

Rod: I sent this out to RGA today.

803898

Jim

MEMORANDUM

To: Bob Anderson

From: Jim Mortensen

January 16, 1991

Re: New #'s for Mz rox in NW B.C.(!)

Hi Bob,

I've gotten some new ages over the last few weeks for rocks that you will be interested in, and thought I'd let you mull over them for a few days before I get out there! Here's what I have so far:

Spatzizi area (with Derek Thorkelson):

- one rhyolite at 203.1 ± 0.4 Ma with a concordant xenocryst at 205.5 ± 0.5 Ma
- one rhyolite at 189.7 ± 0.3 Ma with no inheritance
- one rhyolite at 187.9 ± 0.3 Ma with inheritance pointing up to an upper intercept age of 1373 ± 23 Ma

Iskut area and points south (with Rod Kirkham):

- Mitchell Glacier syenite concordant at 193.9 ± 0.5 Ma with no inheritance
- rhyolitic tuff/breccia at Kitsault at 193.5 ± 0.4 Ma with no inheritance

Smithers area (with Rod Kirkham):

- "Ski Hill Rhyolite" at 194.8 ± 0.6 Ma with no inheritance (Don MacIntyre thought this was going to be Cretaceous..... We geochronologists live for this sort of thing!)
- "Silvan Rhyolite" on Hudson's Bay Mountain contains no igneous zircon, but I dated three fractions which consisted of broken shards of what must have been one or more very large, clear, presumably xenocrystic zircons - three fractions are concordant at 1327 ± 3.8 Ma (!)

The last of your U-Pb samples (the ones that M.L. is not going to work on) will go in for crushing sometime in the next month or so, and I will get them picked and in for chemistry as soon as I get the concentrates. The other samples that I will work on from that area later in the winter or early spring are one more of Derek Brown's samples, two samples of felsic volcanic rocks of presumed Paleozoic age that Mike Gunning sent me, and a sample of the host rhyolite for the deposit at Tulsequah that the Cominco geologists sent down. I also have another 4 samples from Derek's area, three of those are in for chemistry now, and he is just finishing picking

and abrading the last sample now. Those samples will be quite critical for time scale calibration. I'll let you know how these all turn out as I get the results in.

I am also going to do a couple more dates for samples in the Hudson's Bay Mountain area (my old stomping ground.....) with Rod to finally establish both the local stratigraphy and the emplacement age for the Glacier Gulch deposit. Rod is also keen on sampling the type sections for the Smithers and Telkwa formations - possibly next summer. I have looked at some of his thin sections from the key felsic units and they look quite promising.

I am becoming quite intrigued by the presence and age of the inherited and/or xenocrystic zircons in some of these units - M.L. and I have been tossing around some thoughts on this. The 1328 Ma age for the Silvan Rhyolite xenocryst(s), the 1373 Ma upper intercept age for one of Dereks samples, and the ~1390 Ma age for the xenocryst in the Zippa Mountain sample all seem to be saying that there is a fairly widespread occurrence of zircon of that age in a sizable part of the Stikine terrane. I've gotten detrital zircons from the Yukon-Tanana and from argillites in the Sylvester Allochthon of about this age, but we haven't found it anywhere in the miogeocline as yet. But, you ask, what does this all mean?? Good question..... Certainly something to ponder on though.

I'd better get back to preparing my poster for the Roundup. I will be coming out to Vancouver on the morning of Monday the 21st, and will be staying out at UBC until Friday, mainly in Dick's lab incorporating his unpublished ages into my Yukon age database (which has gotten completely out of hand - I originally estimated that there were maybe 300-350 ages total for the Yukon. Would you believe there are actually over 800???). M.L. and I will be at the Survey on Monday morning for the annual pre-Roundup madness, but I hope we have a chance to discuss both the Iskut etc. data and some interesting observations about plutonism in the Yukon that have fallen out of my database construction. See you in a week or so.

Cheers,

