6072

CARIE

GEOLOGICAL AND GEOCHEMICAL REPORT

on the

CARIE LEAD-ZINC PROSPECT

OMINECA MINING DIVISION

British Columbia

for

SUSIE GOLD MINES LTD.

by

Robert Potter P.Eng.

Fulford Harbour, B. C. October 17, 1976

with

APPENDED GRAVITY SURVEY REPORT

by

C. A. Ager, PhD., P.Eng.

94C/3E

CONTENTS

PART "A"

1-00 SUMMARY

The Carie property lies along the eastern edge of a belt of Middle Devonian carbonate rocks which are known to host lead/zinc mineralization at numerous points between Omineca and Osilinka rivers. Mineralization in the area is thought to be strata controlled and may be considered to fall within the broad classification of 'Mississippi Valley type'.

Geological mapping and soil surveys of the property have outlined two broad areas of interest. Both are characterized by high zinc and lead in B horizon soils, dolomitized carbonates, and scattered showings of galena and sphalerite.

A preliminary gravity survey of the northern geochemical anomaly shows a strong gravity high which is probably caused by mineralization at depth.

Additional work is definitely warranted to further assess the potential of this property.

2-00 RECOMMENDATIONS

(1) Additional ground to be staked to cover the probable extension of the southern geochemical anomaly.

(2) Geochemical sampling be carried out over the newly staked ground.

(3) A topographic map be compiled from aerial photographs to provide data for the correction of gravity surveys and control of other work.

(4) Additional gravimetric work be conducted over both the northern and southern geochemically anomalous areas.

(5) Mineralized samples from known showings to be tested for induced polarization response. If induced polarization is shown to be effective, targets should be further defined by this system.

(6) A three thousand foot diamond drill program be carried out on targets defined by the above work.

3-00 COST ESTIMATE

(1)	Staking - 10 units @ $60.00/unit	$ 600.00
(2)	Geochemical survey - 4 miles	1,000.00
(3)	Topographic compilation	3,500.00
(4)	Gravity survey	20,000.00
(5)	Induced polarization survey - 20 miles	10,000.00
(6)	Diamond drilling - 3000 feet @ $16.00/foot	48,000.00
(7)	Transportation and camp	5,000.00
		88,100.00
	Add 10% contingencies	8,810.00
	TOTAL	$ 96,910.00

Respectfully submitted

Robert Potter, Msc., P.Eng.

PART "B"

4-00 INTRODUCTION

During July of 1976 Susie Gold Mines Ltd. carried out a program of geological mapping, soil sampling and gravity surveying on the Carie claim group. This work constituted stage 1 of the exploration program recommended by R. W. Phendler, P.Eng. in his report dated February 3, 1976.

Soil samples were collected by Stellac Explorations Ltd. of Germansen Landing B. C.

The writer carried out the geological mapping and supervised the geochemical program.

The gravity survey was conducted by personnel of C. A. Ager and Associates under the direction of D. R. MacQuarrie, BSc., geophysicist.

This report is based on the writer's observations on this property and on similar ones in the area.

5-00 LOCATION AND ACCESS

The Carie property is located about twenty miles north of Germansen Landing in the Omineca Mining Division (NTS 94C/3E). Approximate geographical co-ordinates are 56°07'N, 125°02'W.

Access is by the Omineca road north and west from Germansen for about fifty miles to the Wasi Creek crossing and hence by helicopter a further nine miles northeast to the property.

6-00 PROPERTY

The Carie Group consists of thirty mineral claims, the details of which are as follows:

Name of Claim	No.	Record Numbers
Carie 1-4	4	130960-130963
Carie 5-10	6	132742-132747
Carie 12	1	132749
Carie 14-18	5	132751-132755
Carie 19-32	14	133623-133636
	30	

7-00 HISTORY

Prospecting of the carbonate terraine lying north of Germansen Landing between Omineca and Osilinka rivers was carried out during the late 1940's and early 1950's. Prospects such as the Davies and Gordon near Osilinka River and Biddy and Vernon near Echo Lake were discovered during this period. Significant work, which included mapping and trenching, was done by Kennco in the area of the Echo showing in 1952 and 1953.

More recently Pechiney has worked on a block of claims lying immediately to the south-east of the Carie group. Work here during 1974 and 1975 included geological mapping and soil sampling. This property was subsequently dropped.

Cominco Ltd. is continuing with a program of mapping and trenching on their extensive holdings in the Echo Lake area. This work has been facilitated by the construction of a road from the Omineca road to the property via Nina Lake.

The Carie claims cover ground which was formerly known as the Cona group. This was staked by Centura Mines Ltd. in 1972. There is no record of Centura's having done any work on the property.

8-00 GEOLOGY

8-10 Regional Setting

The sedimentary sequence lying to the north of Germansen Landing between Omineca and Osilinka rivers has been correlated with the Cache Creek group of Permian age (Armstrong; GSC Memoir 252, Fort St. James Map-Area, 1965). The sequence comprises metavolcanics, argillite and limestone. The limestone member is known to host lead/zinc mineralization at numerous points along a twenty mile strike length. Known showings are concentrated in the Echo Lake and Osilinka River areas. Mineralization along this belt is commonly localized in areas of intense dolomitization at or near the carbonate/argillite contact.

Recent work by Monger at the Geological Survey of Canada, has indicated that the carbonate unit may be of Middle Devonian age.

8-20 Property Geology and Mineralization

The argillite carbonate contact, which is regionally significant in the localization of mineralization, is exposed within the Carie claims both north and south of Wasi Creek. Significant lead/zinc mineralization occurs in the vicinity of both these exposures. Bedding attitudes plus topographic expression indicate that the contact underlies the full twelve thousand feet of the south-west side of the claim block.

The argillite unit here is typically a fine grained carbonaceous rock which locally carries fine disseminated pyrite.

The carbonate unit within the Carie claims comprises a sequence of massive beds which strike northwesterly and dip steeply to the southwest. This appears to be the western flank of an anticline which is plunging to the south. The limestones present are for the most part fine grained grey rocks with local accummulations of crinoidal fossil material.

A number of distinctive types of secondary dolomite are present within the property. The ridgetop north of Wasi Creek is largely underlain by fine grained, grey, sucrosic ferrodolomite which weathers to a rusty brown. A broad area adjacent to the argillite contact north of the creek is made up of grey to black carbonaceous dolomite. Sparse outcrops in the southeast corner of the property include coarse porous dolomite with remnant crinoidal fossils and fine dark sucrosic dolomite.

Disseminated and massive galena has been noted in the twenty by forty foot outcrop of dolomite which is located just below the initial post of Carie claims 3 and 4. The mineralization here is within ten feet of the argillite contact. A pod of massive, coarsely crystalline barite is also present here. Disseminated sphalerite is found in fine grained dolomitic float over a broad area to the northeast of the lead showing.

South of Wasi Creek a small galena showing was found in silicified dolomite adjacent to the contact. A six inch vein of pyrite was also noted here.

Dolomitic float in the southeast corner of the property carries scattered disseminated galena and sphalerite.

9-00 GEOCHEMISTRY

Soil sampling was carried out over the northern half of the Carie Group by D. Stelling in 1975. Analyses of samples from this area show a broad area, which is highly anomalous in lead and zinc. This covers the northern lead showing and the area of zinc float. Significantly the anomalous area is largely underlain by dolomitic rocks. Details of this work are covered in a report by Stelling dated August 30, 1975.

During the 1976 field season geochemical coverage was extended to

cover the southern part of the property. Soils from the 'B' horizon were collected at two-hundred foot stations along lines spaced at four hundred feet. Samples were placed in high wet strength, kraft envelopes and dried prior to shipment to Min-En Laboratories Ltd. of North Vancouver. Analyses, for lead and zinc, were by standard perchloric acid digestion and atomic absorption. Figure 3 shows the frequency distribution for the lead and zinc contents of soil samples. Anomalous values for lead are considered to be those in excess of 200 ppm and for zinc those greater than 550 ppm.

Contoured maps of the geochemical results are shown in figures 4 (lead) and 5 (zinc).

A strong anomaly, which is co-incident in lead and zinc, extends for about five thousand feet along the south-eastern edge of the claim block. As shown this has its maximum width of about sixteen-hundred feet at its southerly end, but the anomaly is open to the east and south. Much of the anomaly is no doubt the product of downslope movement of mineralized material but the anomaly does significantly extend to the west of the small stream. The several spot anomalies scattered throughout the survey area are thought not to be of importance at this time.

10-00 GEOPHYSICS

In July of 1976 a gravity survey of limited extent was carried out by C. A. Ager and Associates over the northern geochemical anomaly. The results of this work are fully described in the report by Ager which is appended.

The gravity data indicates a positive anomaly which is essentially co-incident with the geochemical anomalies, with an area of dolomitization and with the area in which float and in-situ mineralization has been located.

The causative feature is considered to be lead, zinc and barite mineralization.

With regard to the above it should be noted that available topographic control is not of sufficient detail to establish satisfactory terraine corrections. An accurate topographic map of the property should be compiled to provide this necessary data.

APPENDIX I

Certification

I, Robert Potter of Fulford Harbour, British Columbia do hereby certify that

1. I am a graduate of the University of British Columbia, BASc (1961) and McGill University, MSc Applied (1972).
2. Since graduation I have been engaged in mining exploration in Canada and Europe.
3. I am a registered member, in good standing, of the Association of Professional Engineers of British Columbia 7650.
4. I have not received nor do I expect to receive any interest, directly or indirectly, in the properties or securities of Susie Gold Mines Ltd. or in the subject property.
5. That the information contained in this report is based on personal knowledge of the geology of the Wasi Lake area and on a study of the available assessment reports and government reports.

Robert Potter, MSc., P.Eng.

Fulford Harbour, B. C.

October 17, 1976

Cost Statement

MERIN MANAGEMENT LTD.
906 - 675 West Hastings Street
Vancouver, B. C.
V6B 1N2

Telephone (604) 681 2396

INVOICE TO: Susie Gold Mines Ltd.
202-900 West Pender Street
Vancouver, B. C.

June 30, 1976

Invoice #76-006

CARRIE CLAIMS:

Personnel:

C. Stanley - preparation of field program and cost schedules; arrange sub-contracts; purchasing and expediting, correspondence — $ 107.19

Disbursements:

A.B.C. Recreational Equipment, field equipment	$ 39.34	
B. C. Industrial Supplies, hammer and drafting supplies	42.55	
B. C. Telephone, long distance calls	7.20	
VanCal drafting supplies	66.77	
Expenses - C. Stanley-field supplies	37.15	
	193.01	
15% contingency on disbursements	28.95	
		221.96
		$ 329.15

MERIN MANAGEMENT LTD.
906 - 675 West Hastings Street
Vancouver, B. C.
V6B 1N2

Telephone (604) 681 2396

INVOICE TO: Susie Gold MInes Ltd.
202-900 West Pender Street
Vancouver, B. c.

July 31, 1976

Invoice #76-011

CARRIE CLAIMS:

Personnel:		
C. H. Stanley - co-ordinate field program and data, drafting maps, expediting	$ 525.00	
R. Potter - field supervision	948.40	
P. Douglas - field assistant, July 12-27	525.00	
T. Eithier - field assistant, July 12-27	367.50	
M. Chaippe - field cook	560.00	
		$2,925.90
Disbursements:		
B. C. Industries, field equipment and supplies	111.63	
B. C. Telephone, long distance calls	20.76	
Deaking Equipment, field equipment	551.85	
Northern Mountain Helicopters - charters	2,325.00	
Super Valu - groceries	447.51	
VanCal, drafting supplies credit	(5.11)	
Expense reports - C. H. Stanley, field supplies	31.71	
	3,483.35	
15% contingency on disbursements	522.50	
		$4,005.85
Equipment rentals:		
1 - 1976 Ford truck, 4x4 1/2 mo. at $600.00/mo (mileage to follow)		$ 300.00
		$7,231.75

C. A. AGER & ASSOCIATES LTD.

Telephone (604) 536-1154

CONSULTING
GEOPHYSICISTS

15423 34th Ave.
Surrey, B.C. Canada
V3S 4N7

November 8, 1976

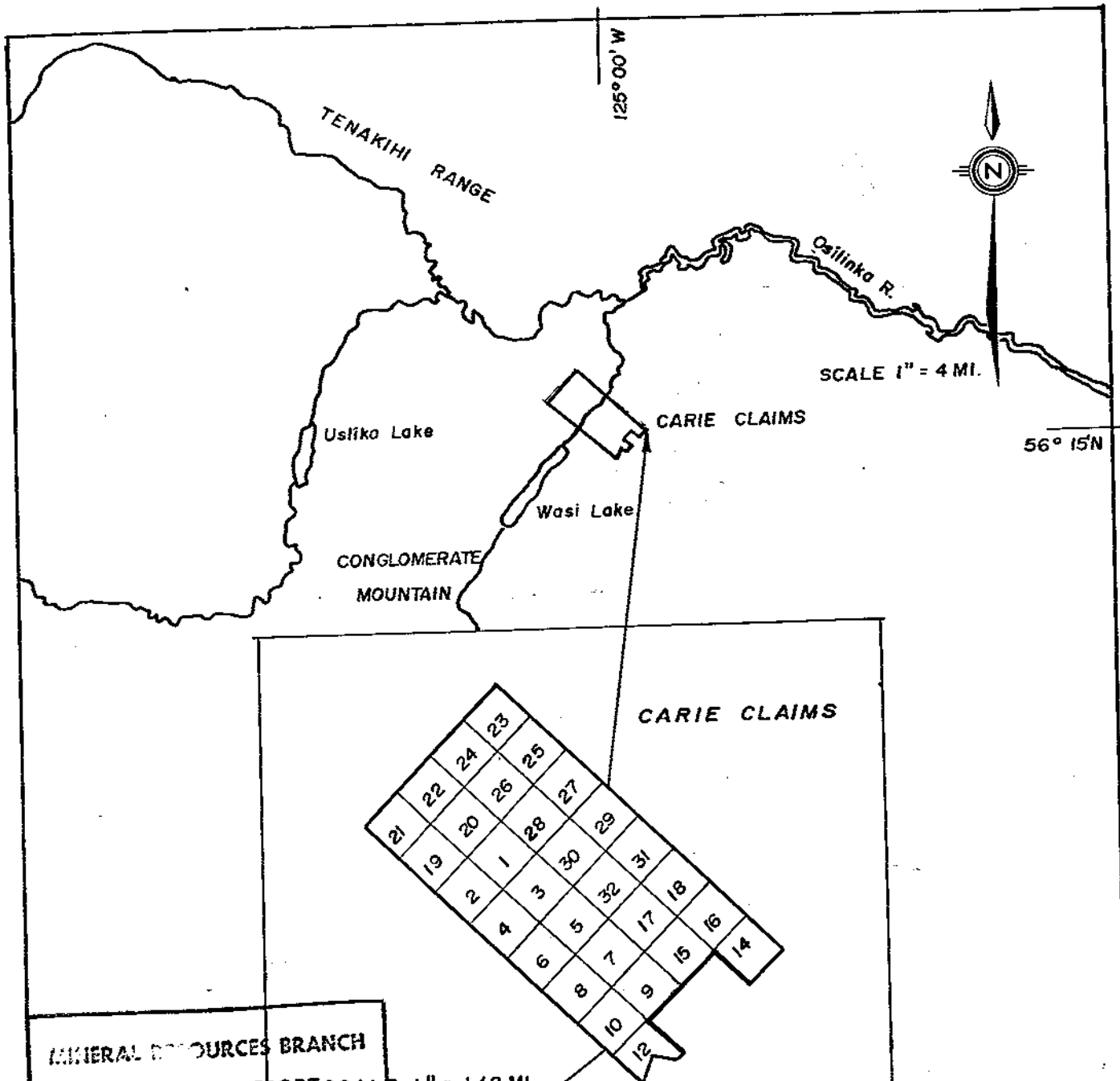
IN ACCOUNT WITH

Merin Management Ltd
906 - 675 West Hastings St
Vancouver, B.C.

FOR Professional geophysical services rendered in regard to the Gravity Survey over the Carie Claims Group of Susie Gold Mines Ltd:

TO

GRAVITY WORK		
Field Observations		
Data Reduction		
Density measurements		
Terrain Corrections		
Data Interpretation		
Report Writing		
167 stations @ $20/station		$ 3340.00
MOB/DEMOB EXPENSES		
Crew Wages (4 man crew)		
4 days @ $300/crew day	$ 1200.00	
Vehicle, Gas & Oil	355.21	
Food & Lodging	121.74	1676.95
TOTAL		$ 5016.95
OTHER EXPENSES		
Theodolite rent (at cost)		67.78
Total rendered herewith		$ 5084.73



SCALE 1" = 1/2 MI.

FIGURE 1

British Columbia

SUSIE GOLD MINES LTD.

CARIE CLAIMS

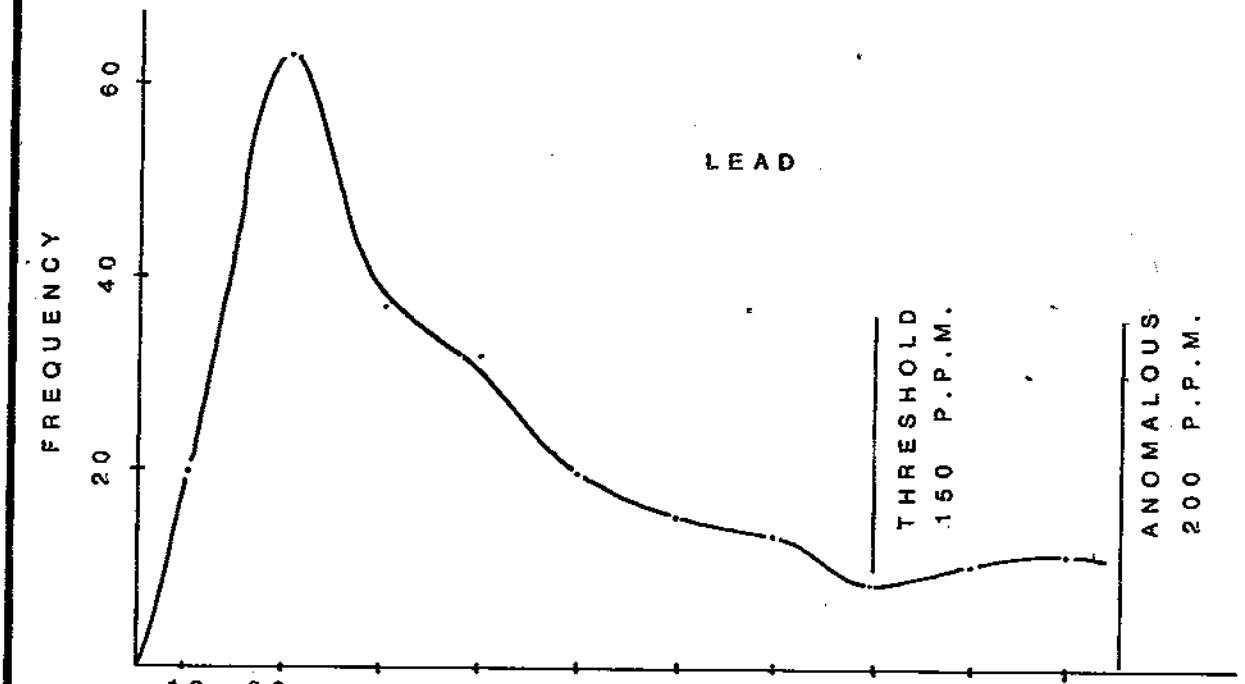
MINING DIVISION: OMENICA

PROPERTY LOCATION MAP

MAP REFERENCE: 94C/3E

COORDINATES: 56° 15'N, 125° 00'W

MERIN MANAGEMENT LTD. OCTOBER, 1976



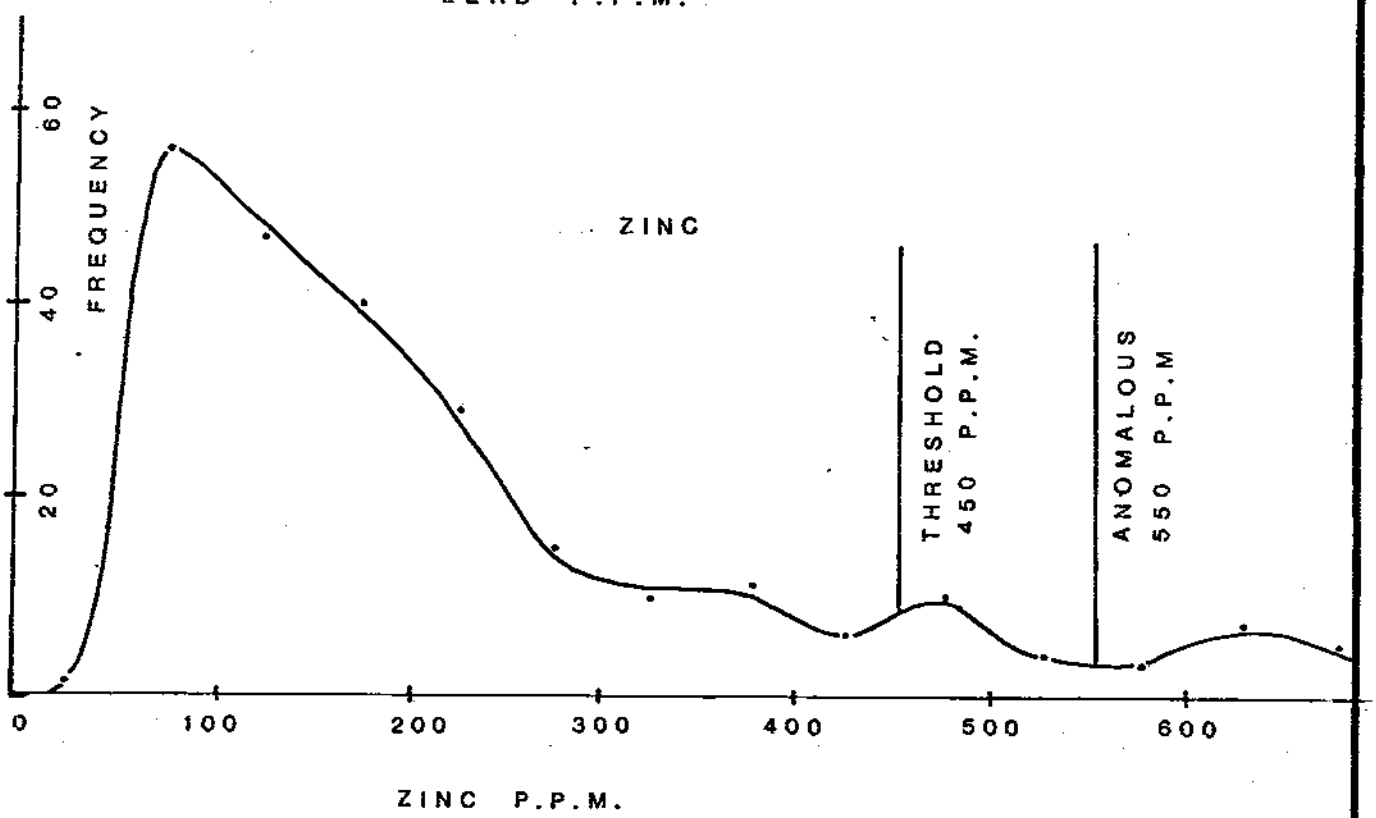


FIGURE 3

CARIE PROPERTY
GEOCHEMISTRY

FREQUENCY DISTRIBUTIONS

LEAD & ZINC

C. A. AGER & ASSOCIATES LTD.

Telephone (604) 536-1154

CONSULTING
GEOPHYSICISTS

15423 34th Ave.
Surrey, B.C. Canada
V3S 4N7

CARIE CLAIMS GRAVITY SURVEY

SUMMARY

The results of an exploratory gravity survey over the Carie Claims owned by Susie Gold Mines Ltd. are presented in this report. The gravity data indicates a gravity high anomaly that is spatially associated with known occurrences of silver-lead-zinc mineralization in soils, float and outcrop. The anomaly is still open to the northeast. Preliminary calculations show an excess mass of 3-5 million tons. Further work is recommended to delineate the economic nature of the source.

Respectfully submitted,

Charles A. Ager

October 14, 1976

Charles A. Ager, PhD, PEng.
Geophysicist

TABLE OF CONTENTS

LIST OF FIGURES

LOCATION, DATE OF WORK, CREW

Location: Carie 1,2,3 and 4 Claims

Wasi Creek Area, B.C.

Omineca Mining Division

NTS 94C

56°6.6' N Latitude by 125°2.5' W Longitude

Date of Work:

Field Work; July 26 - August 7, 1976

Office Work; Sept 22 - October 14, 1976

Crew: Douglas R. MacQuarrie, BSc, Geophysicist/Party Chief

Alex Dryver, Geophysical Operator

Alan Watson, Geophysical Operator

Howard Moskaluk, Field Assistant

Charles A. Ager, PhD, PEng, Geophysicist/Data Interpreter

INTRODUCTION

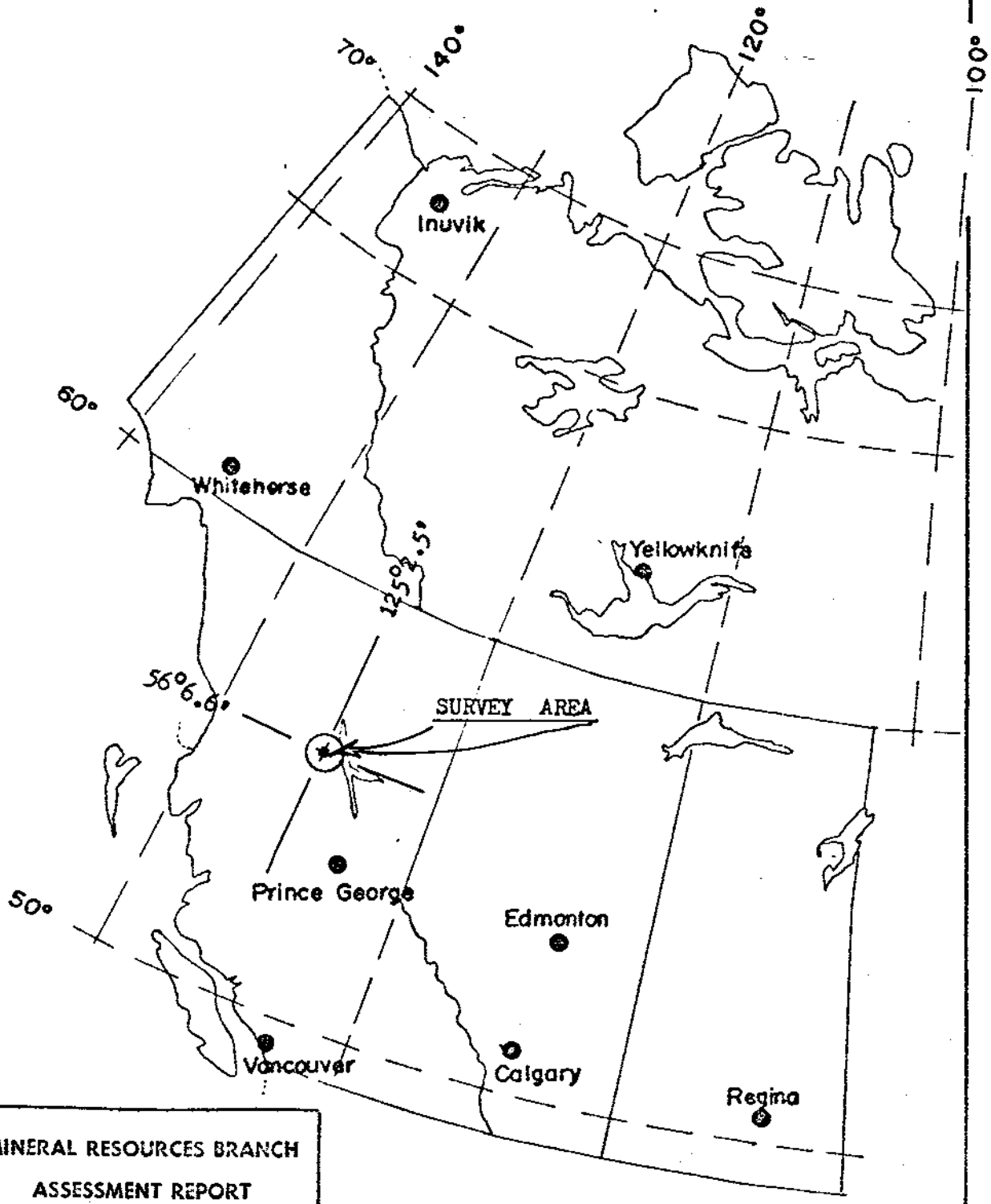
At the request of Mr Doug Stelling, Susie Gold Mines Ltd., an exploratory gravity survey was conducted over a section of the Carie Claims Group, Wasi Creek area, B.C. The survey area location map is given as Figure 1 with the survey grid, claim boundaries and gravity station locations on Figures 2 and 3. The intent of the gravity work was to delineate areas of excess mass which could indicate the presence of massive Ag-Pb-Zn deposits within the underlying limestone-dolomite units.

Access to the survey area is by helicopter from Uslika Lake some $7\frac{1}{2}$ miles to the west.

INSTRUMENTATION & SURVEY PROCEDURE

Gravity observations were made using a LaCoste & Romberg Model G Gravity Meter (No. G148) with reading accuracy of ± 0.02 mgals. Instrument and diurnal drift were accounted for by tying into known base stations within three hour intervals. All gravity observations were within the dial range 4600-4700 for which the instrument constant is 1.05645 mgal/division.

The survey grid was established by Susie Gold Mines with field assistance from the Ager & Associates crew. Stations were located at 100 foot intervals along survey lines spaced 200 feet apart as shown on Figure 2. Grid lines were run at true bearing of 045°



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6072

0 200 500 mi
0 200 500 km

FIGURE 1

LOCATION MAP

CARIE CLAIMS - SUSIE GOLD MINES LTD.

DATE OCT 1976

C.A.AGER & ASSOC.
Surrey B.C. Canada

and station locations were marked by pickets and flagging from the slope chainage.

The relative elevation of each station was calculated from the angle and slope chainage between adjoining stations. Angles were measured to instrument height on the stadia rod using a T60D Sokisha Theodolite (No. 103401) with a reading accuracy of $\pm$ 20" of arc. Most angles were in the range 75-110° which corresponds to a slope of 15-20°, with some places being steeper. Slope chainage was determined using a metal surveyors chain to an accuracy of $\pm$ 1.0 feet for each station. Relative station elevations accurate to $\pm$0.50 feet (or better) were determined in this manner.

The entire survey was tied to three gravity base stations established by Ager & Associates within the survey area. Each of these base stations is marked by a 2-4' long post on which is carved the base station number. As well, a wooden hub at ground level marks the elevation and gravity reference point. The absolute gravity value for each station was determined by an ex-centre tie from GB76-8 to the National Base 9352-72 at Gilliland's Lodge, Germansen Landing, B.C. The absolute elevation reference was picked from NTS 94C (1:250,000) map sheet to be 3300.0 feet for GB76-6. All of the base station parameters established for this survey are listed in Appendix A.

DATA REDUCTION

As is well known, the observed gravity values (g_o) contain much information of non-interest in exploration geophysics. Simply stated, the problem is to separate the unwanted effects of the earth (g_e) from the observed field. The map of interest, the Complete Bouguer Gravity Map (Δg_B) is defined as follows:

$$\Delta g_B = g_o - g_e \qquad (1)$$

where

$$g_e = g_L + g_{FA} + g_{BS} + g_{TE} \qquad (2)$$

g_L: Latitude effect

g_{FA}: Free Air effect

g_{BS}: Bouguer Slab effect

g_{TE}: Terrain effect

Using standard procedures, the Complete Bouguer Gravity Map was calculated by equation 2 above. The terrain effects were calculated to a radius of 2000 feet about each station using computer techniques of Ager & Associates. Bouguer slab and terrain densities were taken as 2.80 g/cc as determined from rock density measurements (Appendix B). The complete Bouguer gravity values are all relative to an arbitrary datum as given by the base station values listed in Appendix A.

THE GRAVITY MAPS

The area covered by this gravity survey is underlain mostly by limestone-dolomite units (personal communication Stelling and Potter, 1976). As well, there are some exposures of graphitic shales in the region to the southwest of the creek area. The limestone-dolomite rocks have average density og 2.80 g/cc with the shales being somewhat lighter at 2.50 g/cc.

Ag-Pb-Zn mineralization in float and outcrop has been found in the limestone-dolomite units. Density measurements on mineralized samples taken from the main showing near LON+0E ranged between 2.95 - 3.40 g/cc. Previous soil geochemical surveys and prospecting has indicated a substantial zone of soil anomalies in Ag,Pb and Zn centered over the survey area and extending off the grid to the north-east.

The purpose of the gravity survey was to test the significance of this Ag-Pb-Zn mineralized zone. The elevation and complete Bouguer gravity maps for this area are given as Figures 2 and 3. Due to the limited extent of the work, there is insufficient regional control. For this reason, no regional-residual anomaly separation was attempted. Instead, the complete Bouguer gravity map will be interpreted directly.

INTERPRETATION OF RESULTS

The complete Bouguer gravity map, Figure 3, indicates a gravity high closure, elongated northeast-southwest and centered around L2N+10E. Due to insufficient regional gravity data and to the influence of the less dense shale units to the southwest, the areal extent and the residual amplitude of the anomaly are hard to define. Under these constraints, the following interpretation is made:

(1) Examination of the gravity anomaly in 'quiet' areas such as along L3N and 0-4W of L8N indicates a regional component of around 3.5 mgals. This would infer a residual gravity high anomaly of a about 1.5 mgals.

(2) The gravity gradients in the vicinity of 8E-15E on lines 8N, 6N and 6S are probably caused by terrain effects of steep topography in these regions. It is estimated that as much as 1.0 mgal could be added to values in these areas if more detailed elevation data were available outside the survey area.

(3) The lower gravity values to the southwest are caused by the less dense shale units which outcrop in this area.

(4) After consideration of the above three interpretations, it is estimated that the areal extent of the anomaly is enclosed within the 4.0 mgal contour. This represents an area of about 900 feet by 1800 feet which should be considered anomalous from the gravity point of view.

(5) It is extremely difficult to calculate the excess mass for the anomaly because of the incompleteness of the data. However, preliminary estimates are that the source has an excess mass of between 3 and 5 million tons. This would correspond to a total tonnage of 15 million tons or more.

(6) There are two possible sources which could explain the gravity high anomaly:

(i) It is caused by a flat lying massive body of Ag-Pb-Zn, or

(ii) It is caused by a flat lying heavier rock unit which doesnot outcrop and which has a density of at least 3.0 g/cc

(7) Depth to the top of the source is also hard to estimate. It could lie anywhere between the surface and 600 feet deep.

RECOMMENDATIONS & CONCLUSIONS

The gravity survey has outlined a gravity high anomaly that is spatially associated with known occurrences of Ag-Pb-Zn mineralization in soils, float and outcrop. This fact alone is strong enough evidence to warrant further detailed work. The following program is recommended in order to outline drill targets:

(1) Extend the gravity survey in all directions around the anomaly, especially to the northeast. Allow for an additional 400 gravity stations at 100 foot intervals along lines spaced 200 feet apart. The exact location of the lines will depend on the field results.

(2) Construct a topographic map of the area from existing airphotography with contour intervals of 50 feet or better. This will allow for a good base map for further work and provide the necessary regional elevation control for more accurate terrain corrections.

(3) Test the mineralized samples for EM and IP response. If either EM or IP is indicative of mineralization, then allow for about 20 line miles of detail work over the gravity high feature.

(4) Drill the gravity high feature to depths of 800 feet at sites of gravity and IP or EM coincident anomalies.

The above program, when taken to its conclusion, will most certainly outline the economic nature of the source of the gravity high anomaly.

Respectfully submitted,

Charles A. Ager

October 14, 1976

Charles A. Ager, PhD, PEng.
Geophysicist

APPENDIX A

CARIE GRAVITY DATA

Elevations in 'feet'

Gravity in 'milligals'

STATION	ELEVATION	OBSERVED GRAVITY	COMPLETE B. GRAV.
BASE76-6	3300.00	78.09	282.71
BASE76-7	3051.60	91.86	282.29
BASE76-8	2750.00 (?)	100.00	270.54 (?)
8N 4W	3463.70	69.22	283.58
8N 3W	3454.50	69.67	283.47
8N 2W	3426.80	70.88	283.40
8N 1W	3422.90	71.08	283.63
8N 0	3462.30	68.91	283.64
8N 1E	3501.80	66.54	284.05
8N 2E	3558.50	63.23	284.31
8N 3E	3601.80	60.67	284.26
8N 4E	3643.30	58.05	284.19
8N 5E	3685.80	55.43	284.20
8N 6E	3721.40	53.09	284.00
8N 7E	3762.70	50.42	284.09
8N 8E	3806.10	47.66	283.99
8N 9E	3848.30	45.01	283.85
8N 10E	3871.60	43.37	283.32
8N 11E	3892.90	42.01	283.03
8N 12E	3919.90	40.14	282.67
8N 13E	3943.90	38.43	283.52
8N 14E	3950.30	37.96	283.58
8N 15E	3963.00	36.96	283.21
6N 4W	3402.50	17.54	228.07
6N 3W	3386.10	73.42	283.19
6N 2W	3350.10	75.06	283.53
6N 1W	3389.70	72.99	283.66
6N 0	3416.30	71.51	283.90
6N 1E	3454.60	69.44	284.21
6N 2E	3492.30	67.27	284.46
6N 3E	3534.40	64.68	284.32
6N 4E	3576.80	62.11	284.43
6N 5E	3619.50	59.50	284.52
6N 6E	3649.50	57.58	284.55
6N 7E	3684.50	55.36	284.76
6N 8E	3717.30	53.13	284.65
6N 9E	3753.50	50.76	284.59
6N 10E	3779.30	49.09	284.48
6N 11E	3805.70	47.24	284.23
6N 12E	3835.60	45.12	283.98
6N 13E	3838.60	44.82	284.62
6N 14E	3839.90	44.42	284.34
6N 15E	3838.20	44.46	284.05
4N 4W	3373.60	73.95	282.69
4N 3W	3314.00	77.13	282.60
4N 2W	3306.30	77.30	283.07

4N	1W	3349.30	75.11	283.59
4N	0	3419.70	71.41	283.86
4N	1E	3443.30	70.34	284.37
4N	2E	3477.50	68.29	284.57
4N	3E	3503.20	66.73	284.68
4N	4E	3531.40	64.96	284.77
4N	5E	3554.30	63.43	284.81
4N	6E	3590.30	61.20	285.04
4N	7E	3612.40	59.85	285.16
4N	8E	3626.10	59.00	285.23
4N	9E	3639.40	58.12	285.33
4N	10E	3654.10	56.66	284.96
4N	11E	3664.70	55.86	285.06
4N	12E	3658.20	56.17	285.04
4N	13E	3644.00	56.96	285.04
4N	14E	3643.70	56.70	284.82
2N	4W	3322.50	76.73	282.60
2N	3W	3244.90	80.61	282.24
2N	2W	3229.20	81.31	282.86
2N	1W	3300.00	77.87	283.20
2N	0	3367.10	74.32	283.81
2N	1E	3368.90	74.54	284.09
2N	2E	3388.90	73.25	284.19
2N	3E	3410.30	71.89	284.29
2N	4E	3430.60	70.65	284.51
2N	5E	3451.20	69.40	284.70
2N	6E	3476.20	67.81	284.81
2N	7E	3494.40	66.69	284.96
2N	8E	3509.30	65.75	285.07
2N	9E	3515.90	65.25	285.07
2N	10E	3520.80	64.85	285.15
2N	11E	3530.70	64.01	285.06
2N	12E	3518.10	64.76	285.06
2N	13E	3513.00	64.98	285.07
2N	14E	3499.80	65.57	285.02
0N	8W	3202.00	83.12	281.84
0N	7W	3230.50	81.69	282.06
0N	6W	3253.20	80.64	282.34
0N	5W	3238.90	81.46	282.38
0N	4W	3243.00	80.88	282.23
0N	3W	3171.30	84.39	281.54
0N	2W	3185.40	83.73	282.21
0N	1W	3246.90	80.72	282.83
0N	0	3300.00	78.09	283.58
0N	1E	3290.70	78.55	283.53
0N	2E	3315.50	77.29	283.87
0N	3E	3327.50	76.66	284.15
0N	4E	3346.40	75.50	284.30
0N	5E	3357.70	74.82	284.33
0N	6E	3380.60	73.43	284.53
0N	7E	3400.60	72.24	284.75
0N	8E	3415.40	71.34	284.90
0N	9E	3419.70	70.96	284.95
0N	10E	3426.00	70.53	285.04
0N	11E	3439.00	69.71	285.10
0N	12E	3452.10	68.80	285.06
0N	13E	3453.00	68.79	285.15
0N	14E	3422.60	70.51	284.79
0N	15E	3392.20	72.18	284.61
0N	16E	3382.90	72.70	284.57

0N	17E	3375.70	72.99	284.41
0N	18E	3366.60	73.53	284.43
0N	19E	3361.50	73.74	284.42
0N	20E	3343.40	74.85	284.61
2S	4W	3205.00	83.03	281.96
2S	3W	3136.80	86.26	281.66
2S	2W	3164.30	84.98	282.37
2S	1W	3229.30	81.97	283.07
2S	0	3257.30	80.38	283.30
2S	1E	3221.40	82.43	283.32
2S	2E	3260.10	80.33	283.55
2S	3E	3271.10	79.82	283.74
2S	4E	3281.20	79.24	283.87
2S	5E	3295.10	78.38	283.99
2S	6E	3297.00	78.23	284.18
2S	7E	3318.40	76.99	284.34
2S	8E	3323.10	76.67	284.47
2S	9E	3322.80	76.59	284.18
2S	10E	3316.90	76.85	284.27
2S	11E	3316.50	76.76	284.33
2S	12E	3328.70	76.00	284.41
2S	13E	3338.20	75.53	284.56
2S	14E	3339.40	75.45	284.54
4S	0	3135.40	87.39	282.93
4S	1E	3149.90	86.57	283.12
4S	2E	3166.20	85.75	283.36
4S	3E	3198.40	83.91	283.46
4S	4E	3210.90	83.34	283.69
4S	5E	3213.10	83.21	283.79
4S	6E	3228.90	82.42	284.03
4S	7E	3250.10	81.15	284.24
4S	8E	3258.40	80.60	284.22
4S	9E	3249.40	80.98	284.07
4S	10E	3247.90	81.08	284.15
4S	11E	3247.00	81.22	284.30
4S	12E	3246.30	81.08	284.19
4S	13E	3232.60	81.88	284.25
4S	14E	3225.40	82.20	284.14
6S	0	3051.60	91.86	282.29
6S	1E	3080.20	90.38	282.63
6S	2E	3106.40	89.08	283.03
6S	3E	3125.20	88.07	283.28
6S	4E	3141.00	87.17	283.47
6S	5E	3144.50	86.91	283.58
6S	6E	3153.80	86.36	283.55
6S	7E	3173.70	85.18	283.68
6S	8E	3169.20	85.23	283.62
6S	9E	3157.00	85.89	283.47
6S	10E	3168.30	85.23	283.46
6S	11E	3141.70	86.82	283.44
6S	12E	3149.30	86.19	283.15
6S	13E	3127.20	87.21	282.86
6S	14E	3109.80	88.00	282.73
3E	16N	3683.80	56.16	283.84
3E	15N	3690.70	55.58	283.67
3E	14N	3681.60	56.01	283.59
3E	13N	3657.90	57.08	283.27
3E	12N	3650.30	57.31	283.07
3E	11N	3638.10	58.09	283.37
3E	10N	3622.40	59.06	283.60

$SIGNOFF

CARIE GRAVITY BASE STATION DATA

STATION	LOCATION	RELATIVE OBSERVED GRAVITY	ABSOLUTE OBSERVED GRAVITY
GB 76-6	L0N + 0E	78.09	981,271.67
GB 76-7	L6S + 0E	91.86	981,285.44
GB 76-8	Wasi Cr Camp	100.00	981,293.58

STATION	DESCRIPTION
GB 76-6	Flat topped 6" diameter wooden hub Station at ground level, 4 feet east of claim post (IP Carie 3,4; FP Carie 1,2)
GB 76-7	Flat topped 6" diameter wooden hub Station at ground level, 10 feet south of marked tree located at L6S+0E on claim line.
GB 76-8	2" square hub located at 1" above ground level 1 foot west of 3 foot high post inscribed with station number. Near Wasi Creek, at camp site, about 1¼ miles from NE tip of Wasi Lake.

A P P E N D I X B

Rock Density Data - Carie Claims Rocks

Sample Site	Rock Density	Rock Description
L0N + 0E	2.82	Collapse breccia (?), black limestone fragments surrounded by sparry dolomite
	2.77	As above, only more dolomitized, less limestone fragments
	2.84	Dirty black limestone, highly fractured, minor dolomite
	2.95 ± .50	10% galena in vuggy silicified dolomite
L2S + 14E	2.80	White,buff dolomite - recrystalliz standard country rock
L2N + 3W	2.50	Black shale with graphite
L8N + 8E	2.77	Banded grey dolomite, cut by 4mm crystalline calcite veinlet
L8N + 7.5E	2.79	Mottled dolomite, quite cooked
L3E + 14N	2.80	Coarsely recrystallized dolomite with light orange banding
L8N + 3E	2.80	Dolomite breccia, 50% calcite matrix, angular fragments
	2.75	Dolomite breccia, muddy matrix
L8N + 8E	2.80	Buff coloured dolomite cut by a veinlet of calcite
L4N + 3E	2.81	Dolomite breccia, muddy matrix

AVERAGE DENSITIES

limestone-dolomite = 2.80 g/cc
black shales = 2.50 g/cc
mineralized rock = 2.95 - 3.40 g/cc

Cliffs

Dolomite, black and white banded
Coarse-grained ferrodol
Coarse-grained sparry

Cana claims

Dolomite, fine-grained black

Dol., fg. 'sugary'
ferrodol, cg.

Dol., fg.; grey

Numerous small dolomite outcrops

Dol., banded(black & white)
& 'rosette'-flowers of
cg. dol. in buff ferrodol

quartz vein
much fracturing, silicification

Dol., fg.

bd?

banded dol.

centered white bands
in black fg. dol.
probably relic bedding

black slate
in soil

galena and
sphalerite in float

Dol., f.g.
buff

Dol., brecciated

Dol., black & white

Dol., black & white
slight silicification

Dol., cg. black & white

dol., trace of galena

slate float

Cliffs

fr
ist. float
black, highly
carbonaceous

ist. fg. grey

Dol., fg. dk. grey to black
some mg. white
minor breccia

Limestone white to grey massive
no distinct bedding
sharp contact

Dol., fg. grey to mg. buff

Dol. breccia

Dol. black
dense

Dol., mg.

Old staking
Cana claims May 31/71
Centura Min. Co. Ltd

Dol. breccia
Hydrozincite on surface
diss. sphalerite at
1' depth

ist. & dol.
breccia

Dol.
barite
sparry calcite

dol. & ist.

dol.

no limit of float

dol. breccia

dol., mg. light grey
breccia, black
ist. fragments
in light dol.

ist.

ist., fg., cream to grey
thin-bedded

Dol. grey, sparry

ist., dk grey, bitumen on fractures

Dol. breccia
Post
barite

black slate

black slate
rusty

Dol. with
patches of galena
approx. 20' thick

ist., fg. white
minor dol.

CARIE 3
CARIE 5
CARIE 4
CARIE 6

WASI CREEK

Dol., fg. dense
black

TRAIL
CAMP

black,
slate

galena & dol. along qtz. str.

mixed dol. & ist.
well fractured
much carb^{n}
material

dol. rubble

glacial debris
broken topography

base of steep slope

dol. breccia

ist.

dol. much breccia & carb^{n} material

40 E

ist., white sugary, well fractured
minor dol.
much black carb^{n} material on fractures

Dol. f-mg
dk. grey

black slate
& quartz float

30 E

20 E

10 E

ist.
massive, lt. grey

ist., fg., lt. grey
to white

Cliffs

Dol. & ist.

Dol.

Dol., fg., black
minor cg.
white & black
breccia

Blackslate

Dol., fg., buff
rusty weathering

galena
in float

Dol., fg. black

ck. grey sil. dol.
with diss. py.
(float)

dol.
banded
black slate

dol.
banded
black & white

galena, small patched
in mg. buff dol.

30 N
20 N
10 N
10 S
20 S
30 S
40 S
50 S
60 S
68 S
0

LEGEND

Limestone	3
Dolomite	2
Black shale	1
Bedding	bd, fr
Fracturing & shearing – observed	
interpreted	
Location posts	

FIGURE 2

To accompany a report by R. Potter, P.Eng.

6072

SUSIE Gold MINES ltd.

CARIE CLAIMS

WASI LAKE AREA, OMENICA M.D.

GEOLOGY

SCALE: 1" = 200ft.

MAP REFERENCE 94C/2W,3E

PROPERTY COORDINATES 56° 15'N
125° 00'W

SURVEY, R. POTTER, P.ENG.

MERIN MANAGEMENT LTD.

DATE: [illegible]

6072

AREA OF 1976 GRAVITY SURVEY
SEE GEOPHYSICAL REPORT BY C. AGER DATED OCTOBER 14/76

AREA OF 1975 GEOCHEMICAL SURVEY
SEE GEOCHEMICAL REPORT BY D. STELLING DATED AUG. 24/75

AREA OF 1976 GEOCHEMICAL SURVEY

CARIE 3 CARIE 5 CARIE 4 CARIE 6

WASI CREEK

LEGEND

- GEOCHEMICAL SURVEY STATION WITH VALUE IN P.P.M.
- CREEK
- LOCATION POST
- 200 LEAD GEOCHEMICAL CONTOR LINE IN P.P.M. ANOMALOUS LEAD 220 P.P.M.

FIGURE 4
To accompany a report by R. Potter, P.Eng.

susie gold mines ltd.
CARIE CLAIMS
WASI LAKE AREA, OMENICA M.D.
LEAD GEOCHEMISTRY
VALUES IN P.P.M.
SCALE: 1" = 200 ft.
MAP REFERENCE 94C/2W,3E
PROPERTY COORDINATES 56° 15'N 126° 00'W

MDRN MANAGEMENT LTD. 6072 NOVEMBER, 1976

AREA OF 1976 GRAVITY SURVEY

SEE GEOPHYSICAL REPORT BY C. AGER DATED OCTOBER 14/76

AREA OF 1975 GEOCHEMICAL SURVEY

SEE GEOCHEMICAL REPORT BY D. STELLING DATED AUG.24/75

AREA OF 1976 GEOCHEMICAL SURVEY

CARIE 3 CARIE 5 CARIE 4 CARIE 6 20S

WEST CREEK

LEGEND

- GEOCHEMICAL SURVEY STATION WITH VALUE IN P.P.M.
- CREEK
- LOCATION POST
- 550 — ZINC GEOCHEMICAL CONTOUR LINE IN P.P.M.; ANOMALOUS ZINC 550 P.P.M.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6072
MAP NO. #3

FIGURE 5

To accompany a report by N. Fisher, P.Eng.

SUSIE GOLD MINES ltd.

CARIE CLAIMS

WASI LAKE AREA, OMENICA M.D.

ZINC GEOCHEMISTRY

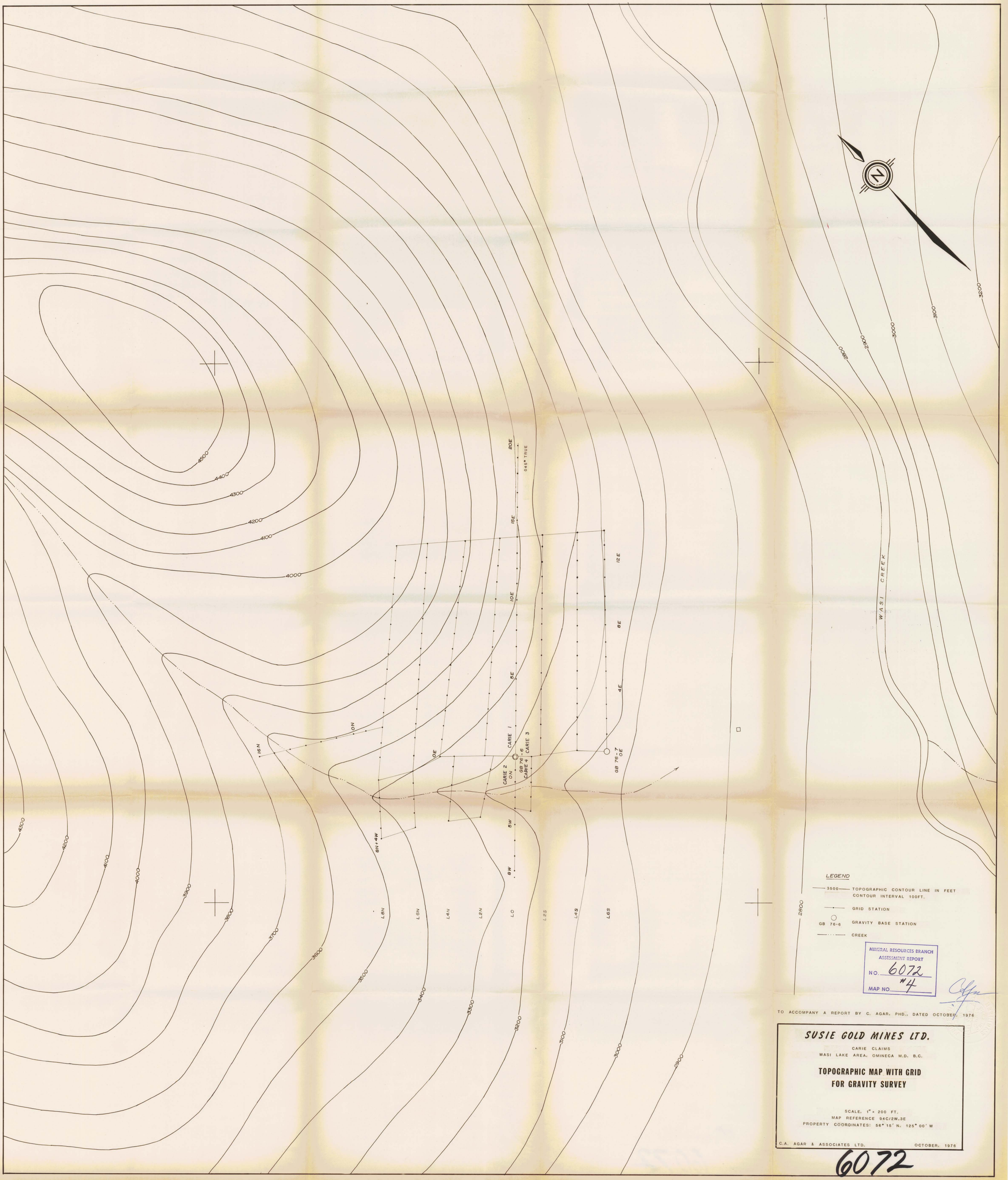
VALUES IN P.P.M.
SCALE: 1"= 200 ft.

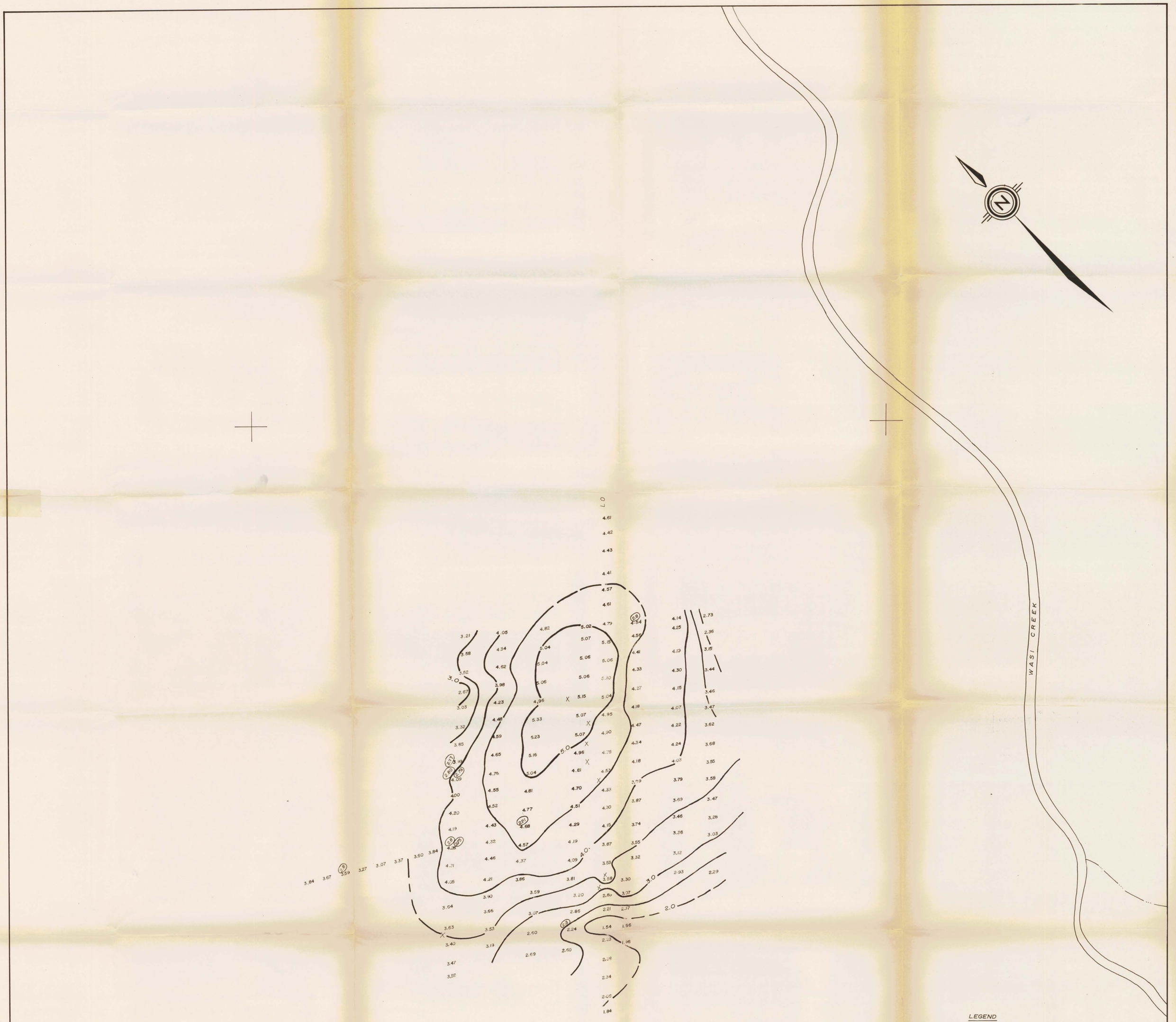
MAP REFERENCE 94C/2W,3E

PROPERTY COORDINATES 56° 15'N
125° 20'W

MELVIN MANAGEMENT LTD.

6072


N
4500
4400
4300
4200
4100
4000
3900
3800
3700
3600
3500
3400
3300
3200
3100
3000
2900
2800
4300
4200
4100
4000
3900
3800
3700
3600
3500
3400
3300
3200
3100
3000
2900
2800
WASI CREEK
16N
0N
0E
20E
15E
10E
5E
4E
8E
12E
045° TRUE
CARIE 1
CARIE 2
CARIE 3
CARIE 4
GB 76-6
GB 76-7
8N+4W
8W
5W
L8N
L6N
L4N
L2N
LO
L2S
L4S
L6S
LEGEND
3500 TOPOGRAPHIC CONTOUR LINE IN FEET
CONTOUR INTERVAL 100FT.
GRID STATION
GB 76-6 GRAVITY BASE STATION
CREEK
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6072
MAP NO. #4
TO ACCOMPANY A REPORT BY C. AGAR, PHD., DATED OCTOBER, 1976
SUSIE GOLD MINES LTD.
CARIE CLAIMS
WASI LAKE AREA, OMINECA M.D, B.C.
TOPOGRAPHIC MAP WITH GRID
FOR GRAVITY SURVEY
SCALE, 1" = 200 FT.
MAP REFERENCE 94C/2W,3E
PROPERTY COORDINATES: 56° 15' N, 125° 00' W
C.A. AGAR & ASSOCIATES LTD.
OCTOBER, 1976
6072



LEGEND

— 5.0 — GRAVITY CONTOUR LINE IN MILLIGALS. CONTOUR INTERVAL 0.5 MILLIGALS.

\+ POINTS OF OVERLAY

X FLOAT

(2.80) = ROCK DENSITY

TO ACCOMPANY A REPORT BY C. AGAR PHD. DATED OCTOBER, 1976

SUSIE GOLD MINES LTD.

CARIE CLAIMS
WASI LAKE AREA, OMINECA M.D., B.C.

COMPLETE BOUGUER GRAVITY

S = 2.80 → EF. = 0.05833 MGAL./FT.
ARBITRARY DATUM
SCALE: 1" = 200 FT.
CONTOUR INTERVAL 0.50 MGAL.

MAP REFERENCE 94C/ 2W,3E
PROPERTY COORDINATES: 56° 15' N, 125° 00' W

C.A. AGAR & ASSOCIATES LTD. OCTOBER, 1976

6072