US$(M)	(187.0)
(-) Closure & Reclamation	US$(M)	(26.8)
Total Cashflow (Undiscounted)	**US$(M)**	405.1

22.3 Economic Sensitivities

The Ivana operation sensitivity analysis was conducted to the following key variables:

- Uranium and Vanadium Prices
- Capital and Operating costs

The results of the sensitivity analysis for the key variables on the After-Tax NPV8% are shown in Figures 22-4 and 22-5. As expected, the most sensitive variable is the commodity pricing. These sensitivities are indicative only, and do not include the impact of price and cost fluctuations on the cut-off grade and mineable feed tonnes.

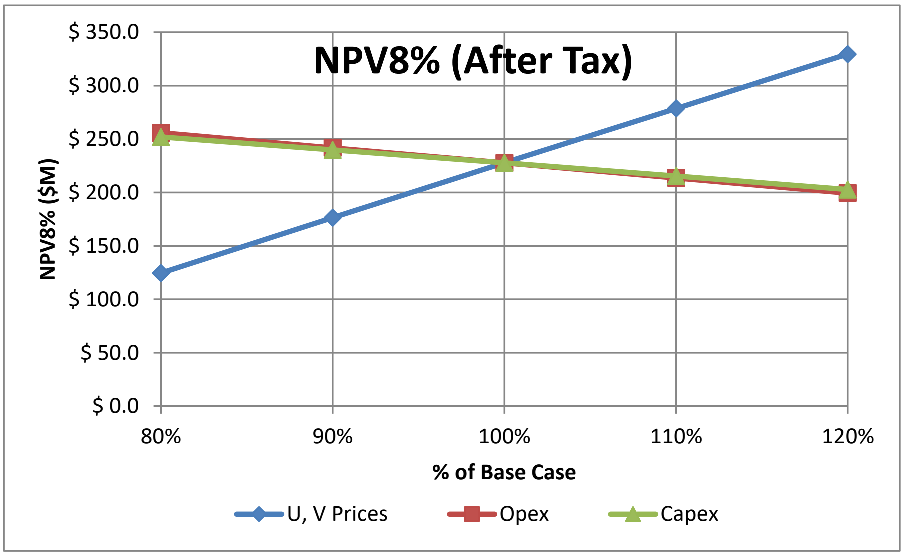

Figure 22-4: NPV8% Sensitivity

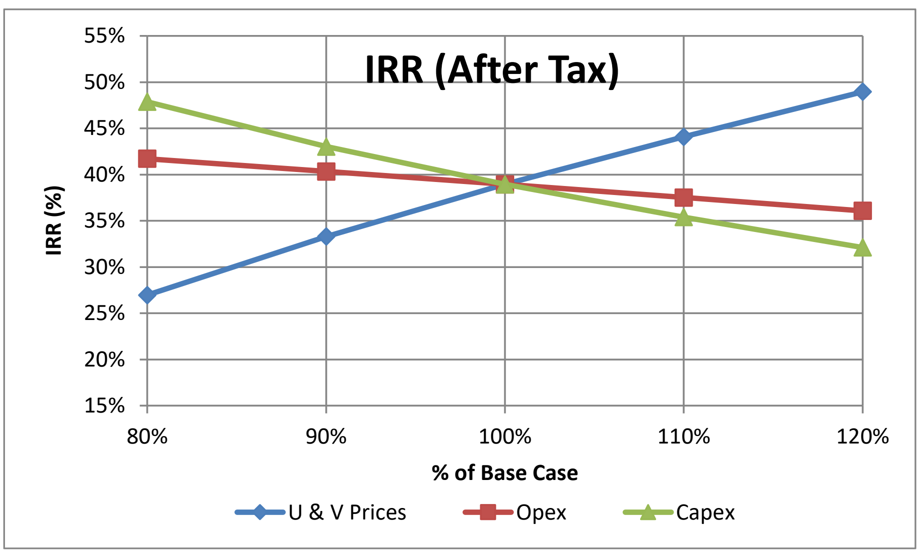

Figure 22-5: IRR Sensitivity

Table 22-5 is a summary of the economics at the 0% and 8% discount rate over a range uranium prices.

Table 22-5: Summary of Economics and Sensitivities

	Units	Uranium Price Sensitivity								
Price - U_3O_8	$/lb	$35.00	$45.00	$55.00	$65.00	**$75.00**	$85.00	$95.00	$105.00	$115.00
Price - V_2O_5	$/lb	$7.50	$7.50	$7.50	$7.50	**$7.50**	$7.50	$7.50	$7.50	$7.50
Pre-Tax										
NPV (0%)	$M	$13.4	$169.4	$325.3	$481.3	**$637.2**	$793.2	$949.1	$1,105.1	$1,261.0
NPV (8%)	$M	-$24.2	$74.8	$173.8	$272.8	**$371.8**	$470.7	$569.7	$668.7	$767.7
IRR	%	2.5%	19.7%	31.5%	41.4%	**50.4%**	58.8%	66.7%	74.2%	81.4%
After-Tax										
NPV (0%)	$M	-$5.2	$104.0	$204.4	$304.9	**$405.1**	$505.2	$605.3	$705.4	$805.4
NPV (8%)	$M	-$36.4	$34.1	$98.9	$163.6	**$227.7**	$291.2	$354.7	$418.3	$481.8
IRR	%	-1.1%	14.1%	23.6%	31.7%	**38.9%**	45.3%	51.3%	57.0%	62.4%
Payback	years	7.5	3.5	2.8	2.3	**1.9**	1.7	1.5	1.3	1.2

22.4 Uranium Production Cost

The uranium production cost is summarized in Table 22-6. The table presents that basic uranium production cost per lb of U_3O_8, and the production cost net of vanadium by-product credits and all-in sustaining costs.

Production volumes by year are shown in Figures 22-6 and 22-7. Uranium production peaks over years 1 to 6 as higher-grade plant feeds are processed during that period. Vanadium credits will fluctuate over the life of the project since mill feed blending is optimizing uranium head grades and different areas within the mine will have different U:V ratios. Uranium production averages 1.5 Mlb U_3O_8 per year and totals 16.5Mlb U_3O_8 over the life of mine. Vanadium production averages 0.5 Mlb V_2O_5 per year and totals 5.2 Mlb V_2O_5 over the life of mine.

Table 22-6: Uranium Production Cost

Production (U_3O_8)	M-lbs U_3O_8	16.46
Operating Cost+Royalty+Duty	USD (000)	$422,286
==> Cost per lb U3O8	$/lb	$25.66
(-) Credit for V_2O_5 revenue	USD (000)	$38,936.2
(=) Operating Cost+Royalty+Duty - Credit	USD (000)	$383,350
==> Cost per lb U_3O_8 (with V credit)	$/lb	$23.29
(+) Sustaining Costs	USD (000)	$27,290
(=) Operating Cost+Royalty+Duty-Credit+SC	USD (000)	$410,640
==> Cost per lb U_3O_8 (AISC with credit)	$/lb	$24.95

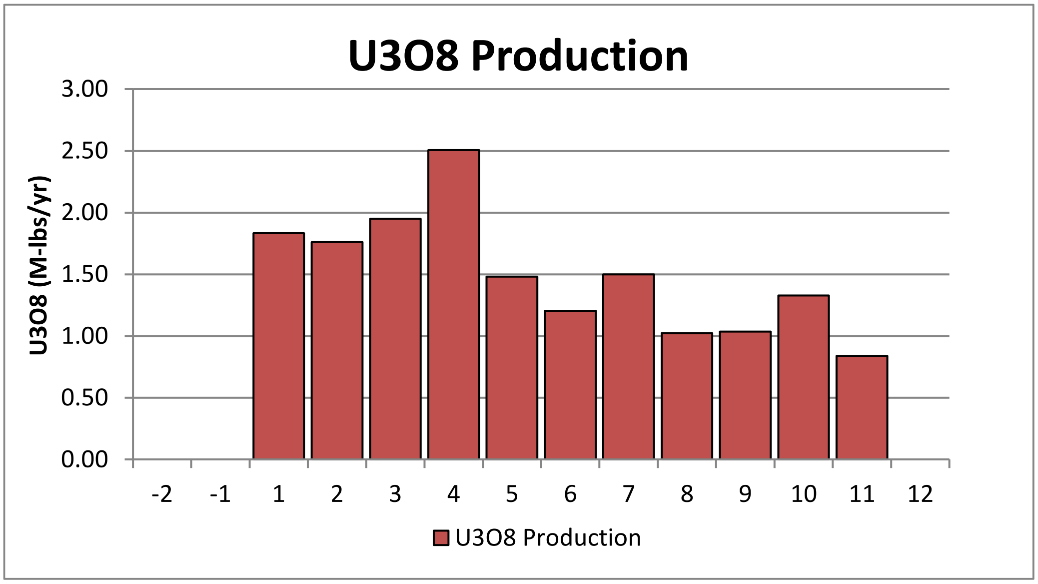

Figure 22-6: U_3O_8 Production by Year

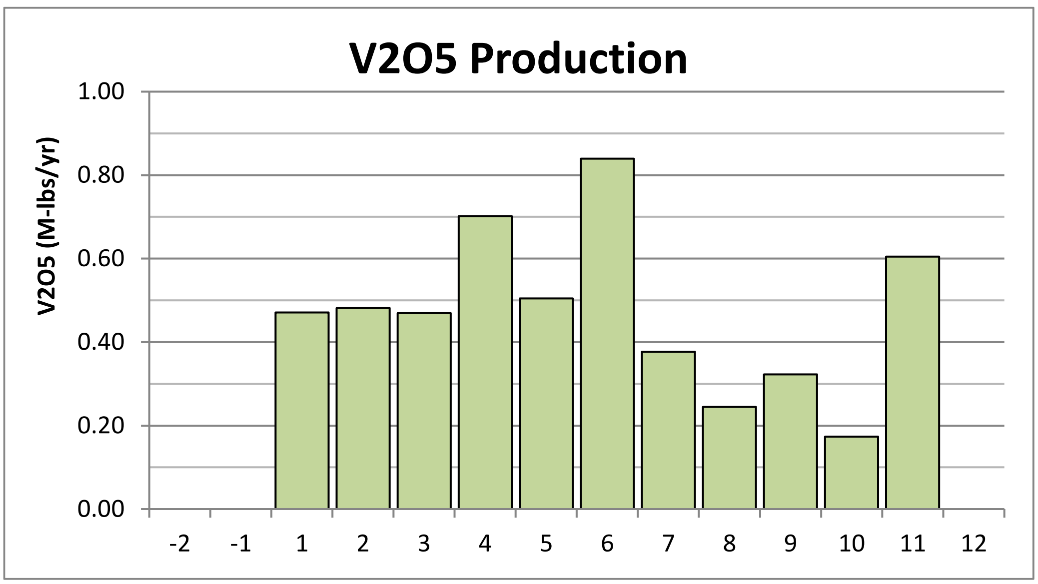

Figure 22-7: V_20_5 Production by Year

23 Adjacent Properties

Adjacent to the Ivana prospect are five mineral properties that are not controlled by Blue Sky, (Table 23-1; Figure 23-1) although none of these adjacent properties are claimed for uranium or vanadium minerals.

Table 23-1: Adjacent Properties to Ivana Resource Properties

FILE #	MINERAL CATEGORY	NAME	OWNER	TYPE	AREA (hectares)
23.102-98	2nd (halite)	Homenaje	Alcalis de la Patagonia SA	Discovery Manifestation	1,600
45.310-2020	1st (polymetallic)	Lucho 2	Claudio Lucero	Discovery Manifestation	2,995
45.335-2020	1st (polymetallic)	Galadriel 7	Trendix Mining	Discovery Manifestation	2500
29.157-04	1st (polymetallic)	Milla 6	Trendix Mining	Discovery Manifestation	2,500
46.222-21	1st (polymetallic)	San Martín Norte 2	Trendix Mining	Discovery Manifestation	3,250

The Qualified Person has been unable to verify the accuracy of the information in Table 23-1. The information shown is not indicative of the mineralization on the Ivana property that is the subject of this technical report.

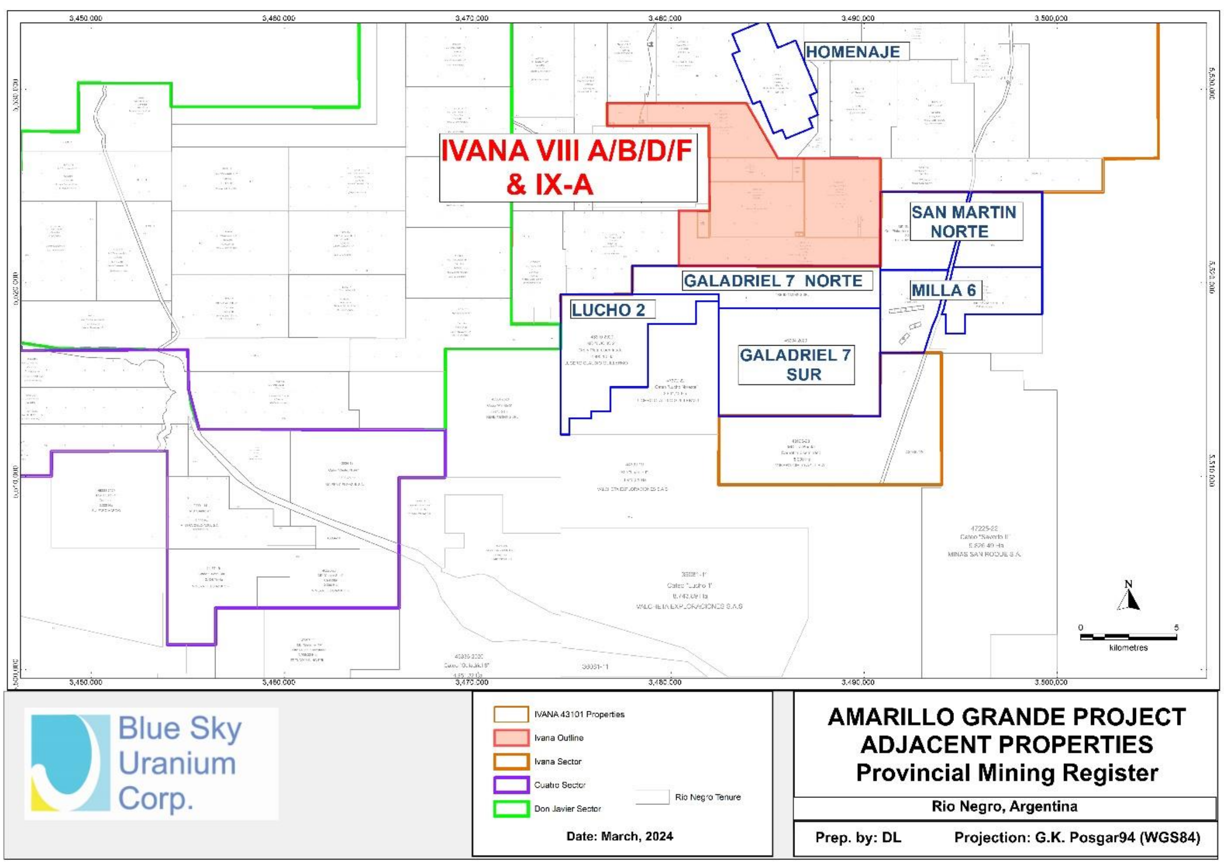

Figure 23-1: Adjacent properties near the Ivana prospect.

24 Other Relevant Data and Information

There are no other relevant data and information, of which the Qualified Persons are aware, that have not been presented in other sections of this report.

25 Interpretations and Conclusions

All exploration, metallurgy, Mineral Resource estimates, and the Preliminary Economic Assessment have been completed to be compliant with Canadian National Instrument 43-101 as set forth in CIM Standards on Resources and Reserves, Definitions and Guidelines.

This updated PEA was initiated to provide a current view of the potential economics of the Operation, based on a new Mineral Resource estimate in which approximately 80% of the resources are now in the Indicated Category, and incorporating updated costs and market information. This study provides management with additional guidance for the future exploration and development processes to move the project to a Pre-Feasibility Study stage.

The reader is cautioned that the PEA is preliminary in nature and is intended to provide an initial assessment of the project's economic potential and development options. The PEA mine schedule and economic assessment includes numerous assumptions and is based on both Indicated and Inferred Mineral Resources. Inferred resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA results will be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. Additional exploration will be required to potentially upgrade the classification of the Inferred Mineral Resources to be considered in future advanced studies.

The authors of the Technical Report conclude that:

- Based on the current level of exploration, the Ivana deposit contains Indicated Mineral Resources of 19.7 Mt at a grade of 333 ppm U (0.039 % U_3O_8) with 105 ppm V (0.019% V_2O_5) and Inferred Mineral Resources of 5.6 Mt at a grade of 262 ppm U (0.031 % U_3O_8) with 109 ppm V (0.019% V_2O_5).
- The Ivana deposit demonstrates attributes well suited for a potential minimum 11-year mining operation processing over 2 million tonnes per year of plant feed. The project is comprised of near-surface mineralization, favorable uranium grades, access to infrastructure, and amenability to simple processing via pre-concentration and leaching.
- The surface mine will have a depth in the range of 20 to 30 metres with a strip ratio of 1.5:1. The sand and gravel will be free digging, negating the need for explosives at site.
- Concurrent backfilling of the mine with mine waste, Leach Feed Concentration Preparation Plant Reject, and tailings will enhance progressive reclamation. This will also result in short haulage distances for mined waste.
- The processing method takes advantage of pre-concentration using a simple scrubbing step to remove 77% of the waste. The remaining 23% of the upgraded material will undergo a leaching process to recover both uranium and vanadium.
- The project demonstrates positive economics at a range of uranium prices, based on the current technical assumptions. The economics are highly leveraged to the price of uranium, more than to the price of vanadium.
- Vanadium recovery provides a by-product credit and approximately 3% of the project revenue stream, based on current commodity prices.
- Based on results of exploration work carried out over parts of the Amarillo Grande Project outside of the Ivana Deposit since 2006, the potential for discovery of additional uranium-vanadium deposits elsewhere on the Project lands is considered high.

- Nuclear power generation is expanding in Argentina and hence a local supply source of uranium will be a benefit to the country.

26 Recommendations

The Preliminary Economic Assessment of the Amarillo Grande project indicates it has potential to support a viable mining operation at the Ivana deposit. Additional activities are envisioned to further de-risk the Ivana deposit, in support of a Pre-Feasibility Study at the Amarillo Grande Project, as described in 26.1 below.

Furthermore, there is potential for additional lower-grade Mineral Resources at the Project, and, if additional Mineral Resources are discovered, a future mining operation scale could be somewhat different than that portrayed in this report. Additional drilling is required to better understand the extent of mineralization around the deposit, and throughout the Project area, so that any future operational design takes full advantage of available resources and is of an appropriate size and configuration.

26.1 Pre-Feasibility Program Recommendations

26.1.1 Resource Expansion and Upgrading

- Additional drilling at the Ivana deposit to demonstrate short-range continuity of mineralization and ensure that the drill spacing is adequate to upgrade the Mineral Resource from the Inferred and Indicated to Indicated and Measured categories. It is estimated that an infill RC drilling program of approximately 3,000m in 180 holes will be required in order to further upgrade resources within the pit shell zone.
- More extensive bulk density testing in support of upgrading Mineral Resources to the Indicated and Measured categories. Ideally, there would be enough bulk density measurements to interpolate density into the block model.
- Additional drilling to potentially expand mine feed, particularly to the west, where low-uranium, rich-vanadium resources maybe be further delineated, for mine-life extension during a high-price scenario.

26.1.2 Mining

- Undertake a comprehensive LIDAR topographic survey across the project footprint area.
- Undertake geotechnical investigations to better understand the mining conditions in the mine, including optimal mine wall slope angles, digging conditions, and equipment trafficability above and below the water table.
- Undertake hydrogeological investigations to better understand the groundwater regime, including water table depth across the mine area, baseline water quality inflow rates when mining below the water table.
- Complete geotechnical foundation investigations at the waste dumps and stockpile locations to support future detailed designs.
- Complete geotechnical foundation investigations at the proposed plant site to support future engineering designs.

26.1.3 Process & Metallurgical

- Confirmation of previous test results (particle size distribution, leach feed concentrate preparation, leaching) for samples from new deposits to be dealt with for the first time in the process plant design. Such new deposits would also require QEMSCAN work.

- Confirmation of previous test results using the local ground water, which is a brine, in place of the demineralized water used in metallurgical tests to date.
- Solid/liquid separation tests (either settling or filtration, as dictated by the process and the in-process material properties).
- Membrane filtration tests.
- Uranium-vanadium separation process optimization.
- U-product and V-product precipitation optimization.
- Locked cycle test of the entire process, to be run until equilibrium is reached.
- Conduct hydrogeological investigations to investigate groundwater supply options for make-up water.
- Complete geotechnical investigations at the Process Plant Site to support future design work.

26.1.4 Waste and Water Management

- Complete geotechnical and hydrogeological site investigation programs at the Starter TMF, Mine, and Process Plant to support a Pre-Feasibility level design and to comply with regulatory requirements.
- Complete testing on embankment construction materials to confirm material parameters.
- Complete testing on LFCPP Reject and tailings materials to confirm suitability for the proposed management strategy, and to estimate material parameters for stability modelling and confirm design assumptions (dry density, specific gravity, etc.).
- Optimize design of Starter TMF embankments and mine area separation berms (materials, zonation modelling, crest width, embankment slopes, etc.).
- Complete seepage and stability analyses for Starter TMF and backfilled mine areas to confirm designs comply with regulatory requirements for static and seismic stability.
- Evaluate hydrometeorology for the area to define return period precipitation events, etc.
- Develop a monthly water balance and evaluate climate variability conditions.
- Complete dam classification for the Starter TMF embankments and mine area separation berms to provide guidance on the selection of appropriate seismic design criteria and inflow design flood (IDF).
- Complete a seismicity assessment to define seismic hazard design parameters for the operation.
- Develop a full closure plan for the waste and water management facilities based on the final design configuration.
- Investigate groundwater supply options for make-up water.

26.1.5 Environment Design Inputs and Permitting

- Continue geochemical characterization of LFCPP reject and tailings waste streams with respect to site location and final closure requirements.
- Evaluate the hydrometeorology of the project area to define climatic contributions to the water balance, rainfall return periods, etc.

- Continue environmental and social studies, calibrated to support an eventual EIA and permitting, including air quality, water quality, soil studies, paleontological studies, and supporting biological investigations.
- Costs for this work would include field programs, equipment installation, monitoring, laboratory analysis, community outreach, interpretation, and reporting.

26.1.6 Marketing and Economics

- Undertake marketing studies and initiate discussions with Argentine consumers of uranium and vanadium. Operation economics and incurred taxes may be improved by domestic off-take agreements.

26.2 Exploration Recommendations

- Exploration to identify additional deposits should continue, including geologic mapping and interpretation, geophysical studies and drilling at existing targets proximal to Ivana, as well as in the nearby southern sector of the Project, and progressively further out, on a target priority basis, elsewhere within the 145 km trend of the Amarillo Grande land package.

26.3 Budget

Table 26-1 summarizes the recommended work programs and their estimated budgets.

Table 26-1: Budget for Recommended Programs

Pre-Feasibility Program	Budget
LIDAR topographic survey	$100,000
Bulk density & foundation testing	$150,000
3,000 m RC Drilling at Ivana deposit	$2,000,000
New Resource Estimate	$50,000
Mining Engineering Assessments	$300,000
Processing & Metallurgical Tests	$300,000
Tailings and Water Management Assessment	$500,000
Environment Design Inputs and Permitting	$600,000
Marketing Studies	$50,000
Preparation, delineation, and supervision PFS report	$1,000,000
Contingencies	$500,000
Total	**$5,550,000**
Exploration Program	**Budget**
5,000m RC drilling & geophysics at targets close to Ivana deposit	**$4,000,000**

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CERTIFICATES OF QUALIFIED PERSON (Also in Lieu of Date & Signature Page)

CERTIFICATE OF QUALIFIED PERSON

KEN KUCHLING, P.ENG.

I, Ken Kuchling, P. Eng., residing at 33 University Ave., Toronto, Ontario, M5J 2S7, do hereby certify that:

1. I am a senior mining consultant with KJ Kuchling Consulting Ltd. located at -33 University Ave, Toronto, Ontario Canada.
2. This certificate applies to the Technical Report titled “Preliminary Economic Assessment Update for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project”, with an effective date of December 31, 2023 (the “Technical Report”).
3. I graduated with a Bachelor degree in Mining Engineering in 1980 from McGill University and a M. Eng degree in Mining Engineering from UBC in 1984. I have worked as a mining engineer for over 40 years. My relevant work experience for the purpose of the Technical Report is over 20 years as an independent mining consultant in commodities such as gold, copper, lead, zinc, potash, diamonds, molybdenum, tungsten, uranium, and bauxite. I have mining equipment experience working in unconsolidated deposits, relevant to the Ivana uranium-vanadium deposit. My experience also includes the development of mining cashflow models and economic modeling. I have practiced my profession continuously since 1980:

   - Independent Mining Consultant, KJ Kuchling Consulting Ltd. 2000 – Present
   - Senior Mining Engineer, Diavik Diamond Mines Inc., 1997 – 2000
   - Independent Mining Consultant, KJ Kuchling Consulting Ltd., 1995 – 1997
   - Senior Geotechnical Engineer, Terracon Geotechnique Ltd., 1989 - 1995
   - Chief Mine Engineer, Mosaic, Esterhazy K1 Operation. 1985 – 1989
   - Mining Engineering, Syncrude Canada Ltd. 1980 – 1983

   I am a member of the Professional Engineers of Ontario.

   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.

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for Sections 2, 3, 4, 15, 16, 19, 22, 23, 24, 25 and 27 of the Technical Report. I co-authored Sections 1, 21, 26 of the Technical Report and take responsibility for those Sections except where specifically noted by the other Qualified Persons.
6. I am independent of the issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Project with the previous PEA completed in 2019.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed Date: April 2nd, 2024

{SIGNED AND SEALED}
[Ken Kuchling]

____

Ken Kuchling, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Bruce Davis, Ph.D., FAusIMM, do hereby certify that:

1. I am an Independent Consultant of:

   2921 Brodick Way
   Grand Junction, Colorado, USA 81504

2. This certificate applies to the NI 43-101 Technical Report, "Preliminary Economic Assessment Update for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project", with an effective date of December 31, 2023 (the "Technical Report")
3. I graduated from the University of Wyoming with a Doctor of Philosophy degree (Geostatistics) in 1978.
4. I am a Fellow of the Australasian Institute of Mining and Metallurgy, Registration Number 211185.
5. I have practiced my profession continuously for 40 years and have been involved in geostatistical studies, QA/QC studies, mineral resource and reserve estimations and feasibility studies on numerous underground, open pit and in situ leach deposits in Canada, the United States, Mexico, Central and South America, and Africa. I have estimated uranium resources in Arizona, Colorado, New Mexico, South Dakota, Texas, Utah and Wyoming in the USA and the Northwest Territories of Canada, as well as Argentina. I have reviewed and provided opinions on uranium resource models from North America, Africa, and Australia.
6. 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.
7. I have had prior involvement with the property that is the subject of this report. I acted as a Qualified Person for and co-authored two previous technical reports for the property: *"Initial Mineral Resource Estimate for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project, Rio Negro Province, Argentina"* Dated April 18, 2018, and "*Preliminary Economic Assessment for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project. Rio Negro Province, Argentina"* dated June 28, 2019.
8. I am a co-author of the Technical Report. I am responsible for Sections 5-12 and the summary of this work in Section 1.3.
9. I visited the Project that is the subject of this Technical Report on October 10 to 12, 2023.
10. I am independent of Blue Sky Uranium Corporation, applying all of the tests in section 1.5 of National Instrument 43-101.
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 2nd day of April, 2024

(original signed by Bruce M. Davis)

____

Bruce M. Davis, Ph.D., FAusIMM

CERTIFICATE OF QUALIFIED PERSON

LIONS GATE GEOLOGICAL CONSULTING INC.

Susan Lomas, P.Geo.
7629 Sechelt Inlet Rd.
Sechelt, British Columbia V0N 3A4

I, Susan Lomas, P.Geo., am the President of Lions Gate Geological Consulting Inc. (LGGC).

This certificate applies to the technical report titled "Preliminary Economic Assessment Update for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project", with an effective date of December 31, 2023 (the "Technical Report").

I am a Professional Geoscientist registered with Engineers and Geoscientists British Columbia (EGBC) and Professional Geoscientists Ontario (PGO). In 1987, I graduated from Concordia University of Montreal with a Bachelor of Science degree in geology.

I have practiced my profession continuously since 1987 and have been involved in: mineral exploration for gold, nickel, copper, zinc, lead and silver in Canada, United States, Mexico, Venezuela and Ghana and in underground mine geology, ore control and resource modelling and estimation for gold, nickel, copper, zinc, lead, silver, potash, uranium and industrial mineral properties in Canada, United States, Mongolia, Mexico, Brazil, Peru, Thailand, China, Greece, Romania, Ecuador, Venezuela, Senegal, New Caledonia, Russia and Argentina.

As a result of my experience with mineral resource modelling and estimation and my qualifications, I meet the requirements of a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101) for the Ivana uranium-vanadium deposit/Amarillo Grande project.

I have not visited the Amarillo Grande Project.

I am responsible for Section 14 of the Technical Report and the summary of this work in Section 1.4.

I am independent of Blue Sky Uranium Corporation as independence is defined by Section 1.5 of NI 43–101.

I have had prior involvement with the property that is the subject of this Technical Report: I acted as a Qualified Person for and co-authored a previous technical report for the Ivana property titled *"Initial Mineral Resource Estimate for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project, Rio Negro Province, Argentina: NI43-101 Technical Report for Blue Sky Uranium Corp., Effective Date February 28, 2018"*.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those section of the technical report not misleading.

(Signed and sealed) "Susan Lomas"

Susan Lomas, P.Geo.
Dated: 2 April, 2024

CERTIFICATE OF QUALIFIED PERSON

I, Charles R. Edwards, P.Eng., do hereby certify that:

1. I am Owner and Principal Engineer, of Chuck Edwards Extractive Metallurgy Consulting, a firm with a business address of 136 – 320 Heritage Crescent, Saskatoon, Saskatchewan, S7H 5P4.
2. I am an author of a technical report entitled "Preliminary Economic Assessment Update for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project", with an effective date of December 31, 2023 (the "**Technical Report**").
3. I graduated from Queen's University with a B. Sc. (Engineering Chemistry) in 1965 and an M.Sc. (Chemical Engineering) in 1969.
4. From 1974 to present I have been actively employed as an engineer in the area of extractive metallurgy. My uranium processing experience consists of employment as Research Engineer with Eldorado Nuclear Limited, Ottawa from 1978-1980, as Chief Metallurgist at Eldor Mines' Rabbit Lake mill from 1986-1987, as Senior Metallurgical/Process Engineer with Kilborn Western Limited from 1987-1992, as Regional Director, Mineral Development Agreements, with Energy, Mines and Resources Canada from 1992-1994, as Senior Metallurgist (1994-1996), Chief Metallurgist (1996-2000), Manager, Process Engineering (2000-2002), Director, Engineering & Projects (2002-2007) and Principal Metallurgist (2007-2008) in Cameco's corporate office, as Director, Metallurgy with Amec Foster Wheeler from 2008 to 2017, as process Engineering Advisor with Saskatchewan Research Council from 2017 to 2018, and as Principal Engineer with Chuck Edwards Extractive Metallurgy Consulting from 2018 to present.
5. I am a member, in good standing, of APEGS in the Province of Saskatchewan, member #05915.
6. I visited The Amarillo Grande Project properties during 20 to 22 April 2018, and specifically I visited the Ivana Property on 22 April 2018.
7. I am responsible for sections 13 and 17, 1.6, 21.2, 21.4.2, and 26.1.3 of the Technical Report.
8. I have read the definition of "qualified person" set out in *National Instrument 43–101 Standards of Disclosure for Mineral Projects* ("**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 am a "qualified person" within the meaning of NI 43-101**.**
9. As an independent consulting metallurgist and process engineer. I have had prior involvement with the Ivana Property that is the subject of the Technical Report since 2018. As an independent technical advisor to Blue Sky Uranium, the nature of my prior involvement with the Ivana Property included guidance and interpretation of metallurgical test programs for the Ivana Property since 2018. I also authored two reports on the metallurgical test program results in 2018 and one in 2019.
10. As of the date of this certificate, to the best of my knowledge, information and belief, the parts of the Technical Report that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I have read NI 43-101 and the sections of the Technical Report that I am responsible for, have been prepared in compliance with that Instrument.
12. I am independent of the issuer, Blue Sky Uranium Corp., applying all of the tests in Section 1.5 of NI 43-101.

Dated this 2nd day of April, 2024, in Saskatoon, Saskatchewan.

"original signed by"

Charles R. Edwards
Principal Engineer
Chuck Edwards Extractive Metallurgy Consulting

CERTIFICATE OF QUALIFIED PERSON

I, Ken Embree, P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment Update for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project", with an effective date of December 31, 2023 (the "Technical Report") prepared for Blue Sky Uranium Corp.
2. I am employed as President of Knight Piésold Ltd. with an office at Suite 1400 - 750 West Pender Street, Vancouver, British Columbia, V6C 2T8, Canada.
3. I am a graduate of the University of Saskatchewan with a B.Sc. in Geological Engineering (1986). I have practiced my profession continuously since 1986. My experience includes tailings and waste and water management for mine developments in Canada, the US and South America.
4. I am a Professional Engineer in good standing with Engineers and Geoscientists of British Columbia (EGBC) in the area of geological engineering (No. 17439).
5. 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.
6. I have not visited the project site.
7. I am responsible for Sections 1.7, 18, 20, 21.3, 26.1.4 and 26.1.5 of this Technical Report.
8. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101.
9. I have previous involvement with the property that is the subject of this report. I acted as a Qualified Person for and co-authored a previous technical report for the property: *"Preliminary Economic Assessment for the Ivana Uranium-Vanadium Deposit, Amarillo Grande Project. Rio Negro Province, Argentina"* dated June 28, 2019.
10. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Signing Date: April 2, 2024

"original signed by"

Ken Embree, P.Eng.