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Falconbridge Limited Kerr - Sulphurets Property Northwestern British Columbia

A Collection of Reports, Presentations and Data

assembled by Allan Huard Mike Savell

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Note on NI43-101: References to tonnage and grade contained in this report and in other documents in this collection predate the adoption of NI43-101 standards and have not been checked for conformity.



INTRODUCTION

This CD is a compilation of reports, presentations and data which pertains to the Kerr-Sulphurets porphyry Cu-Au property in northwestern British Columbia. Falconbridge is currently earning an interest in the property from Seabridge Gold Inc., under the terms of a deal signed in September, 2002. The property consists of 28 Mineral Claims and 9 Placer Claims converted under the new MTO system. They are located approximately 15 km southeast of the Eskay Creek mine in the rugged coastal mountains of northwest B.C. The elevation ranges from about 600 to 1700 m, and the vegetation ranges from heavily forested to alpine. Access to the property is via helicopter from either km54 of the Eskay Creek Mine road (22 km to the northwest) or the former Granduc Millsite, 30 km to the south southeast.

Tenure	Туре	Hectares	TRIM #	Division	Expiry
516236	Mineral	303.273	104B059	SKEENA	2011/JUN/30
516237	Mineral	71.379	104B059	SKEENA	2011/JUN/30
516238	Mineral	624.456	104B059	SKEENA	2011/DEC/10
516239	Mineral	535.513	104B059	SKEENA	2011/DEC/10
516240	Mineral	107.016	104B059	SKEENA	2011/JUN/30
516241	Mineral	142.709	104B059	SKEENA	2011/JUN/30
516242	Mineral	71.363	104B059	SKEENA	2011/SEP/23
516245	Mineral	356.921	104B059	SKEENA	2011/OCT/12
516248	Mineral	142.725	104B059	SKEENA	2011/AUG/26
516251	Mineral	321.344	104B059	SKEENA	2011/AUG/26
516252	Mineral	124.994	104B059	SKEENA	2011/AUG/26
516253	Mineral	178.622	104B059	SKEENA	2011/AUG/26
516254	Mineral	285.779	104B059	SKEENA	2011/AUG/26
516255	Mineral	214.346	104B049	SKEENA	2011/SEP/23
516256	Mineral	53.586	104B049	SKEENA	2011/AUG/26
516258	Mineral	178.573	104B059	SKEENA	2011/NOV/03
516259	Mineral	107.173	104B049	SKEENA	2011/NOV/03
516260	Mineral	107.197	1048049	SKEENA	2011/NOV/03
516261	Mineral	464.635	104B049	SKEENA	2011/DEC/20
516262	Mineral	339.526	104B049	SKEENA	2011/DEC/17
516263	Mineral	643.881	104B049	SKEENA	2011/DEC/17
516264	Mineral	393.344	104B049	SKEENA	2011/OCT/30
516266	Mineral	178.778	104B049	SKEENA	2011/DEC/17
516267	Mineral	250.242	104B049	SKEENA	2011/DEC/17
516268	Mineral	321.836	104B049	SKEENA	2011/DEC/17
516269	Mineral	107.208	104B049	SKEENA	2011/AUG/26
516323	Placer	107.191	104B049	SKEENA	2006/9EP/30
516325	Placer	125.043	104B049	SKEENA	2006/SEP/30
516328	Placer	71.453	104B049	SKEENA	2006/SEP/28
516330	Placer	107.185	104B049	SKEENA	2006/SEP/28
516332	Placer	107.179	104B049	SKEENA	2006/SEP/28
516333	Placer	89.334	104B049	SKEENA	2006/SEP/28
516375	Placer	125.023	104B049	SKEENA	2006/SEP/30
516676	Placer	17.858	104B049	SKEENA	2006/SEP/30
516677	Placer	17.858	104B050	SKEENA	2007/JUL/11

Table of Claims





Figure 1: Kerr - Sulphurets Mineral (blue) and Placer (red) Claim Map



The exploration history of the area began in the 1960's, with brief programs by Newmont, Granduc, Phelps Dodge, and the Meridian Syndicate, all focused towards gold. The Sulphurets X zone was first drilled by Esso Minerals in 1969; Kerr was first drilled by Western Canadian Mining Corporation in 1988. Total expenditures by both companies was about \$4,000,000. In 1989, a 100% interest in the Kerr deposit was purchased by Placer Dome for \$11,000,000, and in the following year they acquired the adjacent Sulphurets property. They spent an estimated \$5,000,000 in exploration. In 2000, Seabridge resources acquired a 100% interest from Placer Dome by issuing 500,000 Seabridge shares, 500,000 share purchase warrants exercisable by Placer Dome at \$2.00 per share for 2 years, and a 1% NSR, capped at \$4,500,000.

Geological Setting

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The property is underlain by Triassic and Jurassic volcaniclastics that have been intruded by a series of late Jurassic monzonite porphyries. A large hydrothermal alteration system is associated with the intrusions. A zone of intense phyllic alteration (quartz-sericite-pyrite) covers an area of over 35 square kilometers and forms intense gossanous exposures. Within this zone, numerous areas with >1000 ppm copper and >300 ppb gold have been identified by lithogeochemical sampling.

Historical Work

At the Kerr deposit, mineralization is hosted by intensely sheared to brecciated and phyllic altered volcaniclastics. Almost all oxide and supergene mineralization has been eroded, and the bulk of mineralization is phimary, dominantly chalcopyrite. Based on polygonal calculations, Placer Dome estimated a geological resource of 140.8 million tonnes grading 0.75% Cu and 0.36 g/t Au, using a cut-off of 0.4% Cu for the Kerr deposit (pre NI43-101). The northern, southern, and depth extents of the deposit have not yet been defined. The potassic core, which could be expected to host the best and most continuous mineralization, has yet to be identified.

In addition, the Sulphurets deposit, located approximately 2 km north, hosts similar altered and brecciated volcaniclastics that are extensively mineralized. This zone contains an estimated geological resource of 54.8 million tonnes grading 0.32% Cu and 1.02 g/t Au (pre NI43-101). It is also open at depth and along strike. Similarly, there exists the potential of finding a potassic core.

Prior to Falconbindge's involvement, a total of 28,469 meters of diamond drilling in 155 holes has been completed on the Kerr deposit, and 12,083 m in 60 hales on the adjacent Sulphurets deposit. Both zones were drilled at approximately 50 m spacings. The last drilling by previous operators was undertaken in 1992.

A few holes were also completed on the Iron Cap and Mitchell zones, on the north half of the property. At the Iron Cap, there are intersections up to 0.27% Cu and 0.51 g/t Au over 157 m. At the Mitchell zone, drill intersections up to 0.25% Cu and 0.68 g/t Au over 190.5 m have been obtained. A (pre NI43-101) conceptual resource estimate of 200 Mt grading 0.2% Cu and 0.8g/t Au is in the public domain (Kirtham and Margolis, 1995) but is extremely suspect. It has a higher Au grade than any of the composites and it demands not only continuity between widely spaced drillholes, but extension approximately 250 m outward in all directions to build such a tonnage. Although possible, this figure should be ignored as a resource. Neither Iron Cap nor Mitchell has been delineated.

The eastern portion of the alteration system is outside of the Seabridge option from Placer Dome, $\leq S_1/Ver Standard$ and is currently held by Newhawk Gold Mines. Here, the exploration to date has identified a few small, structurally controlled zones of gold rich and copper poor depesits, including Snowfield (7,000,000 tonnes of 2.8 g/t Au, pre NI43-101) and the West zone (750,000 tonnes of 15.4 g/t Au, pre NI43-101).



Falconbridge Work

Reclamation

A reclamation band (\$225,000) had been posted by Seabridge Gold Inc. to remediate trenches, drill sites, camp sites and drill roads. As a condition of Falconbridge's involvement, the original deal with Seabridge Gold Inc. required acceptance by the British Columbia government of a limited reclamation plan, and completion of an Indemnification and Release Agreement, which would protect Falconbridge frem future liability for actions of previous operators. The Reclamation Agreement was signed on August 14, 2003, and the Indemnification and Release Agreement was completed to the satisfaction of the Mining Inspector. A Citation for Outstanding Reclamation Achievement - Mineral Exploration Category, was subsequently awaded to Falconbridge from BC's Technical and Research Committee on Reclamation. The only reclamation work remaining is the decommissioning of the camp site. This work has not been done because the site and structures have been used by Falconbridge for its field programs. The Reclamation Plan, Indemnification and Release Agreement, and the Mine Inspectors Report are appended.

Exploration

2003

A small field program was conducted in 2003. It followed an extensive review of published and private accounts of historical exploration, and the compilation of digital data supplied by the vendor. It was conducted between August 26th and September 19th, 2003, and consisted of helicopter supported geological and prospecting traverses by 4 to 6 people each day. Accommodation was provided in rented camp facilities at kilometer 45 on the Eskay Creek mine road, and at rented facilities in Stewart. Inclement weather prevented access to the property for almost half the work period, and the program was terminated several days earlier than planned.

259 rock chip and grab samples were collected, and geochemical analyses performed by Ecotech Laboratories. 53 samples were submitted to Carson Geomin for petrographic analysis and interpretation of mineralogical and alteration zoning.

Results are described in:

- 2003-10 Kerr Sulphurets Update.ppt
- 2003 Work Report for Seabridge.doc
- 2003 Petrographic Report Carson GeoMin.PDF

Highlights of the 2003 program were largely to donfirm previously documented mineralized zones. In addition, owing to significant retreat of glaciers, including a 500 m retreat of the Mitchell Glacier, the extent of mineralization was increased at Iron Cap and Mitchell.

2004

The 2004 field program consisted of mapping, rock and soil sampling, IP and reclamation work. It began on July 4 with the positioning of a crew to refurbish the eld Placer-Dome camp site near Sulphurets Lake and ended on August 16 with closure of the camp for the season. Geological traverses were carried out by Miohael Savell and Allan Huard, assisted by various helpers. Traverses focused on four areas: 1) the Main Copper Zone north of the Sulphurets fault, 2) in and immediately west of the Iron Cap Zone, 3) the area north of Mitchell Brook, west of the toe of Mitchell Glacier and 4) the MacQuillan Zene. These areas were targeted based on results of Noranda's preliminary work on the property in 2003.

A pole – dipole IP survey was conducted with coverage provided from the MacQuillan Zone to Iron Cap. Lines were roughly parallel to contours in a general east – west trend. Line spacing was irregular but roughly 750 m. The survey employed an "expander array", consisting of four 100 m receiver dipoles, two 200 m receiver dipoles and finally two 300 m receiver dipoles for a total array length of 1500 m. Soil geochem samples were collected at 100 m intervals on the



lines established for the IP survey. 34 samples were submitted to Carson Geomin for petrographic analysis and interpretation of mineralogical and alteration zoning.

Results of the 2004 program are described in:

- 2004 Work Report.pdf
- 2004-12-17 Update for Seabridge.ppt
- 2004 Petrographic Report Carson GeoMin.PDF

The 2004 program (IP, soil geochem, mag interpretation) enhanced the geological inference that kilometre-scale phyllic alteration zones have been set up peripheral to mineralized intrusions at Main Copper and Mitchell North. New mineralization, designated Icefield, was discovered under recently retreated glacial ice just east of Main Copper, and prebably represents the extension of the Sulphurets deposit. Finally, apart from the potential for large-scale porphyry deposits, the 2004 program showed potential for epithermal Au deposits above some of the deeper buried intrusions which are inferred from mag and IP retations.

2005

The 2005 program consisted of a helicopter supported drill program (16 drillholes totaling 4,092 m) which tested the Iron Cap, North Mitchell, West Mitchell, Main Copper, Icefield and Macquillan zones. This drilling represents the first drilling undertaken on the property since 1992. The drill was mobilized from km 54 of the Eskay Creek Mine Road on July 14, and was returned to the same point on September 2.

Results of the 2005 program are described in:

- 2005 Preliminary Work Report Savell.doc
- 2005 Assessment Report.pdf

Broad low grade intervals of Cu-Au mineralization were returned from all the areas tested, but no clearly ore-grade intersections were returned. At the North Mitchell and Main Copper areas, grades are lower in the porphyry than in the andesites and breccias developed at the contacts, and the possibility that the main source of hydrothermal fluids and metals lies in is a deeper intrusive phase remains. In this scenario, fluids ascend along fracture networks preferentially developed in the brittle, brecciated transitional contact areas between the hornfelsed andesites At Iron Cap, weak k-feldspar flooding in veins and vein haloes is and porphyry intrusions. associated with elevated copper and gold grades at the bottom of hole IC-05-04. This may indicate a zonation towards stronger potassic alteration and higher copper and gold concentrations. The single hole in the West Mitchell zone collared in schistose, phyllic altered rocks, and terminated in strongly stockworked, potassic altered andesite or fine grained intrusive. This hole also indicates a zonation towards stronger potassic alteration and mineralization, and should be considered for further explanation. One of the best intersections from the 2005 program, 0.19% Cu and 0.77 g/t Au over 216.9 m in the West Mitchell drillhole, illustrates the relative dominance of Au over Cu in many parts of the property.

Property Status and Future Work

The agreement with Seabridge Gold requires a minimum annual work commitment of \$500,000. The first phase of drilling by Falconbridge has failed to intersect clearly economic mineralization. Although the best "first pass" Cu targets have been tested, there are indications of strengthening potassic alteration and copper-gold grades beyond the drill areas at several locations. The accompanying long sections illustrate the extensive potential "blue sky" lying beyond the drilled areas. Additional petrographic work should be conducted and incorporated into the geological model to help in defining alteration and metat zonations. Finally, consideration could be given to the gold potential of the property, both as larger scale low grade operations, and small scale high grade. Targeting of gold-only mineralization was not done by Falconbridge as exploration for this commodity does not suit corporate objectives.



Figure 1. Kerr-Sulphurets long section, view to northwest. Copper assays.





The following files are provided on the accompanying CD. In addition, the directory "06 Drillhole Database" contains the full drillhole database for the property.

01 Introduction to Kerr - Sulphurets\ 2002 K-S Economics.doc 2002-10 Kerr -Sulphurets.ppt 2002-10-28 Savell Memo.doc 2004 K-S Economic Model Update.doc 02 Falconbridge Exploration Programs\ 2003 Petrographic Report - Carson GeoMin.PDF 2003 Work Report for Seabridge.doc 2003-10 Kerr -Sulphurets Update.ppt 2004 Petrographic Report - Carson GeoMin.PDF 2004 Work Report.pdf 2004-12-17 Update for Seabridge.ppt 2005 Assessment Report.pdf 2005 Preliminary Work Report - Savell.doc 03 Environmental Reports 2002-12-04 Reclamation Discussion.doc 2003-08-14 Reclamation Agreement.pdf 2003-11 Stantec Environmental Evaluation.pdf 2003-11-10 Application for Indemnification.pdf 2004 BCMEM Inspection Report.PDF 2004 Reclamation photo collection.pdf 04 AMEC Tailings & Waste Study\ 04-04-13 AMEC with updates.ppt 04-04-27 Savell proposes new sites.ppt 04-05-03 AMEC additional slides.ppt 05 MapInfo Tables Claims (converted mineral).TAB Claims (converted placer). TAB colour topo.TAB DDH Collars.TAB DDH Traces.TAB Drainage.TAB orthophoto TAB Topo contours. TAB Geochem Geochem Rocks 2003-2004.TAB Geochem Rocks Historical TAB Geochem Soils 2004.TAB Geophysics Colour mag.TAB IP interp.TAB IP lines completed.TAB GSC Geology GSC ALTERATION TAB GSC GEOLOGY.TAB GSC INTRUSIONS.TAB GSC METAL ZONES TAB gsc_LEGEND.TAB M Savell Detail Geology **GEOLOGY INTERP 2004 CONTACTS TAB GEOLOGY INTERP 2004 POLYGONS TAB** GEOLOGY_MAPPING_2004.TAB R Kirkham Geology GEOCOMB FAULTS.tab GEOCOMB_geopolygons.TAB GEOCOMB_GLACIER.tab GEOCOMB_RVKALT_contacts.TAB GEOCOMB_RVKBED_bedding.TAB GEOCOMB_RVKFLT_faults.TAB GEOCOMB_RVKQZ_qtz veins stwk.TAB GEOCOMB_RVKSYMB_zones_showings.TAB GEOCOMB_RVKTEXT_geocodes holeids.TAB GEOCOMB_ZONES_sheet zone index.TAB