

1978 ASSESSMENT REPORT

TITLE: DIAMOND DRILLING REPORT
KITSAULT PROPERTY

CLAIMS: ACCESS 12, BLUE 1 FR., 2 FR.,
3 FR., BLUE 3, 4, and 5

MINING DIVISION: SKEENA MINING DIVISION

NTS LOCATION: NTS 103 P13 6W

LATITUDE AND
LONGITUDE: 55°26'N. and 129°27'W.

OWNER AND
OPERATOR: CLIMAX MOLYBDENUM CORPORATION OF
BRITISH COLUMBIA, LIMITED

AUTHOR: ROGER C. STEININGER

DATE SUBMITTED: FEBRUARY 13, 1979

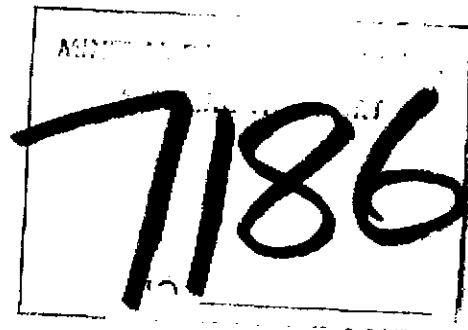


TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
Location and access	1
Physiography	1
History	1
SCOPE OF PRESENT WORK	1
DRILLING RESULTS	1
AUTHOR'S QUALIFICATIONS	3
CLAIM STATUS	4
APPENDIX A - DRILL LOGS	
APPENDIX B - DRILL HOLE SURVEY DATA	
APPENDIX C - STATEMENT OF COSTS	

LIST OF FIGURES

Figure 1 - Index Map	2
Figure 2 - Drill Hole Location Map	In Pocket

INTRODUCTION

Location and access

The Kitsault property is approximately four miles south of the town of Alice Arm, and two miles south of the Kitsault townsite. Access to the property is by road from Kitsault to the open pit and by helicopter to Mohawk Mountain (Figure 1).

Physiography

The claims are between sea level and 2,500 feet elevation. Upper elevations are either thickly wooded or open swampy ground. At lower elevations tree and bush cover is extremely dense. Slopes are generally steep; deeply incised gulleys are common in the northern and eastern parts of the claim group.

History

The Access claim was originally owned by B. C. Molybdenum Limited. Climax Molybdenum Corporation of British Columbia, Limited purchased the claim in 1973. The Blue Fraction and Blue claims were staked by Climax in the summer of 1978.

The area is of interest for its known and potential molybdenum mineralization.

SCOPE OF PRESENT WORK

One NQ-BQ diamond core hole was drilled into the claims (Figure 2). This hole, LC 78-3, is 321.25 m long.

DRILLING RESULTS

Hole LC 78-3 was collared vertically but gradually flattened to a bottom bearing of N. 41° E. and an inclination of -21° (survey data in Appendix B). The collar location shown on Figure 2 is at an elevation of approximately 2,300 feet above sea level. The hole was drilled to a NQWL size from 0 to 300 feet (91.4 m), and a BQWL size from 300 to 1,050 feet (321.25 m). Drilling started on July 17, 1978, and was completed on July 31, 1978. A statement of costs for this drilling is in Appendix C.

Drill hole LC 78-3 was collared in graywacke members of the Bowser Lake Group. The entire hole consists of alternating layers of graywacke, micrograywacke, argillite, and minor limestone and conglomerate. Individual layers vary from a few centimeters to as much as 20 m thick. Contacts between the units are sharp and cut the core axis at angles of 45 to 60°. Numerous small faults and fracture zones are common throughout the drill hole, but the amount of movement could not be determined. The only mineralization encountered was 1- to 5-mm-wide calcite veins. A detailed geologic log is in Appendix A.

This hole was designed to test for mineralization under Mohawk Mountain, and to supply ground condition information along the line of a proposed tailing disposal tunnel. The results of this drill hole have satisfied these objectives. There are no assays for this hole.

Roger Steiner

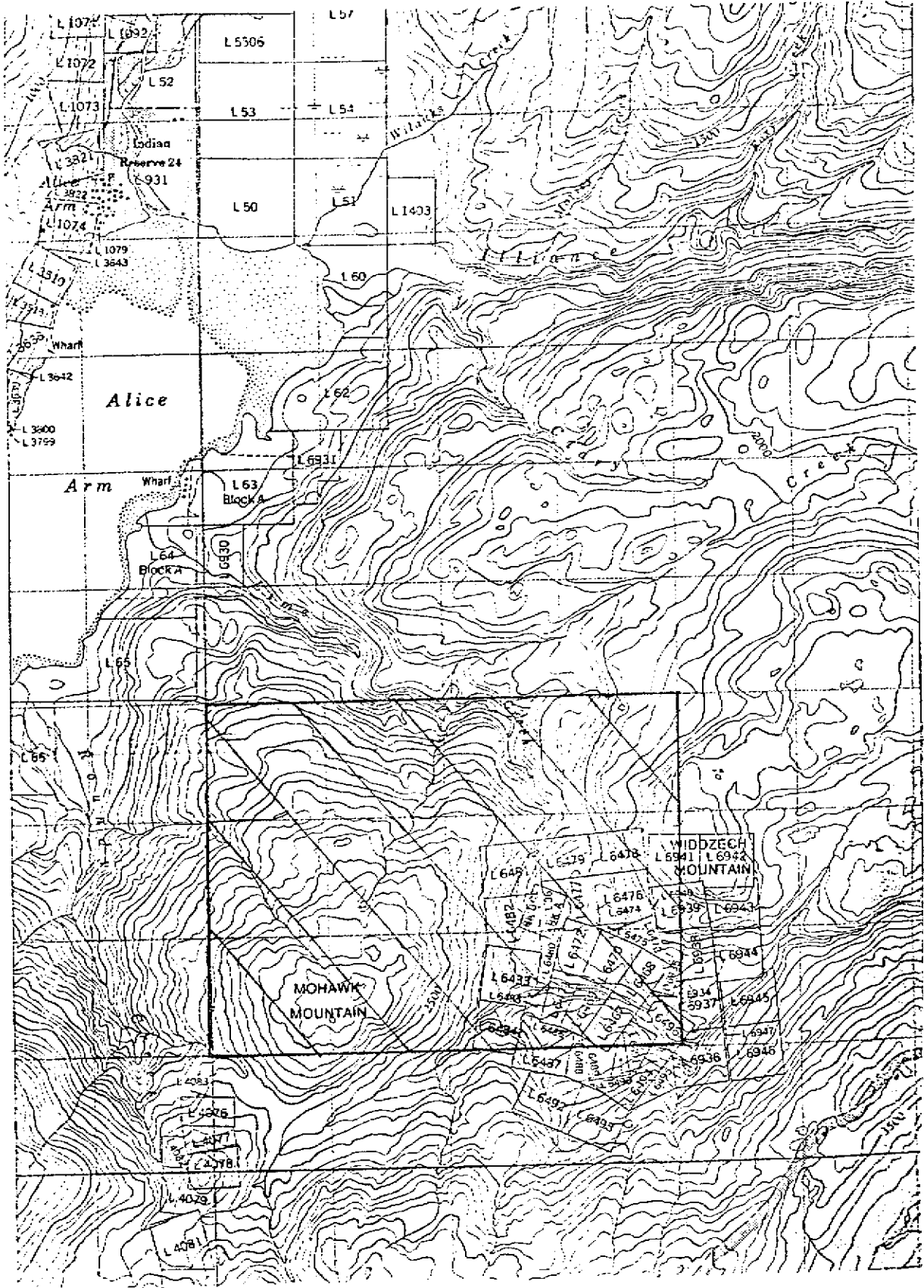


Figure 1. Approximate region of interest shown by stripped area. Map is a portion of the 1:50,000 Aiyansh sheet NTS 103 P/6. North to top.

AUTHORS QUALIFICATIONS

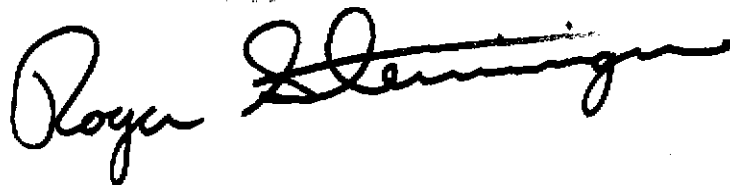
Roger C. Steininger

Education

B.S. - Geology, 1964, Western Michigan University
M.S. - Geology, 1966, Brigham Young University
Ph.D. - Geology, in progress, Colorado State University

Professional Experience

1967-1971	Associate Geologist to Senior Geologist, Climax Mine
1971 to present	Senior Project Geologist, Climax Molybdenum Company. Responsible for exploration and evaluation of molybdenum and tungsten prop- erties throughout North America.

A handwritten signature in black ink that reads "Roger Steininger". The signature is written in a cursive style with a long, sweeping underline.

CLAIM STATUS

<u>Claim Name</u>	<u>Record</u>	<u>Work Due Date</u>
Access 12	19311	July 6, 1982
Blue 1 Fr.	614	May 24, 1979
Blue 2 Fr.	773	June 22, 1979
Blue 3 Fr.	774	June 22, 1979
Blue 3	645	June 20, 1979
Blue 4	644	June 21, 1979
Blue 5	643	June 21, 1978

APPENDIX A

DRILL LOG FOR DRILL HOLE LC 78-3

Kitsault Drill Hole LC 78-3
Logged By R. C. Steininger, August, 1978.

Rock type classifications to be used in this hole are as follows:

- Conglomerate - made up of individual grains greater than 3 mm.
Graywacke - composed of individual grains varying in size from 1 to 3 mm.
Micrograywacke - composed of individual grains less than 1 mm across, but still detectable.
Argillite - extremely fine-grained dense rock, where individual grains are not easily recognizable.

- 0 - 11 ' Overburden.
- 11 - 31 ' Graywacke to micrograywacke, grading from one unit into the other throughout the interval. Locally the graywacke may have individual grains up to 3 to 4 mm that comprise 15 to 20 percent of the rock. At 18.5 ft a 2-cm-wide conglomerate zone. The rock is cut by numerous calcite gash veins that are probably reheal features and do not suggest a deeper mineralized zone. From 14 to 16 ft a fractured zone with no obvious indication of faulting.
- 31 - 36.5' Argillite. Argillite-graywacke contact at 40° to CA.
- 36.5 - 79 ' Interlayered graywacke and micrograywacke. Contacts between the two units are gradational over a few centimeters. Fractured zones at 54 to 55 ft, minor gouge along some fracture surfaces, 61.5 to 63 ft, minor gouge along fracture surfaces, and 73 to 73.5 ft, fracturing with iron staining, mainly goethite, along fracture surfaces. Gash calcite veins are still present throughout the interval and are seldom more than 2 mm wide, with little or no breakage along the vein.
- 79 - 80.4' Argillite. Gash calcite veining increases slightly. Moderately broken throughout the interval. Contact between argillite and graywacke at 50° to CA. Lower contact gradational over 3 cm.
- 80.4 - 89 ' Graywacke. Sample of typical graywacke at 88 ft, sample number KA-125.
- 89 - 90 ' Conglomerate. Upper contact is gradational over 2 cm. Lower contact cuts the CA at 50°. Sample of typical conglomerate at 89.5 ft, sample number KA-126. Conglomerate has lination parallel to the contacts.
- 90 - 114.3' Graywacke. Broken zone from 100 to 105 ft and 108 to 111 ft, consisting of broken rock, argillization along fracture surfaces, and weak argillization of the graywacke. No obvious evidence of faulting in these zones. Graywacke becomes slightly coarser grained with depth. Individual grain sizes near the lower contact are up to 3 mm, which is about twice as large as at the upper contact. There is also a lination at approximately 70° to CA.
- 114.3-116 ' Argillite. Calcite veining appears to be more abundant in the argillite. Upper contact between argillite and the graywackes at 50° to CA. Lower contact between argillite and graywacke is gradational over a 2 cm zone.

- 116 - 117 ' Graywacke.
- 117 - 118 ' Argillite. Typical argillite at 117.8 ft, sample number KA-127. Contact between the two units is 50° to CA.
- 118 - 130 ' Graywacke. 128 to 130 ft is fault zone consisting of strongly broken rock, gouge, and minor slicks.
- 130 -130.6' Conglomerate cuts the CA at 45° .
- 130.6- 133 ' Graywacke.
- 133 - 134 ' Argillite. Lower contact of conglomerate cuts the CA at 30° .
- 133 - 163 ' Conglomerate with minor interlayered graywacke. Upper contact is gradational over a 2 cm zone. Contact between the graywacke and the conglomerate is gradational. At the upper contact of the conglomerate unit there is a 4-cm-wide graywacke. Typical conglomerate sample at 145 ft, sample number KA-128.
- 163 - 203 ' Graywacke with minor interlayered argillite and conglomerate. Strongly broken zone from 175 to 190 ft consisting mostly of broken rock, minor gouge, minor argillization, and some slicks. No strong evidence of faulting.
- 203 - 240 ' Micrograywacke with several interlayered zones of graywacke. Contact between the two units is gradational. Contact from the graywacke above this interval into the micrograywacke is gradational over about a 4 cm zone. Sample of typical micrograywacke at 218 ft, sample number KA-129. 214 to 218 ft rock is strongly broken, no obvious evidence of faulting.
- 240 - 248. ' Graywacke. Lination is 50° to CA.
- 248 - 264 ' Argillite. Bedding approximately 60° to CA.
- 264 - 268 ' Graywacke.
- 268 - 274 ' Argillite. Contact between graywacke and argillite at 50° to CA.
- 274 - 284 ' Graywacke. Strongly fractured zone from 275 to 279 ft, consisting of broken rock, slicks, gouge, and argillization.
- 284 -375.7' Argillite. Strongly fractured zones from 275 to 291 ft and 313 to 326 ft. These zones consist of broken rock, gouge, slicks, and argillization. Within the first broken zone, several 6-inch to $1\frac{1}{2}$ -foot competent rocks. Calcite veining slightly more abundant within the argillite. Typical sample at 340 ft, sample number KA-130.
- 375.7- 483 ' Micrograywacke. Has local interbedded argillite up to 20 cm wide. Rock rarely grades into graywacke. Fractured zone from 460 to 470 ft, moderately broken rock. Calcite-gash veins are still present.
- 483 - 504 ' Argillite.
- 504 - 508 ' Micrograywacke.
- 508 - 513 ' Argillite. Contract between micrograywacke and argillite at 40° to CA.
- 513 - 584 ' Micrograywacke. From 540 to 560 ft moderately fractured rock, some minor gouge, possibly a fault zone. From 575 to 578 ft moderately fractured zone.
- 584 - 592 ' Micrograywacke.
- 592 - 595 ' Argillite.

- 595 - 600' Micrograywacke.
- 600 - 650' Core is moderately broken. Locally stronger fracturing as minor gouge and slicks. This entire interval is probably numerous small fault zones and the rock in between is fractured due to the faulting. Micrograywacke continues to 628 ft.
- 628 - 664' Argillite. Strongly fractured zone from 628 to 650 ft consisting of strongly broken rock, gouge, and slicks. Probably represents a fault zone. Several 2- to 15-cm-wide broken zones scattered throughout the rest of the interval.
- 664 - 676.2' Limestone (?) appears to be a carbonate that is partly replaced by a dark-green silicate. Representative sample at 672 ft, sample number KA-131. Contact between argillite and limestone at 30^o to CA.
- 676.2- 768' Interlayered graywacke and micrograywacke. The change from one unit to another is gradational over a few centimeters to a few tens of centimeters. Representative samples taken of micrograywacke at 691 ft (sample number KA-132) and graywacke at 752 ft (sample number KA-133). Strongly fractured zones from 698.5 to 710 ft, consisting of strongly broken core, in places minor gouge and slicks. From 710 to 730 ft several 15- to 35-cm-wide broken zones with minor gouge and slicks. This entire interval probably is broken by several small fractures and fault zones.
- 768 - 775' Argillite. Contact between graywacke and argillite at 50^o to CA. Strongly broken zone from 774 to 775 ft.
- 775 - 994' Interlayered graywacke and micrograywacke with several 1- to 30-cm argillite seams from 800 to 806 ft. From 780 to 800 ft rock is moderately broken with minor argillization. Calcite veining is still present. Lower footage for the graywacke zone is 994 ft. Strongly broken zone from 893 to 906 ft. Numerous fractures, no obvious evidence of faulting. From 915.6 to 920 ft is a fault zone consisting of strongly broken rock, argillized graywacke, gouge, and minor slicks. From 930 to 946 ft is a fault zone, strongly broken rock, moderate argillization, gouge, and slicks. Obviously a fault zone.
- 994 - 1012' Argillite. Contract between graywacke and argillite over a 2-cm-wide zone.
- 1012 - 1050' Graywacke with interbedded micrograywacke and minor amounts of argillite. 1030 to 1036 ft, strongly broken rock; 1042 to 1046 ft, strongly broken rock, no obvious evidence of faulting.

END OF HOLE.

APPENDIX B

SURVEY DATA FOR DRILL HOLE LC 78-3

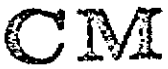
SURVEY DATA

LC 78-3

<u>Depth</u>	<u>Inclination</u>	<u>Bearing</u>
100	-85°	N. 55°E.
200	-76°	N. 41°E.
370	-61°	N. 43°E.
420	-56°	N. 43°E.
470	-54°	N. 41°E.
520	-48°	N. 42°E.
570	-46°	N. 42°E.
620	-44°	N. 43°E.
670	-42°	N. 44°E.
720	-40°	N. 44°E.
770	-37°	N. 46°E.
820	-32°	N. 45°E.
920	-25°	N. 42°E.
990	-21°	N. 41°E.
	-21°	N. 41°E.

APPENDIX C

STATEMENT OF COSTS



CAMERON McCUTCHEON DRILLING LIMITED

DIAMOND DRILLING CONTRACTORS

Telephone 253-5251
Telex: 04-54311

745 Clark Drive
Vancouver, B.C.
V5L 3J3

INVOICE NO. 12045

JOB NO. 355

AUGUST 3RD, 1978

Climax Molybdenum Corp. of B.C. Ltd.
13949 West Colfax Ave.
Golden, Colorado
U.S.A. 80401

Attention: Mr. Roger Steininger

RE: SURFACE DRILLING AT ALICE ARM

HOLE #78-2 N.Q.	123' - 130' =	7'	CORING @ \$16.25	\$	113.75
	130' - 1500' =	1370'	CORING @ \$15.25		20,892.50
B.Q.	1500' - 1676' =	176'	CORING @ \$16.50		2,904.00
HOLE #78-3 N.W.	0' - 11' =	11'	CASING @ \$16.50		181.50
N.Q.	11' - 300' =	289'	CORING @ \$16.25		4,696.25
B.Q.	300' - 1000' =	700'	CORING @ \$15.25		10,675.00
B.Q.	1000' - 1050' =	50'	CORING @ \$16.50		825.00
		2603'			13,732.13
SITE COSTS		SCHEDULE A			13,996.13
SUPPLIES		SCHEDULE B			<u>4,449.26</u>
					58,469.39
					<u><u>\$58,733.39</u></u>
TOTAL INVOICE					

DIRECTOR
 PURCHASER
 DEPT. HEAD
 APPROVED
 DATE
 8/2/78
 O.E.S. - corrections as noted.
 270-57-1 2000
 B.C.A. - 10
 FINAL APPROVAL

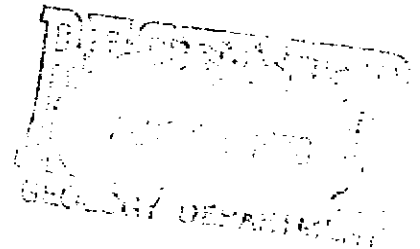
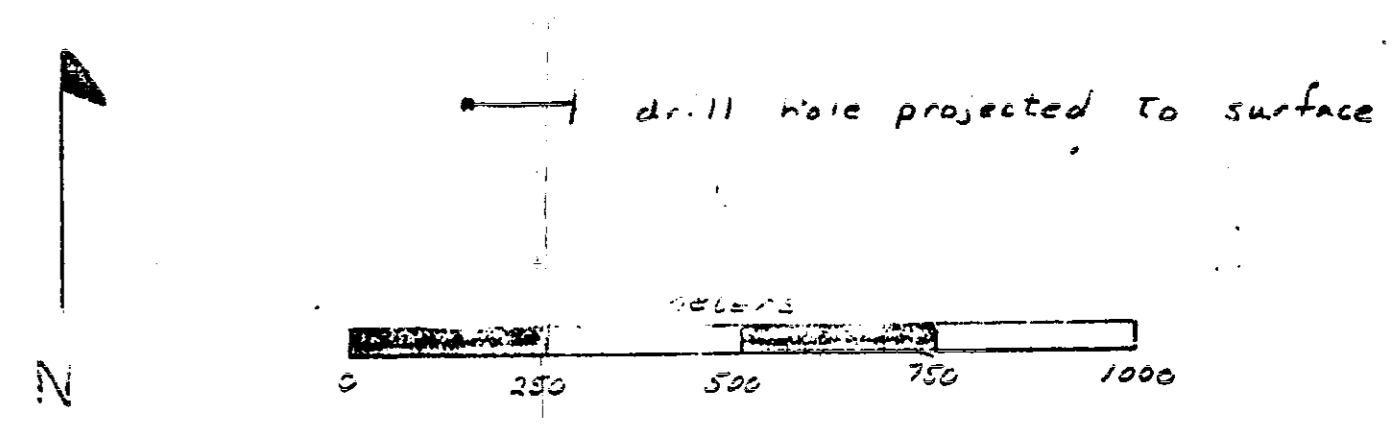




Figure 2-Location map for drill hole LC78-3



Royal Sterling
 MINERAL RESOURCES CONSULTANTS
 7186