

Ministry of Energy & Mines Energy & Minerals Division Geological Survey Branch



#### ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT [type of survey(s)] Report on Preparatory Survey	total cost \$44570
AUTHOR(S) Ben Ainsworth P .E ng. (BC)	_SIGNATURE(S)
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S	YEAR OF WORK
PROPERTY NAME <u>Hudson Bay Mountain</u> CLAIM NAME(S) (on which work was done) <u>HB4 (501381)</u>	
COMMODITIES SOUGHT <u>Mo,Cu,Au,Ag</u> MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN <u></u> MINING DIVISION <u>Omineca</u>	_NTS093L 14W
LATITUDE127020'" LONGITUDE	5450'" (at centre of work)
OWNER(S) 1) Mathew Mason (Rand JV)	_ 2)
MAILING ADDRESS <u>Hathor Exploration Suite 1910 - 925 West Georgia Street</u> <u>Vancouver, BC V6C 3L2</u> OPERATOR(S) [who paid for the work] 1) <u>Aumega Discoveries Ltd, 2nd Floor - 157 Chadwick Court</u> <u>North Vancouver, BC V7M 3K2</u> MAILING ADDRESS	2)
	<u></u>

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

volcanic and related volcaniclastic and marine sedimentary rocks of the Lower to Middle Jurassic Hazelton Group, fluvial-deltaic sedimentary rocks

sedimentary rocks of the Lower Cretaceous Skeena Group and calc-alkaline intrusive rocks of the Bulkley Plutonic suite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED
			(incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping 6 man days		501381	\$6570
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
E lectromagnetic			
Induced Polarization			
Radiometric			
S eis mic			
Other			
Airborne			
GEOCHEMICAL			
(number of samples analysed for)			
S oil			
S ilt			
Rock			_
Other			
DRILLING			
(total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Line/grid (kilometres)	22 km	501381	\$37000
Topographic/P hotogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other <u>Re</u>	port		\$1000
		TOTAL COST	\$44570

Report on Preparatory Survey

For

## Induced Polarity Survey

## On

# Hudson Bay Mountain Claims

Omenica Mining Division Latitude 54<sub>0</sub>50'N Longitude 127<sub>0</sub>20'W.

Owner: Mathew Mason (Rand JV) Operator : Aumega Discoveries Ltd

Benjamin Ainsworth P.Eng B.C.

April 2006

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### **INTRODUCTION**

This report describes the work carries out by Aumega Discoveries Ltd on their Hudson Bay Mountain property in preparation for Induced Polarity Surveys.

In July of 2005 Aumega Discoveries contracted Don MacIntyre Ph.D, P.Eng to conduct geological mapping of their Hudson Bay Mountain property with a focus on identifying the most prospective area to host Porphyry Molybdenum mineralization. The proximity of Aumega's property to the historic Yorke-Hardy deposit had been the impetus for the staking of the claims by Mathew Mason and subsequent optioning by Aumega.

Don along with Pat Desjardins completed 6 days of mapping and sampling. The results of this work lead to a recommendations by Don for 22 km worth of Induced Polarity (IP) survey located just north of the Yorke-Hardy deposit.

The consulting firm RANEX EXPLORATION LTD was contracted to layout and cut a survey grid to acceptable industry standards in preparation for the IP survey.

A base line of 2km was laid out with compass and tight chain with stations at 50m intervals marked with pickets affixed with metal tags. Grid lines at 90° to the base line, and at 200m intervals, were laid out by compass with terminations of the lines determined by handheld GPS receivers.

As inclement weather was forcing an end to the program and it was determined that the Induced Polarity survey would not be completed in the 2005 field season the grid lines were not marked with pickets as it was expected the pickets would not survive the winter.



Figure 1. Location of the Hudson Bay Mountain property, west central British Columbia.

### **ACCESSIBILITY/LOCATION**

The Hudson Bay Mountain property is comprised of 46 mineral tenures containing 659 cell unitscovering 12,278 hectares ("the property"). AuMega Discoveries Ltd. has entered into an optionagreement with the tenure holders to acquire a 100% interest in the property. These mineral tenuressurround mining leases and mineral tenures that cover the Glacier Gulch (Yorke-Hardy) porphyrymolybdenum deposit. This deposit is currently being evaluated as a potential molybdenum producer. The deposit is reported to have a measured resource of 6,070,000 tonnes grading 0.286% MoS<sub>2</sub> and an indicated resource of 102,610,000 tonnes grading 0.259% MoS<sub>2</sub> all at a cut-off grade of 0.17% MoS<sub>2</sub> (Giroux, 2005). The property is located on the western margin of the Central Interior physiographic region of the Province of British Columbia, Canada on National Topographic System map sheet 093L 14W (Figure 1). The claims are centered at Universal Transverse Mercator (UTM) - 7 - co-ordinates 606573E, 6078939N using North American Datum (NAD) 83, or latitude 54<sub>0</sub>50'N longitude 127<sub>0</sub>20'W. The nearest town is Smithers, which is located on Highway 16, 13 kilometres southwest of the center of the property (Figure 2). The property is in the Omenica Mining Division.

Road access to the claims is by an old exploration road that is accessed from Glacier Gulch road on the east side of the mountain. Although this road is passable to the point of commencement of the grid (50+000N X 50+000E) with good 4X4 vehicles, regular transportation on the road is not practical with out some road upgrades due to numerous washouts and slope failures. The contractor to gain access to the area of interest used 4X4 quad runners for transportation.

### **CLAIM STATUS**

The Hudson Bay Mountain property is comprised of 46 mineral claims that cover an area of 12,277 hectares. These mineral claims were staked electronically by Matthew John Mason and are under option to Aumega Discoveries Ltd. (Aumega).

Tenure No.	No. of cells	Area (Hectares)	Date Staked	Anniversary Date (pending approval of this report)
501202	25	465.875	Jan. 12, 2005	Jan. 12, 2007
501248	25	465.652	Jan. 12, 2005	Jan. 12, 2007
501327	25	465.649	Jan. 12, 2005	Jan. 12, 2007
501381	25	465.511	Jan. 12, 2005	Jan. 12, 2007
501404	20	372.871	Jan. 12, 2005	Jan. 12, 2007
501433	4	74.527	Jan. 12, 2005	Jan. 12, 2007
501477	15	279.752	Jan. 12, 2005	Jan. 12, 2007
501488	2	37.255	Jan. 12, 2005	Jan. 12, 2007
501520	23	429.155	Jan. 12, 2005	Jan. 12, 2007
501530	25	465.885	Jan. 12, 2005	Jan. 12, 2007
501555	1	18.626	Jan. 12, 2005	Jan. 12, 2007
501581	1	18.626	Jan. 12, 2005	Jan. 12, 2007
501598	8	148.965	Jan. 12, 2005	Jan. 12, 2007
501619	12	223.432	Jan. 12, 2005	Jan. 12, 2007
501620	2	37.312	Jan. 12, 2005	Jan. 12, 2007
501652	9	167.664	Jan. 12, 2005	Jan. 12, 2007
501670	8	148.989	Jan. 12, 2005	Jan. 12, 2007
501681	12	223.685	Jan. 12, 2005	Jan. 12, 2007
501702	8	149.802	Jan. 12, 2005	Jan. 12, 2007
501712	1	18.624	Jan. 12, 2005	Jan. 12, 2007
501780	12	223.745	Jan. 12, 2005	Jan. 12, 2007
501813	10	186.498	Jan. 12, 2005	Jan. 12, 2007
501854	2	37.275	Jan. 12, 2005	Jan. 12, 2007
502037	5	93.265	Jan. 12, 2005	Jan. 12, 2007
502058	6	111.708	Jan. 12, 2005	Jan. 12, 2007
502097	16	297.886	Jan. 12, 2005	Jan. 12, 2007
502126	20	373.166	Jan. 12, 2005	Jan. 12, 2007
502146	5	93.263	Jan. 12, 2005	Jan. 12, 2007
502177	4	74.472	Jan. 12, 2005	Jan. 12, 2007
502194	9	167.620	Jan. 12, 2005	Jan. 12, 2007
502217	25	465.627	Jan. 12, 2005	Jan. 12, 2007
502229	15	279.261	Jan. 12, 2005	Jan. 12, 2007
502264	3	55.987	Jan. 12, 2005	Jan. 12, 2007
502282	4	74.603	Jan. 12, 2005	Jan. 12, 2007
502911	25	465.878	Jan. 12, 2005	Jan. 12, 2007
504238	25	465.715	Jan. 18, 2005	Jan. 18, 2007
504239	14	260.600	Jan. 18, 2005	Jan. 18, 2007

504266	25	465.195	Jan. 18, 2005	Jan. 18, 2007
504272	24	446.290	Jan. 18, 2005	Jan. 18, 2007
504275	25	465.020	Jan. 18, 2005	Jan. 18, 2007
504276	25	465.259	Jan. 18, 2005	Jan. 18, 2007
504277	25	465.498	Jan. 18, 2005	Jan. 18, 2007
504279	25	465.770	Jan. 18, 2005	Jan. 18, 2007
504280	10	186.383	Jan. 18, 2005	Jan. 18, 2007
504281	24	447.501	Jan. 18, 2005	Jan. 18, 2007
504284	25	466.324	Jan. 18, 2005	Jan. 18, 2007

#### Aumega Option Claim Map



### HISTORY

The earliest recorded exploration work done on Hudson Bay Mountain dates back to 1905 when prospectors began exploring much of central B.C.

The most significant exploration target on Hudson Bay Mountain is the Glacier Gulch or Yorke-Hardy porphyry molybdenum deposit, since renamed the Davidson deposit in recognition of Don Davidsons life long work on the deposit. Although the Glacier Gulch deposit is not covered by the claims discussed in this report, the deposit is described in some detail because of its significance to the potential for discovering extensions of the deposit or new deposits related to the same intrusive complex on claims under option to Aumega.

The following historical summary is extracted from a recent technical report by Giroux (2005).

"Molybdenum was first reported in outcrop on Hudson Bay Mountain by the Geological Survey of Canada in 1944. The first claims were staked by William Yorke-Hardy in 1957. The property was optioned to American Metal Co. ("AMAX") from 1957 to 1959 during which time they completed a program of surface trenching and limited drilling. In 1961 the property was optioned by Climax Molybdenum Corp. of B.C. Ltd. During the period 1961 to 1963 Climax completed a total of 14,502 ft. (4.420 m) of diamond drilling identifying two shallow dipping bodies of molybdenite-scheelite mineralization. In 1966 an adit was collared at an elevation of 3,500 ft. (1067 m) and driven 66 degrees west for 5,600 ft. (1708 m) then due west for 700 ft (214 m) from the east slope of Hudson Bay Mountain, from which two cross cuts were developed for underground drilling. A total of 164 diamond drill holes were completed; 41 from surface totaling 23,500 m. and 123 holes in fans from underground stations located on roughly 100 ft. centres (34,907 m). Climax completed the outright purchase of the Yorke-Hardy in 1971. A summary of work completed by Climax Canada Ltd. between 1962 and 1991 is taken from the BC Governments MINFILE database.

- 1962 Geological mapping (Assessment Report 471)
- 1963 Airborne Magnetic survey (Assessment Report 545)
- 1968 Soil geochemical survey (388 samples) (Assessment Report 1730)
- 1968 Soil geochemical survey (205 samples) (Assessment Report 2245)
- 1969 Adit reopened and ventilated and 5,200 ft. of track was ballasted
- 1973 Grid cutting and geological mapping (Assessment Report 4756)
- 1973 Underground diamond drilling 5holes BQ (2239 m), Sampling 273 assays for Multielement plus tungsten and copper and line cutting (Assessment Report 4871)
- 1974 Diamond Drilling 3 holes BX (146 m) (Assessment Report 5041)
- 1976 Diamond Drilling 2 holes BQ (183 m) (Assessment Report 5928)
- 1977 Diamond Drilling 2 holes BQ (69 m) (Assessment Report 6480)
- 1979 Diamond Drilling 4 holes HQ (527 m) (Assessment Report 7565)
- 1979 Underground Diamond Drilling 14 holes (1884 m) (Assessment Report 7780)
- 1981 Preliminary geotechnical and environmental study of a proposed tailings pond site (Assessment Report10370)
- 1989 Geochemical Soil Survey 264 samples (Assessment Report 18236)

- 1990 Lithogeochemical Survey 283 samples (Assessment Report 19569)
- 1990 Geochemical Soil Survey 153 samples (Assessment Report 20797)
- 1991 Geochemical Surveys 12 rocks, 310 soil samples (Assessment Report 21743)

Over the life of this property several resource estimates have been completed. In 1981 R.C. Steininger utilized all drill holes (DDH-1 to DDH-164) and a sectional technique on cross sections spaced 100 ft apart to estimate at a 0.2% MoS<sub>2</sub> cutoff 22.7 million tons grading 0.401% MoS<sub>2</sub>. A tonnage conversion factor of 12.12 ft<sub>3</sub> / ton was used for this calculation. In 1981 A. Noble, of AMAX Technical Services, calculated a resource within the same 0.1% MoS<sub>2</sub> shell used by Steininger but used kriging and a 12.5 ft<sub>3</sub> / ton tonnage factor and 50 x 50 x 50 ft blocks. At a 0.2% MoS<sub>2</sub> cutoff Nobel calculated 53.3 million tons grading 0.275 % MoS<sub>2</sub>.

In 1996 Climax sold the property to Don Davidson.

In 1998 G.H. Giroux completed a kriged estimate using the same data base including 164 drill holes, a larger mineralized shell, a 50 x 50 x 25 ft block model and a tonnage conversion factor of 12.5 ft3/ton. At the same 0.2% MoS<sub>2</sub> cutoff a resource of 77.63 million tons grading 0.286 % MoS<sub>2</sub> was classed measured plus indicated."

### **GEOLOGICAL SETTING** *Regional Geology*

West-central British Columbia is part of the Stikine terrane. This terrane, which is believed to have traveled north from low paleolatitudes in Late Cretaceous or Early Tertiary time, includes: submarine calcalkaline to alkaline volcanic island arc rocks of the Late Triassic Takla Group; subaerial to submarine calcalkaline volcanic, volcaniclastic and sedimentary rocks of the Early to Middle Jurassic Hazelton Group; Late Jurassic and Early Cretaceous successor basin sedimentary rocks of the Bower Lake, Skeena and Sustut groups; and Late Cretaceous to Tertiary calcalkaline continental volcanic arc rocks of the Kasalka, Ootsa Lake and Goosly Lake groups (Figure 5). The younger volcanic rocks occur sporadically throughout the area, mainly in subsided fault blocks and grabens that may be the remains of cauldron subsidence complexes. Potassium-argon isotopic dating has defined three major magmatic events. These are the Late Triassic to Early Jurassic Topley Plutonic Suite, the Middle to Late Cretaceous Bulkley Plutonic Suite and the Eocene Nanika Plutonic Suite (Carter, 1981). Mineral deposits in the area are associated with emplacement of these intrusions. The most economically important exploration targets are porphyry copper and molybdenum deposits and mesothermal and epithermal precious metal veins. A few small massive sulphide occurrences have also been discovered.

The tectonic history of the area is divisible into three distinct regimes. From Early to Middle Jurassic time an extensive calcalkaline island arc evolved, with a possible backarc basin located to the east. This was followed from late Middle Jurassic to Early Cretaceous time by development of the Bower and Nechako successor basins. Thick deposits of molasse derived from an uplifted Skeena Arch and Omineca crystalline belt accumulated within these basins. A major plate collision in Middle Cretaceous time resulted in uplift of the Coast Range and extensive folding of rocks to the east. Debris was shed eastward across the area from the rising metamorphic-plutonic complex and this was followed by the growth of a north-trending Andean-type volcanic arc in Middle to Late Cretaceous time. A transtensional tectonic regime in Late Cretaceous to Early Tertiary time produced the basin and range geomorphology that controls the current map pattern of the area. The latest tectonic event appears to be northeast shearing and tilting of fault blocks to the southeast (MacIntyre and Desjardins, 1988). This shearing has offset northwest-trending grabens that developed in Late Cretaceous to Early Tertiary time. The Telkwa and Babine ranges consist of a series of uplifted and tilted fault blocks containing rocks ranging from early Jurassic to Tertiary in age. In general the fault blocks are tilted toward the Bulkley valley graben which separates the two ranges. Rocks of Cretaceous and Tertiary age are preserved within the graben. The graben is offset by several major northeast-trending shear zones of probable Tertiary age.

#### **Property Geology**

Hudson Bay Mountain is underlain by volcanic and related volcaniclastic and marine sedimentary rocks of the Lower to Middle Jurassic Hazelton Group, fluvial-deltaic sedimentary rocks of the Lower Cretaceous Skeena Group and calc-alkaline intrusive rocks of the Bulkley Plutonic suite (Kirkham, 1966). The Hazelton Group is comprised of subaerial andesitic volcanic rocks of the Lower Jurassic Telkwa Formation, felsic pyroclastic and volcaniclastic rocks of the Lower to Middle Jurassic Eagle Peak Formation, shallow water feldspathic sedimentary rocks of the Middle Jurassic Smithers Formation and shallow to deep water marine sedimentary rocks of the Middle to Upper Jurassic Ashman Formation. The Hazelton Group is unconformably overlain by marine sedimentary and volcanic rocks of the Lower Cretaceous Skeena Group. The Skeena Group underlies most of the Bulkley Valley which is a north trending graben. On Hudson Bay Mountain, the Skeena Group occurs as erosional remnants on the steep east facing flank of the mountain. The Hazelton and Skeena Groups are cut by equigranular and porphyritic granodiorite, quartz monzonite, and quartz rhyolite phases of the Late Cretaceous Bulkley Intrusive suite. Emplacement of Late Cretaceous plutons was accompanied by formation of associated porphyry copper and molybdenum mineralization and related polymetallic veins. A period of crustal extension and block faulting that is recognized throughout central B.C. has been superimposed on Eocene and older rocks in the area resulting in a complex map pattern (MacIntyre and Villeneuve, 2001). In the vicinity of the Hudson Bay Moutain property a series of northeast and north-trending faults is probably related to this period of extension.

Bedrock mapping completed by (MacIntyre et al., 1988) and others (Kirkham, 1966) on Hudson Bay Mountain has shown that the mountain is comprised of one or more east dipping, westward directed thrust plates comprised of felsic pyroclastic and related volcaniclastic rocks of the Lower Jurassic Telkwa Formation. On the west side of Hudson Bay Mountain these thrust plates are seen to override Middle Jurassic Smithers Formation sedimentary strata. The later have been folded into an overturned, syncline with an east dipping axial plane. This contractional deformation occurred prior to deposition of the Lower Cretaceous Skeena Group which unconformably overlies deformed Hazelton Group strata. Thrust faults on Hudson Bay Mountain are probably related to formation of the Skeena Fold and Thrust belt that is recognized in the Bowser Basin to the north (Evenchick, 1999).

## STATEMENT OF COSTS

#### MAPPING

D.G MacIntyre	and	Associates
---------------	-----	------------

6 crew days @ 1000/day Transportation Map Digitizing		\$6000 \$70 \$500
LINE CUTTING		
1480/ crew day (all found) X 25 crew days		\$37,000
Report preparation		\$1000
	Total	\$ 44570

### **CONCLUSIONS AND RECOMMENDATIONS**

As inclement weather forced the end of the program during last years field season the only recommendations that can be made are to pick up where they left of last year. Completion of a 3-D Induced Polarity survey then pending results a 2000-3000 meter diamond drill program should be undertaken.

Phase 1- Complete IP survey \$45,000

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Phase 2- 2000-3000 meters drilling (helicopter supported) \$350,000-\$450,000

#### CERTIFICATE

- I, Benjamin Ainsworth am the author of this report having offices at 408-1199 1) Pender Street, Vancouver, BC. I am self-employed as a consultant geologist.
- I graduated from Oxford University with an Honours Degree in Geology in 1962 2) and have been practicing my profession continuously since that time. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia, Registration Number 8648.
- I have been practicing as a consultant geologist since 1987, following 21 years as 3) a geologist working for Placer Development Ltd during which time I carried out regional and property exploration in British Columbia for all common economic metals and minerals.
- 4) I have worked on projects similar to the subject mining property of this report and am a "Qualified Person" in the context of National Instrument 43-101.
- 5) As of the date of this report I am not aware of material facts that are not reflected in this report by written inclusion or reference.
- 6) I act as the corporate "Qualified Person" for several client companies.
- 7) In my professional opinion the property is of potential merit and further exploration work is justified.

April 9th 2006 at Vancouver, BC

Benjamin Ainsworth, PEng BC

Ainsworth-Jenkins Holdings Inc, 408-1199 W. Pender Street, Vancouver, BC, V6E 2R1 πxi

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