

# Parral District Chihuahua, Mexico

# QUALITY ASSURANCE AND QUALITY CONTROL – QA/QC

All technical information for Scorpio Mining Corporation's properties in the Parral district, Chihuahua State, Mexico, is obtained and reported under a formal quality assurance and quality control (QA/QC) program. Scorpio's procedures are designed to meet or exceed C.I.M "Best Practices Guidelines" and National Instrument 43-101 standards of disclosure.

#### **Rock Sampling and Sample Security**

Surface and underground grab and chip channel samples are collected in plastic bags and assigned a sample ticket with a designated number. One sample ticket is placed in the bag and the other retained for reference. The bags are sealed, placed into a numbered rice sack and left at the secure storage site until enough samples are collected to ship to the designated laboratory.

# **Core Handling and Sample Security**

Core is placed into labeled wooden core boxes at the drill site with labeled wood blocks marking core runs. Core is retrieved by Scorpio personnel once to twice per day and transported to one of several gated secure sites where it is logged, photographed and split for sampling. Samples are marked by either placing paper sample tickets in the core box or by stapling a labeled aluminum tag with the sample number onto the box. Sample size varies according to geology but is generally not less than 0.5 metres or greater than 2.0 metres. A 50% split of core is placed into a labeled cloth or plastic bag along with a numbered sample ticket and sealed, while the remaining core is returned to the wooden box for storage and future reference (unmineralized material may be discarded or used as sterile blank material at Scorpio's discretion). The sealed samples are then placed into a numbered rice sack and left at the secure storage site until enough samples are collected to ship to the designated laboratory.

#### **Reverse Circulation Sampling and Sample Security**

Reverse circulation (RC) drill set-up and sampling is conducted under continuous supervision by Scorpio's technical personnel. Sampling and drilling procedures are noted and recorded as ground conditions dictate. Geologic logging is usually done at the drill site while drilling is in progress. Scorpio prefers to take dry RC samples, but under certain circumstances, wet RC samples are taken on early-stage prospects. Drill bits range in size from 5 1/8 inch to 5 1/2 inch diameter and Scorpio requests that drillers use a face discharge hammer bit whenever possible to minimize sample loss.

Samples are collected at regular intervals, usually once every 5 feet. Samples are split immediately after collection using a mechanical (Jones three-tiered or Gilson) splitter for dry sampling and a rotating splitter for wet samples. Sample splits for RC samples are generally 41.7% for dry samples and 20.8% for wet samples. Dry and wet samples are collected in prenumbered 20 by 24 inch cloth sample bags that are placed inside clean 5-gallon buckets. Samples are sealed, allowed to dry if wet, then placed into numbered rice sacks and transported to one of several secure gated storage areas in Cosalá.

### **Sample Shipping and Analysis**

Generally, every 3 to 4 days the sample rice sacks are delivered to PMM "Paqueteria, Mensajeria y Movimiento", a courier service located in La Cruz, which ships the samples to the ALS Chemex preparation laboratory in Hermosillo for drying, crushing and pulverizing. ALS Chemex, Hermosillo then sends the pulps by air-freight to ALS Chemex, Vancouver for assaying. The rejects are retained by ALS Chemex, Hermosillo for shipment back to Scorpio for storage at a secure warehouse. ALS Chemex laboratories in North America are registered to ISO 9001:2000 for the "provision of assay and geochemical analytical services" by QMI Quality Registrars.

Primary samples are assayed for Au, Ag, Cu, Pb and Zn utilizing ALS Chemex's Au-AA23 30-gm fire assay with atomic adsorption finish and ME-OG62 four-acid (HF-HNO<sub>3</sub>-HCLO<sub>4</sub>-HCl) digestion followed by conventional ICP-AES (Inductively Coupled Plasma – Atomic Emission Spectroscopy) for Ag, Cu, Pb and Zn. In addition, periodically they are also assayed for other elements by three-acid or aqua regia acid digestion, HCl leach and ICP-AES, using methods ME-ICP61 (33 elements) or ME-ICP41 (35 elements). Details of the various assaying techniques may be obtained from the ALS Chemex website at <a href="https://www.alschemex.com">www.alschemex.com</a>.

#### **Standards and Blanks**

In addition to the blank standards, reference standards and duplicate analyses performed by ALS Chemex, Scorpio conducts its own data verification by inserting standard reference materials with the pulps (pulverized samples) that are shipped to ALS Chemex, Vancouver. Blank or sterile samples are inserted in the regular sample sequence before laboratory preparation by ALS Chemex. Standards and blanks are inserted at a frequency of one per every 40 samples, which relates to ALS Chemex's sample batch size. Scorpio obtained its standard reference pulps with Au-Ag-Cu-Pb-Zn mineralization sample from WCM Sales Ltd. of Burnaby BC. Additionally, Scorpio uses standard reference pulps prepared by McClelland Laboratories, Inc. of Sparks, Nevada with material collected from the Cosalá district in Mexico containing Au-Ag-Cu-Zn mineralization and weakly anomalous Pb near the lower detection limit. A sampling of five to six pulps prepared by McClelland was sent to seven different laboratories to determine acceptable values. Sterile samples are collected onsite from unmineralized split core. Periodically, a random sampling of 5 to 10 sterile samples is sent separately for analysis to ensure sterility.

## **Primary Sample Duplicates**

At regular intervals Scorpio requests two pulps are produced from the primary ALS Chemex sample to create a duplicate which is sent to Inspectorate's preparatory laboratory in Hermosillo,

Mexico and subsequently shipped to Inspectorate's assay laboratory in Sparks, Nevada. The "check samples" are then compared and used as a redundant monitor of laboratory precision.

## **Field Duplicates**

Field duplicates are taken during reverse circulation drilling at regular 20-sample intervals and at the geologist's discretion when the drill encounters mineralization. The duplicates taken at regular intervals are sent to Inspectorate, while the discretionary duplicates are inserted into the sample sequence in the field as a blind duplicate "check sample" at the end of the sample sequence.

Field duplicates are an important part of Scorpio's RC sample validation process as they test the reproducibility and biases for the entire sampling system, and thereby show total sampling variance.