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93-M-13414

1968

812847

REPORT OF EXPLORATION PROGRAMME

CARRIED OUT BY

CANADIAN SUPERIOR EXPLORATION LIMITED

ON

SICINTINE MINES LIMITED PROPERTY

ATNA RANGE, B.C.

B.H. Kahlert

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SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

1. The diamond drilling on Graham Peak showed that molybdenite mineralization is widespread but very low grade except over narrow widths. The best intersection more than 50 feet in length was obtained in hole A-1-68 from 70 to 130 feet (60 feet) where the average grade was 0.125% MoS_2.

2. The drilling failed to show any increase in grade with depth, thus negating the premise on which the drilling was based, i.e., that the low surface values obtained in the 1967 trenching programme were not an indication of the true grade at depth due to the effect of leaching. Leaching and oxydation do occur, but affect the molybdenite very little due to its occurrence in tight hairline fractures in an intimate mixture with quartz.

3. Geochemical rock chip sampling of the Graham Peak area indicated a large zone of anomalous molybdenum values greater than 10 ppm Mo. Within this anomaly, on the east slope, is a zone with values greater than 400 ppm Mo. This zone, measuring approximately 500 feet by 1,200 feet elongated northward, is presently the most encouraging untested zone on the property.

4. Samples from trenches on the Mad, Utah and Horne showings gave assays well below ore grade. The trench on the Mad showing was for assessment purposes and was not on the showing from which the well mineralized float is derived - access to this showing has not yet been achieved.

   The trenches on the Horne showing were sited on visual evidence prior to receipt of the assays of geochemical rock chip samples. The geochemical data now suggests that the trenches were off the zone of best values.

   The Utah trenches were randomly distributed across the width of the main zone and indicate that the showing is no better than the Graham Peak zone - in fact the two are closely comparable and possibly interconnected beneath the intervening valley. Soil sampling in the Utah area did indicate other sources of molybdenum apart from the known showings.

B. Recommendations

1. A minimum of 2,000 feet of diamond drilling should be carried out on the high molybdenum geochemical anomaly on the eastern slope of Graham Peak. Two holes are proposed, both sited at the same location but directed northwards and southwards respectively.

2. The soil anomalies on the Utah Ridge should be followed up to determine the type and extent of the source.

3. A determined effort should be made to find the source of the well mineralized float on the Mad claims. This work could only be done by experienced mountain climbers.

4. The geochemical anomaly on the Horne showings should be explored further by means of rock trenching near the peak values.

The estimated cost involved in carrying out the above recommendations is $60,000.00.

I. INTRODUCTION

As a sequel to four weeks of trenching, sampling, mapping and reconnaissance work completed in late 1967, a drilling programme was carried out in the summer of 1968 on Graham Peak. Detailed mapping and rock-chip sampling were also completed on the east and west slopes of the ridge north of the peak. Other work consisted of soil and/or rock chip sampling of the Utah and Horne showings, trenching and sampling the Horne, Utah and Mad showings, and prospecting several ridges in the vicinity of Graham Peak. The claims situation was carefully checked and slightly reorganized to ensure adequate protection.

II. CLAIMS AND OWNERSHIP (See App. A)

Canadian Superior currently owns or controls 120 claims and fractions in the vicinity of Graham Peak, (See Fig's. II and III). The claims were staked by both Sicintine Mines and Canadian Superior personnel, but all fall under the terms of the agreement between the two companies. Any claims staked within 2 miles of the original group by either party are covered by the agreement and will be returned to Sicintine Mines should the option be terminated.

III. LOCATION AND ACCESS (See Fig. I)

The property is located near the northeast edge of the Atna Range Lat. 55^{o}, 57'N, Long. 127^{o} 18'W. It extends west of Sicintine Lake, which is 80 air miles north of Smithers, B.C. Access to the property is usually by helicopter, but float planes can land supplied on Sicintine Lake. Helicopter can then be used to ferry supplies to a camp 2 miles west and 1,200 feet above the lake.

In 1968, heavy drilling equipment was trucked to Kisgegas on a poor 50 mile dirt road north of Hazelton, a Sikorsky S-58 helicopter was used to carry the drill directly to the drill site on top of the ridge. A Hiller 12-E helicopter was based at the Sicintine camp for two months to move personnel, equipment and supplies as necessary.

IV. CLIMATE AND PHYSIOGRAPHY

The high Atna Range seems to mark the eastern fringe of the wet west coast marine climate. Summers are typically mild with moderate rain while winters are cold with a very heavy snowfall. Work above 4,000 feet elevation is difficult to commence before July as over two feet of snow is still lying in protected and slide areas. Permanent glaciers cover the central part of the range and tongue laterally into the valleys.

VI. SUMMARY OF THE 1968 WORK PROGRAMME

A. Move in to the property began on July 9th, and, due to helicopter breakdowns and very poor weather conditions, required four days to complete. Camp was set up and the first drill site prepared during this time. Between 11 and 13 men occupied the camp from July 9th to August 31st.

B. Availability of water for drilling was a major problem. The nearest source was a small lake 1,100 vertical feet below the first drill site. Run-off water from snow was considered, but freezing at night time stopped the flow for the night shift drilling. A 2,400 feet long, 2 inch diameter steel pipe was laid up the steep eastern slope and secured to either large trees or steel rods set in bedrock. Power to lift the water from the lake to the lower drill site was supplied by a diesel pump. Drill Holes A-1-68 and A-2-68 were drilled from this site, holes A-3-68 and A-4-68 were drilled 1,000 feet south along the ridge, 400 vertical feet higher. A total of 3,319 feet BQW core was drilled. (See Appendix C for detailed drill logs). Sludge was collected where possible, but frequent loss of water made cementing costs prohibitive.

C. Detailed mapping was completed over most of Graham Peak. Due to very rough topography, control for mapping was entirely from government air photos and oblique angle colour photographs taken from helicopter in 1967. A limited amount of mapping was also carried out over other parts of the claims.

D. Geochemical rock chip samples were taken on both sides of Graham Peak at 200 foot intervals. Sampling traverses were governed by access and outcrop. Rock chip samples were also collected from the Utah and Horne showings. Thirty-three soil samples were collected at 100 and 200 foot intervals along contour across the Utah showing.

E. Trenches were drilled, blasted, mucked and sampled on the Utah, Horne, and Mad showings. A total of 287 cubic yards of rock was moved from 10 trenches.

F. The claims situation was thoroughly checked in the showings area and more generally in other parts of the property. As a result of this check, several claims were abandoned and others staked to provide more adequate protection of the showings. (See claims map, Fig. 2).

G. Prospecting was carried out on a small scale within a six mile radius of camp but no new staking resulted.

VII. REGIONAL GEOLOGY

The Atna Range is one of several small but extremely rugged mountain ranges north of the Babine River. These ranges parallel the regional northwesterly folding trend and are separated by long, linear valleys. Permanent glaciers cover the central parts of the ranges, but large morainal deposits, scoured areas and hanging valleys indicate that the glaciers are receding.

The Atna Range is situated near the southeastern edge of the Bowser Basin. Rocks of the Bowser Group are mainly clastic sediments, argillite and graywacke being most common. In the Atna Range, these sediments were intruded by a granitic batholith. The intrusive underlies most of the range and has pushed through the sediments to form several peaks in the core of the range. Thrusting and faulting of the intrusive has further complicated the intricate relationship between them and the sediments. A similar and probably related batholith has intruded the Sicintine Range to the east.

Coarse grained porphyritic granodiorite is found throughout the Atna Range. Phenocrysts of Potash feldspar, ranging in size from 1/4 inch to 2 inches, comprise from 5 to 20% of the rock. Small bodies of medium grained diorite are commonly found near the contacts of the major intrusive and the sediments. The diorite may be a contact phase of the granodiorite, but present evidence indicates it was intruded later along the contact. Strong metamorphism of the sediments is common along contact zones, but occurs invariably along diorite contacts. The hornfels zone is usually quite extensive and may continue for up to 1,500 feet or more from the contact. Late, crowded porphyry dykes and sills up to 50 feet or more wide cut all rock units.

Pyrite and/or pyrrhotite are commonly found in all rock types in the contact areas. Weathering of these sulfides produced large gossan areas which are visible in the Atna and Sicintine Mountains. Numerous molybdenite showings are scattered throughout the Atna Range, several more have been found in the Sicintine Range. All known showings are located within 1,000 feet of an hornfels contact. Most are located within the granitic rocks but quartz veining may carry molybdenite up to 100 feet or more into the hornfels. Varying amounts of chalcopyrite are associated with the molybdenite and may be important in one or two prospects.

VIII. PROPERTY GEOLOGY AND MINERALIZATION

A. Graham Peak Area

1. Geology. (See Figs. 4-8) (For Detailed Description of Geology see Appendix B).

Porphyritic granodiorite and diorite have intruded argillaceous sediments on Graham Peak. The granodiorite forms the bulk of the intrusives, the diorite is a small, lenslike body lying between the southern contact of the granodiorite and the sediments. Indications from mapping and drilling show that the diorite is probably later, squeezing up along the granodiorite sediment contact. Strong metamorphism of the sediments at the periphery of the diorite has resulted in the formation of a wide zone of hornfels, mainly south of the contact. Two small hornfels pendants lie wholly within the crystalline rocks.

An intensely silicified and fractured capping lies within the porphyritic granodiorite, straddling the ridge between 700 and 1,500 feet north of the peak. The Graham Peak molybdenite zone underlies and surrounds this capping, which is completely barren.

Late porphyry dykes are aligned along bedding planes in the sediments and cut generally east west and dip gently to the south,except at intrusive contacts, where bedding trends have been shifted and steepened. Strong easterly trending faults have produced a series of grabens to the east of Graham Peak. Jointing and fracturing is intense, but only one joint set is consistent in the area. This set trends east-west and dips 10 to 15 degrees northward. Mineralized fractures are randomly oriented with no predominant trends.

2. Mineralization.

Molybdenite mineralization is found mainly in the diorite and granodiorite, but may extend for a short distance into the hornfels zones. (See Fig. 5). Mineralization consists mainly of very fine molybdenite accompanying quartz in hairline fractures. Occasionally, veinlets may be up to 1/4 inch wide carrying significant molybdenite and several quartz veins 2 to 10 inches wide carry massive molybdenite. Small rosettes of molybdenite are sparsely disseminated through aplitic dykes, but these are of no economic significance.

The mapping in 1967 had suggested the presence of two or three individual mineralized zones separated from each other by the barren, silicified zone. Work in 1968 now shows that the individual zones are interconnected and that the barren zone is merely a central capping. The mineralized zone spreads further east and west in the diorite along the hornfels contact. Vertical extent of the molybdenite mineralization has not yet been determined, but inference from drilling indicates that it is well over 1,000 feet below the ridge.

2. Mineralization. (Cont.)

No ore grade mineralization was intersected by the drilling. Assay results show that only one section over 50 feet in length averaged greater than 0.1% MoS_2 i.e., in hole A-1-68 which averaged 0.125% MoS_2 from 70 to 130 feet. All other sections assayed well below 0.1% MoS_2. Several visually impressive sections in hole A-3-68 between 400 and 600 feet carrying massive molybdenite in fault zones averaged only 0.03 to 0.07% MoS_2. The extent and continuity of mineralization were demonstrated best in hole A-1-68, in which molybdenite bearing fractures were separated by a maximum, of only 2 to 3 feet. Density of the fractures averaged over 5 per foot throughout the hole. The fracture density was determined by counting mineralized fractures and weighting heavier mineralization. A table summarizing assay results and fracture densities is given below:

SUMMARY OF RESULTS OF SPLIT CORE

Hole #	Interval	Length	%Mo (Assay)	%MoS_2 (Equiv.)	Fractures/ Foot
A-1-68	0-350	350	0.037	0.062	5.5
	350-430	80(Dyke)	0.013	0.022	3.1
	430-500	70	0.041	0.068	6.6
	500-850	350	0.024	0.040	5.2
	850-950	100	0.14	0.023	5.3
	0-500 Incl. Dyke		0.034	0.057	
	0-500 Excl. Dyke		0.038	0.063	
	0-800		0.030	0.050	

The best section over 60 feet was from 70 to 130 feet which averaged 0.075% Mo or 0.125% MoS_2 (equiv.).

A-2-68	0-230	230	0.018	0.030	4.1
	230-330	100	0.024	0.040	3.4
	350-459	129	0.015	0.025	1.4
	0-459		0.018	0.030	
A-3-68	0-170	170	0.013	0.022	0.8
	170-320	150	0.020	0.033	3.3
	320-400	80(Dyke)	N.A.	N.A.	Nil
	400-570	170	0.025	0.042	3.5
	570-750	180	N.A.	N.A.	Nil
	750-963	213	0.009	0.015	0.6
	0-570 Incl. Dyke		0.017	0.028	
	0-570 Excl. Dyke		0.020	0.033	

SUMMARY OF RESULTS OF SPLIT CORE (Cont.)

Hole #	Interval	Length	%Mo (Assay)	$\%MoS_2$ (Equiv.)	Fractures/ Foot
A-4-68	0-760	760	0.008	0.013	0.7 (610-760)
	760-830	70	0.016	0.026	1.2
	830-890	60	0.020	0.033	2.6
	890-948	58	0.027	0.045	2.3
	760-948	188	0.021	0.035	2.0

Drill logs are detailed in Appendix C. Core recovery averaged better than 95%, but was very low over several fault and fracture zones. Sludges were collected where possible in holes A-1, A-2, and A-3, but this sampling method was found to be very time consuming and costly as water was lost in successive fractures and holes had to be cemented. Sludge assay results varied only slightly from core assays, so it can be assumed that little molybdenite was ground and washed away during the drilling.

By comparing assay results with fracture densities, it can be seen that they correspond fairly well, but a correlating constant cannot be determined. Two major variables affecting the correlation are thickness of fractures and geochemical background of the host rock. As fractures have been calculated to be equivalent of 1/800 inch of molybdenite, doubling or tripling of this width could not visibly be noticed. From rock chip sampling it was determined that the mineralized host rock had a geochemical background varying from 70 to over 400 ppm Mo. Any change in these two factors could easily influence the low assay results.

Most samples from DDH A-1-68 were assayed for copper, with very discouraging results. Assays ranged from 0.01 to 0.04% Cu, which is only slightly higher than values obtained from assaying barren rock chip samples in the mineralized zone. Occasional flecks of chalcopyrite were visible in quartz veins, but no concentration was found. Some minor native copper was found in a wide quartz vein in trench S-3, opened in the 1967 season.

A section of dyke rock in hole A-3-68, carrying several veins of quartz was assayed for gold and silver. The section from 670' to 680' gave 0.02 oz/T Au and 0.3 oz/T Ag. Five composite samples of sections having highest molybdenum content were assayed for gold and returned only trace values. Semi Quantitative Spectrographic Analyses of all metals were also carried out on these composites. Results indicated that no trace elements of economic significance were present. Molybdenum and copper values obtained correspond quite well with assay results.

B. Utah Showing (See Fig. 9)

The Utah showing is located in a steep crevasse on the west side of Silt Creek, one mile west of Graham Peak. Rapidly flowing water and loose rock make access to the showings area extremely difficult and dangerous.

Host rock of the showing is the porphyritic granodiorite, which is finer grained than in the Graham Peak area. K-spar phenocrysts range to a maximum of only 1/4 inch diameter. Small areas of intensely kaolinized rock give the zone the appearance of having been cut by a series of dykes. Molybdenite mineralization accompanies narrow, quartz filled fractures similar to those found in the Graham Peak showings. Fracture density, however, is somewhat lower. Mineralization does not perceptively change in the strongly altered zones.

Three trenches were drilled and blasted across the upper part of the zone. Use of ropes was necessary to aid in access to trench locations. Details of the trenching, sampling, and assay results are described in Appendix D. Assay results of bulk samples averaged only 0.02% MoS_2 and 0.015% Cu over all trenches.

Widespread copper and molybdenum anomalous values found in the soil sampling traverse indicates that the mineralization is not confined to the showings area. Follow-up prospecting and additional soil sampling should be carried out to determine the origin and extent of the anomalies.

C. Horne Showing (See Fig. 10)

The Horne Showing, southernmost of the property showings, is located two miles southwest of Graham Peak. It is situated on a steep southern face several hundred feet below a 6,000 foot high east-west ridge. A helipad was constructed on the sidehill to facilitate access.

The showings are located mainly within a medium grained, dark diorite similar to the diorite found on Graham Peak. Mineralization extends out of the diorite for 100 feet or more into a well shattered, dark hornfels. The diorite forms a small plug between the hornfels to the north and east and the coarse grained, porphyritic granodiorite to the west. A wide, strong fault forms the contact zone between the porphyry and the diorite. This fault is easily visible, as the diorite and hornfels are strongly stained by iron oxides whereas the granodiorite is very light coloured and unstained.

Mineralization consists of molybdenite and chalcopyrite contained within quartz veinlets up to 1/2 inch or more wide. Molybdenite usually occurs in finer fractures, similar to the Graham Peak showing, while the chalcopyrite occurs as massive blebs scattered along the larger quartz veins.

C. Horne Showing (See Fig. 10) (Cont.)

Six trenches, numbers A to F, were drilled, blasted and sampled. All details of trenches are stated in Appendix D. Results of the assays indicate that only very low-grade copper and molybdenum values were found in the trenching area. Molybdenum averaged 0.02% Mo and copper ranged from 0.09% to 0.18% Cu. Minor argillic alteration is noticed near the larger quartz veins in the hornfels near diorite contacts, but no increase in mineralization was noticed in these areas.

D. Mad Showing (See Fig. 11)

Prospecting was carried out over a steep, high ridge to try to determine the source of the highly mineralized float found at the head of Fal Creek in late 1967. The float consisted of both diorite and hornfels well mineralized with molybdenite. The area covered by this float is probably several acres. Only minor mineralization of very limited extent was found in place in accessible areas. A steep, loose face between the high ridge and glacier could not be examined without proper mountain climbing equipment.

A trench was drilled and blasted across a mineralized dioritic dyke cutting strongly metamorphosed sediments about 2,000 feet above the float. Molybdenite mineralization was confined to they dyke within this trench and was of very low grade. Results of the trenching are listed in Appendix D. The source of the Mad float has still not been determined, but must have come from either the steep, unexplored face or from under the glacier.

IX. GEOCHEMISTRY

A. Sample Collection

Geochemical samples were collected from all showings except the Mad area. Rock chip samples were collected on the east and west slopes of Graham Peak at 200 foot intervals on traverses spotted on air photos. On the west slope, narrow creek beds with abundant outcrop were followed to the Silt Creek valley. On the east slope, rock chip samples were collected on accessible lines which averaged about 400 feet apart. Samples were taken of intrusive rocks only.

On the Utah showing, five rock chip samples were taken at 100 foot intervals starting at the first outcrop above Silt Creek and continuing to the base of the cliffs through which the showings continue. Soil samples were taken along topographic contour across the Utah showing. Sample interval was 100 feet between 1,000 feet north and south of the showings. Samples were collected at 200 foot intervals for a further 2,000 feet northward.

Rock chip samples were collected at 100 foot intervals, where possible, along the base line on the Horne Showing. (See Fig. 10). A total of 31 samples were collected over a 3,200 foot base line. The samples were analysed by Barringer Research Ltd.

B. Discussion of Results

1. Graham Peak Area.

Results of the rock chip sampling compared favourably with the previous year's work. Anomalous molybdenum zones outlined along the ridge were extended laterally east and west of the ridge. (See Fig. 12) A large area of anomalous values straddling the ridge was outlined. This area corresponds closely to the area of known molybdenite mineralization as outlined by geological mapping. Within this large zone of high background, an area approximately 500 by 1,200 feet of plus 400 ppm Mo was delineated. This zone lies on the east side of the ridge and is elongate northward. It lies partly within the zone of strong faulting in the diorite and partly within the porphyritic granodiorite to the north. To the south and east the zone is in contact with hornfels and sediments, to the north and west the high values slowly decrease. The silicified, barren zone of the porphyritic granodiorite is clearly outlined as a geochemical low. Several scattered high values are recorded near the base of the western slope. Copper values, plotted on Fig. 13, generally correspond to the molybdenum values.

2. Utah Showing (See Figs. 12 and 13)

The five rock chip samples collected in the creek bed below the trenches were anomalous for both copper and molybdenum. Values ranged from 30 to 90 ppm Mo and 71-165 ppm Cu.

Soil samples taken across the Utah showing revealed two areas anomalous in molybdenum. Samples from the 1,100 foot traverse south of Utah Creek gave values ranging from 40 to 480 ppm Mo. Another 800 foot wide zone averaging over 35 ppm Mo begins 1,000 feet north of the showings. Several high values are scattered further north of this zone.

The wide anomalous zone south of the Utah showing is due mainly to molybdenite in quartz veins associated with acidic dykes intruding hornfels immediately above the anomalous zone. Further prospecting and trenching should be carried out to test the grade and extent of mineralization. Work in this area will be severely hindered by the steep, high cliffs. The 800 foot wide zone north of the Utah showings should be followed up further to determine the type and extent of the source. It is located along an accessible, timbered sidehill and should be fairly simple to follow up.

Copper values are high only south of the Utah showing along the wide molybdenum anomaly. North of the showings only several scattered anomalous readings were found. Indications are that copper is associated with the molybdenum in the acid dykes to the south, but not with the source north of the showings.

3. Horne Showing

Copper-molybdenum analyses of the rock chips collected along the base line show that the diorite contains anomalous values of both metals. Dioritic dykes and sills cutting the hornfels to the east are probably the cause of the scattered high values in this area. The very low values in the porphyry indicates that the northeasterly fault formed a barrier to mineralization.

The trenching of the showings was not carried out on the geochemically highest part of the zones. Trenching sites were picked on evidence of surface mineralization and access on the extremely rugged and steep sidehill.

B.H. Kahlert.

APPENDIX "A"

ATNA PROJECT

CLAIMS DATA

Claim Name		Recording Date	Record Number	Tag Number	Expiry Year	Staker & FMC	Owner & FMC
Atna	1	4/7/67	48634	810485	1974	J. Graham	Sicintine
	2		35	86	"	#54056	Mines Ltd.
	3		36	87	"	10/20/66	73652
	4		37	88	"	Powell	6/11/68
	5		38	89	1972	River	Vancouver
	6		39	90	"		
	7		40	91	"		
	8		41	92	"		
	9		42	93	"		
	10		43	94	"		
	11		44	95	1974		
	12		45	96	"		
	13		46	97	"		
	14		84647	98	"		
Sic	1	4/7/67	48603	810451	1975		
	2		04	52	"		
	3		05	53	"		
	4		06	54	"		
	5		07	55	"		
	6		08	56	"		
	7		09	57	1972		
	8		48610	58	"		
	9		11	59	"		
	10		12	60	"		
	11		13	61	1975		
	12		14	62	"		
	13		15	63	"		
	14		16	64	"		
	15		17	65	"		
	16		18	66	"		
	17		19	67	1972		
	18		48620	68	1974		
	19		21	69	1972		
	20		22	810470	"		
	23		23	73	1974		
	25		24	75	"		
	26		25	76	"		
	27		26	77	"		
	28		27	78	"		
	29		28	79	"		
	31		30	81	1972		
	33		32	71	"		
	34		33	72	"		
	35	8/13/69		493328	"	B.H. Kahlert	B.H. Kahlert
	36	8/13/68		493329	1972	67506 Victoria 5/6/68	67506 Victoria 5/6/68

ATNA PROJECT

CLAIMS DATA (Cont.)

Claim Name		Recording Date	Record Number	Tag Number	Expiry Year	Staker & FMC	Owner & FMC
Cob	1	8/15/67	53386	834193	1975	J. Graham	Sicintine
	2		87	94	"	#58472	Mines Ltd.
	3		88	95	1976	5/19/67	73652
	4		89	96	"	Vancouver	6/11/68
	5		90	97	1974		
	6		91	98	"		
	7		92	99	1972		
	8		93	834200	"		
	9		94	01	"		
	10		95	02	"		
	11		96	03	"		
	12		97	04	"		
	13		98	05	"		
	14		99	06	"		
	15		53400	07	"		
	16		01	08	"		
	17		02	09	"		
	18		03	834410	"		
	19		04	11	"		
	20	9/6/67	54506	12	1979		
Cob.	Fr.	9/6/67	07	593407	1973		
CM.	1	9/12/66	43474	625337	1973	M. Martin	Sicintine
	2		75	38	"	#35028	Mines Ltd.
	3		76	39	"	1966	65620
	4		77	40	"		9/22/67
	5		78	41	"		
	6		79	42	"		
CM.	Fr.	9/5/68		593334	1971	B. Kahlert	Canadian
						#67506	Superior
						5/6/68	Exploration Ltd
						Victoria	67501
							5/6/68
							Victoria
Jan	1	9/20/67	53726	593408	1974	B. Kahlert	Canadian
	2		27	09	"	51447	Superior
	3		28	10	1975	5/1/67	Exploration Ltd
	4		29	11	"	Victoria	51443
	5		30	12	"		5/1/67
	6		31	13	1970		Victoria
	7		32	14	1969		
	8		33	15	1970		
	9		34	16	1969		
	10		35	17	"		
	11		36	18	"		
	12		37	19	1974		

ATNA PROJECT

CLAIMS DATA (Cont.)

Claim Name	Recording Date	Record Number	Tag Number	Expiry Year	Staker & FMC	Owner & FMC
Jan 13	9/20/67	53738	593420	1974		
14		39	21	"		
15		40	593437	1970		
16		41	38	"		
17		42	39	"		
18		43	40	"		
19		44	41	"		
20		45	42	"		
21		46	43	1969		
22		47	44	"		
23		48	45	"		
24		49	46	"		
25		50	593422	"		
26		51	23	"		
27		52	24	"		
28		53753	25	"		
31	11/29/67	56813	853844	1969	J.M. Graham	Sicintine
32		14	45	"	#58472	Mines
33		15	46	"	5/19/67	Limited
35		17	48	"	Vancouver	#73652
36		18	49	"		6/11/68
Jad 1		55075	593457	1970	B.H. Kahlert	Canadian
2		76	58	"	51447	Superior
3		77	59	"	5/1/67	Exploration
4		78	60	"	Victoria	Limited
5		79	61	"		51443
6		80	62	1969		5/1/67
7		81	63	1970		Victoria
8		82	64	1969		
12	11/29/67	56824	827152	1969	J.M. Graham 58472	Sicintine Mines Limited 73652
14	11/29/67	56826	827154	1969	B.H. Kahlert	Canadian
15	9/5/68		593330	"	67506	Superior
16	9/5/68		31	"	5/6/68	Exploration
17	9/5/68		32	"	Victoria	Limited
18	9/5/68		593333	1969		67501. 5/6/68. Victoria.

DETAILED GEOLOGY, GRAHAM PEAK AREA

Intrusive rocks of granitic to intermediate composition underlie much of the ridge sloping north from Graham Peak. They are part of a large apophysis which extends eastward from the main Atna Batholith. Porphyritic granodiorite similar to the main batholith forms the bulk of this intrusive mass. K-spar phenocrysts are set in a coarse, light-blue gray groundmass of quartz, feldspars, biotite and minor hornblende.

The granodiorite abuts against sediments partway down the steep eastern slope. This eastern contact strikes N 10-20° E, dipping 65 to 70° W, into the hill, but the surface trace trends due north down the side of the mountain. Northward the contact curves across the ridge to the west, cutting across Silt Creek and Utah Ridge. West of the Utah Ridge the intrusive disappears under sediments, likely connecting to the main batholith. To the south, the granodiorite ends against a narrow body of diorite.

A bowl shaped zone of strong alteration dips gently to the west across the ridge between 7 + 50 N and 15 N along the ridge. Intense silicification, accompanied by bleaching and minor epidote has altered the rock to a light grey mass with obliterated grain boundaries. Except for some minor pyrite, this zone is completely barren and averages only 2 to 18 ppm Mo., whereas the surrounding rocks average over 50 ppm Mo. This seems to indicate that the silica filled existing fractures before mineralizing fluids reached this zone. A smaller, similarly silicified zone is found near the diorite contact on the western slope.

A long, narrow body of diorite lies between the southern contact of the granodiorite and the sediments to the south. It is a dark, medium grained rock of average dioritic composition. Two to four percent of combined pyrrhotite and pyrite are disseminated throughout this body. Near the granodiorite contact to the north, it may carry up to 5% of K-spar phenocrysts.

Diorite dykes cutting the granodiorite below 750 feet in hole A-3-68 seem to indicate that this rock unit was intruded later along the granodiorite-sediment contact. Strong block faulting on the steep eastern slope has formed several grabens within the diorite and hornfels to the south.

Sediments surrounding the granitic plug to the south and east trend generally east-west to northeast and dip gently southward. Near the intrusive contacts, however, bedding has been steepened. The sediments have been upwarped along the southern contact by drag of the diorite intrusion and, along the eastern edge, bedding parallels the steeply dipping contact.

The formation of the hornfels zone extending up to 1,500 feet south of the contact was influenced mainly by the diorite. Sediments contacting the diorite have been strongly metamorphosed, whereas alteration along granodiorite contacts is generally very minor. However, a small roof pendant wholly within the altered zone of the granodiorite has been strongly metamorphosed. Another pendant, lying within the diorite on the west slope, has also been hornfelsed.

Late dykes up to 50 feet or more wide cut all rock units. The dyke rock is a crowded feldspar porphyry with a dark, fine grained matrix. In drill core, the dyke rock is noticeably fresh and dark near contacts, becoming bleached over most of the central parts of the dyke. Where contacts are not obliterated by faulting, they were noted to be approximately 30^{o} to the core axis. On surface, dykes measured north of main hornfels contact trend northerly and usually dip steeply to the west. Within the hornfels and sediments, most dykes have intruded along bedding planes, but several cut across bedding at varying trends. No dykes have been noted on surface within the intrusive. However, intersections of dyke rock were made in all diamond drill holes. Wide intersections of dykes near surface in DD Holes A-3 and A-4 indicate that the dykes are trending northerly and dip steeply, probably to the west.

Several structural features are of interest in the Graham Peak area. The general easterly trend of both the sediments and intrusives are most prominent. This easterly trend extends for several miles on both sides of Graham Peak, cutting across the regional northwesterly folding trend. It seems to be of major economic interest, as four known showings, namely the Mad, Utah, Graham and Pat, are aligned along it. Several divides of major valleys also lie along this trend, which is probably the axis of a major anticline along which granitic rocks have intruded.

Strong faulting and jointing in an easterly direction is also prominent. The faults produced several grabens on the eastern side of the ridge but could not be traced definitely to the west side. Strong jointing, which on air photos appear to be northerly trending lineaments along the eastern side of Graham Peak, was found to be ledges paralleling the ridge but trending directly across it and dipping north at 10 to 15 degrees. Many other jointing directions were measured but only one was found to be significant. A joint set striking northeast and dipping 40 to 50 degrees northwest was thought from surface showings to be a dominant mineralized trend north of the intensely altered zone. Diamond drilling indicated that no dominant mineralized trend exists.

APPENDIX "D"

DETAILS OF TRENCHING PROGRAMME

TRENCH	ASSAY NO.	WEIGHT LBS.	DIMENSION AND TYPE	ASSAYS % Mo.	Cu.
A	2960	22#	20' chips	0.01	0.10
A	2961	26#	20' chips	0.01	0.09
B	2966	38#	muck	0.04	0.10
B	2967	25#	30' chips	0.02	0.18
C	2956	27#	20' chips	0.015	0.07
C	2957	44#	muck	0.02	0.06
D	2958	35#	muck	0.02	0.12
D	2959	24#	25' chips	0.01	0.10
E	2962	22#	15' chips	0.01	0.10
E	2963	19#	muck	0.01	0.14
F	2964		muck		
F	2965	32#	25' chips	0.01	0.09
			MAD SHOWING		
A	2968	26#	25' selected muck	0.015	0.08
			UTAH SHOWING		
A	2951		25' chips	0.025	0.02
A	2952		25' chips	0.02	0.02
B	2953		15' chips	0.02	0.01
C	2954	30#	30' chips	0.02	0.01
C	2955	27.5#	30' chips		

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

APPENDIX "C"

LOCATION: B.L. 20 + 50 N.

HOLE NO: A-1-68

AZIMUTH: S 3° E.

PROPERTY: Sicintine Mines

DIP: - 56°

LENGTH: 950'

ELEVATION: 5460'

CLAIM NO: Cob #3

STARTED: July 15

CORE SIZE: BQ

DATE LOGGED: July 20-25

SECTION: N. Cob Group

COMPLETED: July 27

DIP TESTS: 450 -

950-

LOGGED BY: B.H. Kahlert

PURPOSE:

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE NO:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
0	5	Unconsolidated Overburden		5	10	5	.067
5	950	Granodiorite		10	20	10	.066
				20	30		.050
		Core Recovery		30	40		.05
		Average recovery is approximately 97-98%. Many 10'		40	50		.05
		sections are 100% recovered, but loss in several		50	60		.025
		fractured, faulted and altered zones bring the		60	70		.033
		recovery down.		70	80		.134
		Rock Description		80	90		.092
		Most of the rock is light grey coarse grained		90	100		.092 (Sludge)
		porphyritic granodiorite. Mineral constituents are		100	110		.25
		as follows: Quartz 10-15%, Feldspars 75-80%,		110	120		.067
		Biotite 10%, Accessories minor. Disseminated pyrr		120	130		.092
		and py may constitute 2-4% in several sections.		130	140		.075
		Phenocrysts of euhedral orthoclase varying in size		140	150		.058
		from ¼"-2" may constitute up to 10-15% of the rock.		150	160		.05
		They are usually poikiolitic, enclosing small		160	170		.067
		biotite and quartz grains, usually along zonal		170	180		.033
		boundaries.		180	190		.067
		Oxidation		190	200		.033
		Oxidation is relatively weak but can be noticed to		200	210		.033
		the bottom of the hole. Strong oxidation usually		210	220		.067
		occurs over only 2'-3' in fractured zones. Near		220	230		.033
		surface, oxidation may extend only up to 4" from		230	240		.083
		narrow fractures.		240	250		.033
				250	260		.033
				260	270		.067

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE Nº: A-1-68

FOOTAGE from	FOOTAGE to	DESCRIPTION
		Alteration
		Hydrothermal alteration is weak throughout.
		Late quartz veins are accompanied by bleached and
		chloritized zones up to 2" wide. Strongly
		kaolinized and sericitized sections up to 4' wide
		occur intermittently below 100'. Except for
		occasional blurring of grain boundaries by sericiti-
		zation, the rest of the core is fresh.
		Structural Features
		A post-mineral dyke cuts the core from 389' to 434'.
		The upper contact is 75°, the lower is 50° to the
		core axis. The dyke is a barren post-mineral,
		crowded porphyry, dark green in color. A strong
		fault cuts the dyke from 420-432'.
		Mineralization
		Molybdenite occurs as very fine grains disseminated
		in, or at the edges of narrow blue quartz veinlets,
		and to a lesser extent, in dry fractures. Three
		major sets of veinlets carry moly: 10-20°, 40-50°
		and 70-80° to the axis. A minor set, roughly
		paralleling the core, occurs below 70°. Average
		density of veinlets is 5 per foot throughout, but
		varies from 3.5 to 10+. Minor cpy, py and pyrr may
		accompany the moly veinlets. Later quartz veinlets
		carrying py and minor cpy cut the core at 45°,
		offsetting moly veinlets.

SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
	270	280	10	.033
	280	290		.042
	290	300		.033
	300	310		.083
	310	320		.092
	320	330		.042
	330	340		.067
	340	350		.05
	350	360		.033
	360	370		.033
	370	380		.033
	380	390		.025
	390	400		.017
	400	410		.017
	410	420		.008
	420	430		.008
	430	440		.05
	440	450		.092
	450	460		.067
	460	470		.067
	470	480		.05
	480	490		.05
	490	500		0.10
	500	510		.042
	510	520		.033
	520	530		.05
	530	540		.042
	540	550		.017
	550	560		.042
	560	570		.033
	570	580		.067
	580	590		.058
	590	600		.033
	600	610		.033
	610	620		.025

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE Nº: A-1-68

PAGE Nº: 3

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
				620	630	10	.05
				630	640		.033
				640	650		.033
				650	660		.042
				660	670		.033
				670	680		.017
				680	690		.033
				690	700		.033
				700	710		.042
				710	720		.042
				720	730		.033
				730	740		.05
				740	750		.058
				750	760		.058
				760	770		.042
				770	780		.05
				790	800		.033
				800	810		.033
				810	820		.033
				820	830		.067
				830	840		.033
				840	850		.033
				850	860		.017
				860	870		.025
				870	880		.05
				880	890		.025
				890	900		.025
				900	910		.017
				910	920		.017
				920	930		.017
				930	940		.017
				940	950		.025

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

LOCATION: B.L. 20 + 50 N.

HOLE NO: A-2-68

AZIMUTH: N 10° W

PROPERTY: Sicintine Mines

DIP: -60°

LENGTH: 459'

ELEVATION: 5460'

CLAIM NO: Cob 3

STARTED: July 28

CORE SIZE: BQ

DATE LOGGED: July 29-Aug. 1

SECTION: N. Cob Group

COMPLETED: August 1

DIP TESTS:

LOGGED BY: B.H. Kahlert

PURPOSE: Test the Grade and Northern Extent of the North Mineralized Zone.

FOOTAGE from	FOOTAGE to	DESCRIPTION
0	7	Overburden
7	459	Granodiorite
		Core Recovery
		Averages over 95%, is low only in strong fault zones.
		Rock Description
		Coarse grained, light, blue gray granodiorite,
		porphyritic, same as in DDH A-1-68.
		Weathering
		Moderately strong to 85' then occurs on fractured
		zones to 412', or mottled at 185-198, 262-277,
		315-325, 424-432.
		Alteration
		Chloritization and sericitization accompanies
		narrow quartz veins, similar to A-1-68. Several
		strongly kaolinized and sericitized sections 2-10'
		wide carry good moly above 350', very little below.
		Mineralization
		Moly occurs as fine disseminations with narrow
		quartz veinlets and on dry fractures, seems to be
		slightly heavier than in DDH A-1-68. Major
		directions are 10-20°, 40-50° and 70-80° to core
		axis. Below 250', major direction (+50%) is 30° to
		core axis, scheelite in quartz vein at 353'.
		Structures
		Strongly fractured sections, up to 30' wide near
		surface, narrow to less than 10' below 300'. Two

SAMPLE NO:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
	7	10	3'	.033
	10	20	10'	.033
	20	30		.025
	30	40		.033
	40	50		.033
	50	60		.033
	60	70		.033
	70	80		.025
	80	90		.033
	90	100		.025
	100	110		.033
	110	120		.033
	120	130		.033
	130	140		.025
	140	150		.033
	150	160		.05
	160	170		.033
	170	180		.017
	180	190		.017
	190	200		.017
	200	210		.025
	210	220		.033
	220	230		.033
	230	240		.067
	240	250		.033
	250	260		.033
	260	270		.025

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE Nº: A-2-68

PAGE Nº: 2

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
		strong faults occur at 237-249', 358-364', a		270	280	10'	.042
		weaker one at 227-229. A post-mineral, crowded		280	290		.033
		porphyry dyke cuts the core from 355 to 385.		290	300		.058
				300	310		.025
				310	320		.033
				320	330		.05
				330	340		.025
				340	350		.017
				350	360		.025
				360	370		.017
				370	380		.025
				380	390		.025
				390	400		.042
				400	410		.017
				410	420		.052
				420	430		.017
				430	440		.025
				440	450		.025
				450	459	9'	.033

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

LOCATION: B.L. 9+ 00N

HOLE NO: A-3-68

AZIMUTH: S 5° E

PROPERTY: Sicintine Mines

DIP: -45 LENGTH: 963 ELEVATION: 5825 CLAIM NO: Cob 3, Cob 5

STARTED: August 4, 1967 CORE SIZE: BQW DATE LOGGED: August 7-17 SECTION: S. Cob Group

COMPLETED: August 17, 1967 DIP TESTS: 48° @ 500', 52° @ 950' LOGGED BY: B.H. Kahlert

PURPOSE:

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE NO:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
0	9	Unconsolidated Overburden		7	20	13'	.025
9	307	Granodiorite, porphyritic, strongly silicified and		20	30	10'	.025
		sericitized over most of section. Fresh rock is		30	40	10'	.033
		light blue-grey, altered is dull grey-brown.		40	50		.017
		Surface weathering to bottom of section. Bleaching		50	60		.017
		extends for up to 2" from several ¼" quartz veins		60	70		.017
		cutting core at 45°. Mineralization is very poor		70	80		.025
		to 160' averages 40 fracts/section, increases to		80	90		.017
		average 25-30/section to 310'.		90	100		.025
				100	110		.017
307	405	Dyke, barren post mineral crowded feldspar porphyry.		110	120		.017
		Contact zone is fresh and dark, rock becomes		120	130		.017
		bleached and sericitized to centre and bottom of		130	140		.012
		dyke. Minor K-spar alteration of phenocrysts.		140	150		.017
		Surface oxidation ends at 370'. Very blocky 350-		150	160		.025
		405'.		160	170		.033
				170	180		.033
405	569	Granodiorite, porphyritic, section very blocky,		180	190		.033
		strongly altered by sericite and chlorite, minor		190	200		.033
		talc on slickensides; several short sections are		200	210		.025
		fresh. Molybdenite veinlets are fewer than in		210	220		.017
		A-1-68, but moly is in definite smears and solid		220	230		.042
		veinlets. The best visible moly to date. Fresher		230	240		.042
		sections increase below 500', very little		240	250		.042
		alteration below 530'.		250	260		.033
				260	270		.025
				270	280		.075

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE Nº: A-3-68

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)	Au Oz./T	Ag Oz./T	Cu %		
569	747.5	Dyke, barren post mineral crowded porphyry; contact		280	290	10'	.017					
		at 569 @ 25-30° , dyke is very dark, becomes light		290	300		.033					
		towards centre, similar to section 307-405. Lighter		300	310		.025					
		color due to sericitization. Becomes dark again		310	370	60'	N.A.					
		near lower contact, which is 30°. Some of pheno-		380	390		.008					
		crysts in central part altered by K-Spar. Minor ¼"		390	400		.008					
		quartz veins carry pyrite. Strong quartz veining		400	410		.017					
		690-700. Assayed for Au, Ag, Cu, and Mo.		410	420		.05					
				420	430		.017					
747.5	838	Granodiorite, medium-coarse grained, phenocrysts		430	440		.058					
		minor. Moderate to strong sericitization, kaoli-		440	450		.083					
		nization and chloritization. Below 790 rock		450	460		.017					
		becomes fresher, more acidic and finer grained, is		460	470		.075					
		cut by 1-3' wide sections of fine grained diorite.		470	480		.033					
		Moly is weak to 790, increases below, occurs as		480	490		.050					
		heavier smears. Sericitization and bleaching		490	500		.05					
		increase below 805.		500	510		.05					
				510	520		.017					
838	928	Diorite, fine grained, dark, with only occasional		520	530		.025					
		phenocrysts of orthoclase. Some shearing is		530	540		.042					
		accompanied by chlorite. Pyrite averages 2-4%		540	550		.050					
		throughout as fracture fillings. Moly occurs as		550	560		.05					
		thick smears in narrow fractured and altered		560	570		.033					
		sections. Rods dropped 4' at 903, then 7' sand to		570	690	120'	N.A.					
		914' - no recovery.		690	700	10'	0.017	0.02	0.3	0.03		
				700	740	40'	N.A.					
				740	750	10'	.008					
				750	760		.008					
				760	770		.017					
				770	780		.025					
				780	790		.017					
				790	800		.017					
				800	810		.017					
				810	820		.017					
				820	830		.017					

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE Nº: A-3-68

PAGE Nº: 3

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
928	963	Quartzite (?) strongly silicified section, fine grained, probably is hornfels contact. Section is cut by several 3"-2' wide post mineral dykes. Dyke rock is generally dark and finer grained than in other drill holes. Very minor moly in narrow quartz stringers in quartzite. Strong fault zone 928-939' immediately past quartz contact, recovery 5% over foot section. Recovery averaged +95% over hole except for fault zones. Hole was lost at 963', couldn't get rods through fault zones, even after cementing.		830	840	10'	.008
				840	850		.067
				850	860		.008
				860	870		.008
				870	880		.008
				880	890		.025
				890	900		.008
				900	910		.008
				910	920		.008
				920	930		.008
				930	940		.008
				940	950		.008
				950	960		.008
				960	963	3'	.008

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

LOCATION:	B.L. 9 + 00 N					HOLE Nº:	A-4-68
AZIMUTH:	N 20° E					PROPERTY:	Sicintine Mines
DIP:	-65°	LENGTH:	948'	ELEVATION:	5825'	CLAIM Nº:	Cob #3
STARTED:	August 23, 1968	CORE SIZE:	BQW	DATE LOGGED:	Aug. 25-31	SECTION:	N. Cob Group
COMPLETED:	August 30, 1968	DIP TESTS:	500', 948'			LOGGED BY:	B.H. Kahlert

PURPOSE: Test thickness of barren capping; intersect better mineralized sone examined on surface.

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
0	3	Overburden		3	20	17'	.008
3	151	Granodiorite, porphyritic, coarse grained, light		20	30	10'	.008
		brown grey when fresh. Rock is intensely silicified		30	40		.008
		with accompanying strong sericitization and kaolini-		90	100		.008
		zation, and minor pink K-spar alteration of feldspar		140	150		.008
		phenocrysts. Minor epidote also accompanies the		260	270		.008
		section. Only 3 veinlets of molybdenite seen.		270	280		.008
		Sections 3'-40', 90'-100', and 140'-150' split and		280	290		.017
		assayed. Recovery 95%.		290	300		.008
				300	310		.008
151	252	Post mineral, crowded porphyry dyke, barren. Upper		310	320		.008
		contact is obscured by fracturing and quartz veining,		320	330		.017
		lower contact is 30° to core axis. Contact is		330	340		.017
		typically very dark, the central part of the dyke		340	350		.017
		is light grey. Recover 99%.		350	360		.008
				360	370		.025
252	370	Granodiorite, porphyritic, very similar to section		370	380		.008
		3'-151'. Alteration completely obliterates rock		380	390		.008
		texture in several 5'-10' sections. Several 2'-3'		390	400		.017
		sections are fresh and unaltered, these increase to		400	410		.008
		the bottom of the section. Pyrite averages 2-4%,		410	420		.017
		occurs in fractures to 1/8" wide with milky quartz,		420	430		.017
		or nearly disseminated in short, altered sections.		430	440		.017
		Only very minor molybdenite visible.		440	450		.008
				450	460		.017
				460	470		.008
				470	480		.008

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE Nº: A-4-68

PAGE Nº: 2

FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
370	610	Granodiorite, porphyritic, mainly fresh, blue grey.		480	490	10'	.008
		Short sections of altered rock similar to section		490	500		.017
		252'-370', amount to 30% of section. Pyrite		500	510		.017
		decreases slightly, while moly remains very minor.		510	520		.017
				520	530		.025
610	948	Granodiorite, porphyritic, very fresh and unaltered,		530	540		.017
		medium to coarse grained. Molybdenite mineralization		540	550		.008
		increases steadily from 610' downward, is similar		550	560		.017
		to DDH A-1 from 700' to bottom. Major directions		560	570		.017
		of veinlets are sub-parallel and 40-60º to core		570	580		.017
		axis. Pyrite is minor in late milky quartz veinlets.		580	590		.008
		Recovery is plus 98%.		590	600		.017
				600	610		.017
				610	620		.017
				620	630		.017
				630	640		.017
				640	650		.017
				650	660		.017
				660	670		.017
				670	680		.017
				680	690		.017
				690	700		.017
				700	710		.017
				710	720		.017
				720	730		.05
				730	740		.017
				740	750		.017
				750	760		.017
				760	770		.068
				770	780		.017
				780	790		.033
				790	800		.025
				800	810		.017
				810	820		.017
				820	830		.008

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILL RECORD

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FOOTAGE from	FOOTAGE to	DESCRIPTION	SAMPLE Nº:	FOOTAGE from	FOOTAGE to	LENGTH	MoS_2% (Equiv.)
				830	840	10'	.042
				840	850		.050
				850	860		.025
				860	870		.033
				870	880		.017
				880	890		.033
				890	900		.05
				900	910		.058
				910	920		.025
				920	930		.068
				930	940		.025
				940	948	8'	.042