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September 12th, 1972

Mr.U. Jansons,
Anvil Mining Corporation,
Box 1000,
Faro, Y.T.

Jake:

Enclosed is a sheet showing a variety of profiles for comparison. The top one is the profile on line 0 - plotted to the scale we originally used here. Below it is a theoretical Bouguer profile of a buried slab of thickness 280' and density 0.3 greater than country rock. Next is a "difference" profile showing excess gravity after the slab effect is removed from the field results. Because of the thin overburden, the slab was then looked at as a surface slab, and a theoretical profile of this was computed. At the bottom is the difference profile between this latter one and the field results. Note that slab edge in both cases was assumed to be at the half maximum Bouguer value - an assumption probably not completely valid.

In the model work, the gravity amplitude emanating from the slab is similar under both assumptions, that is 0.8 - 0.9 mgal. Therefore, after subtracting the models from the actual results, there remains an unaccountable 0.5 - 0.6 residual positive in both cases. Were we to find an anomaly of this size and shape, it is not likely that we would get very excited about it. It could be an overburden effect or another, thinner greenstone slab at greater depth. Of course, one can't rule out the possibility of it being related to a relatively small amount of mineralization below 400', but this is not a very attractive target.

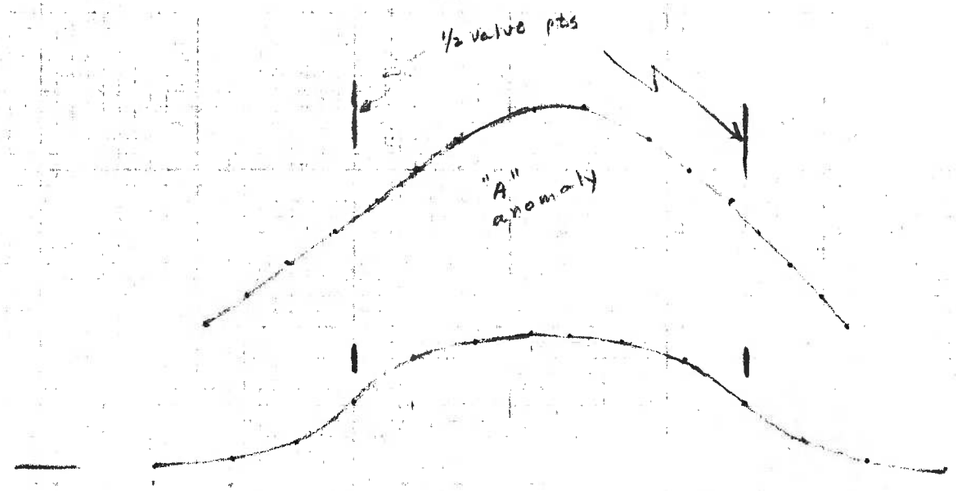
This is the first greenstone that has been drilled below a gravity positive, as far as I know. It definitely accounts for about 60% of the anomaly. What is left is little more than spurious.

Yours very truly,

Bob

R. B. Galeski

Encl. (1)



S

N

Actual Bouguer Profile Line # D

Model profile of 280' buried slab w/ 10.3 contrast

— — eff. "0"

Difference Curve

Model profile of 280' surf. slab

— — eff. "0"

Diff. curve

1" = 1 mgal

1" = 400'

(1)

Gravity Profiles
Ram Area
RHS
Sept 1972

$\frac{200}{.3} \times \frac{800'}{.3}$

DEPTH TO CENTER $66.4 \times 266 = 17680 m^2$

$$z = \frac{0.65\, g(max)}{dg/dx(max)} \qquad z = \frac{(0.65)(1.4)}{\frac{1 mgal}{420}}$$

$z = 135$ ~~Thickness~~ $= 270$

DEPTH TO LOWER SURFACE

THICKNESS OF BURIED HORIZONTAL SLAB

$$T = \frac{g\,max}{12.8\pi}$$

$$T = \frac{1.4}{(12.8)(3)} \quad \text{or} \quad T = \frac{0.7}{(4)(3)}$$

$=$

$dg/dx = 0.4$

depth top 150

Thickness 125

$$z = \frac{(0.65)(.71)(1.42)}{0.4} = 230$$ — DEPTH TO CENTER

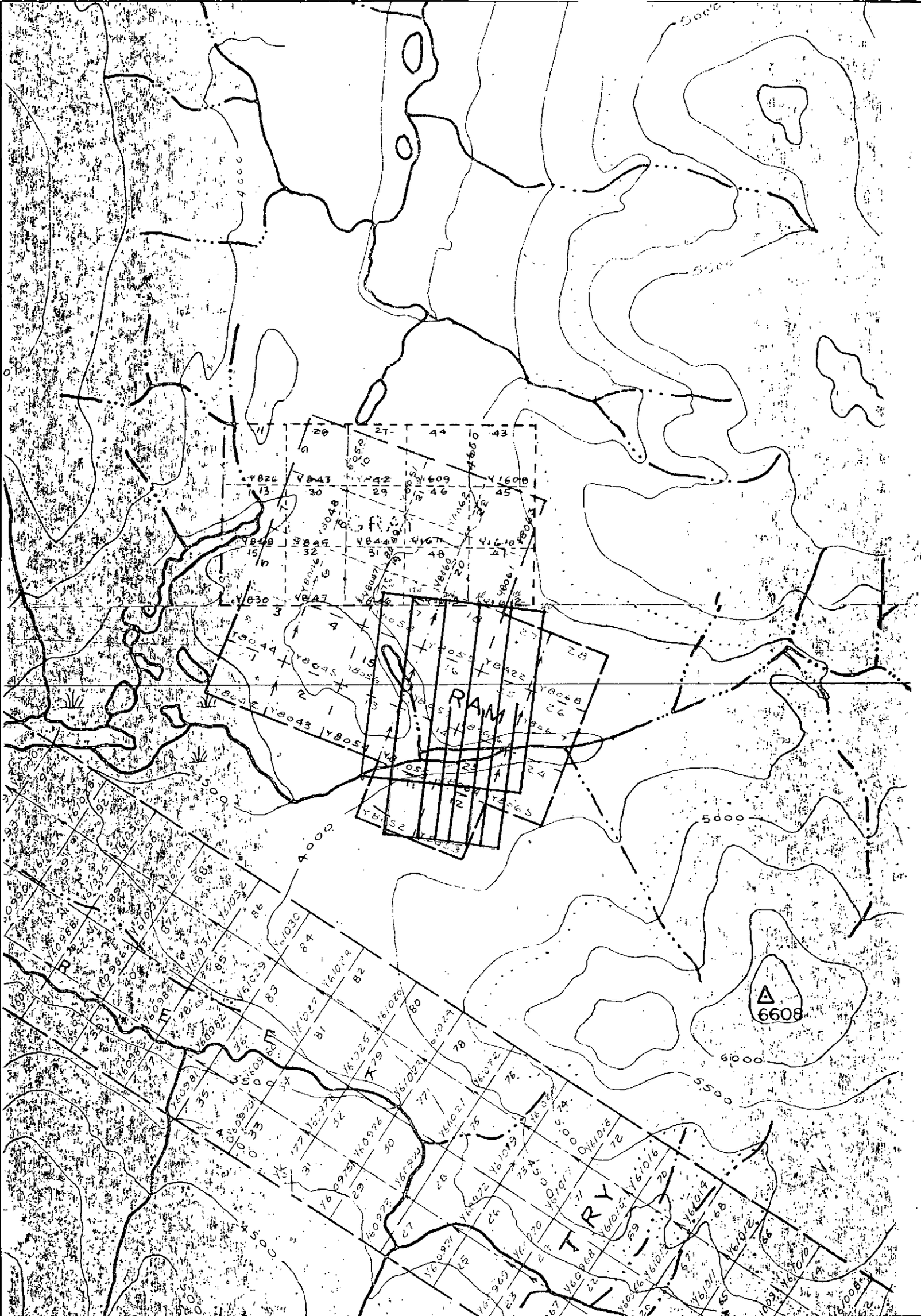
TOP 170

$$z = \frac{(0.65)(.71)}{0.4} = 115$$

$$T = \frac{1.4}{(4)(3)} = 118 \text{ or } 120$$

$h = 0.26$ $\quad \Sigma \Delta g\, s^2$

$= \frac{4.4}{17}$ $\quad \Sigma(142)\ (17600)c$


RAM
6608
5000
4000
6000
5500

THICKNESS

Surface Slab $T = 280$

$\sigma = 0.2$

$g_{max} = ?$

$(280)(4)(.2) = g_{max}$

$T = \frac{1.40}{.8} = 1.70 +$

$= \frac{1.52}{.8} = 19.0$

DEPTH TO CENTER

$$z = \frac{.65 g_{max}}{\Delta g/\Delta x_{max}}$$

$$140 = \frac{(.65)\ 1.40}{\Delta g/\Delta x}$$

$$\Delta g/\Delta x = \frac{(0.65)(1.40)}{140} = \frac{.65}{100} = .0065$$

$$g = 12.8\sigma + \cdot\left(f_g \frac{x}{2}\right)$$

$$1.4 = (12.8)(.2)(280)\ f\frac{x}{2}$$

CALCULATE -

VANGORDA

DEPTH

$$T = \frac{1.40}{12.8(0.3)}$$

$$g_{max} \quad (280) =$$

$$20 = \frac{1}{9.4(1.7)}$$

$$z = \frac{.65(g_{max})}{dg/dy\,(max)}$$

$$\frac{500\,(\quad)}{(.65)} = g_{max}$$

$$(769)(dg/dy_{max}) = g_{max}$$

1.4

$$(280)(4)(.2) = 2.20$$

$$T \quad (280)(4)$$

$$I = \frac{g_{max}}{12.8T}$$

$$= \frac{.30}{(12.8)(3)}$$

$$= (.78)$$