THE UNIVERSITY OF BRITISH COLUMBIA
Department of Geological Sciences
Vancouver, B.C. V6T 2B4
December 24, 1990

Mr. Wayne Roberts
Welcome North Mines Ltd.
1500-675 West Hastings Street
Vancouver, B.C. V6B 1N2

Dear Mr. Roberts:

RE: GALENA LEAD ISOTOPE ANALYSES TULSEQUAH, NORTHWESTERN BRITISH COLUMBIA

Data for the galena lead isotope analysis from the Tulsequah deposit is in Table 1. They are plotted in Figures 1 to 3.

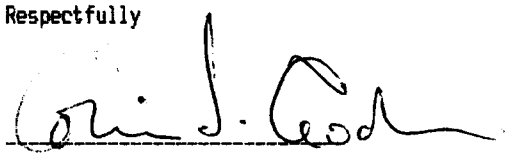
All analyses were performed in the Geochronology Laboratory of The University of British Columbia by Anne Pickering under my direction. Procedures used are as described in Godwin et al., 1988, with the exception that samples were normalized to the National Bureau of Standards sample NBS981 with values taken to be $^{206}Pb/^{204}Pb$ = 16.937, $^{207}Pb/^{204}Pb$ = 15.493, $^{208}Pb/^{204}Pb$ = 35.705, $^{207}Pb/^{206}Pb$ = 0.91470, and $^{208}Pb/^{206}Pb$ = 2.1671. The data for Greens Creek, Alaska, was analysed in our laboratory in 1988 by Janet Gabites. She used the Broken Hill standard (see Godwin et al., 1988).

The objective of this study was to finger print the lead isotopes from the galena in order to see if the geological origin of the Tulsequah sample was the same as the Maple Leaf showing.

The galena lead isotope data for the Tulsequah sample in Table 1 is distinctly different from the lead from Maple Leaf galena. However, the lead is similar to, but not the same as: (1) Greens Creek, Alaska, (2) Polaris Taku, and (3) the Buttle Lake camp, central Vancouver Island. The latter is Devonian (370 million years old). More analyses are needed for a clearer interpretation. These are in progress. I will keep you informed as to the results.

Thank you for submitting the sample.

Respectfully



Colin I. Godwin, PhD, PEng(BC)
Professor
Department of Geological Sciences
The University of British Columbia
Phone: Office: (604) 421-4654
Home: (604) 421-4654

REFERENCE

Godwin, Colin I., Gabites, Janet E., Andrew, Anne, 1988. LEADTABLE: A Galena Lead Isotope Data Base for the Canadian Cordillera, With a Guide to its Use by Explorationists. British Columbia Ministry of Energy Mines and Petroleum Resource, Geological Survey Paper 1988-4, 250p.

DECLARATION OF DR. COLIN I GODWIN, P.ENG.(B.C.)

I, Colin I. Godwin of 3010 Aries Place, Burnaby, B.C., Canada V3J 7E9, declare:

(1) I am a Geological Engineer, residing at the above address.

(2) I am a graduate of Geological Engineering from The University of British Columbia, in 1962 with a Bachelor of Applied Science (BASc) degree and in 1975 with a doctorate (PhD) degree.

(3) I am a registered member of the Association of Professional Engineers of British Columbia.

(4) I have practiced my profession since greduation in 1962 and have held permanent positions with:
The Geological Survey of Canada
Atlas Explorations Ltd.,
Dynasty Explorations Ltd., and
The University of British Columbia.

5) I am a Professor in the Department of Geological Sciences, The University of British Columbia, where I teach courses on mineral deposit geology, and specialize in the study of mineral deposits, metallogeny and lead isotopes.

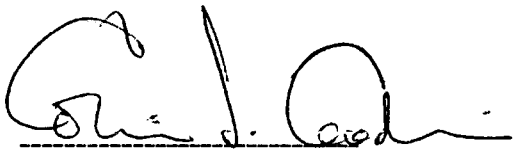
(6) I am a Fellow of The Geological Association of Canada, a Member of the Society of Economic Geologists, and a Member of the Canadian Institute of Mining and Metallurgy.

(7) I am a director of New Camp Resources Ltd., but this has not influenced this report in any way other than in the collection of sample material for analysis.

(8) This report is based on the examination of and interpretation of data from hand specimens, and a field visit of three days in August 1990.

(9) I consent to the use of this report in any appropriate way.

DATED AT BURNABY, B.C. this 24th day of December 1990.



Colin I. Godwin, PhD, PEng(BC)
December 19, 1990

TABLE 2-O-1: Galena Lead Isotope Data[1] from Tulsequah Area, Northwestern B.C. Compared to: Maple Leaf, Northwestern B.C.; Polaris Taku, Norhwestern B.C.; Buttle Lake Camp (Lynx, Myra & H-W), Central Vancouver Island; and Greens Creek, Alaska.

Sample Number	Deposit Name	Lat. N	Long. W.	$^{206}Pb/^{204}Pb$	$^{207}Pb/^{204}Pb$	$^{208}Pb/^{204}Pb$	$^{208}Pb/^{206}Pb$	$^{207}Pb/^{206}Pb$
Tulsequah Deposit								
31044-005A1	TULSEQUAH	68.74	133.59	18.637	15.611	38.263	0.8377	2.0531
31044-005B1	TULSEQUAH	68.74	133.59	18.645	15.621	38.285	0.8379	2.0534
31044-AVG	TULSEQUAH[N=2]	68.74	133.59	18.64	15.62	38.27	0.838	2.053
Polaris Taku, Northwestern B.C.								
30928-003A1	POLARIS TAKU	58.70	133.70	18.57	15.61	37.74	0.840	2.086
Buttle Lake Deposits (Lynx, Myra & H-W), Central Vancouver Island, B.C.								
BUTTLE-AVG	BUTTLE [N=24]	49.57	125.59	18.52	15.57	38.14	0.841	2.060
Greens Creek, Alaska								
5016-AVG[e]	GREENS [N=5]			18.68	15.61	38.44	0.836	2.057
Maple Leaf, Northwestern B.C.								
31039-001A1	MAPLE LEAF			18.76	15.64	38.47	0.834	2.051

[1] Analyses reported here, unless noted, are by A.D. Pickering, Geochronology Laboratory, The University of British Columbia. All data have been normalized to the United States National Bureau of Standards sample NBS981.

[e] Analyses are by J. Gabites, 1988. The Broken Hill standard was used..

Maple Leaf
104K/13

Figure 1: $^{207}Pb/^{204}Pb$ versus $^{206}Pb/^{204}Pb$ plot of data from the Stewart - Iskut area. Jurassic lead is plotted as circles; Tertiary lead is shown as triangles. The Maple Leaf showing is plotted as a star and is in the Jurassic cluster. The Eskay Creek deposit is shown as an asterisk.

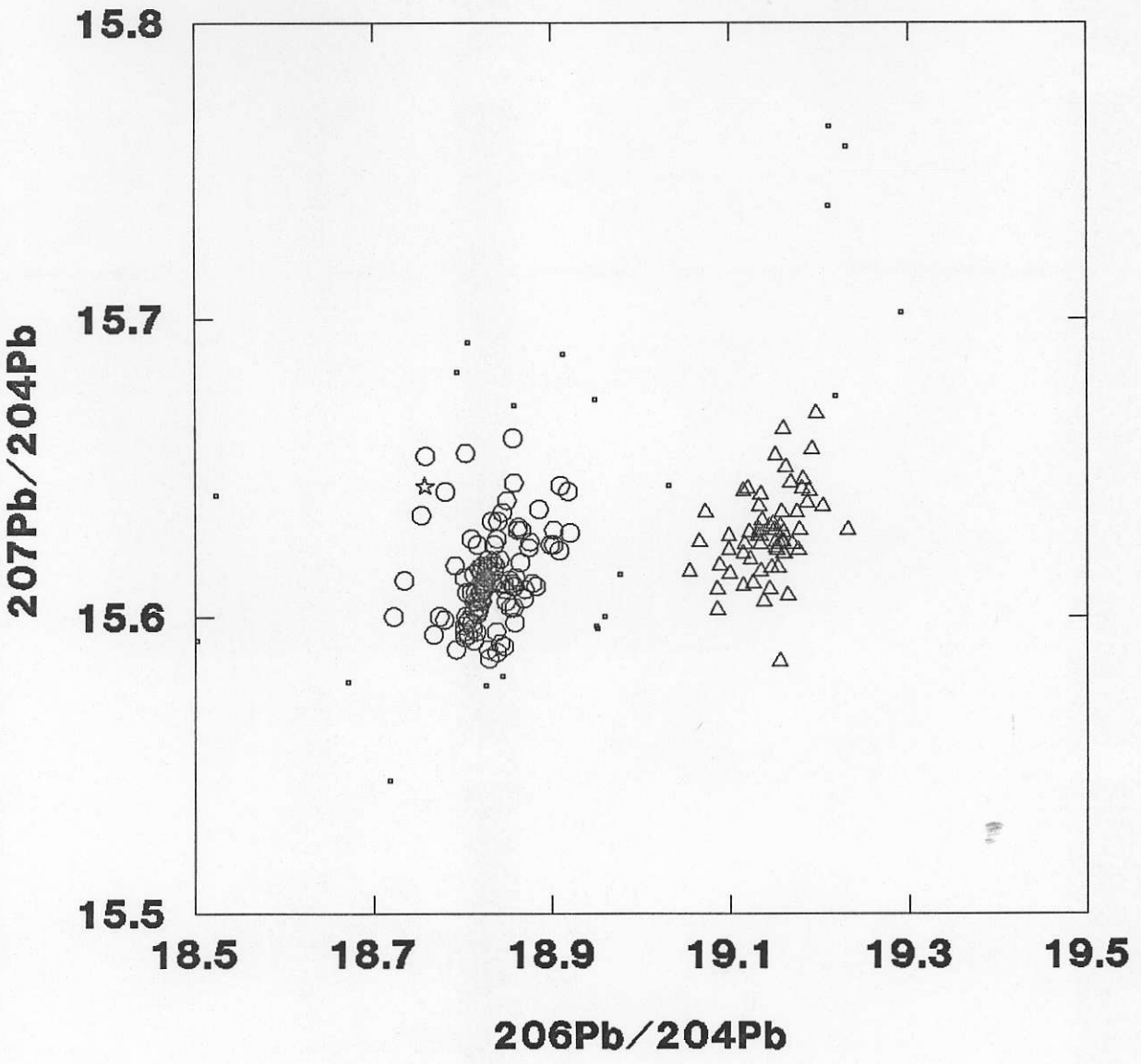


Figure 2: $^{208}Pb/^{204}Pb$ versus $^{206}Pb/^{204}Pb$ plot of data from the Stewart - Iskut area. Jurassic lead is plotted as circles; Tertiary lead is shown as triangles. The Maple Leaf showing is plotted as a star and is in the Jurassic cluster. The Eskay Creek deposit is shown as an asterisk.

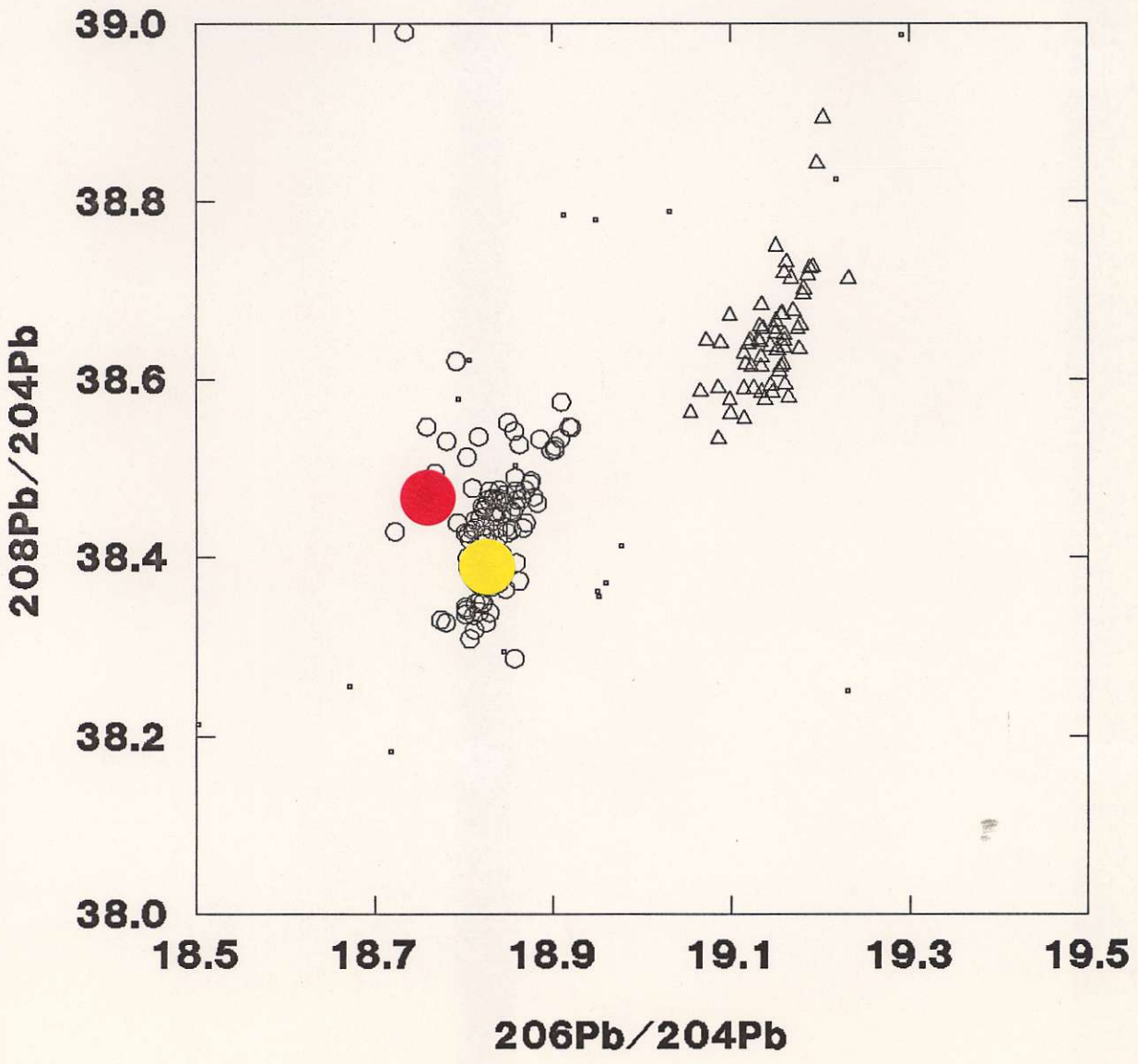


Figure 3: $^{208}Pb/^{206}Pb$ versus $^{207}Pb/^{206}Pb$ plot of data from the Stewart - Iskut area. Jurassic lead is plotted as circles; Tertiary lead is shown as triangles. The Maple Leaf showing is plotted as a star and is in the Jurassic cluster. The Eskay Creek deposit is shown as an asterisk.