GEOPHYSICAL REPORT

ON A

MAGNETIC SURVEY

NOW CLAIM GROUP

OWEN LAKE AREA, OMINECA M.D., B.C.

NOW CLAIM GROUP 24 km South Southwest of : Houston, B.C. : 54° 126° SW : N.T.S. 93L/2E Mecca Minerals Ltd. WRITTEN FOR : 1102-207 West Hastings St. Vancouver, B.C., V6B 1H7 BY Customer Mining Services Ltd. : 1102-207 West Hastings St. Vancouver B.C., V6B 1H7 CONSULTANT Toru Kikuchi, Ph.D., P.Eng. : Consulting Geologist 5375 Quebec Street Vancouver, B.C., Canada V5W 2N4

DATE

: January 25th, 1985

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 1: 1500
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SUMMARY

During the summer and fall of 1984 a comprehensive magnetometer survey was completed on the Now (1-4) claims by Customer Mining Services of Vancouver, B.C. The Now (1-4) claims lie about 40 kilometers southwest of Houston, British Columbia, approximately 2.5 kilometers northeast of Owen Lake. The property is owned 100 percent by Mecca Minerals Ltd. of Vancouver, B.C. The claims can be reached by driving the 43 kilometer gravel road to Owen Lake, and then taking a 4 x 4 access trail (about 3 kilometers) to the claims. The property is found in the physiographic division known as the Nechako Plateau. The topography is generally rolling with forest covering most of the ground. The purpose of the present survey was to extend the geological knowledge of the Now claims and to aid in the location of future trenching and/or drilling targets.

Previous work on the property consists of soil sampling, magnetometer and electromagnetic surveys and a trenching program.

The property is mainly underlain by the Tip Top Hill volcanics - brown to maroon porphyritic andesite, thought to be Upper Cretaceous or Paleocene in age. Mineralization has been found in several of the trenches completed in the 1973 work program and/or subsequent trenching.

i.

The magnetometer readings were taken every 30 meters on 30 meter separated east-west lines. Approximately 60 kilometers of grid line was established, while magnetometer readings were taken over 36 kilometers of this grid. The magnetometer data was diurnally corrected, statistically analyzed, plotted and contoured. Soil samples were also taken on new grid where needed. Approximately 2,000 soils are to be assayed.

CONCLUSIONS

1. The 1984 magnetometer survey has revealed several linear magnetic highs and lows that correspond to existing and proposed trenches. Several of these trenches contain sulphide mineralization. Other magnetic highs and lows found in the 1984 survey could be reflecting other areas of sulphide mineralization.

RECOMMENDATIONS

Further magnetometer (most of the key areas are done) and soil sampling could be completed on the remaining portion of the established survey-grid not covered in the present survey. There is approximately 20 kilometers of grid-line which could be surveyed and sampled. The 2,000 soil samples should be analyzed.A separate all-inclusive report combining all geochemical work done over the years should be written uniting all findings. However, these recommendations, as well as the work program

discussed in this report, are all part of a multi-phased workprogram outlined by Dr. Kikuchi (1981).

ii.

GEOPHYSICAL REPORT

ON A

MAGNETIC SURVEY

NOW CLAIM GROUP

OWEN LAKE AREA, OMINECA M.D., B.C.

INTRODUCTION AND GENERAL REMARKS

This report discusses the survey method, data compilation and interpretation of results from magnetometer and geochemical surveys carried out over the Now claims located near Houston, B.C. All work carried out on the claims and discussed in this report was completed between September and October 1984 by Customer Mining Services Ltd. of Vancouver, B.C. The work program was under the direction and supervision of James Rutherford and followed those recommendations outlined by Dr. Kikuchi (1981). Approximately 20 kilometers of survey grid was established on the property, for the 1984 survey.

The purpose of the magnetometer surveys was to locate areas of possible sulphide mineralization and to aid in the geological knowledge of the property.

PROPERTY AND OWNERSHIP

The Now property includes the following four contiguous mineral claims:

Claim	Name	Record No.	No. of Units						
Now	1	2283	4	(2	x	2)			
Now	2	2284	6	(2	x	3)			
Now	3	2285	6	(2	x	3)			
Now	4	2286	4	(2	x	2)			

The property is owned 100 percent by Mecca Minerals Limited of Vancouver, British Columbia.

LOCATION AND ACCESS

The Now claims are located 40 kilometers southwest of Houston, British Columbia. They lie about 3.5 kilometers north of Bradina's Silver Queen Mine site. The claims can be reached by turning off Highway 16 at a point 3.2 kilometers west of Houston and then driving the 43 kilometers of gravel road to Owen Lake. From this point a 4 x 4 access trail, approximately 2.8 kilometers long, provides direct access to the claims.

The geographical location of the claim postcentral to the group (C.C.P.) is latitude 54° 07', longititude 126° 44'.

TOPOGRAPHY

The Now claims lie in the physiographic division known as the Nechako Plateau, between the Skeena and Fraser River systems. The topography is generally rolling, as slopes gently increase from Owen Lake, (elevation 750 meters), to Tip Top Hill, (elevation 1220 meters).

The property is well forested except for meadows on south facing slopes. Bedrock exposure is very poor, probably less than 10 percent of the total area and there are very few outcrops to be encountered.

HISTORY OF PREVIOUS WORK

Mineralization was discovered in the area in 1912, and prospecting activity has gone on in the area ever since. In 1965 serious large scale exploration was begun, leading to the production of Bradina Resources' Silver Queen Mine. This mine, no longer in operation, was located approximately 3 kilometers south of the Now claims.

Preliminary rock, soil and stream sampling was completed by Maharaja Minerals Ltd. on the property in 1972. The results of this program recommended that extensive geological, geochemical mapping and trenching be completed.

In 1973 Strato Geological completed a geological, EM and magnetometer survey over the property. Customer Mining

Services Ltd. of Vancouver built a road to the property and dug 14 trenches totalling 450 meters in length.

In the fall of 1973 two diamond drill holes were attempted on the property, but to quote McAndrew (1976):

"There was considerable futility to the 1973 drilling program since the contractor could not achieve the objectives and the contract had to be terminated."

In 1981 Customer Mining Services Ltd. completed a magnetic survey on portions of the property not covered by previous surveys. Fill-in soil sampling was done on some old lines where needed and fresh samples were taken on new grid points. Approximately 2,000 soils are ready for analysis.

GEOLOGY

General

In 1973 Dr. B.N. Church of the British Columbia Department of Mines published several geological maps of the Owen Lake area. His map titled "Geology of the Buck Creek Area" shows the Now claims underlain by Tip Topp Hill volcanic rocks except for a small area of Okusyelda Porphyry in the southwest corner of the property. This intrusive is porphyritic or microporphyritic with 20 to 50 percent plagioclase phenocrysts and minor quartz biotite and hornblende in a finely granular quartz felspathic matrix. McAndrew (1974) correlates these intrusives with nearby pyroclastic rocks that underlie the Tip Top Hill volcanics in the Owen Lake area. He places the age of these intrusives at greater than 56.2 ∓ 3 million years. The most common volcanic rock type making up the Tip Topp Hill volcanics is a brown to maroon porphyritic andesite.

Local

The following discussion of the geology of the Now claims comes from McAndrew's 1974 report on the property.

"Some of the andesite flows noted on the claims are fine to medium grained and lack the porphyritic texture described above. There are numerous areas on the claims where flows of trachyte, latite and rhyolite have been observed alone or interbedded with each other or andesite.

The trachyte is buff to brown, fine to medium grained and locally porphyritic, phyritic and limonitic. Latite is present in both flow and brecciated form. Latite breccia is present in and around Trench 8 and in Trench 12. The presence of this breccia is interpreted as due to explosive volcanic activity (eruptive vents) close to a centre of volcanism. The rhyolite is white to grey and aphanitic, with minute grey grains visible to the naked eye.

In addition to the Okusyelda Hill intrusions mapped by Dr. Church geologists have located an area of orthoclase gabbro in Trench 5. The orthoclase gabbro is a waxy brown, course grained, strongly magnetic intrusive.

In all cases significant mineralization occurs in fractured, sheared, or highly shattered and brecciated structural zones. The main lead-zincsilver-copper mineralization found in Trenches 6 and 7 occupy fractures striking north and north 40° east with some minor mineralization occurring in fractures striking north west. This fracturing may be subsidiary to a major fault, of which the stream lineament to the north may be a surface expression. Lead-zinc-silver mineralization found in Trenches 4 and 13 occur in highly shattered and brecciated zones 3 meters to 5 meters wide, both striking north west."

Geology Map No. 13A, at the end of the report, details Dr. Church's geological findings for the Owen Lake area.

INSTRUMENTATION AND THEORY

The magnetometer survey was carried out using a portable vertical component, Model 22 fluxgate magnetometer, manufactured by Saber Electronic Instruments Ltd. of Burnaby, B.C. This instrument uses a digital dial read-out with a range of 100,000 gammas. Specifications on this magnetometer can be found in detail in Appendix I.

Magnetite and pyrrhotite are the only commonly occurring strongly magnetic minerals. Magnetic surveys can be used to locate the presence of these two minerals. Different rock types have differing background amounts of magnetite, pyrrhotite or both, therefore magnetic data can also be used to map geologic lithology and structure.

SURVEY PROCEDURE

A grid system was established on the properties with stations every 30 meters. North-south running lines were established over the property for a total of about 20 kilometers of grid line. Magnetometer readings were taken over approximately 20 kilometers of the grid system. The diurnal shift was monitored in the field by the closed loop method using a series of base stations. Soil samples were taken at selected stations used in the magnetometer survey areas as per Maps Now 1/84 and Now 2/84. The samples, taken from the "B" Horizon, were placed in kraft paper bags, marked and sealed.

COMPILATION OF DATA

Data taken from lines north of line 30N, and between 10 west and 30 west have been plotted on Map Now 1/8A. Data from lines 16 south to 15 north and between 12 east and 30 east have been plotted on Map Now 2/84. The data has been plotted on these maps at a scale of 1 cm. = 15 meters. To simplify matters 54,000 gammas have been subtracted from each raw data point before being plotted. The magnetic values were grouped together in equal arithmetic intervals and cumulative frequency distribution established. The statistical parameters taken from this distribution and used for map construction are as follows:

2100 gammas Anomalous High Threshold Value

1800 gammas Sub-Anomalous High Threshold Value

1500 gammas Mean Background Value

1200 gammas Sub-Anomalous Low Threshold Value

900 gammas Anomalous Low Threshold Value

DISCUSSION OF RESULTS

Magnetometer Survey

The largest anomalous magnetic high on Map Now 1/84 was located extending roughly between 37 north - 10 west to 41 north - 10 west. This anomalous zone corresponds with the location of Trench W-5-73, outlined in the trenching programs of McAndrew 1974 and Kikuchi 1981. Trench W-5-73 was proposed because the 1973 geophysical survey had found a magnetic high and pyrite mineralization as well as a strong EM tilt angle crossover and a strong EM vertical component high in the vicinity. The 1973 geophysical results appear to correspond with the 1984 geophysical results in this location. The 1984 survey makes Trench W-5-73 an even more appealing trench target for further work. No other significantly large anomalous highs were found in the Map Now 1/84 survey area.

The largest anomalous magnetic low on Map Now 1/84 extends southeast from station 51 north - 26 west to station 30 north -21 west. The location of this magnetic low corresponds with Trench W-4-73. This trench was dug in 1973 near an outcrop carrying disseminated argentiferous galena. Two anomalous lows occur in the northwest corner of the Map 1/84 survey area, centered at station 42 north - 20 west and 44 north - 26 west. Trench W-4-73 is found within the boundary of these two magnetic lows. The trench had been dug to open up lead-silver-zinc mineralization reported to exist in the area.

Since this trench, with known mineralization, corresponds to magnetic lows, future trenching programs on the Now claims should consider other areas of magnetic lows in choosing trenching targets. An anomalous magnetic low was found centered at 49 north - 28 west. Numerous sub-anomalous zones were found throughout the survey area.

The largest anomalous magnetic high on Map Now 2/84 was located extending roughly from 15 north - 26 east to points north on

another map sheet done in 1981. This anomalous zone corresponds roughly with the location of proposed Trench W-19-74 outlined in the trenching programs of McAndrew 1974 and Kikuchi 1981. Trench W-19-74 was proposed because the 1973 geophysical survey had found an extreme magnetic high, as well as a strong EM tilt angle crossover and a strong EM vertical component high in the vicinity. The 1973 geophysical results appear to correspond with the 1984 geophysical results in this location. The 1984 survey makes Trench W-19-74 an even more appealing trench target.

Other anomalous highs were located at stations 11 north - 30 east and 15 north - 20 east. A smaller, but still anomalous high, was found at station 3 north - 25 east which corresponds to Trench W-13-73 where lead, silver and zinc values were encountered.

A magnetic high was located in the vicinity of stations 13 south -14 east to 11 south - 17 east. No other significantly large anomalous highs were found in the Map Now 2/84 survey area. The largest anomalous magnetic low extends south from station 2 north - 12 east to station 1 south - 13 east.

Follow-up trenching conducted on magnetic anomalies found in past exploration programs in the Now claim area have demonstrated "a ratio of success particularly encouraging " - McAndrew, 1974. Notwithstanding the known limitations of the method of survey the results appear to warrant closer investigation by other prospecting methods -- trenching, drilling and/or othergeotechnical surveys or any combination of the same.

Soil samples taken over the grid area will be analyzed and written up in a separate report.

Several magnetic highs were located at single station points. The "population" readings around these points did not indicate any large continuous anomalies. They should be examined with a trenching program at a later date.





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- Kikuchi, T., <u>Geophysical Report on a Magnetic and Geochemical</u> Survey, Now Claim Group, Owen Lake, Omineca M.D., B.C. 1981

CERTIFICATE

I, JAMES A. RUTHERFORD, of the City of Vancouver, British Columbia, the author of this report, hereby certify that:-

- I am President and Manager of Customer Mining Services Limited, with offices at 1102-207 West Hastings Street, Vancouver, B.C., V6B 1H7.
- I hold a B.Sc. degree (major geology) from the University of Alberta - 1955.
- I hold an M.B.A. degree (major business administration) from the University of Western Ontario - 1957.
- 4. I am a Fellow of the Geological Association of Canada.
- I am not a Registered Engineer in the Province of British Columbia or of any province.
- I have worked professionally and as a businessman in the mining and/or oil business for over 30 years.
- As at date I have direct and indirect interest through Customer Mining Services Limited in the securities of Mecca Minerals constituting a position of "shareholder of control".
- This report is based on personal field examination and examination of the data obtained as a result of the survey.

DATED at Vancouver, British Columbia, this 55 day of January 1985.

James A. Ruther ford

B.Sc., M.B.A., FGAC, AFCGS.

STATEMENT OF QUALIFICATIONS

I, Toru Kikuchi of the City of Vancouver, B.C., hereby certify that:-

- I am a graduate of the Hokkaido University, Japan (B.Sc., Geology and Minerology, 1946) and of the Tohoku University, Japan (Ph.D., Economic Geology, 1963).
- I am a "GIJUTSUSHI" (a qualification for a consulting engineer authorized by the Japanese Government) and a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- I have been practising my profession continuously for the past thirty-five years, and am an independent Consulting Geologist with my office at 1374 Park Drive, Vancouver, B.C., V6P 2K6.
- I have no direct or indirect interest in the property, nor do I anticipate receiving any such interest, nor in the securities of Mecca Minerals Limited.
- I inspected a portion of the work while the program was being carried out. I have read this report and personally endorse the facts and concepts contained in the text.

in the

Toru Kikuchi, P.Eng.

Vancouver, B.C. January 31st 1985.

AFFIDAVIT OF EXPENSES

The magnetic and geochemical survey carried out on the Now Claims, Owen Lake Area, Omineca, M.D., B.C. May 1 to October 15 1984 was done to the value of the following set in below. Work was carried out sporadically with most of it being completed in the latter part of September into October.

FIELD:

Supervision Instrument rental		500.00	
Survey supplies		500.00	
Mobilization and demobilization (air fares and return to Vancouver)		1,000.00	
REPORT:		11,500.00	
Drafting and printing (binding)	\$	650.00	
Report typing and compilation		350.00	
	\$	1,000.00	
Grand Total	\$	12,500.00	
Respectfully submitted Customer Mining Service	Ltd.		

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President

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APPENDIX I

17. 1 of J

geophysical industrial instruments and services

SABRE MODEL 22 PORTABLE MAGNETOMETER

The model 22 magnetometer is an accurate and rugged instrument that is simple to operate yet fulfills all the requirements of a first class geophysical exploration instrument.

Specifications

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Principle of Operation:	Neutralized fluxgate.								
Type of Readout:	Meter to indicate null and precision digital dial to indicate value of earth's vertical field directly in gammas.								
Range:	0 to 100,000 gamma latitude controls or	nas (without the use of complicated range switches)							
Sensitivity:	20 gammas per divi linear throughout th	sion on digital dial. Constant and he entire range.							
Operating Temperature F	Range: -30°C to +85	°C.							
Temperature Drift:	Drift: Less than 2 gammas per degree throughout the entire operating range.								
Fluxgate Suspension Syst	em: Oil-damped	gimbal, self-levelling.							
Dimensions:	Magnetometer:9 in Battery Case:4-3/4	ches high x 7-1/4 in. wide x 4 in. deep. in. x 4-3/4 in. x 1-1/2 in.							
Weight:	Magnetometer Battery Case	4 lbs. 2 lbs. (complete with batteries)							
Field Cases:	Magnetometer and saddle leather case	battery case are both housed in heavy s with convenient carrying straps.							
Batteries:	4 Eveready No. 24 service life of appr	6 transistor batteries (9 volt), with ox, 2 months depending on use.							



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