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Lyn Group

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AREA CODE 203

NEWMONT EXPLORATION LIMITED

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August 15, 1973

GEOPHYSICAL DEPARTMENT

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Mr. E. J. Ballantyne, Jr.
 Newmont Mining Corp. of Canada Ltd.
 P. O. Box 105
 Commerce Court
 Toronto, Ontario M5L 1E3
 Canada

Dear Ed:

Enclosed please find the gravity computation sheets from the Lyn claim group, Whitehorse mining district, Yukon Territories, which I am herein returning. Five (5) maps are being forwarded, under separate cover.

The first is a profile plan map used to edit the digitized data. However, certain values which were obviously in error in the observed data were removed before plotting. Essentially, I eliminated all single readings which exceeded their nearest neighbor by 1.0 mgals or more, and were not obviously the peak value to an anomaly. These have been identified in the enclosed table.

I then removed single readings which exceed their nearest neighbor by .4 mgals or more after the edit plot (i.e., before contouring). These too have been identified in the enclosed table, and are circled on the plan map. In several instances, these smaller isolated anomalies appeared to be reflected on adjacent lines, and were therefore left in. In other places, two or more adjacent profile points were in error, but it was uncertain which one or whether both were. These also were left in. Data at the north end of line 110 W is very poor, but was left in since the only other choice was to remove all points here.

Note that the edit plot spaces the profiles at 2.5 inches, regardless of their line separation.

I have enclosed all three maps, total, regional and residual, since their contouring costs virtually nothing once the grids have been generated (which they have to be). You also have the bonus of a working map of the Bouguer anomaly map since the first copy was the mirror image of that which was desired. As you can see, the westerly grid points were keypunched positive instead of

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negative, with the resulting unconventional map orientation.

There is one major change from your request in the enclosed data; a surface could not be fit to the entire data set. The orthogonal polynomial surface fitting routine is not available under the new computer hardware configuration (temporarily), and the card punch (required between SRFIT and EQORT) is not available to the old disk package. Thus, a regional surface trend was established using a sliding least squares second-order surface. A radius of influence of four grid intervals around each point was chosen, as this was the largest areal extent available.

I made one further change, and this was in selecting a 0.1 mgal contour interval in plotting the residual data. While below data significance in many places, I thought that it would perhaps give better definition to smaller anomalies in the .3 to .4 mgal range without overly cluttering the map.

You will notice that there appears to be a base level error of $-.8$ to -1.0 mgals on line 118 W. This can be removed and the data recontoured, if such an improvement is warranted.

Best regards,

Jack

John R. Parry

JRP:omi
Encls.

~~P.S. No twins, just an 8 lb., 15 1/2 oz. girl - Barbara Brooke,
on July 4.~~

~~J.R.P.~~

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LYN CLAIM GROUP

WHITEHORSE MINING DISTRICT

YUKON TERRITORIES

Data points removed before profile plot:

<u>Line</u>	<u>Station</u>	<u>Value</u>	<u>Approx. Deviation (mgals)</u>
L 126W	49N	735.86	-3.4
L 126W	63N	738.28	-1.7
L 134W	59N	750.91	+10.
L 150W	47N	736.76	-3.
L 162W	15N	761.73	+20.
L 166W	40N	737.76	-3.2
L 166W	48N	738.88	-1.9
L 186W	31N	743.37	+1.1

Data points removed before contour plot:

L 130W	18N	742.16	-.5
L 130W	36N	741.56	+.7
L 130W	39N	?	740.48 chosen
L 138W	38N	740.21	-.6
L 162W	14N	740.23	-2.5
L 162W	32N	741.22	-.5
L 174W	33N	740.54	-.45
L 178W	19N	743.11	+.4
L 178W	54N	740.05	-.7
L 186W	55N	740.48	-.6
L 190W	36N	741.49	-.4