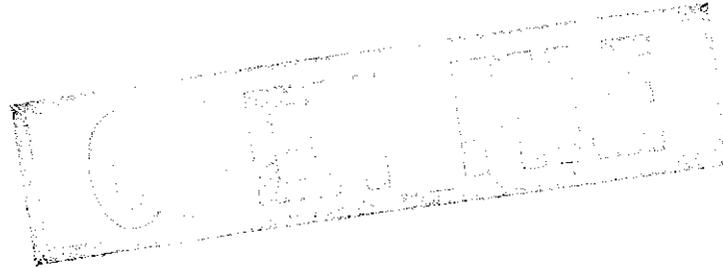


00 000

610001



ANNUAL REPORT (1988-89)

E.L. 4/88

PERA FLATS

89-2991

89-2991

MINES	
File Ref.	EL 4/88
17 JUL 1989	
Doc. Ref.	
Action Officer	Initials
<i>Renewal of licence application dated 17.7.89</i>	<i>refused</i>
Resubmit to	Date

July 1989

Vic Threader and Associates Pty. Ltd.
Kingston Beach
Tasmania

C O N T E N T S

Introduction

Land Tenure

Geology

Proposed Future Exploration

Figures:

1. Geological map showing:

- a) location of seismic spreads
- b) location of source area of alluvial gold.

2. Seismic profiles and geological sections showing proposed borehole locations.

Appendix:

Seismic Survey - R.G. Richardson

E.L. 4/88 (14km²) - Pera FlatsIntroduction

The area lies downstream of (to the north of) the Alberton and New River goldfields and is therefore considered to be prospective for alluvial gold and also lies at the foot of (to the west of) the Mt. Paris tin bearing greisenised granite and could therefore be prospective for colluvial and alluvial cassiterite.

Land Tenure

The present target area lies within "Mineral Banks", the property of H.F. Foster of Campbell Town, but there are a number of smaller holdings further south in the New River area which have yielded both lode and alluvial gold but to date have not been examined.

Geology (Figures 1 and 2)

The rivers have cut broad valleys into Mathinna Beds bedrock during Tertiary times and basaltic lava has flowed up these valleys from the north. The basalt now occurs as residuals at Mineral Banks homestead and K. Bennett's property (Figure 1). Pre basalt gravels, lithified at the basalt contact, are preserved beneath the basalt residuals and on the slopes leading down to the alluvial plain. The Dorset and New Rivers appear to have formed as lateral streams to the lavas. It is assumed that the flow formerly occupied the valleys up to the 290m contour and the pre basalt channels have been eroded away except where they have been preserved beneath the basaltic remnants.

An earlier drainage pattern is indicated by seismic profiling (Figure 2) with possible channels at several points and depths of 4.5-12m below surface. The most favourable prospect is the Dorset channel which also coincides with the assumed (and now removed - except beneath the basalt) pre basalt channel.

The eastern edge of the alluvial plain is bounded by Mathinna Beds flanking the Mt. Paris tin granite. This is prospective for colluvial cassiterite but the channels are less clearly defined on this side of the valley.

Proposed Future Exploration

The next step in the exploration programme is to test drill, sample and assay the ground in the low points of the seismic profile for gold and tin concentrations. The channels will then be followed by more seismic and more drilling in stages until an economic resource has been identified.

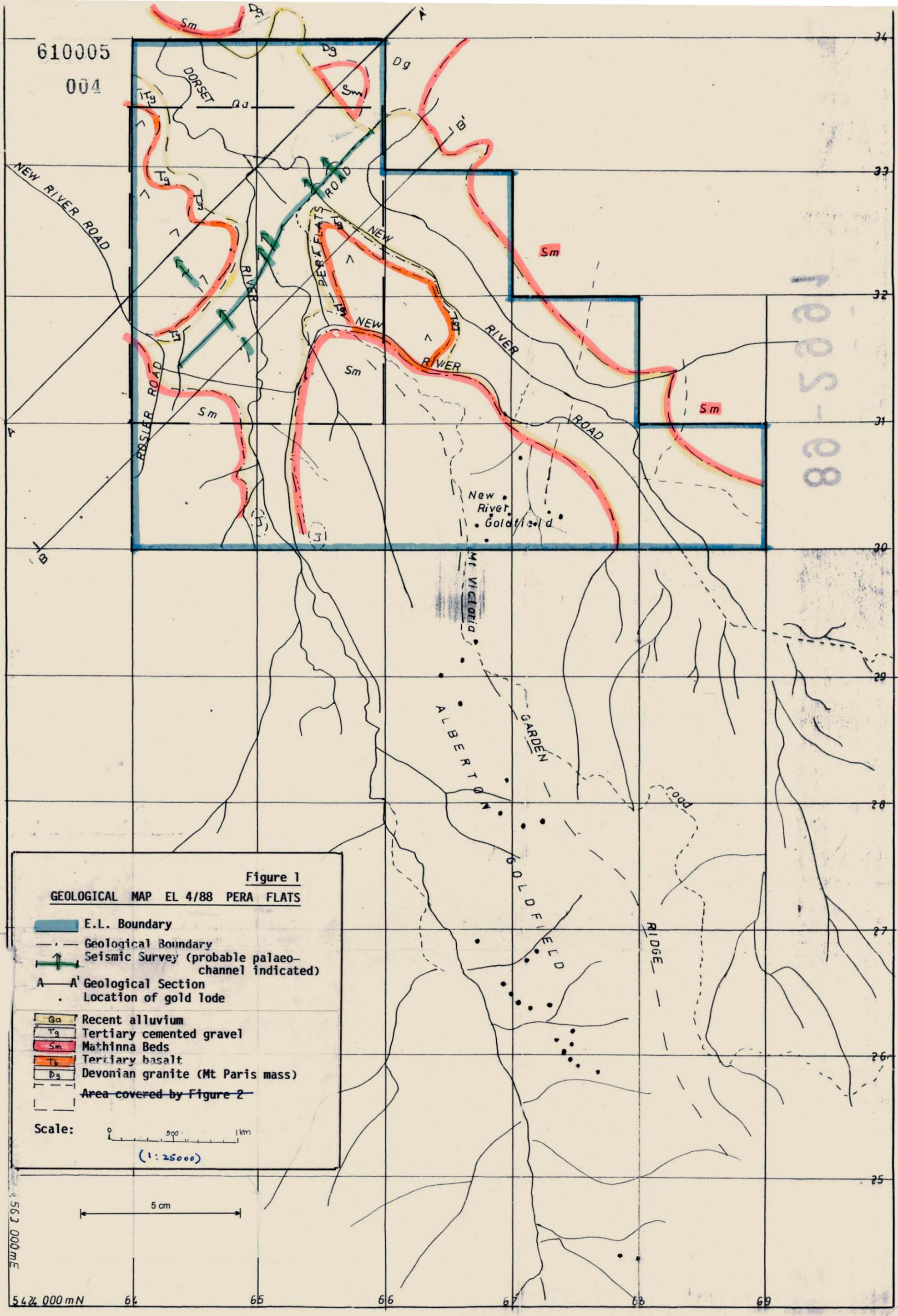


Figure 1

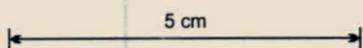
GEOLOGICAL MAP EL 4/88 PERA FLATS

- E.L. Boundary
- Geological Boundary
- Seismic Survey (probable palaeo-channel indicated)
- Geological Section
- Location of gold lode
- Ga Recent alluvium
- Tg Tertiary cemented gravel
- Sm Mathinna Beds
- Tb Tertiary basalt
- Dg Devonian granite (Mt Paris mass)
- Area covered by Figure 2

Scale:



(1:25000)



563 000 mE

5424 000 mN

64

65

66

67

68

69

25

26

27

28

29

30

31

32

33

34

1005-08

005

Seismic Profiles EL 4/88 (Pera Flats)

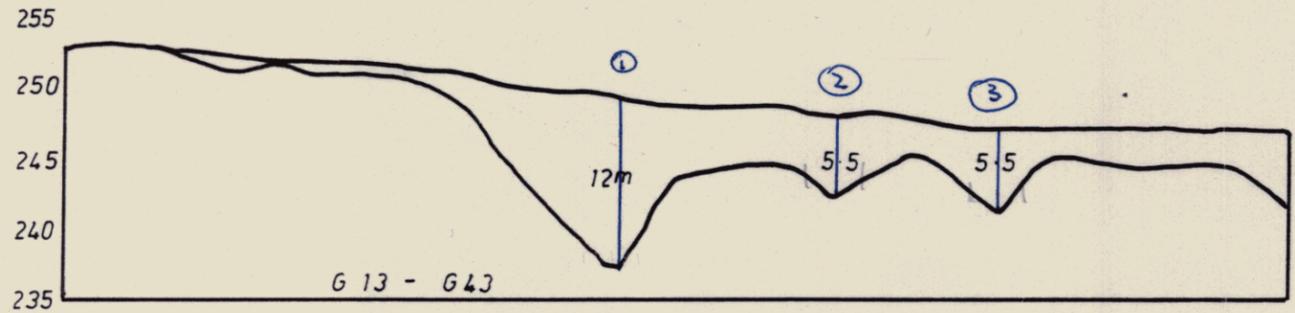
FIGURE 2

610006

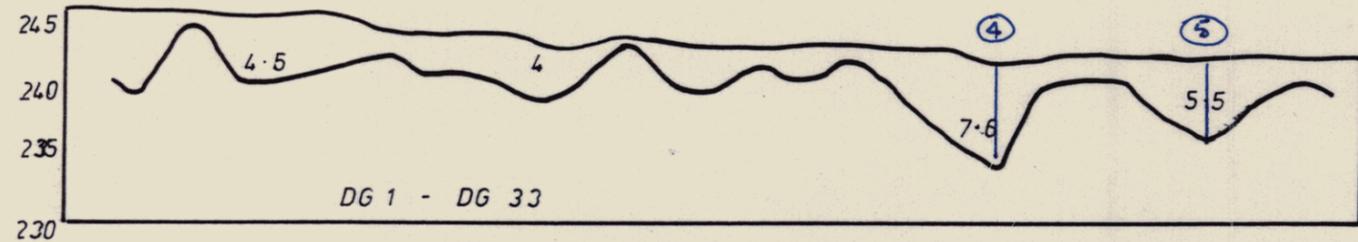
GEOLOGICAL CROSS SECTIONS

V = 1 : 5000
H = 1 : 25000 $\frac{H}{V} = 5$

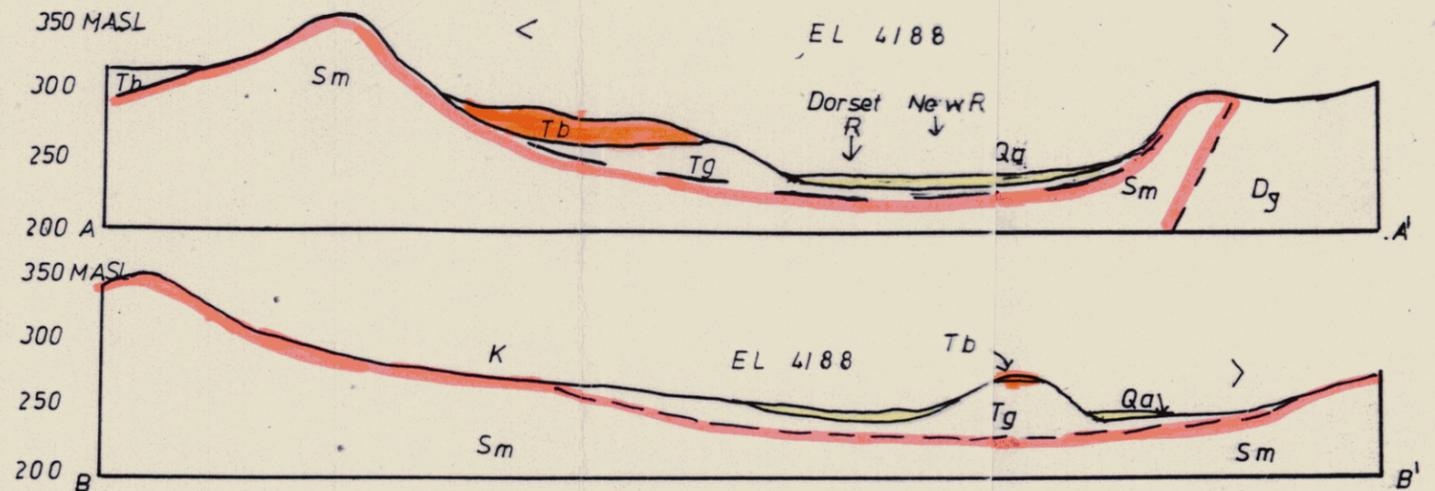
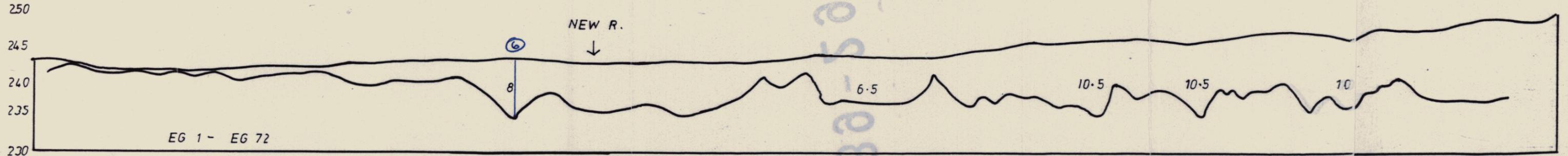
C 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43



DG 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33



EG 5 10 15 20 25 30 35 40 45 50 55 60 65 70



H 1 : 25000
V 1 : 5000 $\frac{H}{V} = 5$

① Proposed borehole

00 005



TASMANIA

DEPARTMENT OF MINES

Pera Flats

610007

Head Office:

Gordons Hill Road,
P.O. Box 56,
ROSNY PARK 7018

Enquiries: Dr R.G. Richardson
Phone: 30 8324
Your ref.:
Our file: EL4/88
RGR(6):JH

Vic Threader and Associates Pty Ltd,
43 Kingston Heights,
KINGSTON BEACH
Tasmania 7050

-3 MAR 1989

Dear Vic,

E.L. 4/88 PERA FLATS - SEISMIC SURVEY

The field work and interpretation for this survey are complete and I enclose

- (a) an invoice
- (b) a job summary
- (c) a plot of data points
- (d) a depth plot with the deeper areas highlighted in orange
- (e) a smoothed depth plot.

The survey was recorded using both 15 m and 7.5 m spreads with shots buried down to 2.9 m. The data show a very shallow upper layer with a velocity of approximately 400m/sec, a second layer with a velocity of about 1150 m/sec and a layer with a velocity of 2000-2400 m/sec which was regarded as economic basement. There were indications of a deeper layer with a velocity of about 4500 m/sec at a depth of about 60 m below spread 1.

Because of the variable nature of the top layer, which ranged from gravels to soils, an allowance was made for shot-hole depth using a velocity of 800 m/sec. Departures from this would produce no more than 1 m depth error. Interpretation was by the reciprocal method and shows an irregular basement (assumed to be weather Mathinna Beds) with several deeper areas.

Possible channels lie on spread 3 between G23 and G29, on spreads 7 and 8 between DG21 and DG26, on spreads 10 and 11 between EG21 and EG29, on spread 12 between EG38 and EG44 and on spreads 14 to 18. The shallowing near EG45 is associated with a high point on the 4500 m/sec layer.

Should you wish to discuss the results further either now or during drilling please do not hesitate to contact me. The weathered nature of economic basement may require further interpretation when control is available.

Yours sincerely,

R.G. Richardson
GEOPHYSICIST

Encl. Telephone (002) 30 8333

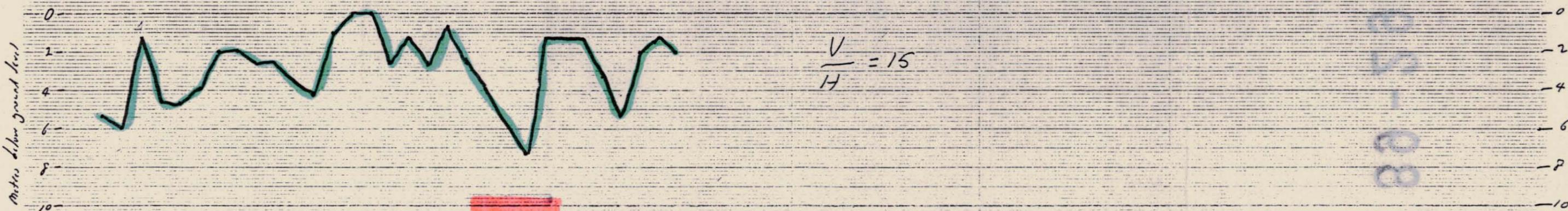
Telex AA 58 276

Fax (002) 44 2117

007

Vertical Scale 1:200
Horizontal Scale 1:3000

d. Depth Plot - deeper areas highlighted - Spreads 2-8



5 cm

610008

1.9
x150
1.59

008

H 1:3000

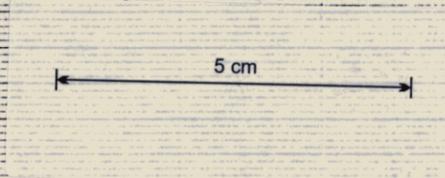
d. Depth Plot - deeper areas highlighted - Spreads 9-18



$\frac{V}{H} = 15$

EG1 EG11 EG23 EG33 EG45 EG51 EG57 EG61 EG67 EG73

Spread 9 Spread 10 Spread 11 Spread 12 Spread 14 Spread 15 Spread 16 Spread 17 Spread 18



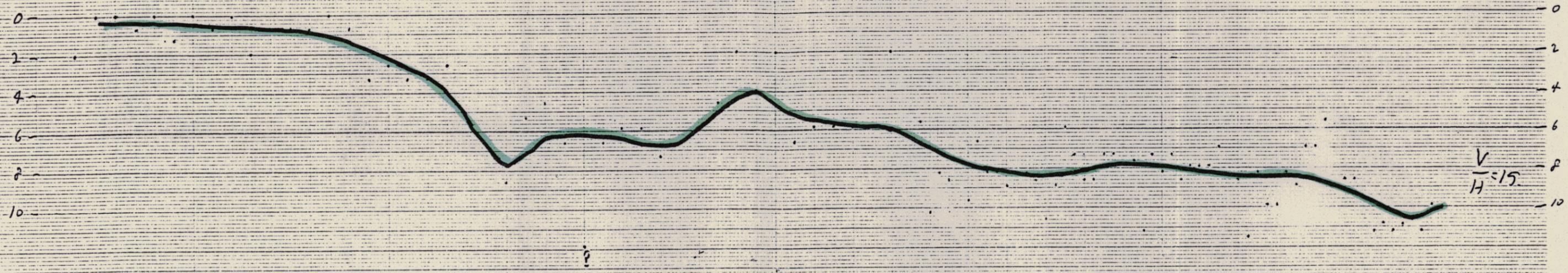
610009

EL 4/88 Park Plaza

8371

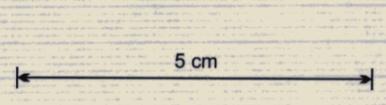
e. Depth Plot - smoothed profile - Spreads 2-8

meters below ground level



EG1 EG11 EG23 EG33 EG45 EG51 EG57 EG61 EG67 EG73

Spread 9 Spread 10 Spread 11 Spread 12 Spread 14 Spread 15 Spread 16 Spread 17 Spread 18

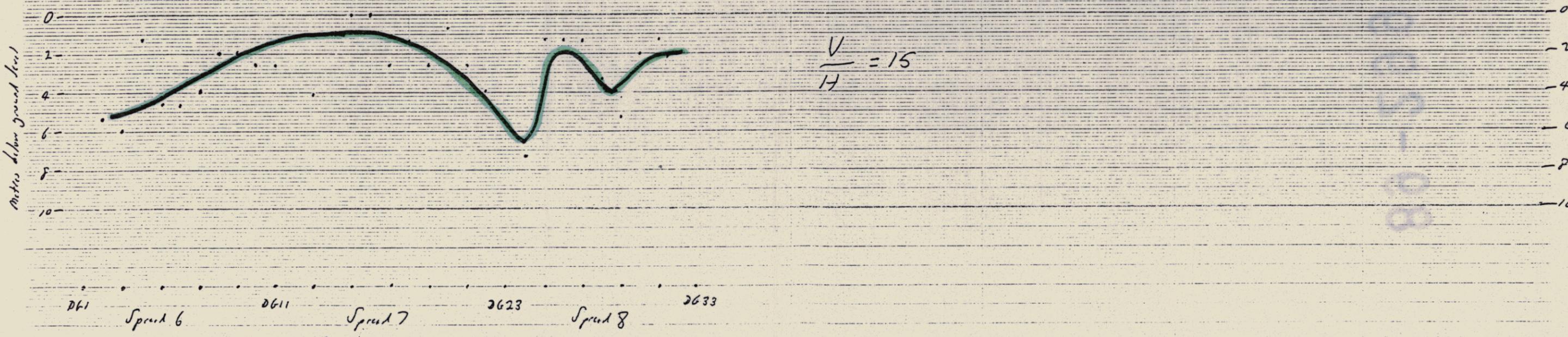
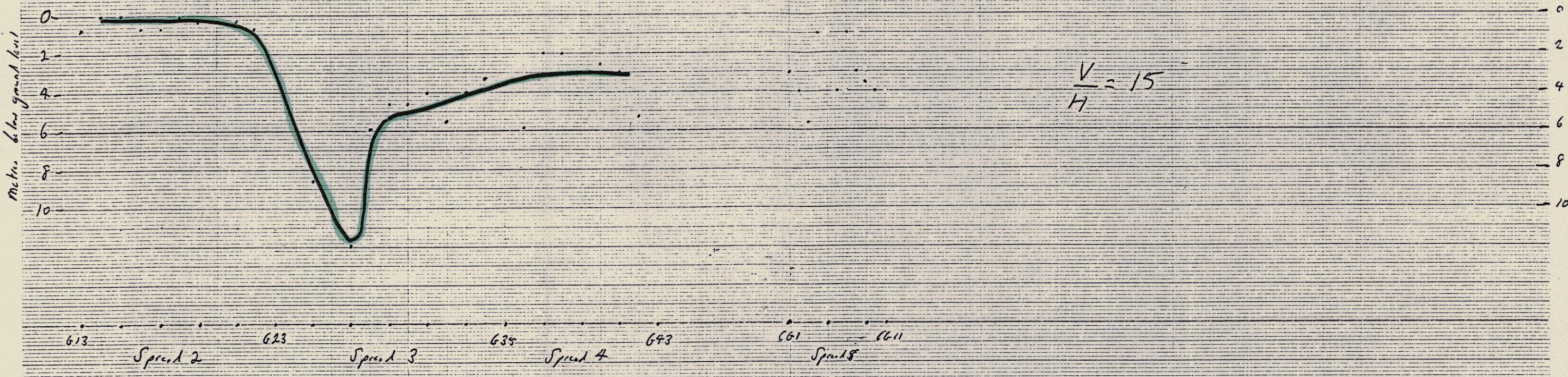


610010

1005-08

8370

e. Depth Plat. - Smoothed Profile - Spreads 2-8



5 cm

610011