

# **Media Release**

Silver Spruce Contracts ASTER and LANDSAT Spectral Analysis on El Mezquite, Jackie and Diamante Au-Ag Concessions, Sonora, Mexico

June 30, 2021 - Bedford, NS - (TSXV:SSE) - Silver Spruce Resources, Inc. ("Silver Spruce" or the "Company") is pleased to announce the signing of a contract with Strategic Consultants IGIS, ("SCIGIS") based in Chihuahua, Mexico to conduct a comprehensive interpretation of regional ASTER (Advanced Spaceborne Thermal Emission and Reflectance Radiometer) and LANDSAT 8 OLI (Operational Land Imager) data over three exploration properties comprising El Mezquite, Jackie and Diamante.

The 180-ha El Mezquite and 1,057-ha Diamante Concessions are drill-ready precious metal (Au-Ag) projects located 10 km and 5 km, respectively, 165 km southeast of Hermosillo, Sonora, Mexico. Diamante 1 is situated adjacent to the El Mezquite project. Diamante 2, 700 metres south of Diamante 1, is located 1.6 kilometres northwest of the 1,130-ha Jackie project. The Jackie property is located less than two kilometres south of our El Mezquite and Diamante properties and adjacent to the west of Minera Alamos' Santana project (Figures 1 and 2).

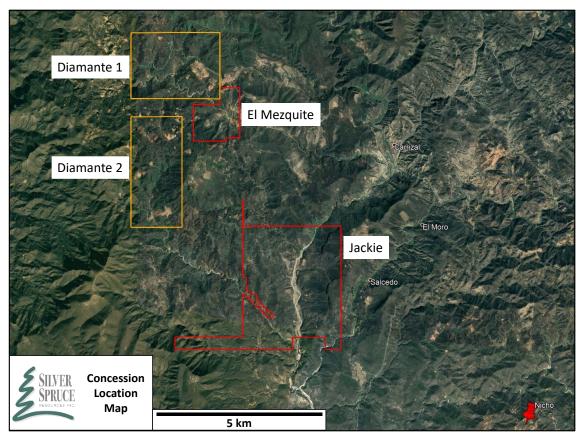


Figure 1. El Mezquite, Diamante 1 and 2, and Jackie Concession Location Map. Nicho mine development by Minera Alamos locates 12 km S.E. of Diamante (Image taken from Google Earth).

"We continue to build on the Sonoran project geotechnical data using advanced processing techniques for re-interpretation of available ASTER and LANDSAT imagery. A review of the TLALI algorithm processing results from many projects illustrated its success in anomaly identification and clarity of response," said Mr. Davison, Silver Spruce VP Exploration and Director. "We are actively exploring the El Mezquite with our maiden drill program, and another team is continuing the Phase 2 geological mapping on Jackie, and look forward to compiling the hyperspectral data from rock samples and drill chips with the broad strokes of the ASTER/LANDSAT alteration fields for enhanced target definition."

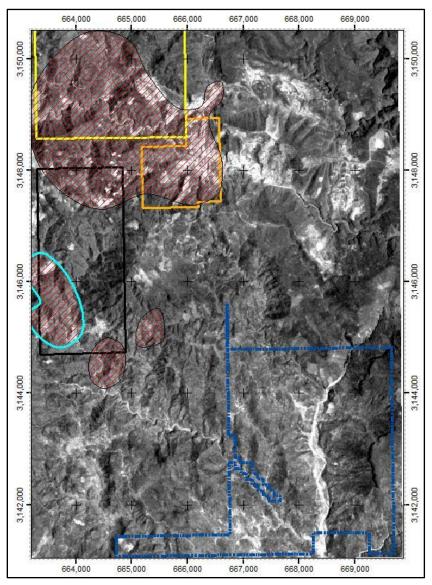


Figure 2. Broad areas of argillic and oxide alteration, including supergene replacement, (sourced from SGM) mainly on the Diamante and El Mezquite properties.

This study will comprise a spectral reconnaissance of the Properties (Diamante 1, Diamante 2, El Mezquite, and Jackie) to understand the structural and lithological controls in a regional context and provide additional detail on the mineral by mineral distribution over each of the Properties. SCIGIS will research an area of 6,500 hectares. The ASTER imagery will be processed using the proprietary TLALI algorithm, which has shown significant success in optimizing and recognizing anomalies in a wide range of geological environments from several international projects.

A second run will be carried out using LANDSAT 8 OLI imagery and focus on clay minerals, ferrous iron, and iron oxide species. The reporting will include a complete set of shapefiles, index raster and RGB images, index reclassifications, and various digital elevation rasters with shading and lineament extraction in ArcGIS format. Completion of the study will require 1-2 weeks.

# **Project Geology - Spectral Response**

Each Property exhibits alteration features that manifest with excellent hyperspectral signatures and responses for oxide and silicate minerals. Public data available through the GEOINFOMEX web portal of the Servicio Geológico Mexicano (SGM) identified areas with potential alteration though were defined by coarse pattern recognition of grouped minerals and overall styles.

Figure 2 illustrates examples of the alteration for the Diamante and El Mezquite projects. It may be noteworthy that the Jackie property showed no responses though the evidence from the current ground exploration successfully identified significant clay and oxide minerals proximal to the Au-Ag anomaly (see Press Release – June 10, 2021). A historical study of ASTER imagery was performed principally on the Diamante and El Mezquite properties and identified hyperspectral responses with one or more minerals. However, during interpretation, the data pixels were resolved using the principal mineral or group distribution.

Of note, the hyperspectral response may be limited by the vegetative cover, resolution of the older satellite data and less advanced algorithms for the mineral refinement.

**El Mezquite** - The El Mezquite Phase 1 2,000 metre reverse-circulation ("RC") program is using eight drill pad locations focused around a 400m x 600m area with elevated precious metal values to 3.41 g/t Au and 387 g/t Ag. The collar locations are defined by several northeast-trending veins, structural lineaments, and oxide/sulfide transitions interpreted from geological mapping, precious metal assays, multi-element geochemistry, epithermal alteration assemblages, and coincident 3D IP chargeability anomalies (see Press Release - June 3, 2021).

A white mica-dominant assemblage with lesser jarosite, kaolinite, and iron oxides with distal zones with chlorite and intermittent areas of aluminous minerals locally linked to potential structural lineaments, identified by Hyperspectral data

**Jackie** - The preliminary prospecting program (see Press Release - June 10, 2021) identified a distinctive andesite ridge with intense oxidation, silicification, argillic alteration, and a notable vegetation-free zone. Geochemical analyses identified a strong Au-Ag anomaly associated with elevated Hg, Pb, Zn, Cd, As, Sb, and Cu with spatial trends similar to the multi-element data recorded for the nearby El Mezquite property. The extensive oxide and silicate alteration, verified by preliminary aiSIRIS results of hyperspectral analysis, represented bleached and oxidized argillic zones with aluminous clay minerals and muscovite and commonly low metal values. Samples collected from the northern area of the ridge displayed intense replacement by zeolite, kaolinite, alunite, montmorillonite, opaline silica, and muscovite though they contained the bulk of the anomalous gold and silver values.

**Diamante** - The Diamante 1 and 2 concessions include more than ten known occurrences at La Prieta-El Aguaje, El Chon-El Pillado, La Olla, La Cruz and El Caso, Mezquite Raizudo, El Puerto, El Cumbro, Calton and the Southern Anomaly. The target location maps and sampling highlights were provided previously (see Press Releases - April 12 and April 26, 2021). Precious metal mineralization occurs as disseminated, stockwork and vein styles accompanied by silicification

(with quartz veining), and phyllic, argillic, advanced argillic (quartz-alunite-pyrite) and propylitic (chlorite) zones, with near-surface overprinting by weathering, iron oxide, and oxyhydroxide (hematite, goethite, and limonite) staining, jarosite, and vuggy silica.

# **Project Background**

The Properties are well situated in logistics for exploration, located adjacent to each other, and six to fifteen kilometers west and northwest of the Nicho deposit currently in mine development by Minera Alamos (Figure 1).

The El Mezquite, Jackie, and Diamante projects are currently subject to option agreements with Colibri, wherein SSE can earn 50% of the gold and silver projects by meeting specific criteria over periods of two to four years. El Mezquite and Jackie concessions currently have hyperspectral assays pending interpretation from Phase 1 mapping and prospecting, while the Company recently received our SEMARNAT approval and initiated El Mezquite's maiden drilling program in June.

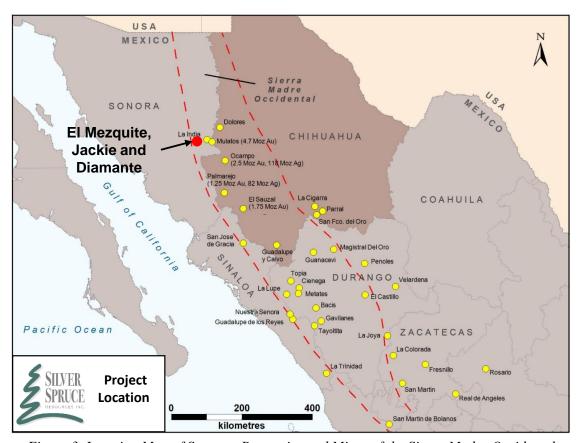


Figure 3. Location Map of Sonoran Properties and Mines of the Sierra Madre Occidental

The Properties are easily accessible from Mexican Highway #16, which transects Diamante 1 and El Mezquite, ranch trails and dry river beds to Diamante 2, and dry river bed access from the pueblo of La Quema, west of Highway #117 to Jackie. High voltage power lines positioned along with Highway #16.

The Properties are located within the west-central portion of the Sierra Madre Occidental Volcanic Complex within the prominent northwest-trending "Sonora Gold Belt" of northern Mexico and parallel to the well-known, precious metals-rich Mojave-Sonora Megashear (Figure 3).

Several nearby large operating mines include Alamos Gold's Los Mulatos gold mine and Agnico Eagle's La India gold mine located 50 and 58 km to the northeast, respectively, Agnico's Pinos Altos Mine, 100 km southeast and Argonaut's La Colorada Mine, 100 km west. Exploration in the surrounding area is very active, with adjacent and nearby properties held by Evrim, Newmont, Garibaldi, Kootenay Silver, and Penoles.

#### **Qualified Person**

Greg Davison, PGeo, Silver Spruce VP Exploration and Director, is the Company's internal Qualified Person for the El Mezquite, Jackie and Diamante Projects and is responsible for approval of the technical content of this press release within the meaning of National Instrument 43-101 Standards of Disclosure for Mineral Projects ("N.I. 43-101"), under TSX guidelines.

# **About Strategic Consultants IGIS**

Based in Chihuahua, Mexico, Strategic Consultants have been in mineral exploration for over 30 years, having GIS and Remote Sensing as powerful tools to search for mineral deposits. Strategic Consultants developed an innovative cloud-based algorithm capable of processing an ASTER image anywhere in the world, in a matter of minutes, yielding up to twenty-five spectral signatures representing the same amount of minerals, each in a separate ArcGIS shapefile. This procedure allows to establish types of alteration, a rock-mineral relationship or geological-mineral characteristic, and helps to select specific areas of interest and objectives. Major mining companies, such as Agnico-Eagle México and Redline Minerals Inc. have used the algorithm for exploration in brownfields and greenfields properties in México and the United States.

#### **About Silver Spruce Resources Inc.**

Silver Spruce Resources Inc. is a Canadian junior exploration company which has signed Definitive Agreements to acquire 100% of the Melchett Lake Zn-Au-Ag project in northern Ontario, and with Colibri Resource Corp. in Sonora, Mexico, to acquire 50% interest in Yaque Minerales S.A de C.V. holding the El Mezquite Au project, a drill-ready precious metal project, and up to 50% interest in each of Colibri's early stage Jackie Au and Diamante Au-Ag projects, with the three properties located from 5 kilometres to 15 kilometres northwest from Minera Alamos's Nicho deposit, respectively. The Company also is acquiring 100% interest in the drill-ready and fully permitted Pino de Plata Ag project, located 15 kilometers west of Coeur Mining's Palmarejo Mine, in western Chihuahua, Mexico. Silver Spruce Resources Inc. continues to investigate opportunities that Management has identified or that have been presented to the Company for consideration.

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Notice Regarding Forward-Looking Statements

This news release contains "forward-looking statements," Statements in this press release which are not purely historical are forward-looking statements and include any statements regarding beliefs, plans, expectations or intentions regarding the future, including but not limited to, statements regarding the private placement.

Actual results could differ from those projected in any forward-looking statements due to numerous factors. Such factors include, among others, the inherent uncertainties associated with mineral exploration and difficulties associated with obtaining financing on acceptable terms. We are not in control of metals prices and these could vary to make development uneconomic. These forward-looking statements are made as of the date of this news release, and we assume no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements. Although we believe that the beliefs, plans, expectations and intentions contained in this press release are reasonable, there can be no assurance that such beliefs, plans, expectations or intentions will prove to be accurate.