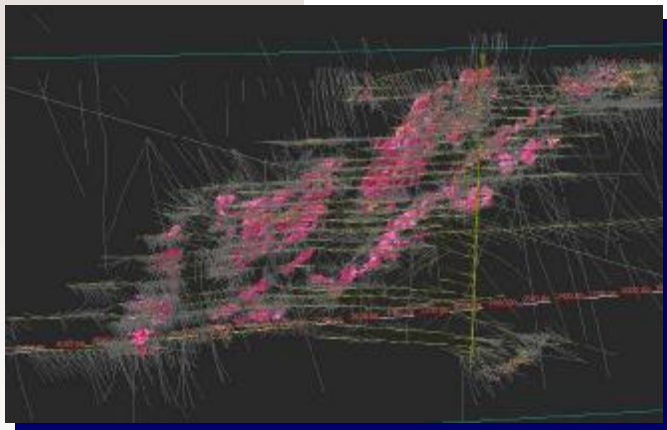


Mineral Resource Estimation Madsen Gold Project Red Lake, Ontario, Canada

Report Prepared for

Claude Resources Inc.

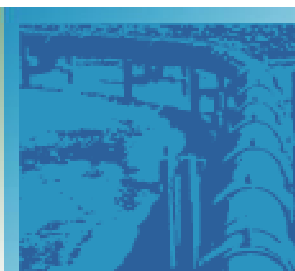
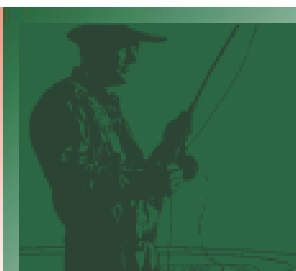
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Project Reference Number:
3CC024.002

January 20, 2010

Mineral Resource Estimation Madsen Gold Project Red Lake, Ontario, Canada

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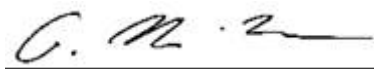
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Cover. Top: Head frame of Madsen Shaft in the 1960's; bottom: 3D representation of Madsen Mine with drillhole traces, stopes and drifts.

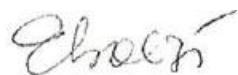
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Executive Summary

Introduction

The Madsen Gold Project (“MGP”) is an advanced mineral exploration project located in the Red Lake mining district of north-western Ontario, Canada. The property is owned by Claude Resources Inc. (“Claude”) and contains several underground gold deposits previously mined from 1938 to 1974 and 1997 to 1999.

This technical report prepared by SRK Consulting (Canada) Inc. (“SRK”) documents a mineral resource statement prepared for the Madsen Mine area of the MGP. The mineral resources reported herein have been estimated in conformity with generally accepted CIM “Estimation of Mineral Resources and Mineral Reserves Best Practice” Guidelines. This is also the first technical report for the MGP to be compiled following the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1. The effective date of this technical report is December 7, 2009.

Property Description and Agreements

The MGP consists of a contiguous group of 237 patented and leased mining claims covering an aggregate area of 4,193 hectares. All of the 217 patented and 20 leased mining claims have accompanying surface rights. The outside boundary of the patented claims has been legally surveyed. The claims are divided into nine claim groupings: the Madsen Mine, Starratt-Olsen, Russet, Aiken, Mills, Ava, Buffalo, Killoran and Hager

Claude owns 100 percent of the MGP. The Aiken and Russet patented claims are subject to a two percent net smelter royalty (maximum of CN\$2 million) in favour of United Reef Limited and Canhorn Mining Corporation. This underlying agreement does not affect the mineral resources stated in this technical report which are located in the Madsen Mine patented claims that are free of any lien.

Location, Access and Physiography

The MGP is located about 10 kilometres south-southwest of Red Lake, approximately 565 kilometres by road northwest of Thunder Bay and approximately 475 kilometres by road east-northeast of Winnipeg, Manitoba.

Average winter temperatures are in the range of -15 degrees centigrade (“°C”) to -20°C and average summer temperatures are in the range of 15°C to 20°C. Annual precipitation averages 64 centimetres with 47 centimetres of rain and 193 centimetres of snow. The topography within much of the project is mildly to moderately rugged with a maximum relief of 30 metres in the southern part of the MGP.

History

Since the staking of the first claims on the Madsen area in 1927, the exploration and mining history of the MGP can be divided into four major periods:

1. Exploration and mining between 1927 and 1997 by various companies: This period was characterized by production and exploration from various shafts until 1974. Only intermittent exploration continued thereafter until 1997;
2. Exploration and mining between 1998 and 2000 by Claude Resources with limited mining in the McVeigh and Austin Zones from the Madsen shaft;
3. Exploration by Placer Dome Exploration between 2001 and 2006; and

4. Exploration by Claude Resource from 2006 to present.

In 1999, ACA Howe International Limited audited the mineral resources and mineral reserves for Madsen Mine. This historical resource estimate was prepared before the adoption of National Instrument 43-101 guidelines and should not be relied upon. It is superseded by the mineral resources reported herein.

Geology and Mineralization

The MGP is located in the Red Lake greenstone belt, one of Canada's preeminent gold producing districts, with over 20 million ounces of gold produced since the 1930s. This greenstone sequence occurs within the Uchi Subprovince of the Superior Province of the Canadian Precambrian Shield.

The Madsen Mine is located on the southeast-facing, southern limb of a large domal structure. The mine is located near the contact of the Balmer assemblage (3,000 to 2,988 million years; "Ma"), to the northwest and Confederation (2,736 to 2,742 Ma) assemblage to the southeast. Gold mineralization at Madsen is hosted by three sheared and altered units within the Balmer assemblage (Austin, South Austin and McVeigh "tuffs") striking on average at 030° and dipping between 60° and 70° to the southeast. The McVeigh Zone corresponds to hydrothermally altered and heterogeneously deformed massive and pillowed basalt. The South Austin and Austin Zones are best described as a composite unit of hydrothermally altered and heterogeneously deformed mafic volcanoclastic, epiclastic and local mafic volcanic rocks developed along the unconformity between the Balmer and Confederation assemblages.

At the deposit level, there is a spatial relationship between the auriferous zones and the thickness of the "tuff" units. These so-called "rolls" correspond to F2 folds and shear zones which reduce the width of the tuffs. Gold mineralization is mainly replacement-style disseminated gold (Austin, South Austin and McVeigh zones). Quartz-vein hosted gold mineralization occurs in Zone 8, that is hosted in Balmer assemblage metabasalts. Many barren, northwest striking and shallow to steeply dipping diorite-granodiorite dikes cut through all lithological units, including the gold mineralization.

Exploration and Drilling

Significant exploration and mining work occurred on the MGP since 1927. This work includes surface and underground drilling and underground chip sampling, primarily during the operation of the Madsen Mine. The mineral resources reported herein are based primarily on historical drilling and underground sampling data augmented by recent drilling completed by Claude and Placer Dome since 1999. The complete resource estimation database consists of 13,624 surface and underground drillholes totalling 816,367 metres. This includes 764 core boreholes drilled by Claude and Placer-Dome since 1999.

Historical holes were drilled along development drifts on all levels of the mine, usually at 25 feet (7.62 metres) spacing. Holes were typically drilled perpendicular to the strike of the gold mineralization along north or south azimuths. Underground drillholes were drilled at a variety of angles and lengths depending on the mining target.

Sampling Method, Approach and Analyses

There are no records documenting the procedures used to collect historical drill and stope chip samples. Drilling and mine samples collected during the operation of the Madsen Mine were prepared and assayed at the mine laboratory using undocumented assaying protocols. After 1997, Placer Dome and Claude used industry best practices to collect, handle and analyse drilling samples. Field and assaying procedures used by