

3.0 EXPLORATION HISTORY3.1 Early: 1914 - 1950

The gold-zinc deposit at Bob Creek has been known since 1914. A spectacular gorge exists in the canyon of Bob Creek, and the mineralization exposed in the gorge has been known to contain some free gold. It has been prospected and has been considered the source of placer gold at the mouth of Bob Creek. The property was variously known as the Horseshoe, the Bob or Buck, or the Goldbrick.

In 1936 one George Smith mined and jigged 85 tons of ore from an adit in the gorge. Smith produced 12 tons of gravity concentrate from ore calculated to average 0.1 oz./ton gold, 1 oz./ton silver, and 1.1% zinc.

Smith and other early workers drove several short adits, which are visible, but not safe to enter at present.

Premier Gold Mining Company sampled the outcrops and adits, and drilled 783 feet in 3 diamond drill holes in 1945.

3.2 Recent: 1951 - 1974

The property was subject to examinations by several companies in the 1950's. In 1961 Denison Mines drilled 8 diamond drill holes totalling 504 feet, in the gorge. Core recovery was generally poor and reconstruction of assays based on sludge samples suggests that results were too low grade to be of continued interest.

The property was optioned by Minwealth Explorations Ltd. in the late 60's. They retained Lockwood Survey Corporation to fly airborne magnetics and EM surveys, and they conducted some surface geochemical sampling and may have drilled at least one short diamond drill hole.

ASARCO optioned the property and drilled 7 holes totalling 2101 feet in 1968. These were also confined to the gossan exposed in the gorge.

In 1974 Hudson Bay Oil and Gas, under the direction of Andy Schmidt, P.Eng., obtained rights and conducted extensive soil geochemical analyses, and geological mapping.

3.3 Present Status

In 1975 Lorne Hansen and Godfrey Creech put in several hundred feet of bulldozer trenches southwest of the gorge, high on the bank, in an area covered by overburden.

93009-02

Property File

BUCK, NEW BUCK

from 1977 expl form  
MID-MTN MINING  
93L-9

#### 4.2 Local Geology

The principal mineralized outcrop on the New Buck claims is exposed in a 2000-foot long gorge in Bob Creek. It consists of light-coloured volcanics and volcanic breccias. The composition approximates that of a quartz latite or rhyolite.

The massive character of the unit, the high degree of alteration, and the absence of any marker beds introduce considerable uncertainty into judgements of its trend, or strike and dip. However, some stratiform (?) breccias suggest that the strike is northeast and the dip is steeply to the east.

The mineralized acid volcanic unit is intruded by a small gabbroic stock and is overlain by post-ore volcanics of the Buck Creek unit, dated as Eocene or 47 million years old (Tv in Drawing 2). The Buck Creek rocks are andesites and basalts, and they form distinctive bluffs on the east and west sides of the claims, with minor erosional remnants overlying the mineralized volcanics within the claim group.

Pre-ore rock is not well exposed in the claim area. Outside the gorge mentioned, and a few other small outcrops, the mineralized unit is nearly continuously covered by a glacial clay overburden.

### .0 MINERALIZATION

#### 5.1 Ore Minerals

The principal metallic minerals in order of volume are pyrite, sphalerite, chalcopyrite, galena, silver in an unknown form, and gold, occurring both as free gold and in one of the sulfides, presumably pyrite. The sulfides occur in lenses, as minute fillings in small fractures, and as coarse aggregates of disseminated grains within the matrix of volcanic rocks and breccias.

The occurrence of sulfides is not limited to exposures within the gorge of Bob Creek. Blackjack sphalerite and pyrite are present in abundant quantities in the trenches to the south of the gorge. Pyritized acid volcanics are also present in the southeastern New Buck claim in roadcuts, and in the central part of the Lorne claim in an outcrop in a meadow.

#### 5.2 Oxidation

Oxidation is nearly complete in the rock exposed in the gorge. The pyrite and sphalerite have leached, creating a red iron oxide gossan. The gossan minerals are hydrozincite, hematite, jarosite and turgite, with subordinate amounts of bornite-stained pyrite and gypsum flakes in fractures. The volcanics are also altered to secondary kaolin and sericite.

ASARCO's drill logs indicate that oxidation diminishes downward and ends, except in fault zones, at depths of about 30 feet.



Geology

J.T. Crandall, P.Eng., mapped geology in the vicinity of the known showing at a scale of 1:2400.

Geologic units are tabulated as

	<u>Position</u>	<u>Description</u>
Post ore	Quaternary	Alluvium and fill
	lower Tertiary to upper Cretaceous	Basalt flows
		Feldspar porphyry dike
?	- Mesozoic	Gabbro stock
Pre or synore	lower to middle Mesozoic	V <sub>1</sub> - Rhyolite to dacite, pyritized
		V <sub>2</sub> - Coarse grained equivalent of V <sub>1</sub>
		V <sub>3</sub> - Rounded rhyolite breccia, pyritized
		V <sub>4</sub> - Angular rhyolite breccia, pyritized and zinc-bearing
		V <sub>5</sub> - Felsite, pyritized
		Andesite - not mineralized

STRATIGRAPHIC  
TOP & BOTTOM  
OF SECTION  
NOT KNOWN

The units within the mineralized rhyolite (V<sub>1</sub>-V<sub>5</sub>) pinch, swell, and inter-tongue. A thickness of about 400 metres is exposed, however, thickness is expected to be highly variable.

Strike at the gorge is inferred to be northwest, and dip of the units is inferred to be steeply northeast. To the south 2500 metres the attitude appears to be NE and steep to SE.

Mineralization appears confined to this rhyolite. (Notwithstanding, the base and the top of the rhyolite pile should be given special attention in future work).

Steep faults having little displacement cut the pile with an 020 attitude, the easternmost of which downdrops post-ore basalts against the mineralized system.

Schedule 'C'

P.P. Neilsen: Report on Airborne Geophysics over the Buck Creek Area.  
April 18, 1970

G.R. Hilchey Bob Creek Property, Houston, B.C.  
March 13, 1967

Reports of the Minister of Mines: Bob Creek Annual Report 1914, pg. 234  
Annual Report 1916, pg. 127  
Annual Report 1928 pg. 172  
Annual Report 1929 pg. 204  
Annual Report 1933 pg. 98-99  
Annual Report 1936 pg. C-37  
Annual Report 1936, pg. C-37  
Annual Report 1952 pg. 95

C.D. McCord: Report on Bob Creek Property to J.D. Mason  
August 13, 1952:

G.M. Radisics: Report on Bob Creek Claims to W.B. Milner  
Oct. 23, 1951

B.N. Church, 1972, Geology of the Buck Creek Area, Minister of Mines  
Annual Report, G.E.M., pages 353 - 363

ASARCO:  
1968 Drill hole geology and assay logs.

Schedule 'D'

- (1) Report on Bob Creek Massive Sulfide Prospect, Omineca B.C., February 11, 1977, by Andrew E. Nevin, P. Eng., 11 pages, 3 drawings, 1 table; reproduced in Statement of Material Facts, B.C. Supt. Brokers/VSE, Mid Mountain Mining Ltd., Filed October 3, 1977.
- (2) Addendum to Report on Bob Creek Massive Sulfide Prospect, July 14, 1977, by Andrew E. Nevin, P. Eng., 5 pages, 5 drawings; reproduced in above Statement of Material Facts, October 3, 1977.
- (3) Report on Geological and Geochemical Work Conducted on the New Buck - Godfrey Group and the Lorne Claim, Omineca M.D., B.C., June 15, 1977, and by J.T. Crandall, P. Eng., and Andrew E. Nevin, P. Eng., 11 pages, 6 drawings, 11 pages in Appendices A-D; submitted to B.C. Ministry of Mines and Petroleum Resources as Assessment Work Report.

Schedule 'E'

Report on Geophysical Work and Linecutting  
Conducted on Nabob Claim and  
The New Buck - Nabob Group

Omineca Mining Division

Lat. 54° 18'      Long. 126° 37'

Nabob Claim	438 (10)
New Buck Claim	316 (6)
Lorne Claim	318 (6)

On behalf of

Mid Mountain Mining Ltd. (FMC 153746)  
506 - 540 Burrard Street,  
Vancouver, B.C.

H.S. Eisler (FMC 153747)  
506 - 540 Burrard Street,  
Vancouver, B.C.

G. Creech (FMC147058)  
55 Albert Street  
Kamloops, B.C.

L. Hansen (FMC 112478)  
Ahousat, B.C.

by

Andrew E. Nevin, P. Eng.

With detailed supplemental report by  
Mauro G. Berretta, Geophysicist

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Work performed in the period  
September 23 - October 11, 1977

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Date of report October 31, 1977

Schedule 'F'

SUMMARY

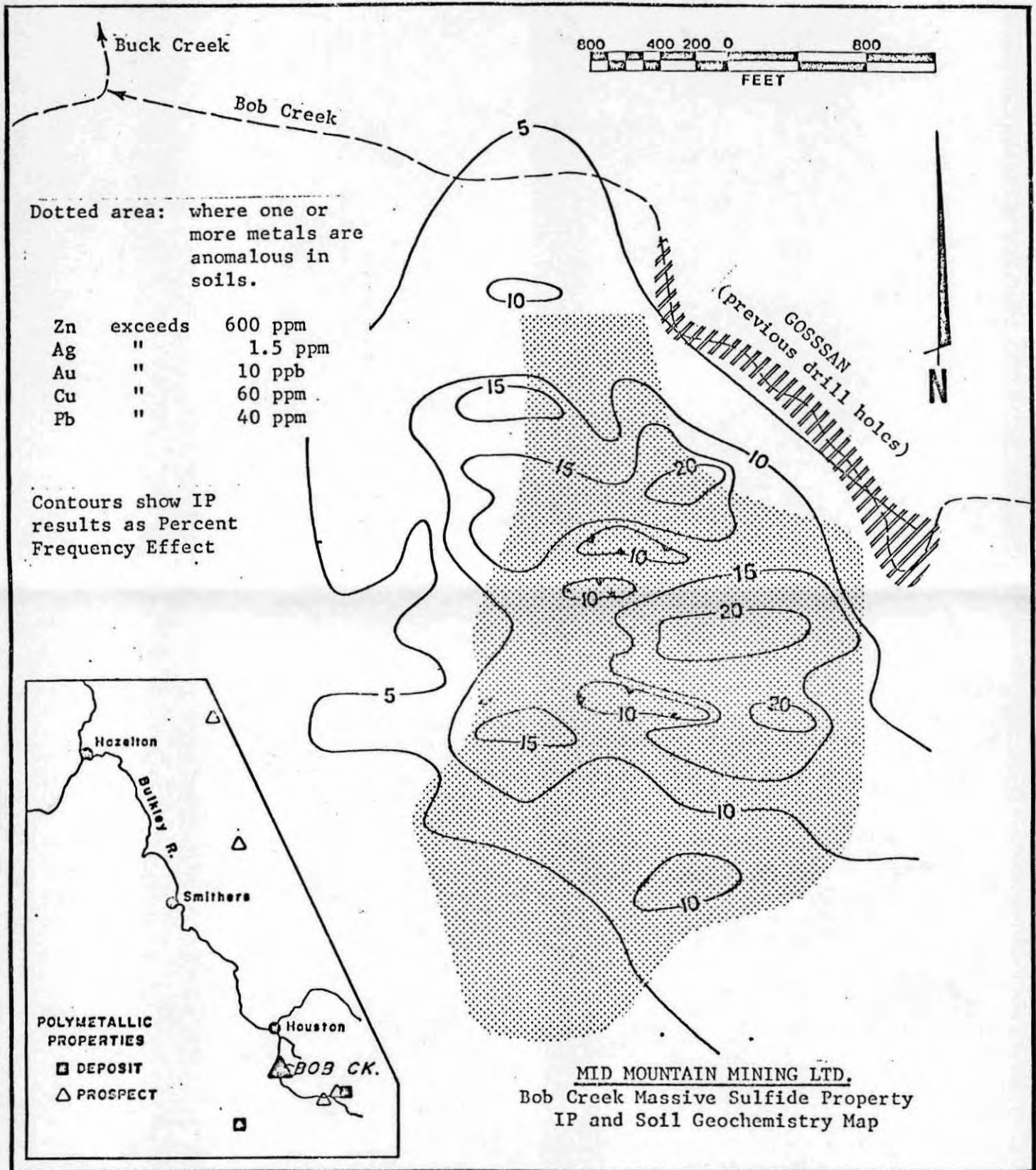
An induced polarization survey of 19 line-km on the Nabob, New Buck and Lorne Claims, has outlined an anomalous zone 600 metres by 730 metres. PFE's are above 10 and as high as 22, and are interpreted as deriving from disseminated or massive pyrite.

The commercial significance of this anomaly is that it coincides with a large soil geochemistry anomaly (previously reported) and is immediately adjacent known pyrite - sphalerite-silver-gold mineralization.

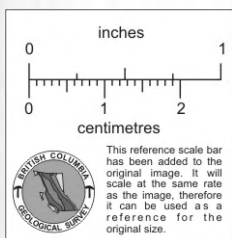
We have recommended extensive further work to our client.



Schedule 'G'

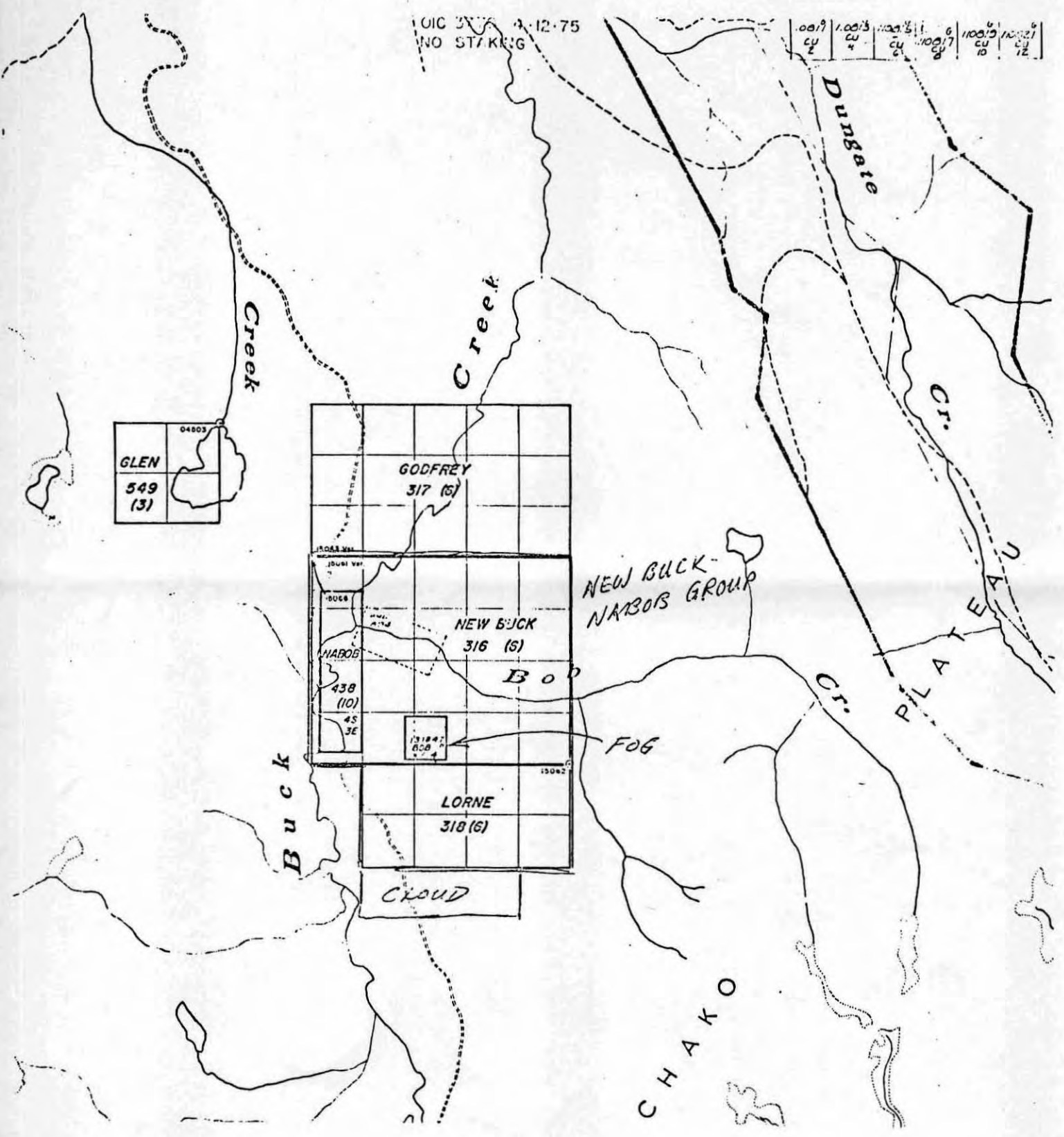


NEVIN | SADLIER-BROWN | GOODBRAND | LTD

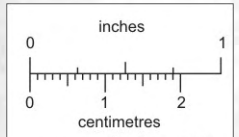
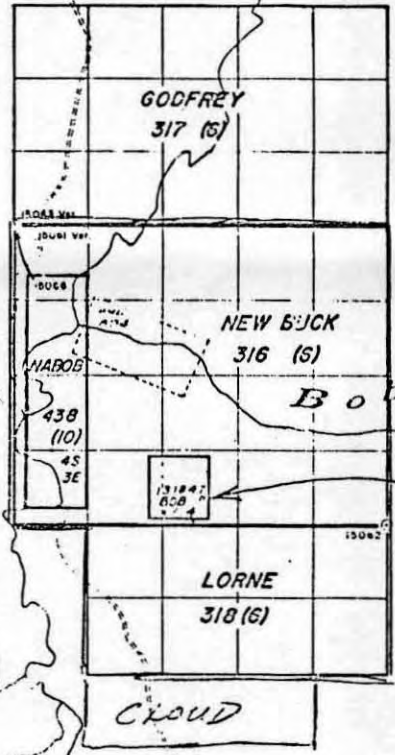


OIG 3X 12-75  
NO STAKING

007	1.003	100.5	6	100.5	100.5
CU	CU	CU	CU	CU	CU
2	4	100.7	10	12	



GLEN	04803
549	(3)



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