81-1195-7973

ASSESSMENT REPORT

GEOCHEMICAL AND GEOPHYSICAL REPORT ON THE PERRY 1, 2 AND MASON 1 and 2 CLAIMS

(PERRY MASON GROUP - 46 UNITS)

OMINECA MINING DIVISION

by

JOAN F. CARNE

LOCATION: N.T.S. 94E/6E 57⁰17' N Latitude 127⁰10' W Longitude

OWNER/OPERATOR: SEREM LTD.

DATES WORK PERFORMED: July 14, 15, August 10-12, 26-27, 1981

DATE OF REPORT: JANUARY 1982



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INTRODUCTION

The Perry Mason Group, consisting of the Perry 1 and 2 and Mason 1 and 2 claims, is located at 57⁰17' N latitude, and 127⁰10' W longitude in the Toodoggone River map sheet N.T.S. 94E/6E, Omineca Mining Division (see Figures 1 and 2). Elevation ranges from approximately 1100 metres to 1850 metres above sea level.

The claims included in this group are as follows:

<u>Claim Name</u>	Number of Units	Tag Number
Perry l	16	53565
Perry 2	12	53566
Mason l	6	53563
Mason 2	12	53564

They are owned and operated by Serem Ltd.

Access to the property is by fixed wing plane from Smithers to Sturdee Airstrip, a distance of about 290 kilometres; and by helicopter from Sturdee Airstrip to the property, a distance of about 3 kilometres. The Baker gold-silver mine is about 1.5 kilometres northeast of Mason 1.

Previous work on the Perry Mason Group includes geochemical silt sampling of Pau Creek; soil sampling and prospecting along treeline (roughly constant elevation); soil sampling on two grids and preliminary mapping and prospecting in the north grid area of approximately 1.6 square kilometres. This work was done by Serem Ltd. in 1980.

Work during the 1981 field season consisted of enlarging the North soil grid, mapping and prospecting and a magnetometer survey over the skarn area identified in 1980.





GEOLOGY

The claims are underlain by marble and probable Takla volcanics of mafic to intermediate composition which are intruded by a multiple phase pluton (Figures 3 and 4). Younger Toodoggone volcanic rocks crop out at the north end of the claims. The Toodoggone volcanics here are composed of marroon to grey crystal tuffs, porphyritic in texture with plagioclase, biotite and quartz crystals.

Mafic volcanic rocks consist of aphanitic to hornblende porphyritic massive flows, recrystallized to fine grained chlorite at the intrusive contact. Black to grey laminated chert outcrops adjacent to the mafic volcanics. To the north are more felsic, pyroclastic volcanics, whose fragments are composed of porphyritic plagioclase in a hematitic groundmass. Medium grained, dark green augite porphyry outcrops in the northeast.

Intrusive rocks include at least three phases: coarsegrained quartz monzonite, pink fine- to medium-grained and rarely megacrystic granite and aplite, and orange weathering fine- to medium-grained syenite.

SOIL GEOCHEMICAL SURVEY

Since the 1980 soil grid had some open anomalies on the north and east, sampling was extended in those directions. The baseline trends 160[°]. Control was kept by compass and Topofil, and each station was marked by surveyor's flagging with the station locality written on it.

Samples were collected from the B horizon where developed, the top of the C horizon if a B horizon was not developed, and the A horizon in swampy areas. Most samples were from the C horizon and were taken from depths ranging from 10 to 35 centimetres. Soil was placed in brown paper bags and the grid location, depth of sampling, horizon, colour, grain size and amount of organic material were noted.

Soil is generally poorly developed. Parent materials include glacial till, stream sediments and outcrop. All the samples were collected from above treeline.

Samples were sent to Min-En Laboratories and were analysed for gold, silver, lead, zinc and copper. The analytical procedure for each element is briefly described below:

The samples are dried at 95⁰ C. Soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

For gold, a suitable sample, weight 5 or 10 grams, is pretreated with HNO3 and HClO4 mixture.

After pretreatment, the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

Sample solutions are prepared with Methyl Iso-Butyl Ketone for the extraction of gold.

With a set of suitable standard solutions, gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.

For silver, lead, zinc, and copper, samples weighing 1.0 gram are digested for 6 hours with HNO_3 and $HCIO_4$ mixture.

After cooling, the samples are diluted to standard volume. The solutions are analysed by Atomic Absorption Spectrophotometers using the CH₂H₂-Air Flame combination.

MAGNETOMETER SURVEY

Magnetometer readings were taken every 25 metres on lines 50 metres apart over the southeast section of the soil grid (Figures 3 and 7). The baseline was set with compass and surveyor's chain. The line was marked with flagged pickets every 50 metres. Survey lines were laid out with Topofil and compass and flagged at each station.

The instrument used is a Geometrics G826 proton precession magnetometer. It measures total intensity of the earth's magnetic field and has a sensitivity of <u>+</u> 1 gamma over a range of 20,000 to 90,000 gammas. The sensor was mounted on an eight-foot staff and held vertically at arm's length. Readings were taken twice at each station to check for magnetic storms. Diurnal fluctuations were corrected by the loop-back method. No magnetic storms occurred during the tine that the survey was performed. Drift for any of the loops was less than 10 gammas over 40 minutes, and for most of the loops, less than 4 gammas.

RESULTS AND INTERPRETATION

Silt and rock samples collected by prospectors are plotted on Figures 3 and 4. None of these show very interesting values, except for one rock with 16.8 ppm silver off the claims to the north and one value of 590 ppb gold from a grab sample in the siliceous skarn material on the grid area.

Results of soil sampling are plotted on Figures 5 and 6. There are several areas with silver values in excess of 2.0 ppm, but only two values greater than 4.0 ppm. One of these higher values coincides with the highest gold value, 170 ppb. This diffuse anomaly occurs in soils overlying the siliceous skarn area in the southeast part of the grid. Moderately anomalous base metal values coincide fairly closely with the silver anomaly. Several high copper values occur on the two southernmost lines of the grid in an area underlain by intrusive rocks.

Corrected magnetometer readings were plotted at 1:2500 scale and contoured at 100 gamma intervals (Figure 7). Readings range from 58,800 gammas to 60,300, or a range of 1500 gammas. A fairly steep gradient occurs at the intrusive contact with the volcanics-limestone package. The volcanics, limestone, and siliceous skarn rocks have a fairly low magnetic signature, while the intrusive rocks are high, with the exception of two troughs cross cutting at 135 to 150° trends. Quartz veined material crops out in the centre of one of these troughs, and measured quartz veins in the area are subparallel to those trends as well. Thus, these lows could represent silicified structures cross cutting the intrusive rocks. Soil geochemical values are weakly correlative with these magnetic lows.

CONCLUSIONS AND RECOMMENDATIONS

While results to date are not exceptionally encouraging, there is some gold and silver present on the Perry Mason Group. The siliceous skarn zone along the intrusive contact is likely the most interesting area to date, with one rock sample running 590 ppb gold. The magnetic high along this contact area could reflect either high magnetic signature for the intrusive rocks or possibly a subsurface, magnetitebearing body. Cross cutting magnetic lows could represent silicified structures.

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Further work should include the following:

- 1. Careful prospecting,
- Continued mapping in detail for information on structures and contact relationships,
- 3. Systematic sampling of the siliceous skarn area,
- 4. Trenching of soil anomalies and magnetic low structures.

STATEMENT OF COSTS

Waq	es
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C. Greig	Soil sampling Aug. 26-27	2 days @ \$ 50		
R. Lane	" Aug. 26–27	2 days @ \$ 55	110.00	
C. Chisholm	Prospecting/Magnetometer	1 days 0 \$59	232.00	
C. Lormand	July 14,15, Aug. 10,11 Prospecting/Silt Sampling	4 days @ \$58	232.00	
C. INIMIA	July 14,15, Aug. 10	3 days @ \$50	150.00	
G. Dawson	Magnetometer, Aug. 10-12	3 days @ \$58	174.00	
J. Carne	Mapping/Prospecting/	4		
	Supervision, Aug. 10-12	3 days @ \$103	309.00	
				\$1,075.00
				41,073.00
Room and Board				
	17 mandays @ \$52.00			884.00
Helicopter	2.7 hours a \$475 (hr includi	ng fijol		1,282.50
	2.7 hours @ \$475/hr includi	ng ruer		1,202.30
Analyses				
	146 soils for Ag, Au @ \$7.8	5		1,146.10
	7 silts for Ag, Au @ \$7.8	5		54.95
	18 rocks for Ag, Au @ \$9.2	:5		166.50
	171 samples shipping @ \$0.3	0		51.30
Magnetometer R	ental			
	2 days @ \$20.00			40.00
Drafting and Report Preparation			200.00	
		TOTAL		\$4,900.35

CERTIFICATE OF QUALIFICATIONS

- I, JOAN F. CARNE, of Vancouver, B.C., hereby certify that:
 - I hold a B.A. degree in geology from Middlebury College, Middlebury, Vermont, and an M.Sc. degree in geology from the University of British Columbia.
 - I am a geologist, employed by SEREM Ltd. of
 300 535 Thurlow Street, Vancouver, B.C., V6E 3L2.
 - I have worked in geology and mineral exploration for six years.
 - 4. I have no financial interest in the claims covered by this report or in SEREM Ltd.
 - 5. The field work described in this report was carried out under my supervision.

Dated this 6th day of January, 1982 at Vancouver, B.C.

Joan F. Carne, Geologist.







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0 5, <u>2.4</u> 2.8		
Sample site, ppb Au, ppm Ag $3.2 \ge 2.0$ ppm Ag, ≥ 20 ppb Au E_{113} RESOURCE	3 BRANCH	
4.1 ≥ 4.0 ppm Ag, ≥ 40 ppb		
ЧЧ-	5	-
TOODOGGONE PROJECT		
PERRY MASON SOIL GRID: GOLD AND SILVER VALUES		
C.8I DATA J.C.,S.C. IE/GE DRAWN: C.G.	FIGURE	
25 0 25 50 75 100 125 Metres	5	



