## INDEPENDENT TECHNICAL REPORT 43-101F1

**FOR** 

## CHELSEA MINERALS CORP. and SENNEN RESOURCES LTD.

## ON THE ORO LEASES, HOPE BAY AREA, NUNAVUT

**5 Mineral Leases** ORO 1 through ORO 5, inclusive

**Lease Numbers** 4942 - 4946, inclusive

**NTS Sheets** 77A/03, 77A/06

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#### **ITEM 3 SUMMARY**

In January, 2011 Chelsea Minerals Corp ("Chelsea" or the "Company") entered into a property option agreement (the "Option Agreement") with North Arrow Minerals Inc ("North Arrow") (TSXV:NAR) providing for the right of the Company to acquire a 60% interest in North Arrow's Hope Bay ORO project ("ORO") located at Hope Bay on the Arctic coast in Western Nunavut.

Terms of the Option Agreement are as follows;

- (a) the Company will pay the sum of \$50,000 to North Arrow on receipt of TSXV approval (Acceptance Date);
- (b) on or before 60 months following Acceptance Chelsea will incur Expenditures as follows;
  - (i) A firm commitment by the Company to incur \$500,000 Expenditures on or before 12 months after Acceptance Date;
  - (ii) A further \$750,000 of Expenditures to be incurred on or before 24 months after the Acceptance Date;
  - (iii) A further \$1,000,000 of Expenditures to be incurred on or before 36 months after the Acceptance Date;
  - (iv) A further 1,250,000 of Expenditures to be incurred on or before 48 months after the Acceptance Date;
  - (v) A further \$1,500,000 of Expenditures to be incurred on or before 60 months after the Acceptance Date.

Upon the Company having satisfied the obligations set forth above, the Company shall be deemed to have exercised the Option (the "Exercise Date") and shall be entitled to an undivided 60% right, title and interest in and to the Leases.

In January, 2011 Sennen Resources Ltd. (TSXV: SN) announced that it had entered into a Letter of Intent ("LOI") with Chelsea Minerals Corp ("Chelsea") which contemplates that Sennen will acquire all of the issued and outstanding shares of Chelsea by way of a share exchange whereby, pursuant to a Plan of Arrangement, shareholders of Chelsea would receive one share of Sennen for every two and one half shares of Chelsea held by them.

The ORO leases are located on the coast of the Arctic Ocean at Melville Sound approximately 125km southwest of Cambridge Bay in the Kitikmeot region of Nunavut. The southern boundary of the property is contiguous with mineral claims and concessions currently being explored by Newmont Mining Corp. ("Newmont"), including the initial development of the Doris North underground mine, located approximately 3,000m from the southern boundary of the ORO leases. The leases cover approximately 4,103 hectares of ground considered prospective for the presence of Archean lode gold mineralization.

The Hope Bay Volcanic Belt ("HBVB") is located within the Bathurst Block of the northeast Slave Structural Province. The belt is dominated by mafic volcanic rocks and has been explored for gold and base metal mineralization since the mid 1960's. Exploration of the area currently

covered by the ORO leases led to the discovery of two small, high grade silver deposits that were mined for a brief period in the 1970's. The "Ida Point" and "Granite" gold showings were also discovered at this time

In 2000 and 2001, Navigator Exploration Corp ("Navigator") initiated exploration programs that consisted of airborne geophysics, detailed geological mapping and prospecting, in an attempt to identify and refine prospective areas of the ORO property. Efforts focused on identifying the northern extension of the structure and lithologies hosting mineralization at the Doris deposit. This exploration resulted in the delineation of three structural domains within the property, two of which are considered particularly prospective for further gold exploration. The rocks of the Southwest Domain ("SWD") comprise lithological units that include, on the ORO 5 lease, a package of iron-rich tholeites interpreted as the northern extension of similar rocks described from the Doris deposit. The Northwest Domain ("NWD") is structurally complex, and is composed of several fault-bounded blocks displaying a lack of continuity on-strike. The NWD hosts several areas where anomalous gold values have been returned, including the 5m-wide H4 quartz vein and the Ida Point showing.

Navigator followed up this work with modest drill programs in 2002 and 2003, each associated with complementary surface sampling; a ground magnetometer survey (21.47 line km) augmented the 2003 program. Ten drill holes were completed in both 2002 and 2003 (1,429m and 1,204m respectively), with principal focus on the proposed northern extension of the Doris litho-structure and the H4 quartz vein. Assay results from the 2002-2003 programs were generally underwhelming, although significant advancements in understanding of the alteration systems and geological architecture ensued. No further field activities have been conducted on the ORO property since 2003.

Over the last decade, lithogeochemical constraints/influence on the principal deposits in the HBVB south of the ORO leases have become public knowledge. Navigator (and its successors) has reviewed the geochemistry of its historic drill samples, and this has led to confirmation of models of the Doris lithostratigraphy extending to the ORO 5 lease. In addition, it has highlighted that the encouraging historical results from the Ida Point showing (e.g. 14.3 g/t Au over 2.12m, and 5.48 g/t over 5.96m) are also associated with basalts with enhanced Fe and Ti concentrations. A review of all previous data will likely refine targets for future efforts. The aggressive exploration and development by Newmont throughout other parts of the HBVB indicate that the ORO claims continue to warrant carefully planned and systematic exploration.

#### ITEM 4 INTRODUCTION AND TERMS OF REFERENCE

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