2328

Geophysical Report

Adco Silver Mines Ltd.

Owl, Star and Bob Claims, Steven Creek

Similkameen Mining District, B.C.

11 miles N80°E of Princeton

49°, 120° SE

Report by: R. H. Parker, B.S.c.
Geophysicist

February 1970

Electronics Surveys

517 - 602 West Hastings Street, Vancouver, British Columbia, Canada ✱ Telephone 688-4342

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SUMMARY

A ground magnetometer survey by Geotronics Surveys Ltd., Vancouver, has outlined an area on this claim block that would appear favorable to possible mineralization. The presence of mineralization reported in the past is noted, and recommendations made for further work on the property, culminating in a drill program.

INTRODUCTION

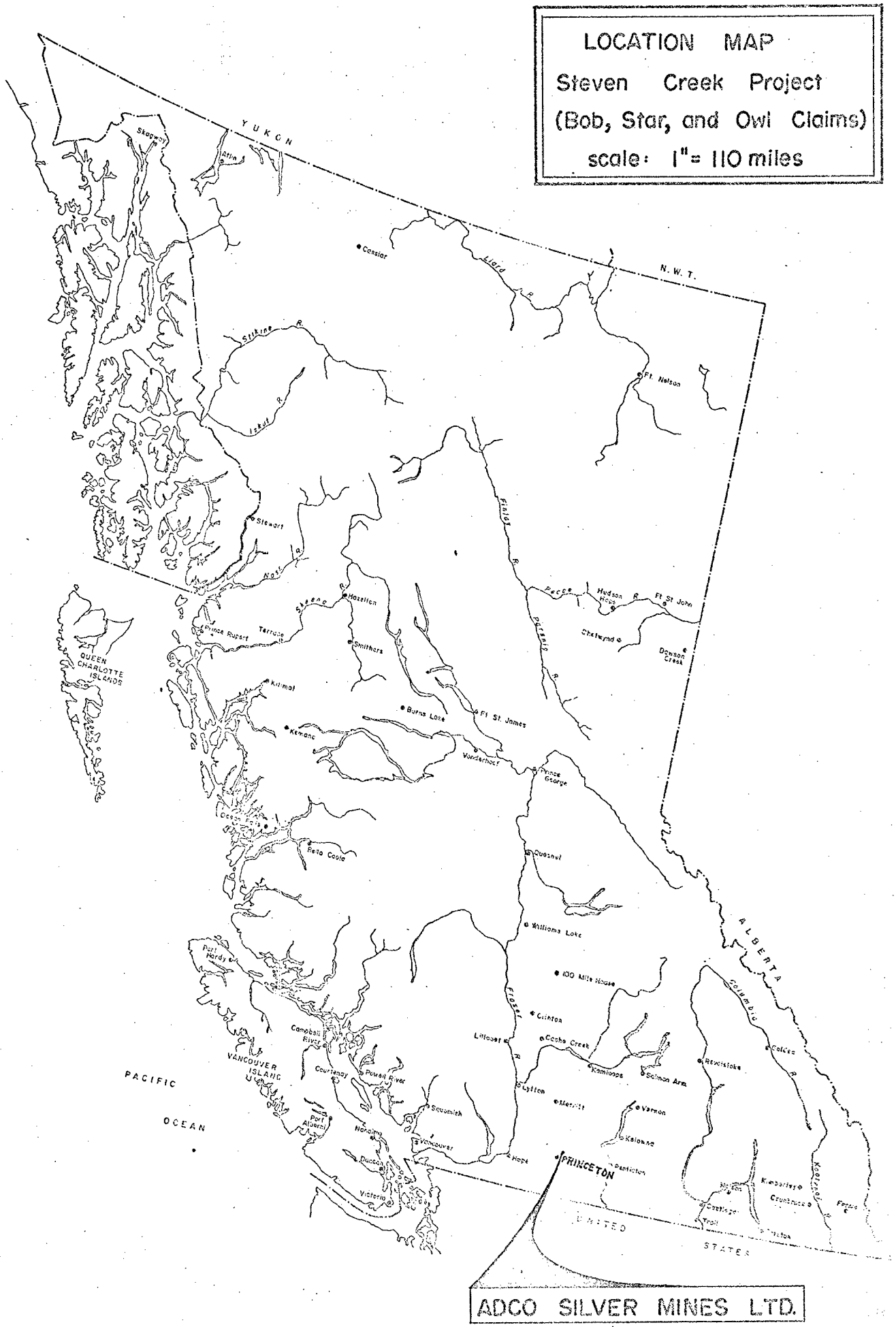
This report is based on an examination of the results of a ground magnetometer survey conducted over the property by Geotronics Surveys Ltd., Vancouver, B. C. under the direct supervision of D. Mark, B.Sc., geophysicist. Reference is also made to a report by J. H. Montgomery, Ph.D., P.Eng. and to H.M.A. Rice, G.S.C. Memoir 243.

PROPERTY DESCRIPTION

The property consists of 42 contiguous claims situate adjacent to the northern headwaters of Stevens Creek, about 2 miles north of the junction of Stevens Creek with the Similkameen River. Access is by passable logging road. The nearest centre is Princeton, B.C.

TOPOGRAPHY

As noted in Montgomery, p 6, the claims are at an elevation of about 5,300 ft. Overall relief is gentle, and the area offers little problem to a survey program.


LOCATION MAP
Steven Creek Project
(Bob, Star, and Owl Claims)
scale: 1" = 110 miles
YUKON
N. W. T.
ALBERTA
Skagway
Atlin
Cassiar
Liard R.
Stikine R.
Iskut R.
Ft. Nelson
Stewart
Nass R.
Skeena R.
Hazelton
Prince Rupert
Terrace
Smithers
Finlay R.
Peace R.
Hudson Hope
Ft St John
Pine R.
Chetwynd
Dawson Creek
QUEEN CHARLOTTE ISLANDS
Kitimat
Burns Lake
Ft St James
Kemano
Vanderhoof
Prince George
Quesnel
Bella Coola
Williams Lake
Port Hardy
100 Mile House
Campbell River
Clinton
Finlay R.
Lillooet
Ocoka Creek
Kamloops
Salmon Arm
Revelstoke
Columbia R.
Golden
Courtenay
Powell River
Lytton
Merritt
Vernon
Kelowna
Penticton
Princeton
Nanaimo
Duncan
Victoria
Hope
Vancouver
Port Alberni
VANCOUVER ISLAND
PACIFIC
OCEAN
Kimberley
Cranbrook
Fernie
Kootenay R.
Creston
Trail
Nelson
UNITED
STATES
ADCO SILVER MINES LTD.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2328 MAP #1

GEOLOGY

The reader is referred to the Montgomery report for details of the geology of the claim group. One point to note, relevant to the present work, is that mineralized veins examined by Montgomery are conformable with the Nicola group underlying the whole claim block, and that is "slightly west of north and steeply dipping". As will be noted in this report, this trend is reflected in the magnetics.

FIELD SURVEY

The instrumentation for this survey was a portable fluxgate magnetometer Model G-100 manufactured by Geotronics Instruments Ltd., Vancouver, B.C. Lines were run by chain and compass, with lines approximately 500 ft. apart and stations at 100 ft. intervals. Stations were flagged and marked with the appropriate identification. A total of 20 line miles were surveyed, the data being recorded in standard field note books. Corrections were made for diurnal variations, and the data plotted on a base map at a scale 1 in. = 500 ft.; the data was then contoured at an interval of 200 gamma.

INTERPRETATION

Although a mathematical analysis of the data has not been done, the average background for the area appears to be about 5500 gamma; the maximum magnetic relief is 2470 gamma with a minimum of 4360 and

maximum of 6830 gamma. No correction has been made for regional gradient, nor is anything known about remanent magnetization in these rocks.

The contour map indicates a general trend for the claim area that is most likely reflecting the trend of the underlying geology noted in the Montgomery report. In particular, a series of anomalies of greater than 6000 gamma lies roughly parallel to the Owl location line; the anomalies themselves are centred on Owl 4, Owl 6 and at approximately the junction of Owl 5, 6, 7 and 8. This latter anomaly is not closed as data is not available from the area covered by Owl 5 and Owl 6 claims. The three anomalies have been labelled as A, B and C on the accompanying contour map and have been profiled (see Figs. 1, 2 and 3).

One other area that appears to show interesting features is on the east side of claims Star 2, 4 and 8 with values up to 5800 gamma. Although not as magnetically high as the values on the Owl claims, these areas are adjacent to shafts and trenching work and may therefore be associated with the mineralization referred to in Montgomery.

The easternmost part of the property shows the same general magnetic trend, although values are on the average generally low and magnetically "flat".

ANOMALY A

This anomaly appears to be double peaked, with a maximum of 6300 gamma

on the western peak. A low of 4850 gamma flanks the eastern end of this anomaly. The western peak of the anomaly is elongated, trending towards anomalies B and C; i.e. it runs parellel to the local trend and apparently to the structure of the underlying Nicola group.

ANOMALY B

This anomaly lies to the NNE of anomaly A and may well be associated with it. It peaks at 6100 gamma and appears to be flanked on the west by another anomaly which may go higher in magnetic value. This is unfortunately on the very edge of the survey area so data is not available to close this anomaly in the western direction.

ANOMALY C

This anomaly includes the highest magnetic value for the property and is completely unclosed to the west. The profile shows a peak of 6700 gamma; the width of the anomaly is unknown because of the lack of data mentioned above.

The important feature here is the fact that the three anomalies analyzed are aligned in a direction parellel to the geologic structure.

CONCLUSIONS

A ground magnetometer survey of 20 line miles has indicated at least one area over which further work should be done. Although any definite

conclusions at this stage of the program would be speculative, there is the possibility that the anomalies A, B and C lie along the contact between the Nicola group and the coast intrusion surrounding the claim block. The presence of this contact and of mineralization in a shaft adjacent to anomaly C, indicates a zone of possibility extending some 3000-4000 ft., covering claims Owl 4, 6 and 8 and part of Star 3.

The writer feels that the following program should be carried out:

1. Completion of the ground magnetometer survey over claims Owl 1, 3, 5 and 7 in order to properly close off the magnetic anomalies mentioned and to ascertain the full width of the anomalous zone.

2. Detailed geologic mapping of the Owl claims (a scale of 1 in. to 500 ft. would be suitable, with details of 1 in. to 50 ft. in mineralized zones, as suggested in Montgomery).

3. Clearing of the old shafts and trenches, and a proper program of sampling and assaying of all mineralized zones, and

4. Following the above, the drilling of test holes with core logging along the axis of the zone outlined above. The purpose of the drilling would be twofold: to obtain detailed geologic information of the underlying rock, and to confirm the presence or absence of possibly economic mineralization.

Respectfully submitted,

R. H. Parker, B. Sc.
Geophysicist

February 1970

PROFILES

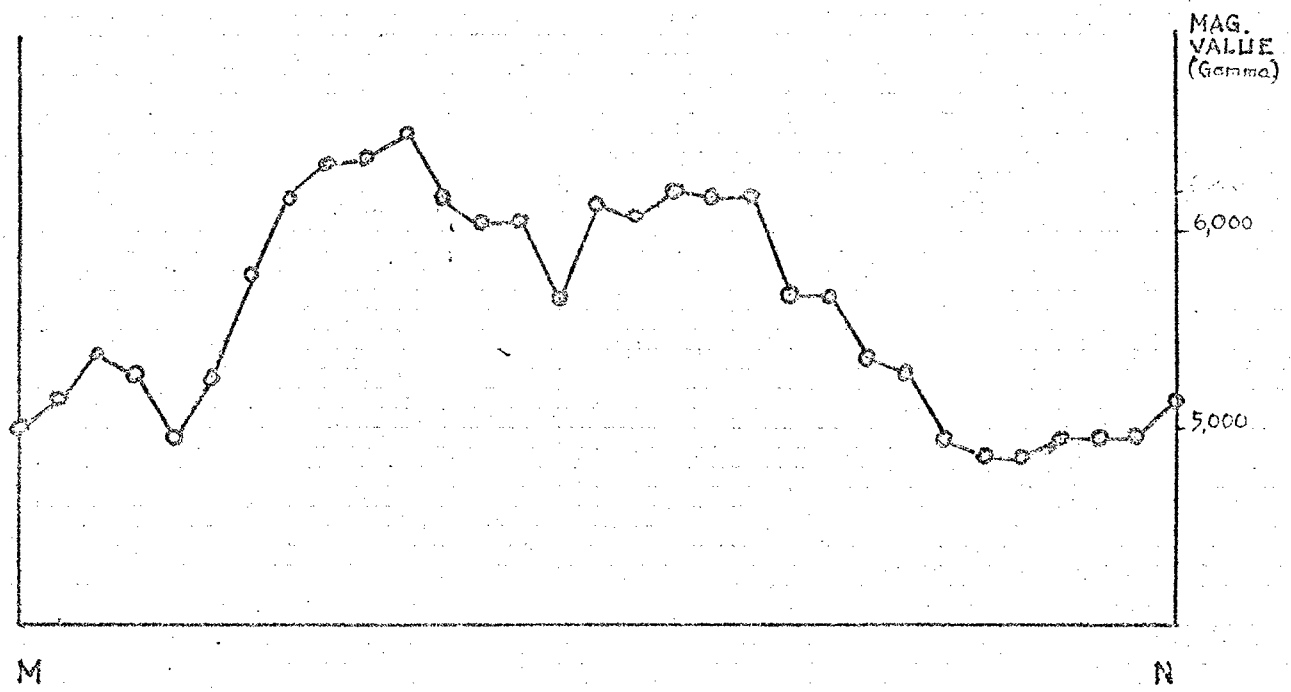


FIG. 1

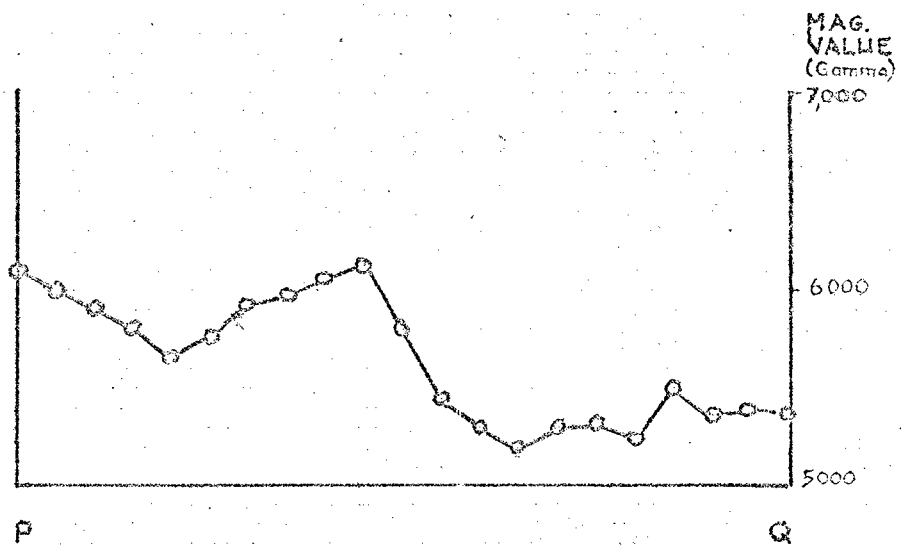


FIG. 2

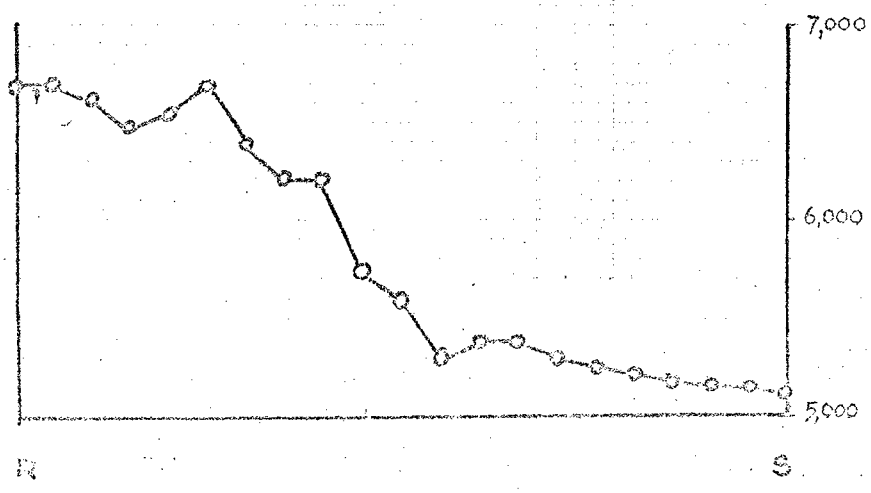


FIG. 3

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2328 MAP

REFERENCES

1. Montgomery, J. H., Report on Owl 1-14, Star 1-18 and Bob 1-10 Mineral Claims, Steven Creek, Similkameen M.D., 22 December 1969.

2. Rice, H.M.A., Geology and Mineral Deposits of the Princeton Map-Area, British Columbia, G.S.C. Memoir 243, 1960.

Geotronics Surveys

517 - 602 West Hastings Street, Vancouver, British Columbia, Canada ✱ Telephone 688-4342

RESUME OF ROBERT H. PARKER, B. Sc.

1. Graduated from The University of British Columbia in 1961 with B. Sc. in mathematics and physics.
2. Total seven years teaching first year university physics.
3. Total three years teaching geophysical prospecting methods at the British Columbia Institute of Technology.
4. Summer 1966 - Design and construction of earth resistivity meter, Geophysics Department, U.B.C.
5. Summer 1967 - Design and construction of E.M. model experiment, Geophysics Department, U.B.C.

   - Magnetometer survey, Geo-X Surveys Ltd., Vancouver, B.C.
6. 1967 - 1968 - Geo-X Surveys Ltd., part time during winter(while teaching), full time during summer exploration season; airborne and ground magnetometer and geochemical surveys.
7. From June 1, 1969 - Geotronics Surveys Ltd., Vancouver, B.C.
8. Member of American Association of Physics Teachers, Canadian Association of Physicist, B.C. Geophysical Society.
9. P. Eng. applied for with Association of Professional Engineers of B.C.

Geotronics Surveys

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RESUME OF TECHNICAL AND FIELD EXPERIENCE OF DAVID MARK, B.SC.

EDUCATION :

Graduate of University of British Columbia in Science (B.Sc.) in Geophysics.

EXPERIENCE IN INDUSTRY

1. Prospecting and geological evaluation for New Taku Mines Ltd. during exploration season of 1965.
2. Field supervisor for geophysical and geochemical work and prospecting for Mastadon - Highland Bell Mines Ltd. during exploration season of 1966.
3. Field supervisor in geochemical work and geological mapping for Anaconda(Can.) Company during exploration season of 1967.
4. Field geophysicist for Geo-X Surveys Ltd. during exploration season of 1968.
5. Presently geophysicist for Geotronics Surveys Ltd., Vancouver, B.C.
6. Experience in various geophysical instrument surveys; magnetometer, electromagnetic, self potential, gravity, induced polarization, restivity and seismic methods.
7. Member of British Columbia Geophysical Society.
8. P. Eng. applied for with Association of Professional Engineers of B.C.

E. P. SHEPPARD & ASSOCIATES LTD.
CONSULTING GEOLOGISTS
314-402 WEST PENDER STREET,
VANCOUVER 3, B.C.

April 21, 1970

Mr. Tom Rolston
Geotronics Surveys
517-602 W. Hastings Street
Vancouver, B. C.

Dear Mr. Rolston:

At your request I have reviewed the references listed below and examined the report prepared by employees of your Company, "Geophysical Report, Adco Silver Mines Ltd. Owl, Star & Bob Claims, Steven Creek, Similkameen Mining District, B.C."

The 42-claim group is located 11 miles northeast of Princeton. Latitude 49°, longitude 120° SE; elevation approximately 5300 feet. A logging road provides access to the property.

Geology. The claim area is mainly underlain by sedimentary and volcanic members of the Nicola Group, of Upper Triassic age. These rocks form part of a large septum surrounded by intrusive rocks forming part of the Coast Range batholith. The mineralized zones examined by Montgomery (Report, December 22, 1969), are quartz-filled fissures containing galena, sphalerite and chalcopyrite. The attitude of the veins, slightly west of north and steeply dipping, is conformable with that of the underlying Nicola Group.

Magnetic Survey. The ground magnetometer survey covered 20 line miles and outlined three anomalies of over 6000 gamma intensity. These are designated as "A", "B" and "C" on the contour map. Another area of magnetically high values lies on the east side of claims Star 2, 4 and 8. It is adjacent to shafts and trenching

work and may be associated with the mineralization described earlier.

The general trend indicated over the claim area most likely reflects the geology of the underlying Nicola Group.

It is concluded that further work should be done on this property, as follows:

1) Complete the magnetometer survey,
2) Map geology and sample the showings,
3) Conduct an I. P. survey over anomalous areas, followed by diamond drilling of indicated anomalies.

The geophysical report and maps submitted by your Company show careful preparation and professional presentation. I am satisfied that the field work performed was of the same high quality as that carried out on assignments where your crews were under my direct supervision.

Respectfully submitted,

E. P. Sheppard

E. Percy Sheppard, P. Eng.
Consulting Geologist

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
E. P. SHEPPARD

- - -

REFERENCES

Montgomery, J.H., Report on Owl 1-14, Star 1-18 and Bob 1-10 Mineral Claims, Steven Creek, Similkameen M.D., 22 December 1969

Rice, H.M.A., Geology & Mineral Deposits of the Princeton Map-Area, B.C., G.S.C., Memoir 243, 1960.

EPS:d

Geotronics Surveys

Breakdown of Personnel & Costs, January 22 to February 5, 1970
15 Days.

Geophysical Survey (Magnetometer) and Line Cutting

Line Cutting Crew - Wages

T. Coyne	15 Days @ $40.00 per day	$600.00	
T. Coyne, Jr.	15 Days @ $40.00 per day	600.00	
G. McInroy	15 Days @ $40.00 per day	600.00	
C. McInroy	15 Days @ $40.00 per day	600.00	

Geophysical Survey Crew - Wages

R. Simpson, Supervisor & Instrument Operator	15 Days @ $75.00 per day	$1,120.00	
P. Coyne, Geophysical Assistant	15 Days @ $40.00 per day	600.00	
			$4,120.00
4 Wheel Drive Vehicle Rental	15 Days @ $25.00 per day	375.00	
Skidoo Rental	15 Days @ $15.00 per day	225.00	
Survey & Linecutting Materials		100.00	
Magnetometer Rental 3 weeks @ $50.00		150.00	
Geophysicist Mapping & Reports		400.00	
Engineering Fees		804.00	2,054.00
			$6,174.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City **)**
of Vancouver **, in the)** Tom Ralston
Province of British Columbia, this 21 **)**
day of April 1970, **AD)**

Joan Turner

SUB - MINING RECORDER

2328

N

L 50 N

L 45 N

L 40 N

L 35 N

L 30 N

L 25 N

L 20 N

L 15 N

L 10 N

30 W — 20 W — 10 W — L.O. — BL. — 10 E — 20 E — 30 E — 40 E

Cabin

Shaft

Trench

Trenching

OWL location line

STAR location line

BOB location line

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E. P. SHEPPARD

To accompany geophysical report by R.H. PARKER B.Sc.

ADCO SILVER MINES LTD.

OWL, STAR & BOB claims · STEVEN CR·

Similkameen M·D· PRINCETON B·C·

ISOMAGNETIC MAP··· contour interval = 200 gamma

type of survey

scale	date	job no.	sheet no.	drawn by
1 in. = 500 ft	FEB. 1970	7005	2	T. W. R.

Geotronics Surveys ltd.

Geophysical Surveys, Ground & Airborne

517 - 602 West Hastings Street, Vancouver, British Columbia.

2328

N

OWL 11 | OWL 12 | STAR 11 | STAR 12 | BOB 11 | BOB 12

OWL 9 | OWL 10 | STAR 9 | STAR 10 | BOB 9 | BOB 10

OWL 7 | OWL 8 | STAR 7 | STAR 8 | BOB 7 | BOB 8

OWL 5 | OWL 6 | STAR 5 | STAR 6 | BOB 5 | BOB 6

OWL 3 | OWL 4 | STAR 3 | STAR 4 | BOB 3 | BOB 4

OWL 1 | OWL 2 | STAR 1 | STAR 2 | BOB 1 | BOB 2

CABIN

Shaft

trenching

cabin

L 50 N

L 45 N

L 40 N

L 35 N

L 30 N

L 25 N

L 20 N

L 15 N

L 10 N

30W — 20W — 10W — L'Q' — BL1 — 10E — 20E — 30E — 40E

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2328 MAP #3

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PROVINCE OF BRITISH COLUMBIA
E. P. SHEPPARD

To accompany geophysical report by R. H. PARKER B.Sc.

ADCO SILVER MINES LTD.

OWL, STAR & BOB claims · STEVEN CR.

Similkameen M.D. PRINCETON B. C.

MAGNETOMETER
type of survey

scale	date	job no.	sheet no.	drawn by
1 in. = 500ft.	FEB. 1970	7005	1	T.W.R.

Geotronics Surveys Ltd.
Geophysical Surveys, Ground & Airborne
517 - 602 West Hastings Street, Vancouver, British Columbia.