

CANADIAN SUPERIOR EXPLORATION LIMITED

TOPOGRAPHICAL, GEOPHYSICAL and PERCUSSION DRILLING REPORT

on the

GALAXY PROPERTY

KAMLOOPS M.D., SOUTHCENTRAL BRITISH COLUMBIA

92 I / 9W

LOCATION: Within the boundary of the City of
Kamloops, B.C., approximately five
miles southwest of the city center.
Lat. $50^{\circ} 37'$ N. Long. $120^{\circ} 25'$ W.

WORK PERIODS: July 1 - November 8, 1977

May 31, 1978

J.D. Blanchflower, B.Sc.,

Kamloops, B.C.

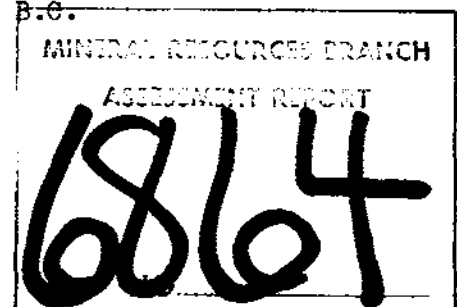


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SUMMARY

The Galaxy property consists of thirty-five located mineral claims and six Crown Grants. This contiguous claim group is situated five miles southwest of the center of the City of Kamloops in southcentral British Columbia. Canadian Superior Exploration Limited conducted a mineral exploration program in 1977 under an option agreement with the property owner, Pan Ocean Oil Limited of Calgary, Alberta.

The 1977 exploration program included: a regional topographical survey, magnetometer survey (125.09 line-km) and eight percussion holes totalling 2,410 feet (734.57 metres).

The topographical survey provided an accurate base plan for subsequent geophysical and drilling programs. The magnetometer survey revealed broad zones of moderate to high magnetic relief associated with the magnetite-rich phases of Iron Mask batholith. Pronounced magnetic lows southeast and northwest of the known Galaxy copper zone were tested with eight percussion drill holes.

INTRODUCTION

Between July and November, 1977, C.S.E. conducted an exploration program on the Galaxy property. This program consisted of: topographical and geophysical surveying, and percussion drilling.

This report is submitted for assessment purposes as a summary of data collected during the 1977 exploration program.

LOCATION AND ACCESS

The Galaxy property is located within the boundary of the City of Kamloops, B.C., approximately five miles southwest of the city center. The geographic coordinates of the property are 50° 37' N. latitude and 120° 25' W. longitude.

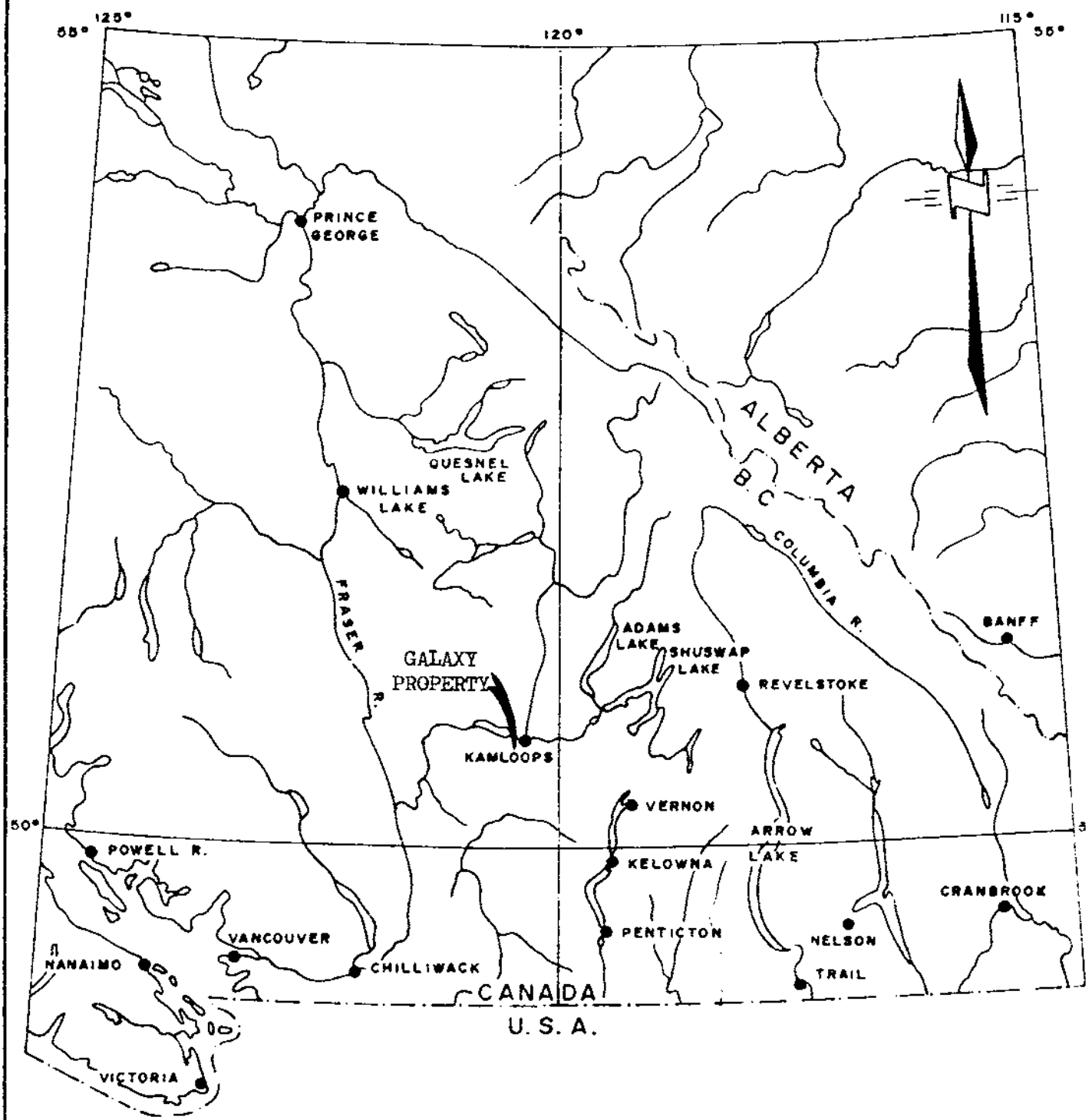
Access to the property from Kamloops is possible via the Trans Canada Highway four miles west to the Lac Le Jeune Highway, and then south for approximately one mile to the old gravel Lac Le Jeune road which travels eastward about one mile to Galaxy Lake. Several gravel ranch roads provide excellent access to the entire property from this point.

CLAIMS

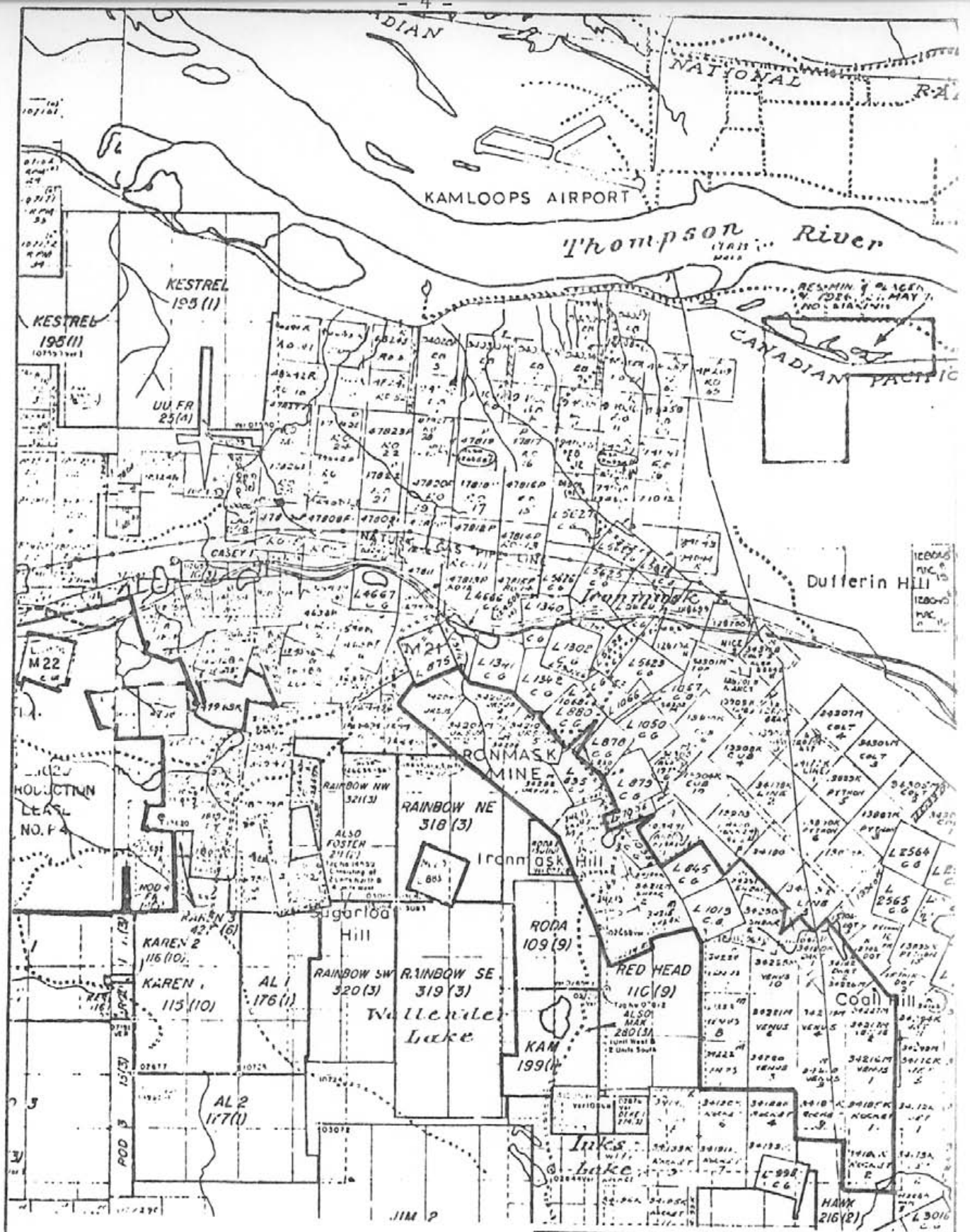
The property consists of thirty-three located mineral claims, two M.G.S. located mineral claims and six Crown Grants. All claims appear to be properly located and recorded in Accordance with the British Columbia Mineral Act. A list of the claims is as follows:

LOCATED MINERAL CLAIMS

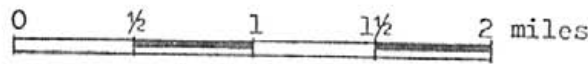
<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>
DART 1	34181
DART 2	34182
DART 3	34227
KEY 1 fr.	34813
KEY 2 fr.	34814
ROCKET 1	34815
ROCKET 2	34816
ROCKET 3	34817



<p>B.C. LOCATION MAP</p> <p>GALAXY PROPERTY</p> <p>KAMLOOPS M.D., B.C.</p>	
Date: March/78	Scale: 1" = 64 Miles.
Dwn by: J.D.B.	Dwg no. 1



Scale: 1: 50,000



CANADIAN SUPERIOR EXPLORATION LIMITED

LOCATION MAP
 GALAXY PROPERTY
 KAMLOOPS M.D., B.C.

DRFT: J.D.B. Dwg. No. 2 DATE: 3/78

<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>
Shear 1	34211
Shear 2	34212
Shear 3	34213
Shear 4	34214
Shear 5 fr.	34215
Shear 6	34290
Shear 7 fr.	34291
Ursus 1	34206
Ursus 2	34207
Ursus 3	34208
Ursus 4 fr.	34209
Ursus 5 fr.	34210
Ursus 6 fr.	34292
Ursus 7 fr.	34293
Venus 1	34216
Venus 2	34217
Venus 3	34218
Venus 4	34219
Venus 5	34220
Venus 6	34221
Venus 7	34222
Venus 8	34223
Venus 9	34224
Venus 10	34225
Venus 11 fr.	34226
GL 1 (1)	991
GL 2 (1)	992

CROWN GRANTS

<u>C.G. NAME</u>	<u>LOT NO.</u>
KENTUCKY	835
NUMBER SEVEN	998
BEN HUR	1037
PRINCE OF INDIA (Fractional)	1038
GOLDEN STAR	845
EVENING STAR	1013

TOPOGRAPHY AND VEGETATION

The claim group is located at an elevation of approximately 3,000 feet (A.M.S.L.). Relief is in the order of 500 feet. The property is typical of the semi-arid Kamloops area, mainly open grass and sagebrush covered hills with local stands of pine, spruce and balsam.

Rock outcrop is in the order of 1-5% of the total area, commonly cropping out along breaks-in-slope and within ravines.

HISTORY AND PREVIOUS WORK

Exploration activity in the Iron Mask batholith has been generally high since the late 1800's with the resulting discovery of a number of significant prospects. Besides the underground Iron Mask Mine on the present Comet property and the Galaxy zone within this claim group, one of the better deposits is Ajax situated north of Jocko Lake. However, until Afton was discovered in 1971, none of the prospects had sufficient tonnages to be economically viable in modern times. The discovery of Afton caused a rejuvenation of exploration activity in the area in 1972 with the result that small tonnages of good grade copper were found on the Rainbow and Comet properties.

According to P. Badgley (1961) the first recorded work on the Galaxy property was carried out in 1899. A shaft was sunk on the Crown Granted Evening Star claim between 1903 and 1908. Galaxy Minerals Limited rehabilitated this two-compartment shaft in 1956 and carried out a limited drilling and trenching program.

In 1961, P. Badgley was retained by Galaxy Minerals Limited to direct further exploration work on their property. Under Badgley's supervision reconnaissance geochemical and geophysical (magnetometer) surveys were carried out. Initial diamond drilling was conducted as a follow-up to these surveys. The Galaxy zone was discovered as a result of this work.

Subsequent operators have completed a total of 31,167 feet of diamond drilling in addition to extensive trenching, road building, geological mapping, deepening the Evening Star shaft to 92 feet, and extending the underground workings to a total of 1,262 feet (Amendolagine, 1971).

GEOLOGY

Introduction

The region of the Iron Mask batholith has been mapped by various members of both the G.S.C. and B.C. Department of Mines. The most recent regional mapping in the area was done by Dr. K.E. Northcote of the B.C.D.M. in 1974, 1976 and 1977.

The Galaxy property is situated centrally within the Iron Mask batholith. This Upper Triassic-Jurassic age intrusive complex is elongated in a northwest-southeast direction with an exposure length of 12 miles and a width of approximately 2½ miles. It was emplaced in a high level volcanic to subvolcanic environment and is comagmatic and coeval with Nicola volcanic and minor sedimentary rocks which

it cannibalizes and intrudes. The Nicola rocks and Iron Mask batholith are unconformably overlain by Tertiary volcanic and sedimentary rocks of the Kamloops Group. Major systems of northwesterly, northerly and northeasterly trending recurring fractures or faults controlled emplacement of the various units of the Iron Mask batholith. Post-batholithic movement on faults around the margin of the batholith resulted in graben structures with off-batholith rocks on the down-thrown side (Northcote, 1974).

Numerous copper prospects, including the Afton deposit, are located throughout the batholith. Depositional controls for copper-bearing mineralization appear principally related to major structure systems.

FIELD WORK SUMMARY

Topographical Survey

McElhanney Surveying and Engineering Ltd. was contracted to aerially photograph most of the 12 by 3 mile Iron Mask batholith.

The B.C. land surveying firm of McWilliam, Whyte, Goble and Associates was contracted to provide ground survey control for the topographic survey.

Over fifty 40 by 40-foot white, cross-like targets were established on previous drill hole sites and topographical control points, and surveyed in preparation to flying the survey. The survey was flown in July and orthophotographic and topographic plans were prepared by October, 1977.

Regional orthophotographic and topographic plans were prepared at a scale of 1 inch equals 400 feet.

Magnetometer Survey

During August, 1977 a magnetometer survey was carried out exploring 11,300 feet of the Galaxy fault structure. Survey coverage totalled 77.72 line-miles or 125.09 line-km. Amex Exploration Services Ltd. was contracted to establish the survey grid and carry out the survey using a Geometrics proton magnetometer (Model G 816).

The survey covered an area 3,600 feet wide by 11,300 feet long from grid coordinates 5,231.5' S + 3,273.9' E southeastward. The land surveying firm of McWilliam, Whyte, Goble and Associates was contracted by C.S.E. to establish the grid base-line and 100-foot stations along it. Amex Exploration Services Ltd. used a transit to turn off the grid lines, and a chain and sight picketing method was used to establish the lines. Grid lines were picketed to a distant of 1,800 feet on both sides of the base-line. Refer to the magnetometer survey plan.

Readings were taken every 100 feet along grid lines that were 100 feet apart. To correct for diurnal variations a base station was established at coordinates 66 N + 600 E. Established magnetic value at the base station was 58,339 gammas. A looping-pattern method between grid lines and base station was used to adjust for diurnal variations. In addition, the base-line of the grid was first carefully run and corrected so that during the rest of the survey the operator could continually check back into a base-line station.

The resulting total intensity data was plotted with a base value of 50,000 gammas deducted from recorded values, contoured (250 gamma intervals) and interpreted by C.S.E. staff. The magnetometer survey plan was drafted initially at a scale of 1 inch equals 100 feet. The original was photographically reduced resulting in a plan at a scale of 1 inch equals 200 feet.

Percussion Drilling

Between November 1 and 8, 1977 eight percussion holes were drilled totalling 2,410 feet (734.57 metres). Six drill sites were located in two "fences" of three drill holes each to test a circular "doughnut-shaped" magnetic anomaly located southeast of the Galaxy zone. Two percussion holes were drilled to the northwest on a similar magnetic feature.


H.N. Horning Percussion Drilling Ltd. of Kamloops was contracted for the drilling. One truck-mounted rig was used. Seven holes were completed to a depth of 300 feet or 91.44 metres. Hole P 77-2 was drilled to a depth of 310 feet or 94.49 metres.

CONCLUSIONS

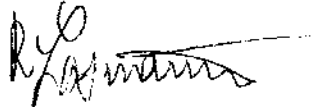
The detailed magnetometer survey explored 11,300 feet (3,444.25 metres) of the Galaxy fault structure. Within the area of the survey three zones of high magnetic relief, with closures up to 6,000 gammas, are present. The two zones in the extreme northwestern and southeastern portions can be directly attributed to the magnetite-rich Iron Mask diorites and gabbros underlying these areas. The central zone trending due north from lines 100 S + 8 E to 60 S + 38 E appears related to the underlying magnetite-rich intrusive phases of the Cherry Creek monzonites and syenites. A broad zone of low magnetic relief, with closures of 2,000 gammas, lies southwest of Galaxy Lake and the Galaxy fault structure. This magnetic expression appears related to the magnetite-poor Cherry Creek syenites which occur in this area.

The two magnetic anomalies at 56 S + 20 E and 31 S + 24 E were selected for further testing by percussion drilling. Eight percussion holes tested these anomalies with generally negative results.

Submitted by,


J.D. Blanchflower, B.Sc.,
Geologist

May 31, 1978

Endorsed by: 
R. LASMANIS P. Eng

REFERENCES

- (1) Amendolagine, E., 1971. Underground Development and Exploration Programme for Nor-West Kim Resources Ltd. (N.P.L.) on the Galaxy Copper Property, Kamloops Area, Kamloops, M.D., B.C.
- (2) Badgley, P.C., 1961. Revised Report on Geological Exploration, Property of Galaxy Minerals Ltd., Kamloops Area, B.C.
- (3) Carr, J.M., 1956. Deposits Associated with the Eastern Part of the Iron Mask Batholith near Kamloops, B.C. Minister of Mines Annual Report, 1956, pp. 47 - 69.
- (4) Cockfield, W.E., 1948. Geology and Mineral Deposits of the Nicola Map Area, British Columbia. G.S.C. Memoir 249, 164 p.
- (5) Mathews, W.H., 1941. Geology of the Iron Mask Batholith. Unpub. M. Sc. Thesis. University of British Columbia, Vancouver, B.C. 42 p.
- (6) Northcote, K.E., 1974. Geology of the Northwest Half of Iron Mask Batholith (92 I/9). B.C. Dept. of Mines and Pet. Res., Geological Fieldwork, 1974, pp. 22 - 26.
- (7), 1976. Geology of the Southeast Half of Iron Mask Batholith (92 I/9). B.C. Dept. of Mines and Pet. Res., Geological Fieldwork, 1976, pp. 41 - 46.
- (8), 1977. Personal Communication.
- (9) Preto, V.A.G., 1967. Geology of the Eastern Part of the Iron Mask Batholith. B.C. Minister of Mines Annual Report, 1967, pp. 137 - 147.

- (10) Preto, V.A.G., 1972. Afton, Pothook. B.C. Dept. of Mines and
Pet. Res., GEM, 1972, pp 209 - 220.

- (11), 1977. Personal Communication.

CERTIFICATE

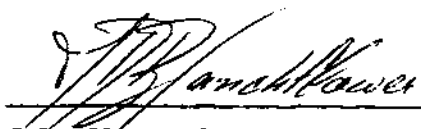
I, J. Douglas Blanchflower, of the City of Kamloops, in the Province of British Columbia, do hereby certify:

That I am a practicing Geologist and employed by Canadian Superior Exploration Limited with offices located at Suite 2201 - 1177 West Hastings Street, Vancouver, British Columbia.

I further certify:

1. That I am a graduate of the University of British Columbia (1971) and hold a B.Sc. degree in Honours Geology.
2. I have been practising my profession for the past six years.
3. This report is based on information obtained by the writer from personal supervision of the 1977 exploration program.

Kamloops, B.C.
May 31, 1978



J.D. Blanchflower, B.Sc.,
Geologist

APPENDICES

ASSESSMENT DATA



MINERAL ACT

FORM I

NOTICE TO GROUP

SUB-RECORDER
RECEIVED

JUN 23 1973

M.R. S.
VANCOUVER, B.C.Mining Division Kamloops Location Galaxy L.Name of group North Map No. 92 I/9WWe, the undersigned owners* of the following adjoining mineral claims, desire to group them according to the provisions of the *Mineral Act*:—

NAME OF CLAIM	No. of Units	Record No. or Lot No.	Month of Record	SIGNATURE OF OWNER*	Free Miner's Certificate No.
Golden Star	1	L 845			
Evening Star	1	L 1013			
Dart 1	1	34181	Aug	J.J. Morrow agent for	
Dart 2	1	34182	Aug		
Dart 3	1	34227	Sept	Pan Ocean Oil Ltd.	
Key 1 Fr.	1	34183	Aug	1050-Three Calgary	166471
Key 2 Fr.	1	34184	Aug	Place	
Rocket 1	1	34185	Aug	455-4th Ave.S.W.	
Rocket 2	1	34186	Aug	Calgary, Alberta	
Rocket 3	1	34187	Aug		
Shear 1	1	34211	Sept		
Shear 2	1	34212	Sept		
Shear 3	1	34213	Sept		
Shear 4	1	34214	Sept		
Shear 5 Fr.	1	34215	Sept		
Shear 6	1	34290	Sept		
Shear 7 Fr.	1	34291	Sept		
Ursus 1	1	34206	Sept		
Ursus 2	1	34207	Sept		
Ursus 3	1	34208	Sept		
Ursus 4 Fr.	1	34209	Sept		
Ursus 5 Fr.	1	34210	Sept		
Ursus 6 Fr.	1	34292	Sept		
Ursus 7 Fr.	1	34293	Sept		
Venus 1	1	34216	Sept		
Venus 2	1	34217	Sept		
Venus 3	1	34218	Sept		
Venus 4	1	34219	Sept		
Venus 5	1	34220	Sept		
Venus 6	1	34221	Sept		
Venus 7	1	34222	Sept		
Venus 8	1	34223	Sept		
Venus 9	1	34224	Sept		
Venus 10	1	34225	Sept		
Venus 11	1	34226	Sept		
GL 1	1	991	Aug		
GL 2	1	992	Aug		

AFFIDAVIT OF EXPENDITURES

In support of an affidavit on Application to Record Work
on the Galaxy Lake Property.

1. Percussion Drilling	
2410 ft. drilled @ \$3.25 per foot, and 9½ batches of A.M.9.	<u>\$ 8,050.91</u>
2. Topographic Mapping	
a) Aerial photography, maps, prints, orthophotos, etc.	12,171.21
b) Surveying and ground control, targetting	<u>2,596.32</u>
	\$14,767.53
3. Magnetometer Survey	
a) layout of grid (125.09 line km), recovery of pickets, tie-in lines, installation of hubs.	\$17,430.32
b) operator (field and office) 41 days @ \$75 per day	<u>3,075.00</u>
	TOTAL: <u>\$43,323.76</u>

QUALIFICATIONS OF OPERATOR

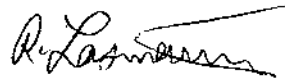
Randy J. Bing is 26 years of age and has completed third year at Simon Fraser University, Vancouver, B.C.

He was employed by McPhar Geophysics of Vancouver, B.C. for several years as a geophysical assistant and instrument operator.

He was employed by Amex Exploration Services Ltd. of Kamloops, B.C. in 1977 when C.S.E. contracted Amex to establish the grid and conduct the magnetometer survey. He was instructed in the operation of the Geometrics proton magnetometer by the undersigned who knows that the work was carefully and reliably performed.


J.D. Blanchflower, B.Sc.

Endorsed by:


R. LASMANIS, P. Eng.

GALAXY PROPERTY
1977 PERCUSSION DRILL HOLE SUMMARY

<u>DRILL HOLE NO.</u>	<u>GRID COORDINATE</u>		<u>ELEVATION</u>	<u>LENGTH OF HOLE</u>		<u>DEPTH OF OVERBURDEN</u>	
	<u>LATITUDE</u>	<u>DEPARTURE</u>	<u>(Ft. A.M.S.L.)</u>	<u>Feet</u>	<u>Metres</u>	<u>Feet</u>	<u>Metres</u>
P 77-1	7,900 S	5,575 E	3,114'	300'	91.44	15'	4.57
P 77-2	7,860 S	5,666 E	3,127'	310'	94.49	10'	3.04
P 77-3	7,818 S	5,757 E	3,143'	300'	91.44	2'	0.61
P 77-4	7,998 S	5,840 E	3,134'	300'	91.44	30'	9.14
P 77-5	8,040 S	5,749 E	3,127'	300'	91.44	40'	12.19
P 77-6	8,082 S	5,658 E	3,119'	300'	91.44	20'	6.09
P 77-7	6,250 S	4,594 E	3,050'	300'	91.44	10'	3.04
P 77-8	5,728 S	4,583 E	3,119'	300'	91.44	10'	3.04

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-1
 Claim No.: Evening Star (Lot 1013)
 Date Started: November 1, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,114 ft.
 Date Completed: November 1, 1977 Contractor: H.N. Horning Percussion Drilling Latitude: 7,900 South
 Total Depth: 300 ft. Logged By: J.D. Blanchflower Ltd. Departure: 5,575 East
 Cased To 15 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. warehouse Bearing: _____

Dip and Azimuth Tests: _____

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	15'	15'		Overburden.	
15'	30'	15'		Mixed Nicola and Cherry Creek rocks - possibly Overburden.	
30'	90'	60'		Nicola volcanics (Unit 1b) - intensely epidotized and chloritized with Al [±] Ca infillings.	
90'	190'	100'		Nicola volcanics (1b) with minor C.C. diorite/monzonite (6e/d) - intensely epidotized and chloritized with Al [±] Ca infillings.	
190'	200'	10'		Mixed albitized Nicola volcanics (1b) with C.C. syenite (6c).	
200'	300'	100'		Cherry Creek syenite (6c) - well albitized, Ma diss'ns.	

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-2
 Claim No.: Evening Star (Lot 1013)
 Date Started: November 2, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,127 ft.
 Date Completed: November 2, 1977 Contractor: H.N. Horning Percussion Drilling Ltd. Latitude: 7,860 South
 Total Depth: 310 ft. Logged By: J.D. Blanchflower Departure: 5,666 East
 Cased To 10 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. warehouse Bearing: _____

Dip and Azimuth Tests: _____

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	10'	10'		Overburden.	
10'	230'	220'		Nicola volcanics (1b) - intensely epidotized and chloritized with minor Al ⁺ Ca fracture-fillings.	
230'	250'	20'		Albitized zone with mixed Nicola (1b) and C.C. diorite (6e) fragments.	
250'	310'	60'		Nicola volcanics (1b) - intensely sheared and epidotized with Al ⁺ Ca fracture-fillings.	

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-3
 Claim No.: Evening Star (Lot 1013)
 Date Started: November 2, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,143 ft.
 Date Completed: November 2, 1977 Contractor: H.N. Horning Percussion Drilling Ltd. Latitude: 7.818 South
 Total Depth: 300 ft. Logged By: J.D. Blanchflower Departure: 5,757 East
 Cased To 2 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. warehouse Bearing: _____

Dip and Azimuth Tests: _____

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	2'	2'		Overburden.	
2'	30'	28'		Mixed Nicola volcanics (1b) and C.C. monzonite (6d) - oxidized with minor malachite surface coatings and Cp^+ Py associated with Al and/or Kf, Ca fracture-fillings.	
30'	50'	20'		Mixed Nicola volcanics (1b) and C.C. monzonite (6d) - well albitized with $Cp > Py$ f.g. disseminations or associated with Al and/or Kf, Ca fracture-fillings.	
50'	90'	40'		Nicola volcanics (1b) - metamorphosed; epidotized, minor Py f.g. diss'ns.	
90'	160'	70'		Nicola volcanics (1b) - intensely sheared, epidotized, minor Py diss'ns.	
160'	170'	10'		Cherry Creek monzonite (6d) dyke - highly albitized, He alteration.	
170'	240'	70'		Nicola volcanics (1b) - epidotized, Al \neq Ca, Py fracture-fillings.	

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-4
 Claim No.: Evening Star (Lot 1013)
 Date Started: November 3, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,134 ft.
 Date Completed: November 3, 1977 Contractor: H.N. Horning Percussion Drilling Latitude: 7,998 South
 Total Depth: 300 ft. Logged By: J.D. Blanchflower Ltd. Departure: 5,840 East
 Cased To 30 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. Warehouse Bearing: _____

Dip and Azimuth Tests: _____

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	30'	30'		Overburden.	
30'	40'	10'		Mixed Nicola volcanics (1b), Cherry Creek (6d and c) and Picrite (2) - OVB (?).	
40'	160'	120'		Nicola volcanics (1b) - intensely sheared and epidotized with minor Cp ⁺ Py infillings.	
160'	170'	10'		Mixed Nicola volcanics (1b) and C.C. syenite (6c) - albitized.	
170'	190'	20'		Cherry Creek syenite (6c) - well albitized.	
190'	200'	10'		Nicola volcanics (1b) - intensely sheared and albitized.	
200'	300'	100'		Cherry Creek syenite (6c) - well albitized	
				200' - 210' and 280' - 290' - shear zone, mylonitized.	

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-5
 Claim No.: Evening Star (Lot 1013)
 Date Started: November 3, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,127 ft.
 Date Completed: November 4, 1977 Contractor: H.N. Horning Percussion Drilling Ltd. Latitude: 8,040 South
 Total Depth: 300 ft. Logged By: J.D. Blanchflower Departure: 5,749 East
 Cased To 40 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. warehouse Bearing: _____

Dip and Azimuth Tests: _____

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	40'	40'		Overburden.	
40'	140'	100'		Nicola volcanics (1b) - epidotized, minor Al, Ca [±] Py, Cp veining at 80' - 90'.	
140'	150'	10'		Cherry Creek monzonite (6d) - albitized and hematitized.	
150'	190'	40'		Nicola volcanics (1b) - epidotized, Al [±] Ca fracture-fillings.	
190'	200'	10'		Cherry Creek syenite (6c) with minor Nicola (1b).	
200'	300'	100'		Cherry Creek syenite (6c) - well albitized.	
				200' - 210' and 280' - 300' - shear zone, intense albitization.	

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-6
 Claim No.: Evening Star (Lot 1013)
 Date Started: November 4, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,119 ft.
 Date Completed: November 5, 1977 Contractor: H.N. Horning Percussion Drilling Ltd. Latitude: 8,082 South
 Total Depth: 300 ft. Logged By: J.D. Blanchflower Departure: 5,658 East
 Cased To 20 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. warehouse Bearing: _____

Dip and Azimuth Tests:

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	20'	20'		Overburden.	
20'	80'	60'		Nicola volcanics (1b) - oxidized with mixed C.C.monzonite (6d) fragments to 70'. Abundant Cp f.g. disseminations and fracture-fillings associated with Al, Kf and/or Ca from 50' to 60'. Well epidotized with minor Py from 60' to 80'.	
80'	90'	10'		Cherry Creek syenite (6c) with some Nicola fragments (1b) - hematitized.	
90'	300'	210'		Cherry Creek syenite (6c) - highly albitized. 90' - 100' and 150' - 180' - shear zone, intensely albitized.	

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-7
 Claim No.: Golden Star (Lot 845)
 Date Started: November 5, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,050 ft.
 Date Completed: November 6, 1977 Contractor: H.N. Horning Percussion Drilling Ltd. Latitude: 6,250 South
 Total Depth: 300 ft. Logged By: J.D. Blanchflower Departure: 4,594 East
 Cased To 10 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. warehouse Bearing: _____

Dip and Azimuth Tests: _____

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	10'	10'		Overburden.	
10'	80'	70'		Nicola volcanics (1b) with some Iron Mask (3) fragments - chloritized with minor Al [±] Py fracture-fillings.	
80'	110'	30'		Iron Mask diorites (3) with Nicola volcanics (1b) - chloritized with Al [±] Py and minor Cp fracture-fillings.	
110'	120'	10'		Nicola volcanics (1b) - intensely epidotized, Al [±] Py infillings.	
120'	130'	10'		Iron Mask diorite (3) - epidotized, abundant Py diss'ns and veinlets.	
130'	140'	10'		Nicola volcanics (1b) with some Iron Mask diorite (3) - epidotized with 3-5% Py diss'ns.	
140'	300'	160'		Pothook diorite (4) or C.C. diorite (6e) - 1-3% Py disseminations, well albitized, and minor Al [±] Ca, Py fracture-fillings.	

CANADIAN SUPERIOR EXPLORATION LIMITED
DRILL LOG

Project: GALAXY (P - 158) Hole Size: Percussion Hole No.: P 77-8
 Claim No.: GAL 1 Fr. (Makao)
 Date Started: November 7, 1977 Type Drill: Truck-mounted percussion drill Collar Elevation: 3,119 ft.
 Date Completed: November 8, 1977 Contractor: H.N. Horning Percussion Drilling Ltd. Latitude: 5,728 South
 Total Depth: 300 ft. Logged By: J.D. Blanchflower Departure: 4,583 East
 Cased To 10 Ft. Sheet No. 1 of 1 Inclination: -90°
 Casing Pulled: Yes No Chip Board Stored At: C.S.E. Warehouse Bearing: _____

Dip and Azimuth Tests: _____

FROM	TO	THICKNESS	% RECOVERY	GEOLOGIC DESCRIPTION AND REMARKS	INTERVAL SAMPLED
0	10'	10'		Overburden	
10'	130'	120'		Iron Mask diorite (3) with minor Nicola volcanic (1b) fragments - highly epidotized with minor Py diss'ns.	
130'	140'	10'		Iron Mask/Nicola (3/1b) mixed with hematitized C.C. syenite/monzonite (6c/d).	
140'	300'	160'		Cherry Creek syenite/monzonite - highly albitized, barren.	

MEMORANDUM OF AGREEMENT

Between

CANADIAN SUPERIOR EXPLORATION

#5 - 465 VICTORIA ST.

(hereinafter called "the Company")

KAMLOOPS, B.C. V2C 2A9

And

H.N. HORNING PERCUSSION DRILLING LTD.

(hereinafter called "Horning")

c/o JARRETT, GOULD & ELLIOTT

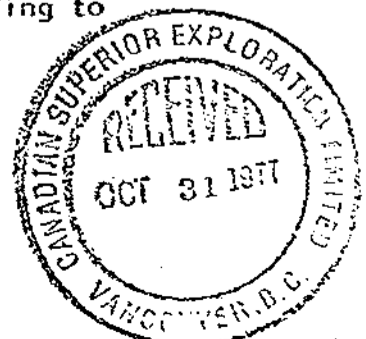
Ste. 200 - 186 Victoria Street

KAMLOOPS, B.C.

WHEREAS the Company has requested Horning to proceed to the Company's mineral property in the KAMLOOPS area of B.C. and there carry out a programme of percussion drilling totalling approximately 5,000 feet.

NOW THEREFORE IT IS AGREED AS FOLLOWS:

1. Horning will provide all the equipment, supplies, fuel and labour to carry out the said programme and will, at its expense, have these available and in good order at the drill site on a date to be stated by the Company.
2. The Company will construct all necessary access roads and drilling sites and will provide on request and without delay such transport, bulldozers, equipment, labour or assistance as may be necessary in moving the said drilling equipment to or from or on or about the drill site and will bear the cost thereof.
3. The Company will determine the location of all drill holes, the order of drilling the said holes, and the method of obtaining samples but in all other respects the drilling operations shall be carried out under the direction and control of Horning. Horning will carry out the drilling as expeditiously as possible but shall not be liable for delays due to weather, mechanical failures or other circumstances beyond its control nor shall Horning be obliged to drill at any site or move its equipment by any route which it considers unsafe for its equipment or personnel.
4. Horning will hold the Company harmless from all and any demand claims, writs, suits or causes of action arising out of the operations conducted by Horning saving always those attributable in whole or in part to the acts or omissions, negligent or otherwise, of the Company, its servants or employees. For the greater certainty of this undertaking, Horning shall maintain public liability insurance in the amount of \$500,000.00 and in a form acceptable to the Company.
5. Horning will comply with all laws of the state, province or country having jurisdiction and shall do all things necessary to prevent the mineral property of the Company being subjected to charges or liens or in any way imperilled by reason of the act, omission or default of Horning. Without restricting the generality of the foregoing it is expressly provided that Horning shall maintain registration with the Workers' Compensation Board of British Columbia and shall promptly pay all levies and assessments made by that Board.
6. Horning will maintain a daily record of the drilling operation and will furnish to the Company a copy thereof duly signed by the Company's representative at the drill site. In the report the hole identification number shall be those prescribed by the Company if any.
7. The remuneration payable by the Company to Horning shall be \$3.00 per foot drilled.
8. The Company shall reimburse Horning for additional costs according to the following Schedule "A".



SCHEDULE "A"

<u>Additional Cost</u>	<u>Reimbursement</u>
(a) Chemical grout and mud used.	AT COST
(b) Casing lost by Horning in any hole requiring over 50 feet of casing.	AT COST
(c) Time driving casing in excess of 50 feet and excessive time recovering any casing.	FIELD COST
(d) Rods lost by Horning in any hole exceeding 300 feet in depth.	AT COST
(e) Excessive time required to draw rods from any hole exceeding 300 feet in depth.	FIELD COST
(f) Waiting time (including Saturdays, Sundays and Statutory Holidays, if a designated working day).	FIELD COST
(g) On site moving time.	NIL
(h) Travelling time in excess of one (1) hour.	MAN HOURS
(i) Water supplied with water truck.	25¢ PER FOOT
(j) Mobilisation.	NIL
(k) Moving in and moving out of camp.	NIL

For the purpose of this Agreement "waiting time" includes only time lost by Horning through delays occasioned by the Company, its servants or employees, through failure to provide instruction, permits, licences, access roads, transportation and the like when required. It is understood and agreed that item (f) in the foregoing schedule is intended to reimburse Horning for delays beyond its control and that if a normal working day is lost the reimbursement shall be the stipulated rate for each hour which would normally have been worked. (i.e. 8 hours for single shift operation and 16 hours for double shift operation).

Also for the purposes of this agreement "on site moving time" shall mean time required to move the drilling equipment on and about the company's property from camp to drill platform or landing and from one drill platform or landing to another but not including moving to or from the property itself.

Field cost is defined as the aggregate of the following:

1. Labour - per man hour \$ 7.50
 2. Equipment rental - per hour 12.00
 3. Materials used or lost on job to which field rate is applied at delivered cost to job site.
 4. Overhead at 10% of labour and rentals.
9. Horning shall render statements of account at weekly or greater intervals and the amount due to Horning as shown by the statement shall be payable seven days after presentation.

- 10. On or before arrival of Horning's equipment at the Company's property, the company as security for payment of the contract price shall deposit in trust with Horning's solicitors, N/A and accompany the deposit with a letter of instruction in the form set out in Schedule "B" appended hereto.

IN WITNESS WHEREOF the parties have caused these presents to be signed on their behalf by their respective officers at the places and on the dates stated below.

AT: Kamloops, B.C.

ON: October 18, 1977

AT: Kamloops, B.C.

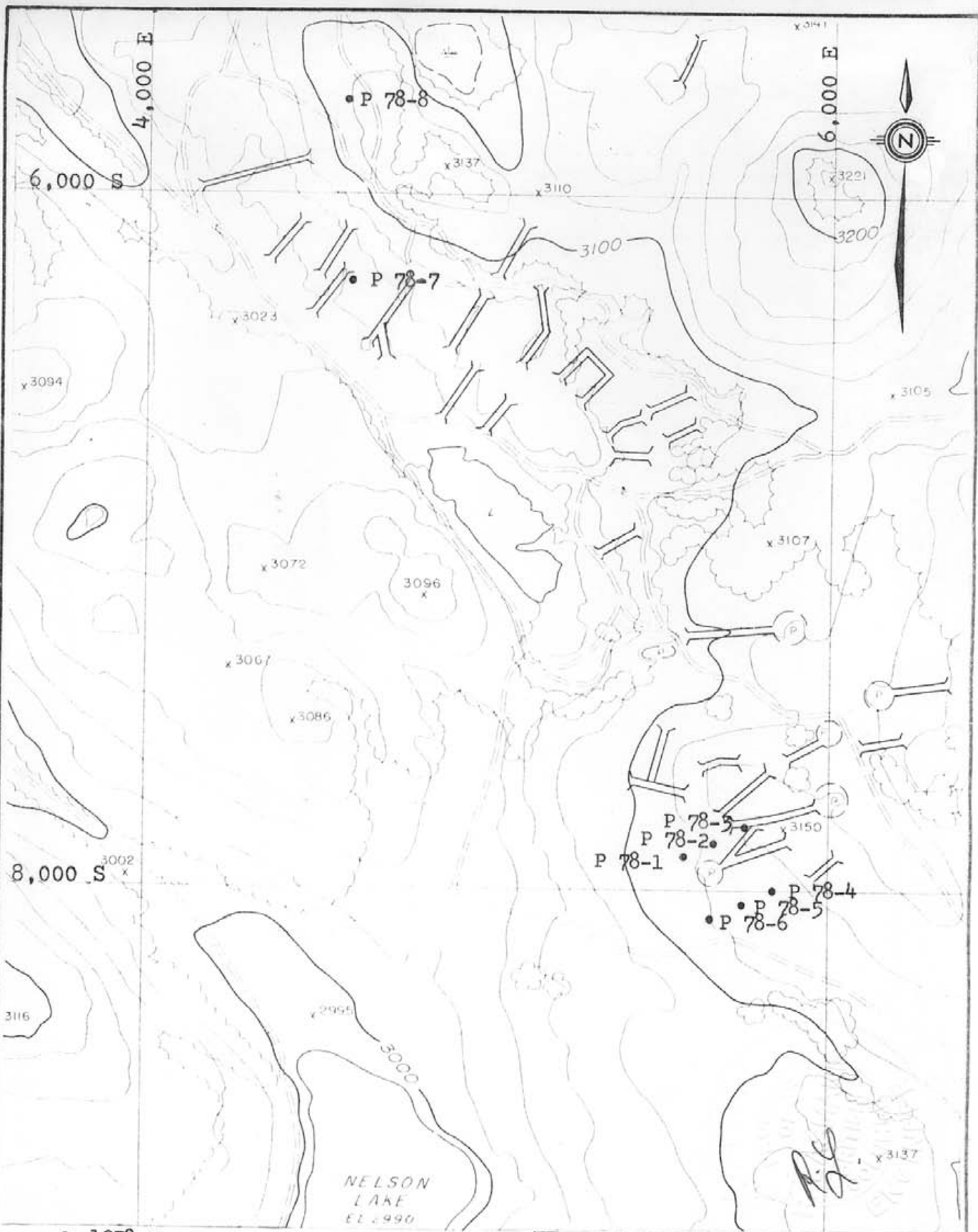
ON: October 18th

Canadian Superior Exploration Ltd.

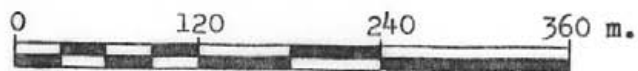
Per: *[Signature]*

H.N. HORNING PERCUSSION DRILLING LTD.

Per: *[Signature]*



• 1978 Percussion Drill Hole
SCALE: 1" = 400'



CANADIAN SUPERIOR EXPLORATION LIMITED

PERCUSSION DRILL HOLE PLAN

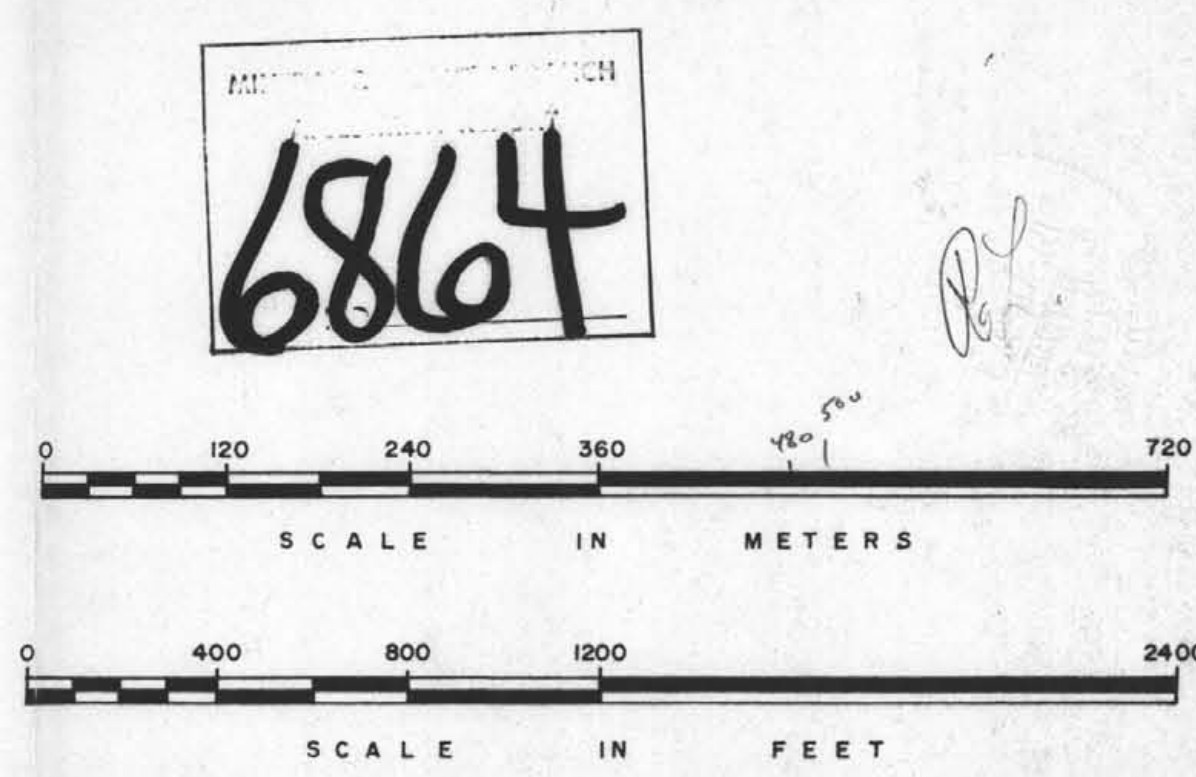
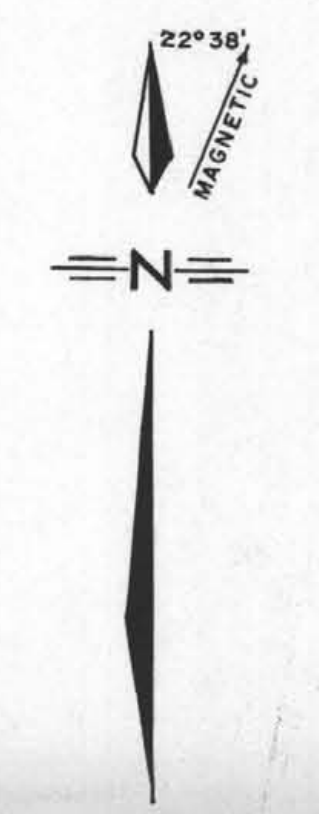
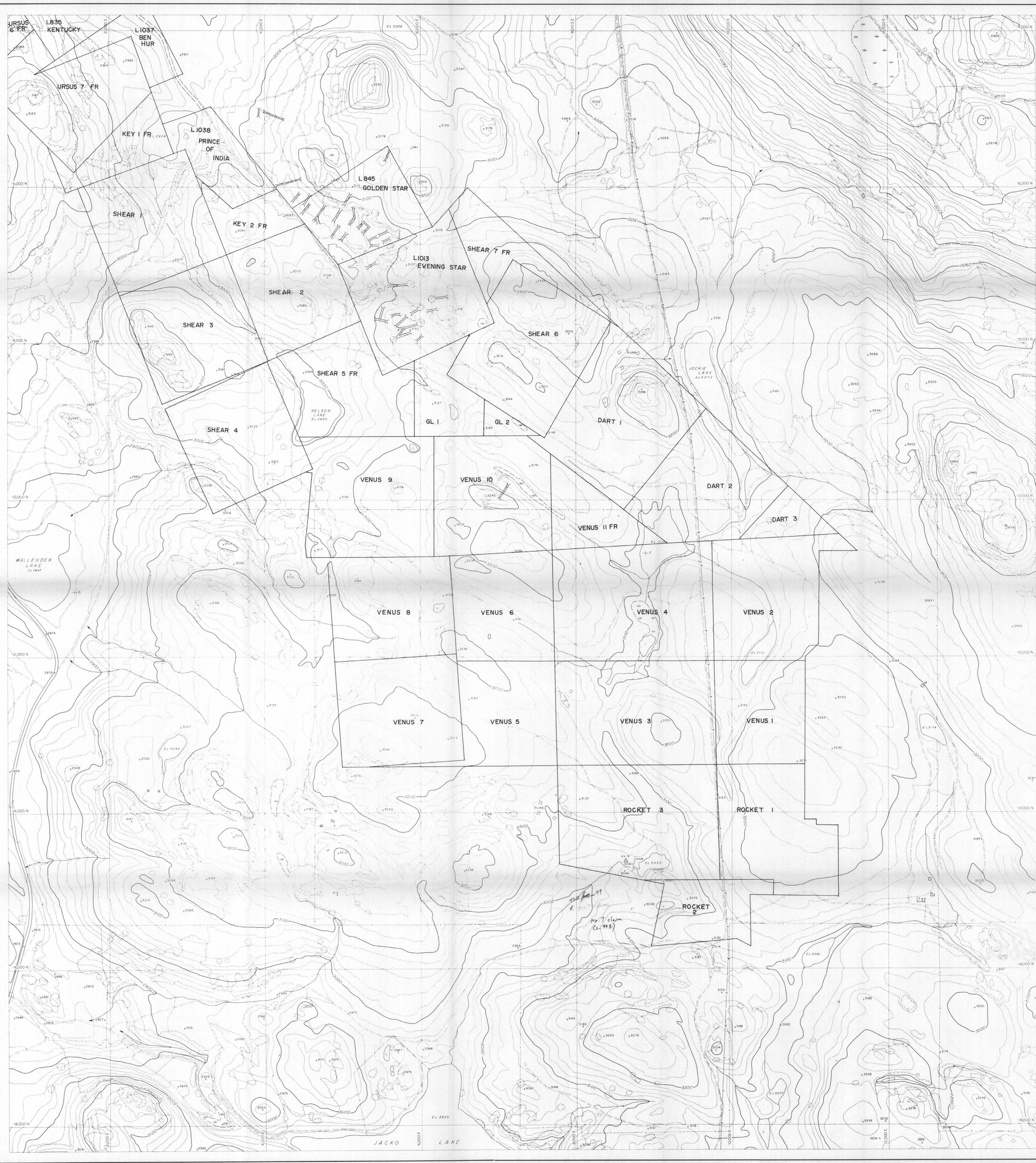
GALAXY PROPERTY

Kamloops M.D., B.C.

DRFT: J.D.B.

SCALE:

DATE: 5/78

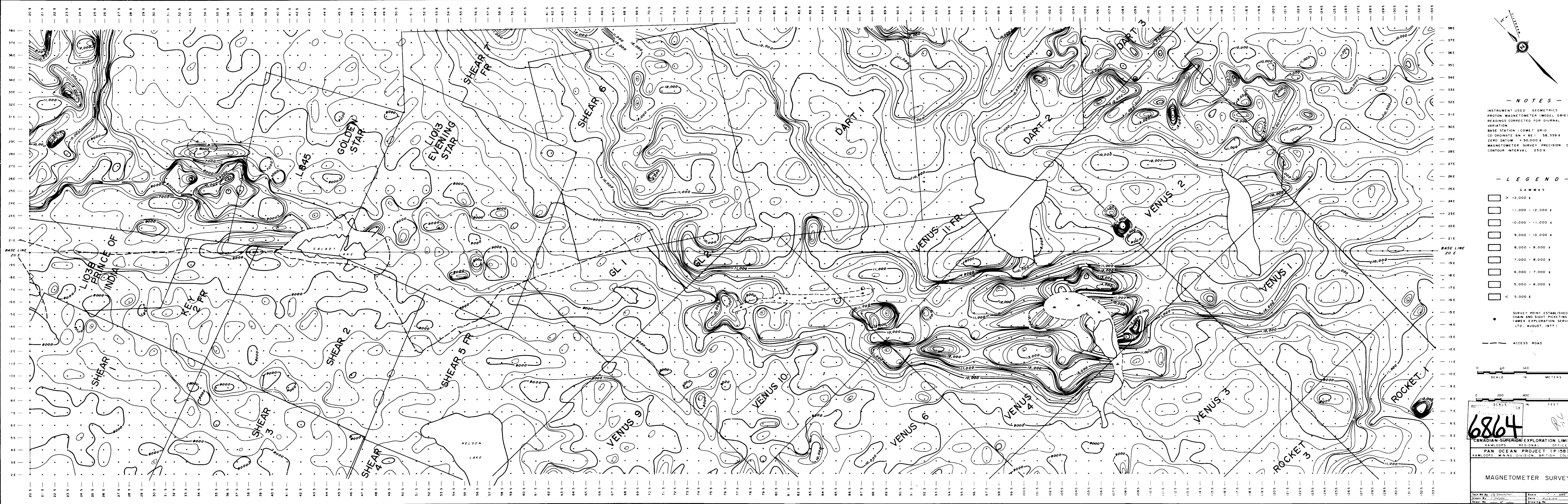


6864

CANADIAN SUPERIOR EXPLORATION LIMITED
 KAMLOOPS REGIONAL OFFICE
 GALAXY PROJECT
 KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

TOPOGRAPHIC PLAN

Tech Work By: McElmenny Ltd. Scale: 1" = 400'
 Drawn By: McElmenny Ltd. Date: March 1978
 Sheet No. 1 of 1 Drawing No.



NOTES

INSTRUMENT USED GEOMETRICS
 PROTON MAGNETOMETER (MODEL 6816)
 READINGS CORRECTED FOR DIURNAL
 VARIATION
 BASE STATION: COMET GRID
 CO-ORDINATE 6N + 6E 58.359 E
 ZERO DATUM +50,000 E
 MAGNETOMETER SURVEY PRECISION ± 5 E
 CONTOUR INTERVAL 250 FT

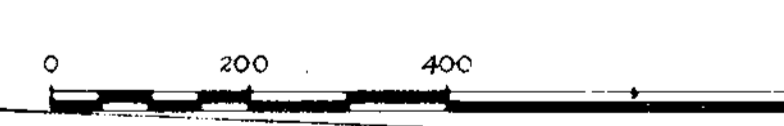
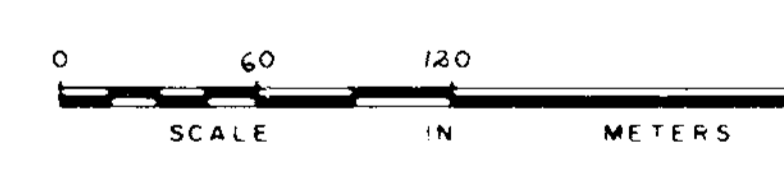
LEGEND

GAMMAS

- > 12,000 E
- 11,000 - 12,000 E
- 10,000 - 11,000 E
- 9,000 - 10,000 E
- 8,000 - 9,000 E
- 7,000 - 8,000 E
- 6,000 - 7,000 E
- 5,000 - 6,000 E
- < 5,000 E

● SURVEY POINT ESTABLISHED BY
 CHAIN AND SIGHT PICKETING
 (AMEX EXPLORATION SERVICES
 LTD. AUGUST, 1977)

--- ACCESS ROAD



6864

CANADIAN SUPERIOR EXPLORATION LIMITED
 KAMLOOPS REGIONAL OFFICE
 PAN OCEAN PROJECT (P158)
 KAMLOOPS MINING DIVISION BRITISH COLUMBIA

MAGNETOMETER SURVEY

Drawn by: J.D. [Signature] Date: [Blank]
 Check by: [Blank] Date: [Blank]