

APÊNDICE II

1. MAPAS, PLANTAS E DESENHOS

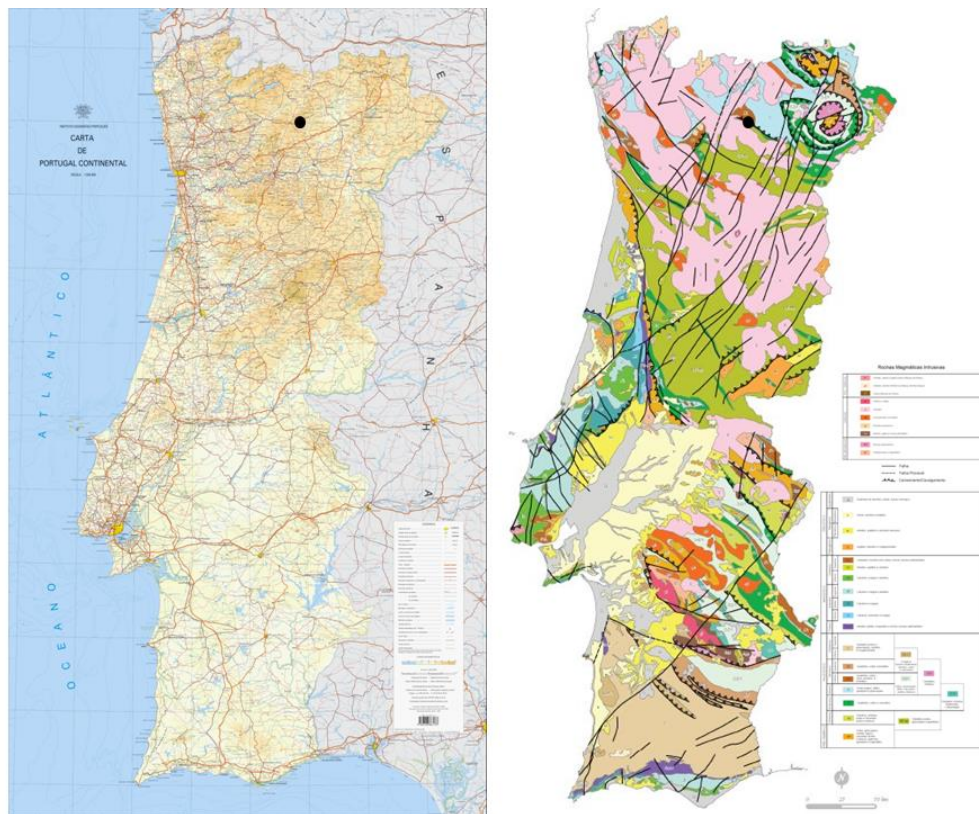


Fig. 1 – Implantação espacial do Complexo Mineiro Romano de Tresminas e Jales (adaptado da Carta de Portugal Continental, escala 1.500 000 – Instituto Geográfico Português e Carta Geológica de Portugal, escala 1:500 000 – Laboratório Nacional de Energia e Geologia)

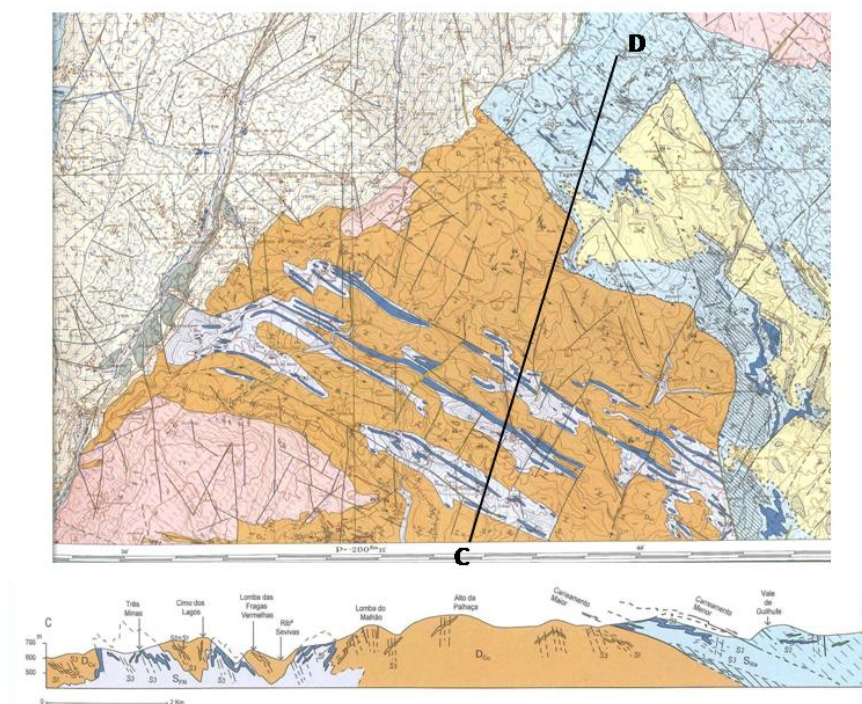


Fig. 2 – Geologia e metalogenia da área mineira de Tresminas (adaptado da Carta Geológica de Portugal, Instituto Geológico e Mineiro, 1998, escala 1:50 000)

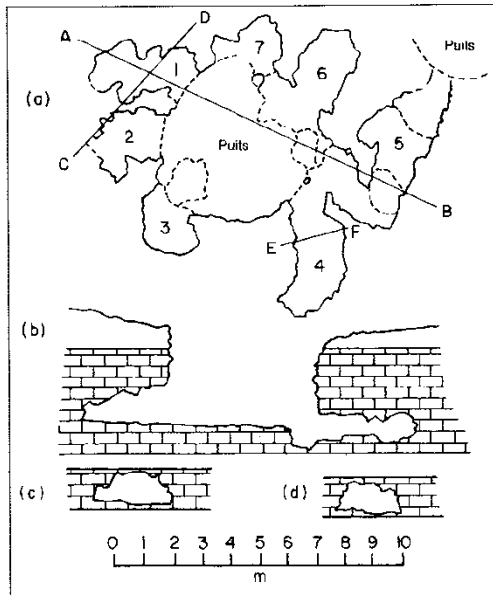


Fig. 3 – Minas radiais neolíticas de Blackpatch (Findon, Middlesex, Inglaterra)(Domergue, 2008)

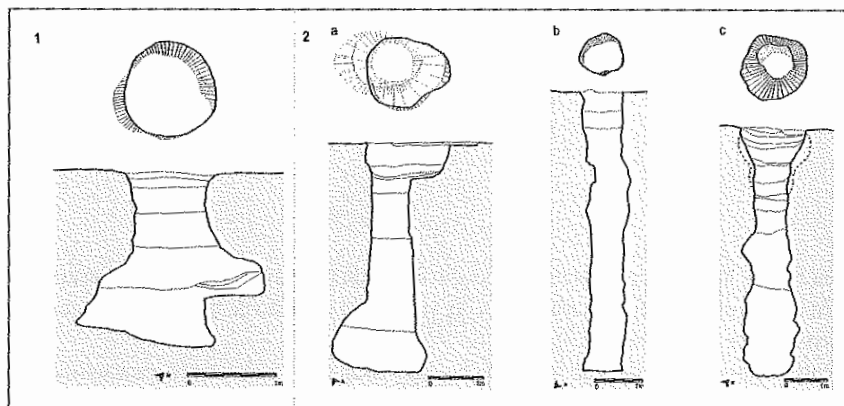


Fig. 4 – Poços de minas neolíticas de Casa Montero (Vicálvaro, Madrid, Espanha) (Consuegra, 2005)

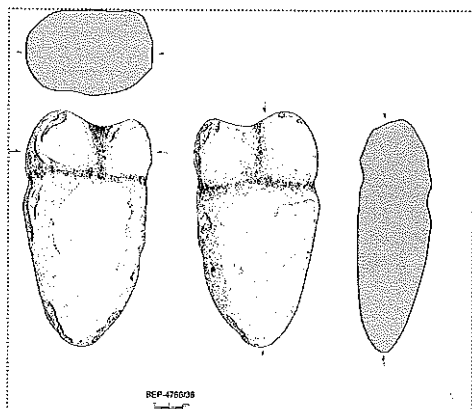


Fig. 5 – Picos de xisto das minas do Neolítico Médio de Solana del Bepo de Uldemolins (Genera i Monells, 2006)

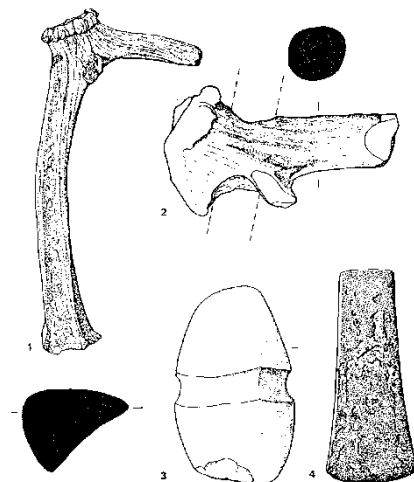


Fig. 6 – Instrumentos mineiros de El Milagro, Cangas de Onis (Blas Cortina, 1989)

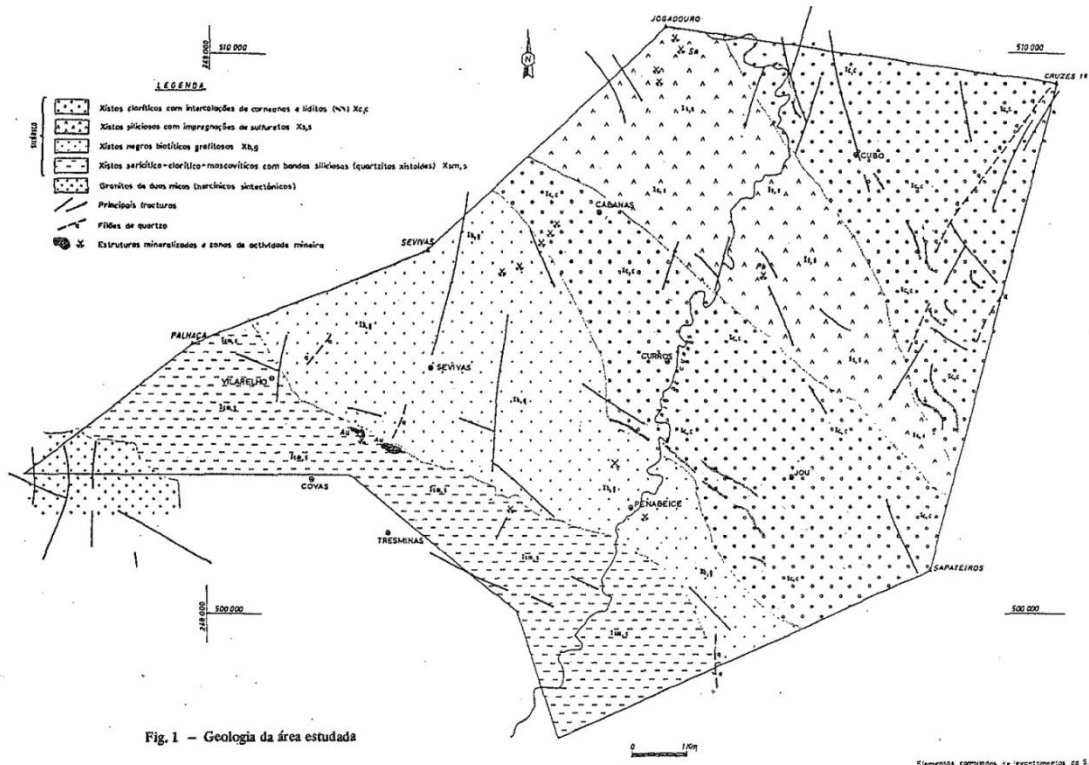


Fig. 1 - Geologia da área estudada

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Elementos copiados da publicação do S.P.C. e da topografia do S.P.C. 1:50.000

Fig. 7 - Geologia da área a nordeste de Tresminas (Oliveira et al., 1987)

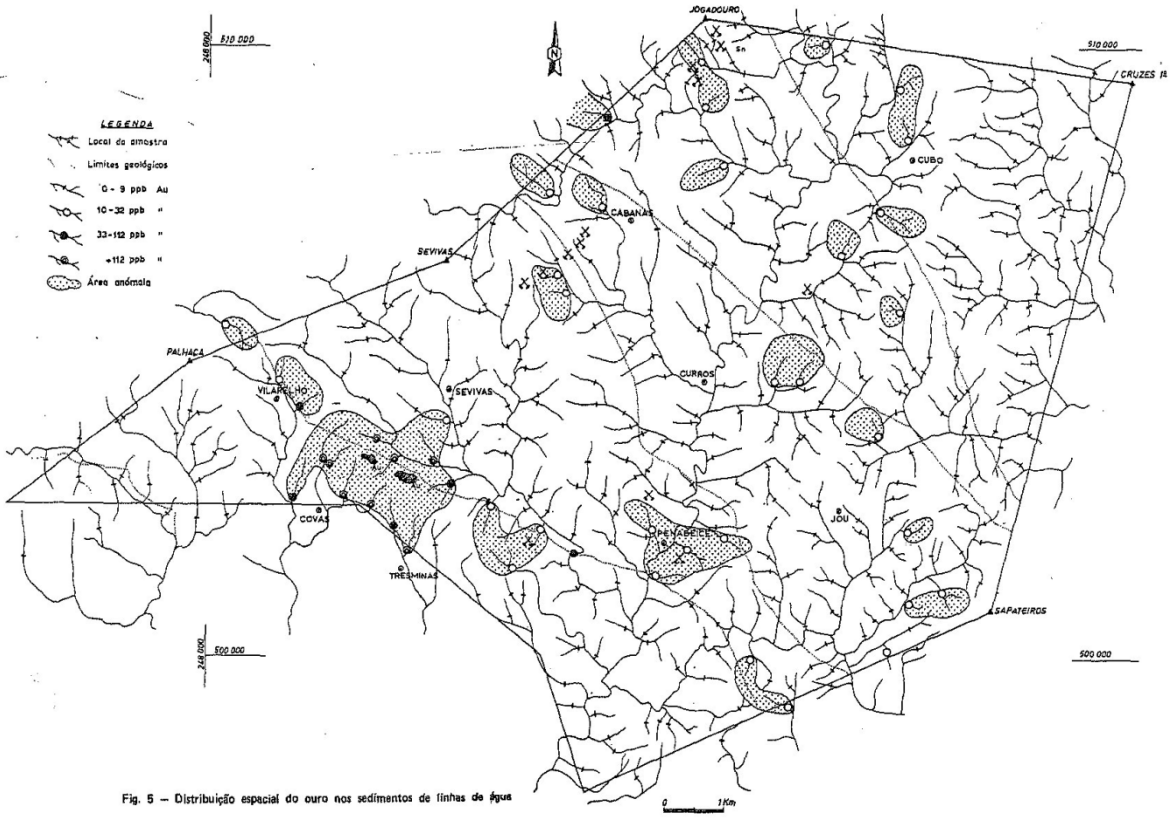


Fig. 5 - Distribuição espacial do ouro nos sedimentos de linhas de água

BOL. Geol. Portugal

Fig. 8 - Distribuição espacial de ouro na área a nordeste de Tresminas



Fig. 7 – Distribuição espacial da prata nos sedimentos de linhas de água

DEG, Carlos Brito

Fig. 9 – Distribuição espacial de prata na área a nordeste de Tresminas

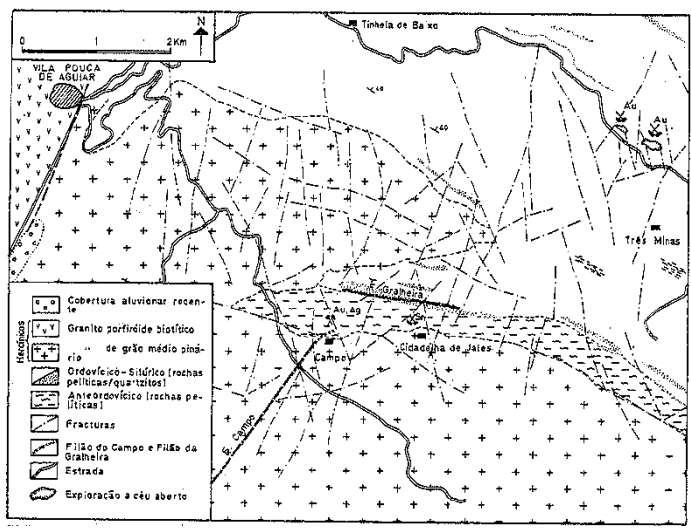


Fig. 10 – Geologia de Jales com a localização do Filão da Gralheira e Mina dos Mouros (Harrison, 1931)

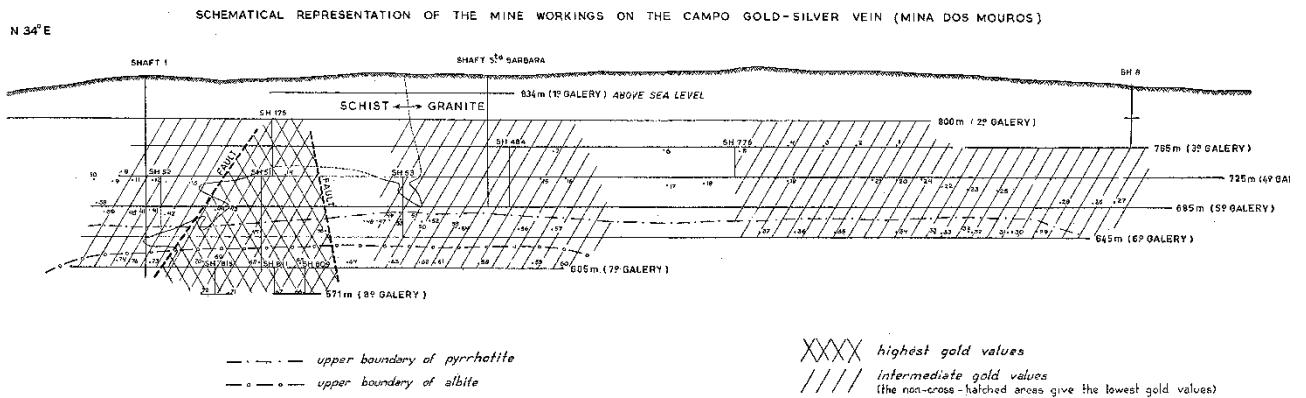


Fig. 11 – Fase inicial da exploração contemporânea em Jales (Brink, 1960 (Oliveira et al., 1987))

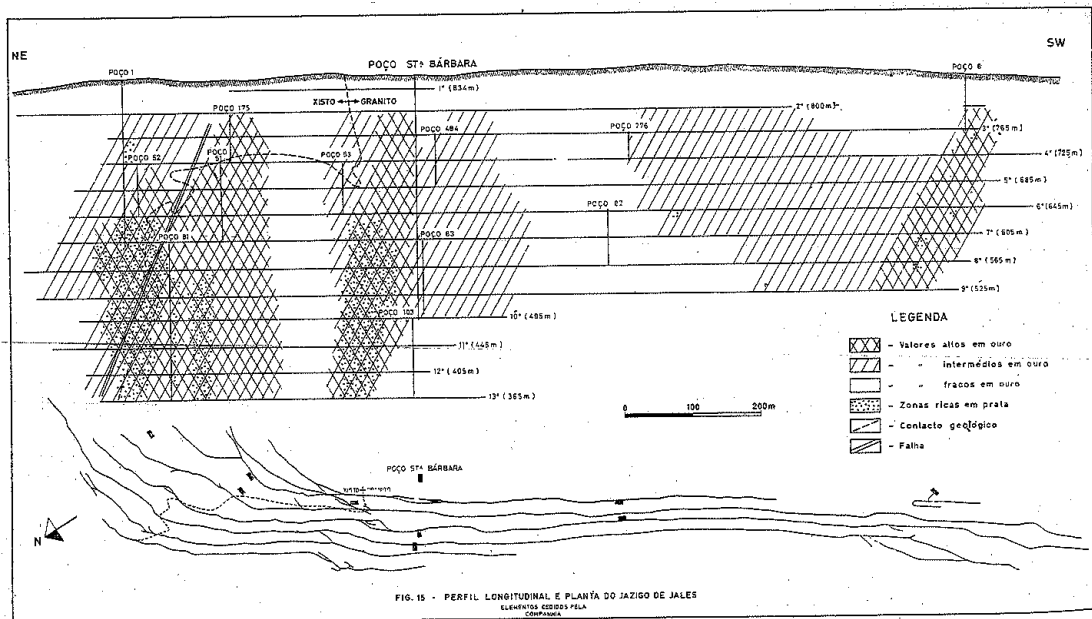


Fig. 12 – Exploração contemporânea em Jales (Brink, 1960)

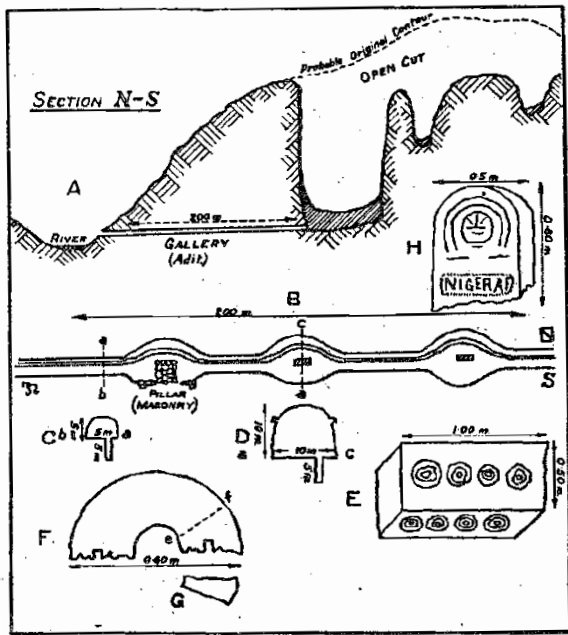


Fig. 13 – Desenhos e esquemas de Tresminas (Harrison, 1931)

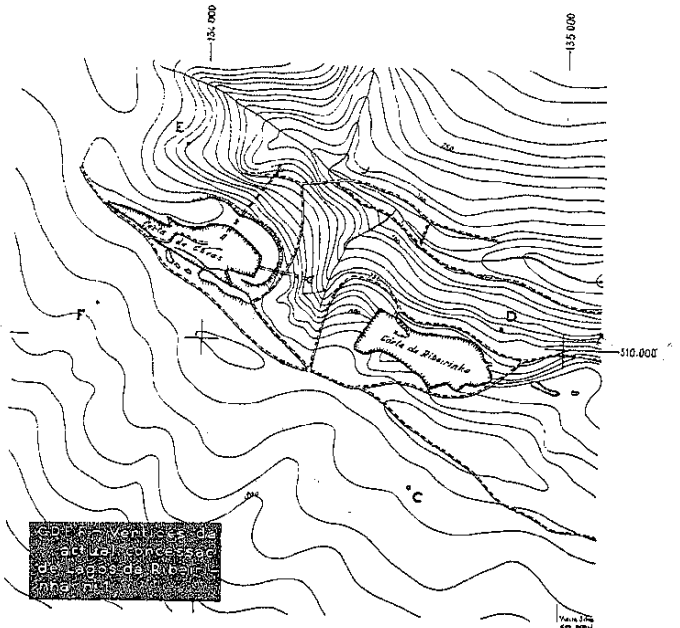


Fig. 14 – Concessão mineira de Tresminas em 1936, registrada no SFM (Carvalho 1954)

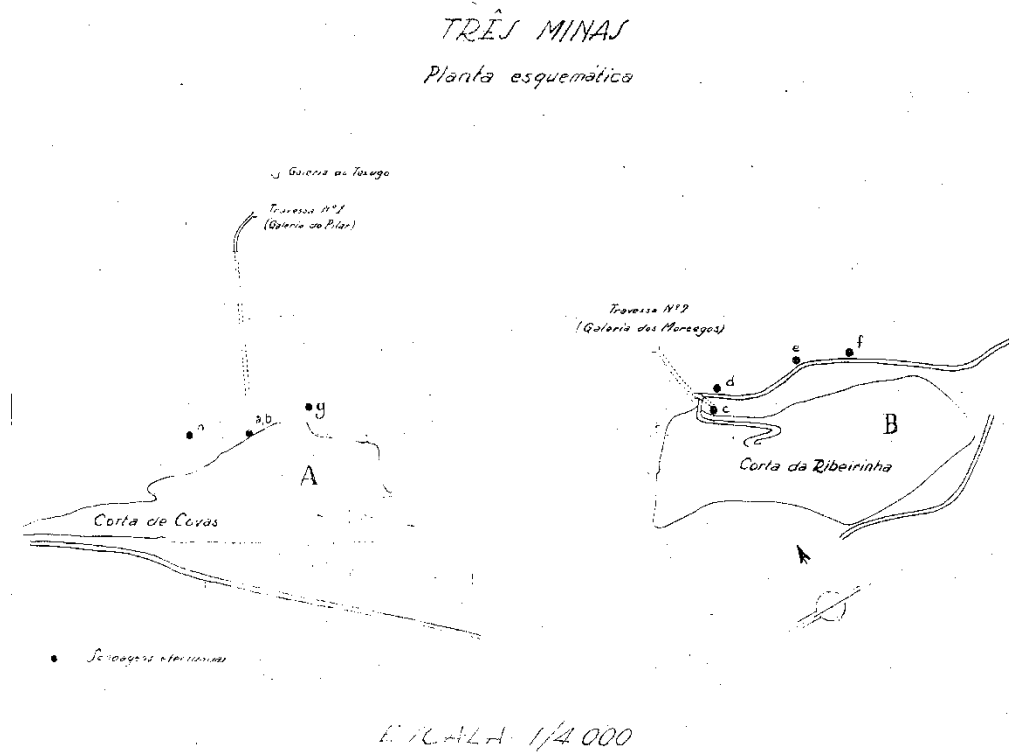


Fig. 15 – Primeiras sondagens geológicas efetuadas em Tresminas (Queiroz et al., 1960)

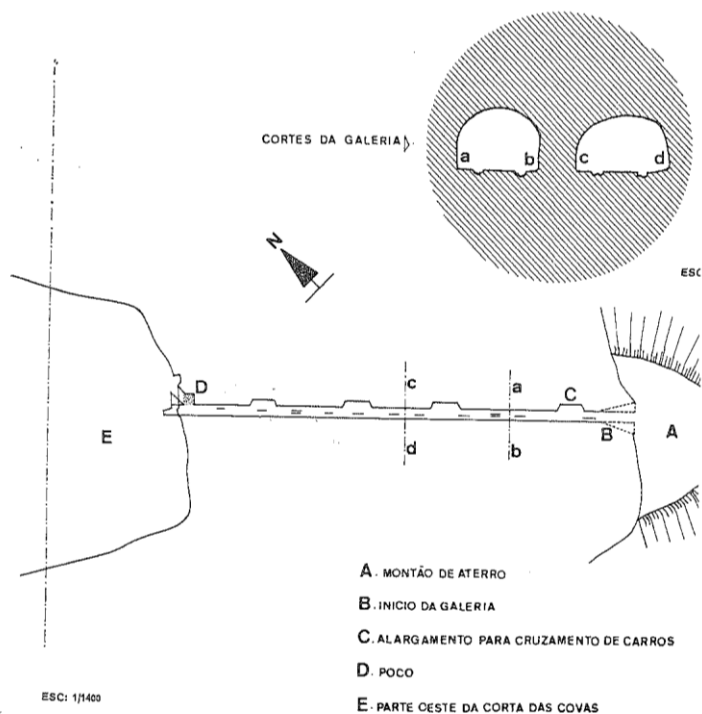


Fig. 16 – Esquema da Galeria dos Alargamentos (Almeida, 1973)

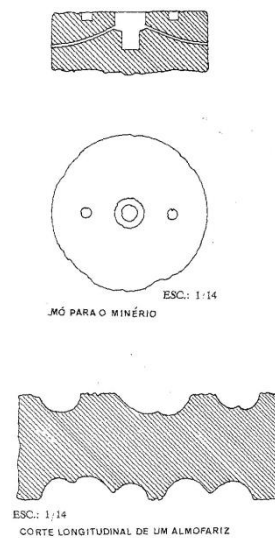


Fig. 17 – Mó rotativa e base de pilão (Almeida, 1973)

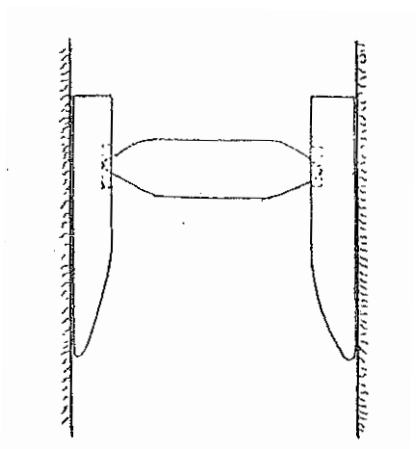


Fig. 18 – Esquema de travamento observado na mina Filão da Gralheira (Nogueira, 1938)

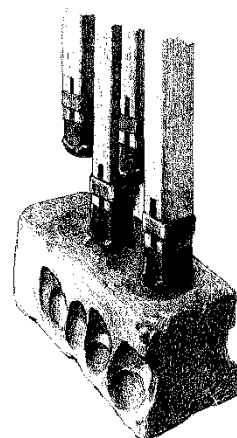


Fig. 19 – Esquema de apiloador elaborado por Jürgen Wahl (Wahl, 1988)

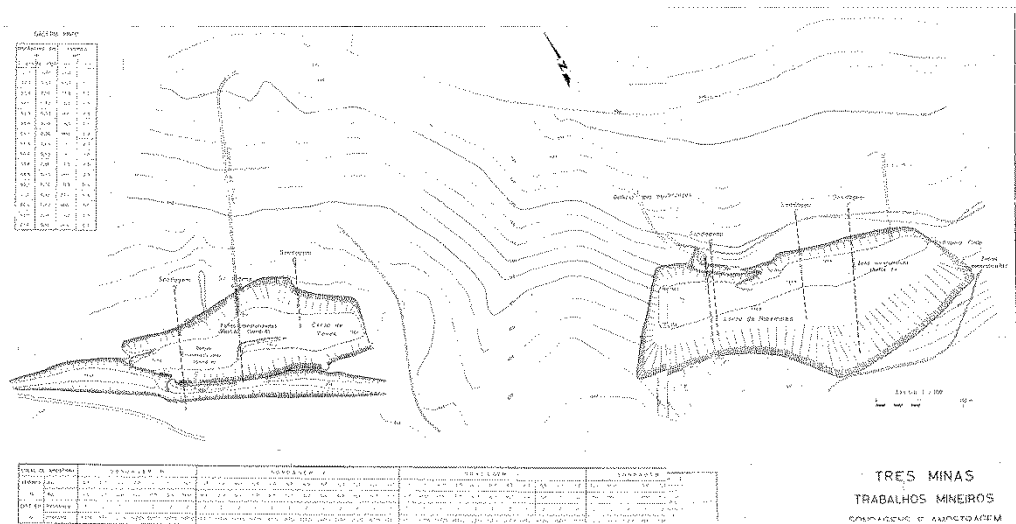


Fig. 20 – Sondagens geológicas realizadas em 1978 (Viegas et al., 1990)

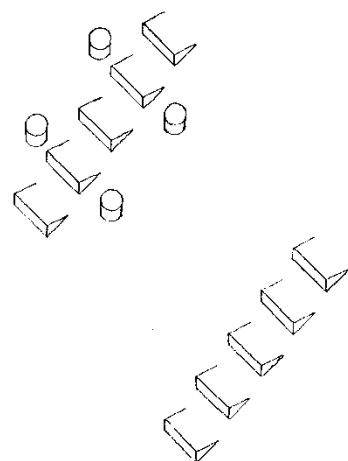


Fig. 21 – Esquema de suposta lavaría das Fragas Negras (Alarcão, 1997)

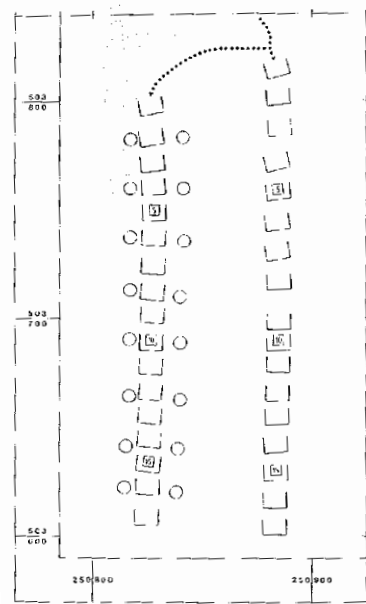


Fig. 22 – Esquema de suposta lavaría no mesmo local (Wahl, 1988)

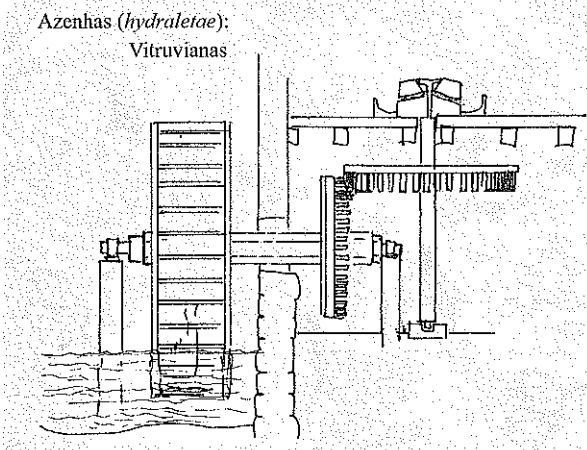


Fig. 23 – Azenha hidráulica de Vitruvius (Maciel, 2006)

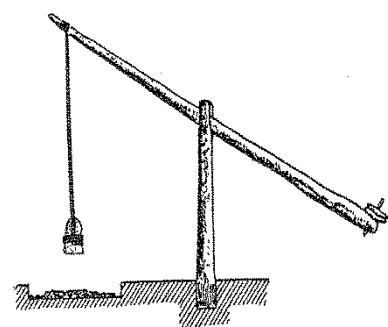


Fig. 23a – Engenho de moer pedra, provável antecessor do moinho de pilões (Domergue, 1990)



Carta de Portugal, folhas 6 e 10, (IGCP), esc: 1:100 000

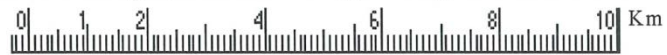


Fig. 24 – Sistema de abastecimento de água do Complexo Mineiro de Tresminas e Jales

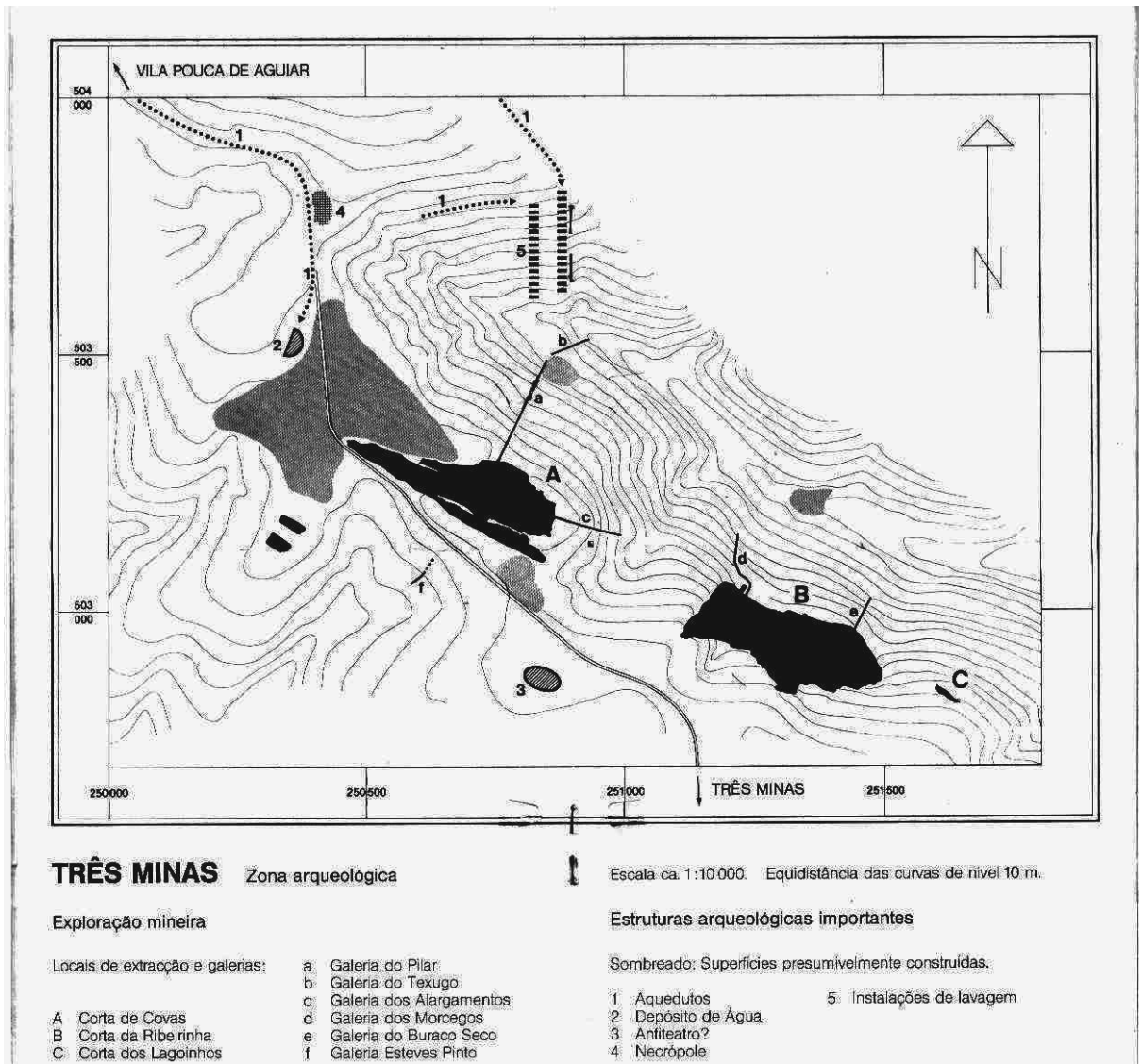


Fig. 25 – Planta de Jürgen Wahl com os vestígios conhecidos em 1997

CISTERNA

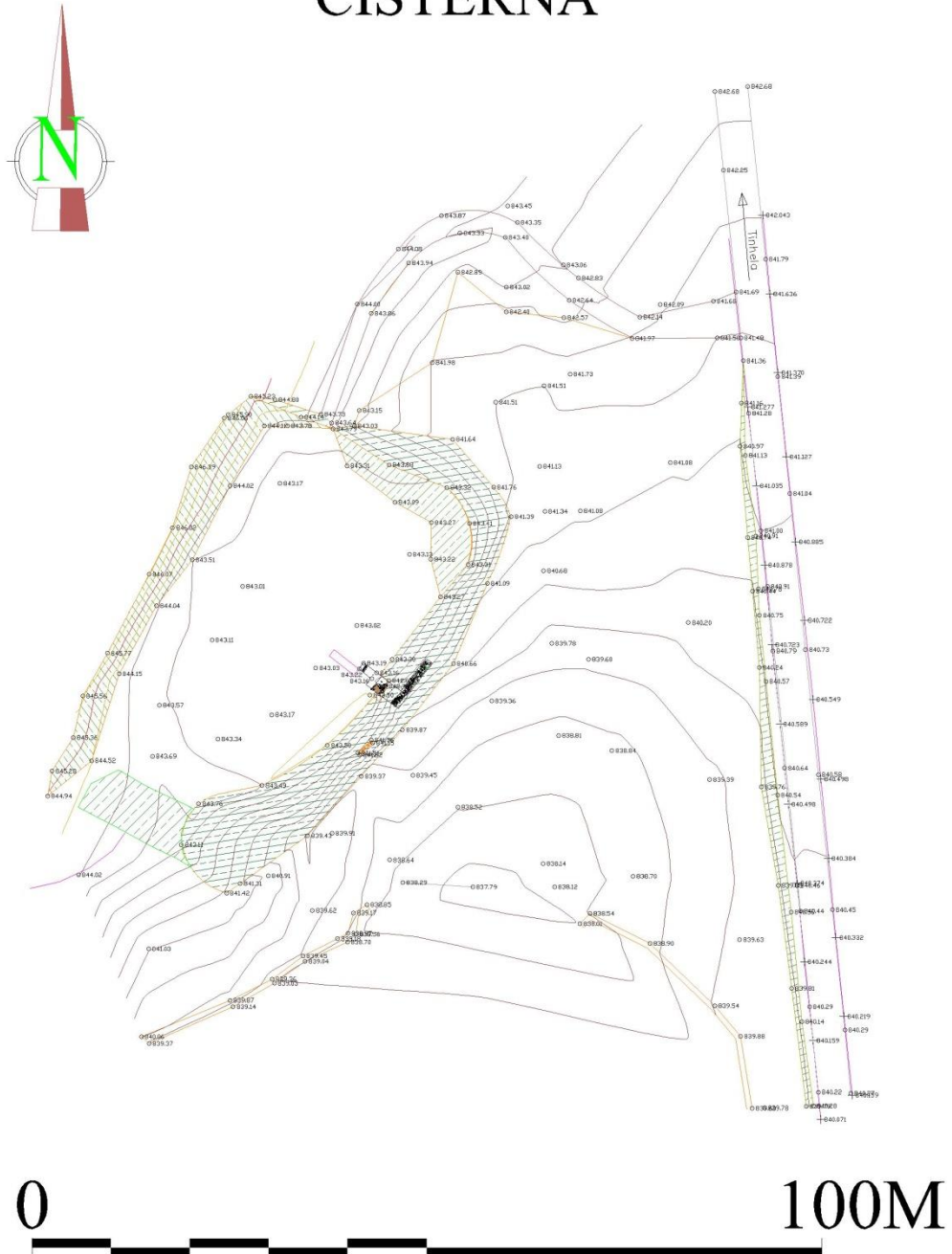


Fig. 26 – Cisterna de Tresminas, alimentada pelos canais C1 e C2

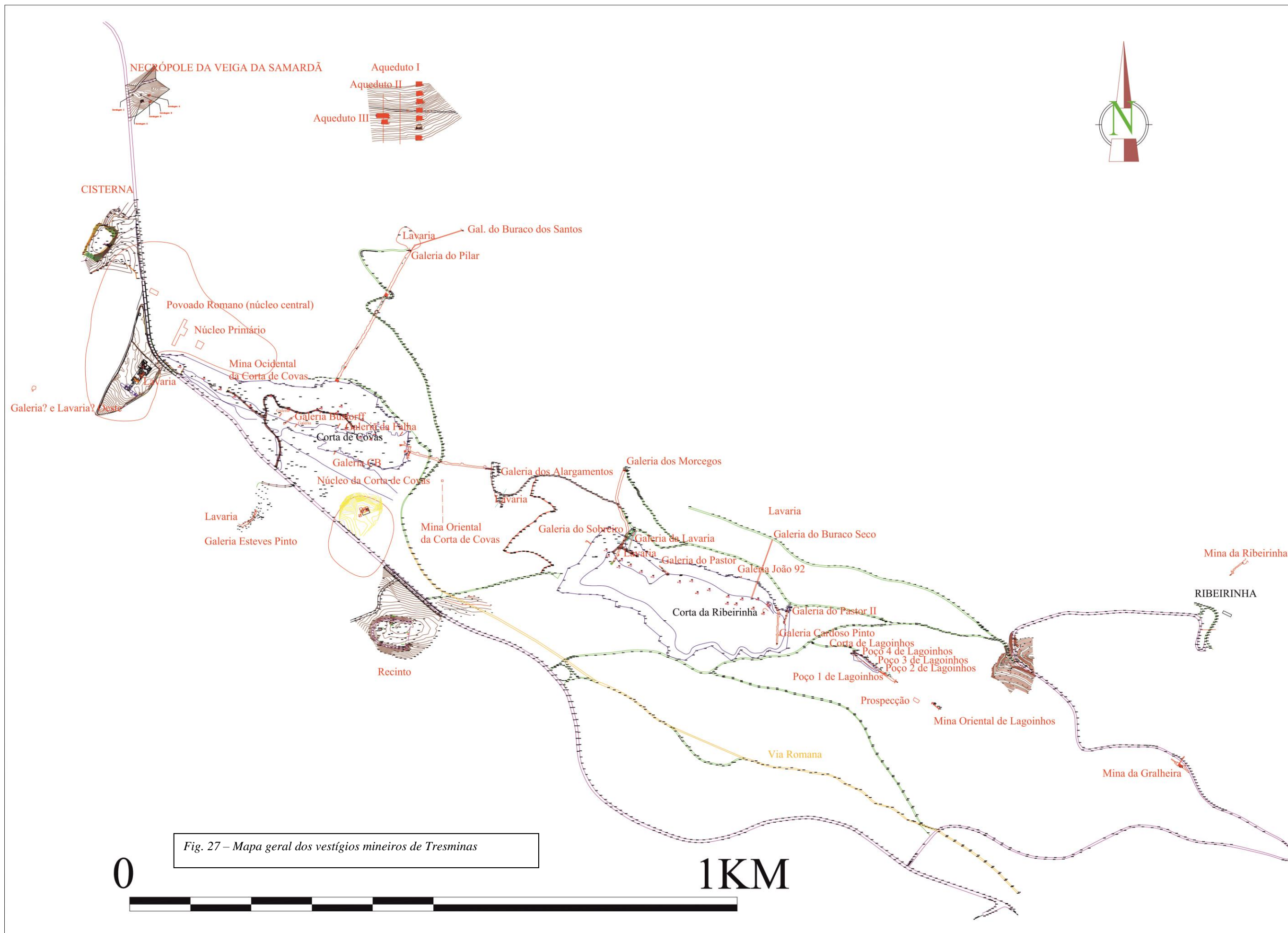


Fig. 27 – Mapa geral dos vestígios mineiros de Tresminas

Aqueduto I das Fragas Negras
Plano Geral

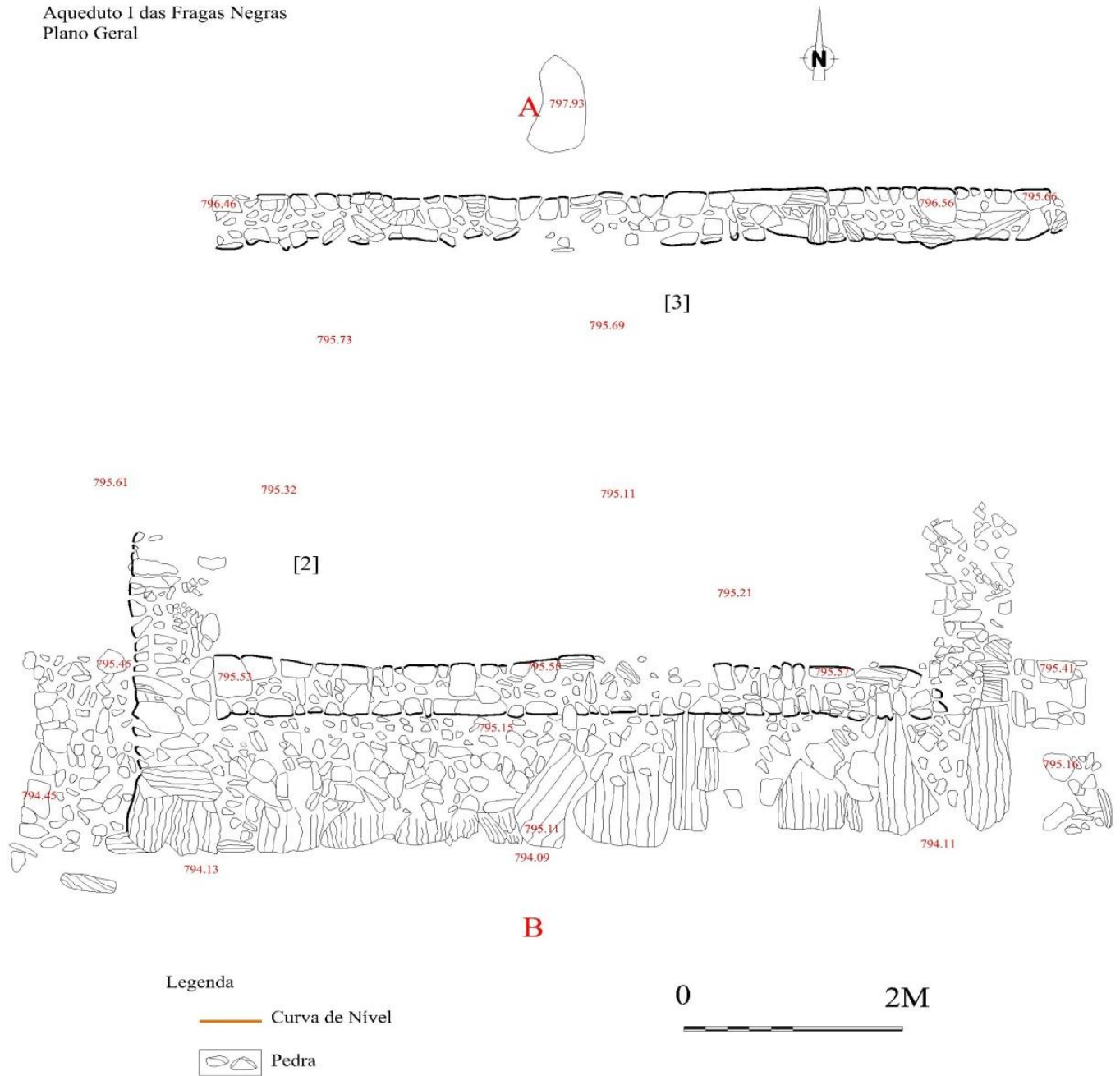


Fig. 28 – Plataforma do Aqueduto I da encosta das Fragas Negras

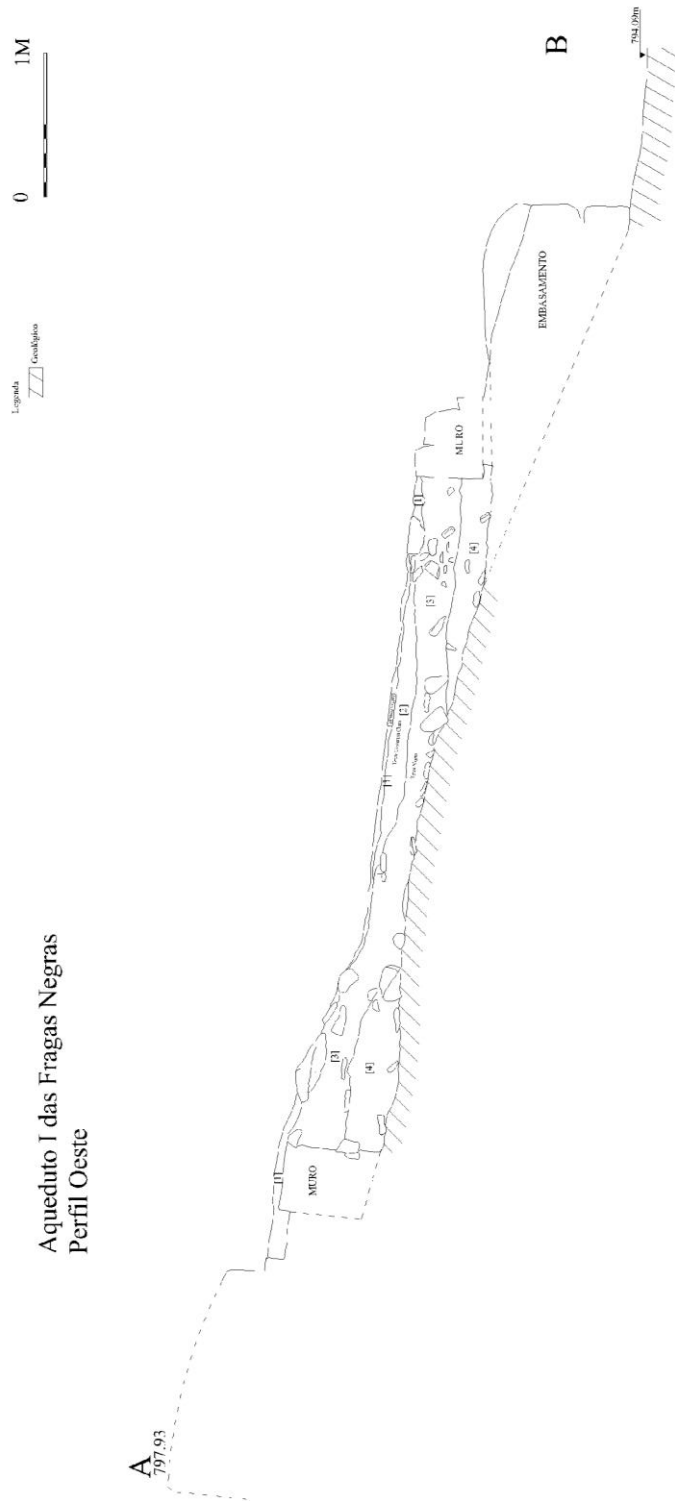


Fig. 29 – Perfil longitudinal da Plataforma do Aqueduto I

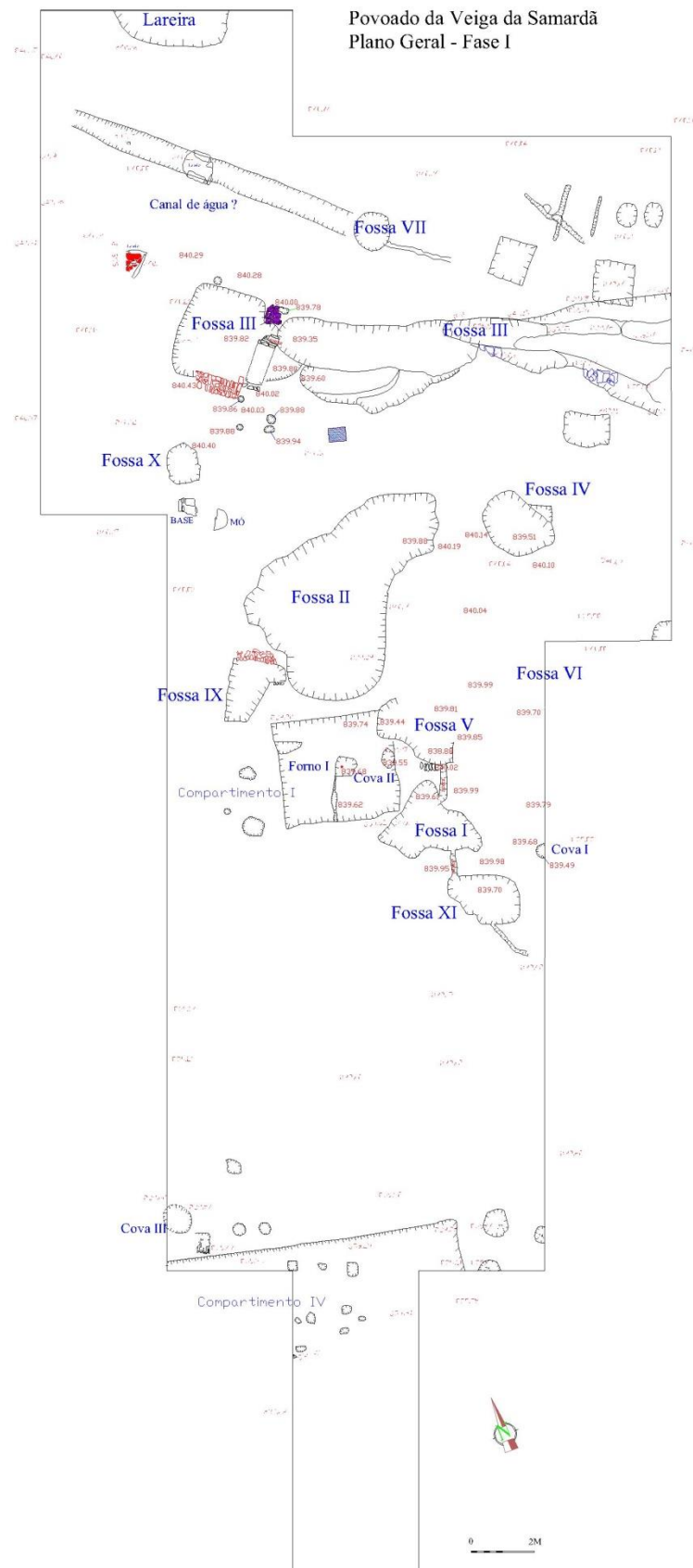


Fig. 30 – Estruturas de lavaria sob o Povoado Romano de Tresminas

GALERIA DA LAVARIA (192°S)

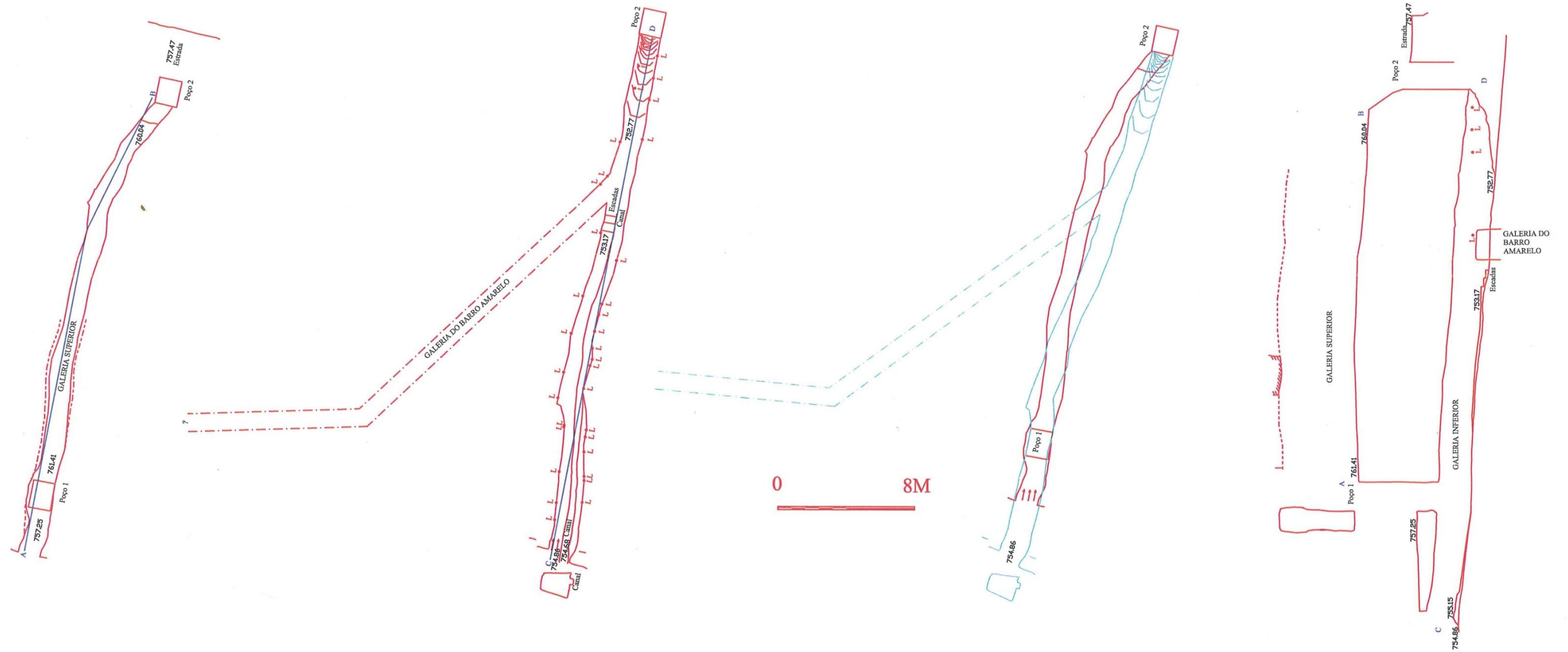


Fig. 31 – Galeria da Lavaria, Corta da Ribeirinha, Tresminas

RIBEIRA DOS MOINHOS

Planta geral

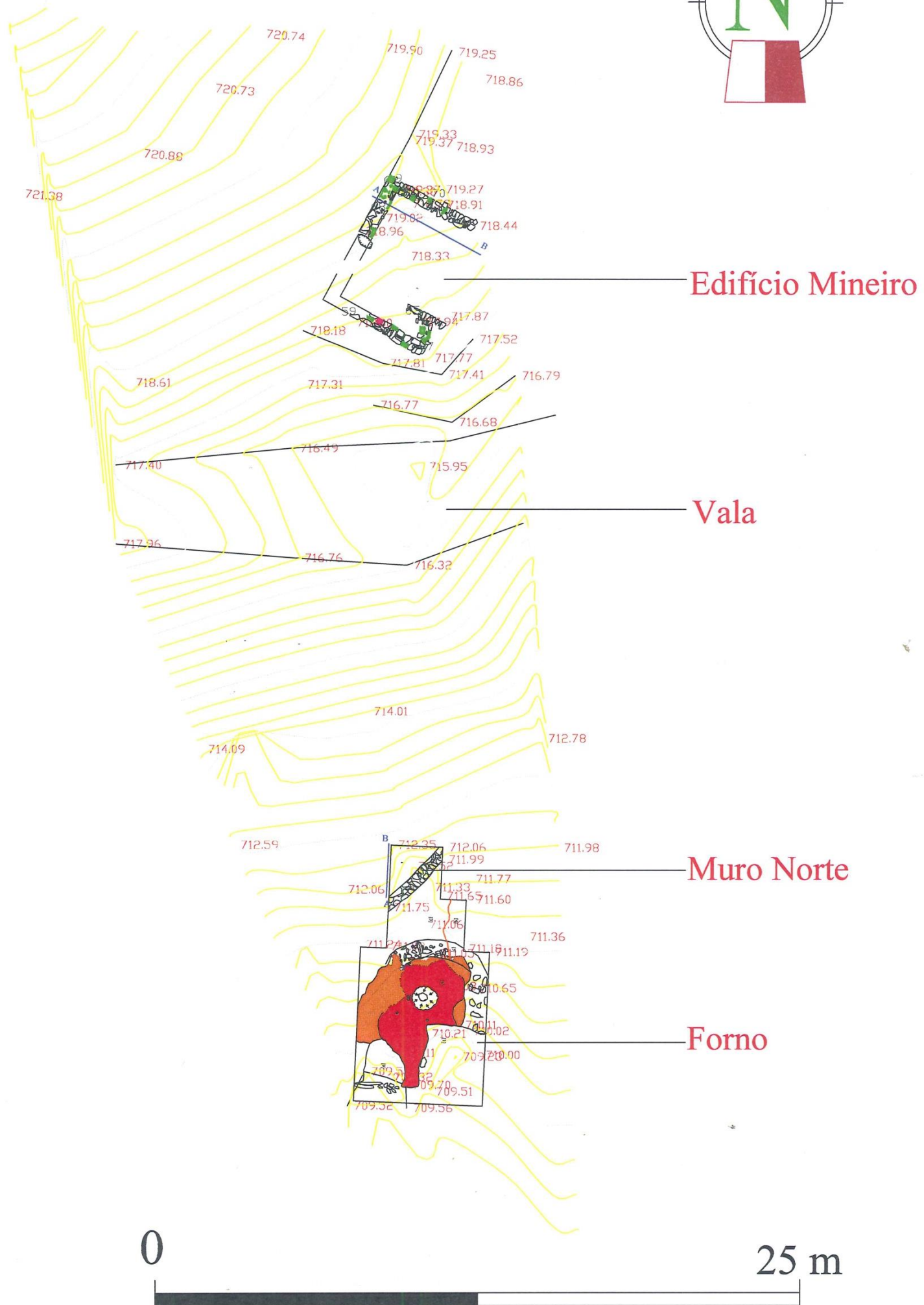
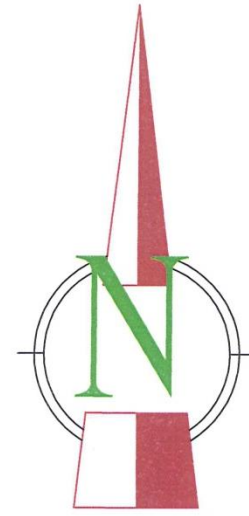


Fig. 32 – Estruturas de lavaria da Ribeira dos Moinhos (Jales)

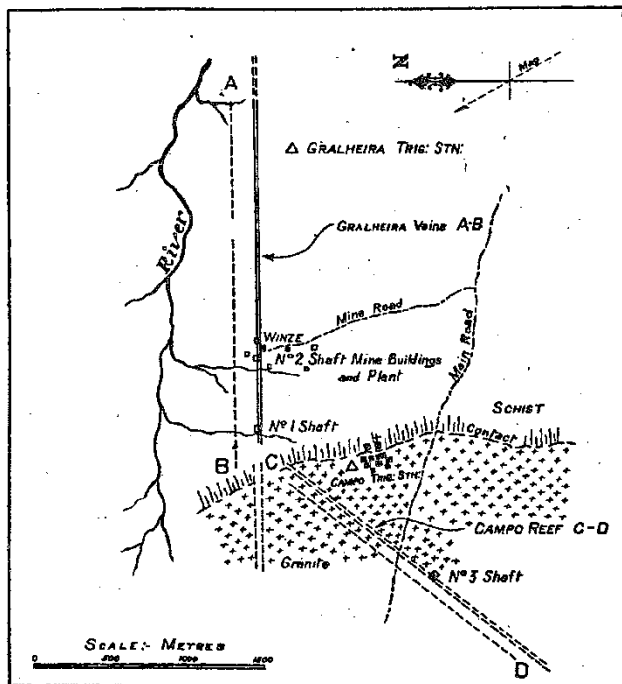


Fig. 33 – Filão da Gralheira e Campo de Jales, com os poços existentes (Harrison, 1931)

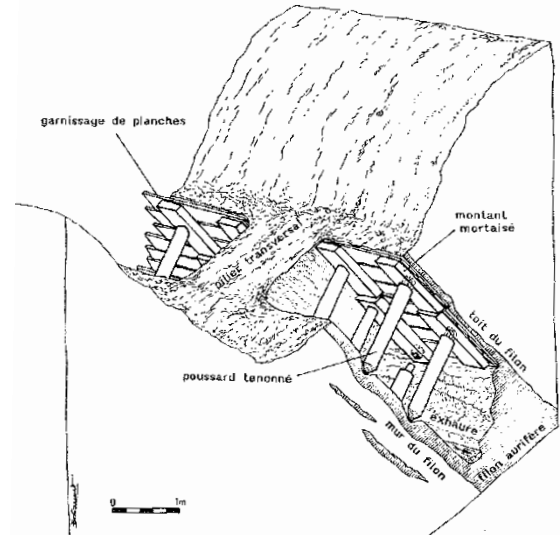


Fig. 34 – Esquema semelhante em minas da Idade do Ferro francesas (Domergue, 2008)

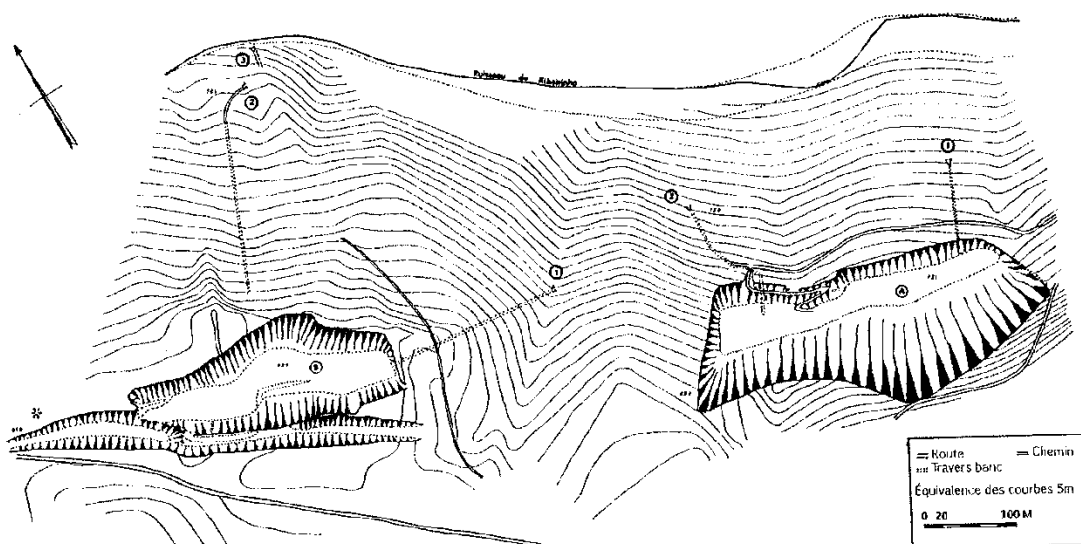


Fig. 35 – Três Minas (Das-os-Montes, Portugal) (d'après Domergue 1990, fig. 33).

- A: Corta de Ribeirinha:
 1 Galeria dos Morcegos;
 2 Galeria do Burado Seco.
- B: Corta ce Covas.
 1 Galeria dos Alargamentos.
 2 Galeria do Pilar;
 3 Galeria do Teclugo.

Fig. 35 – Planta das cortas, realizada por Domergue em 1990



A—UPRIGHT AXLE. B—BLOCK. C—ROOF BEAM. D—WHEEL. E—TOOTHED-DRUM.
 F—HORIZONTAL AXLE. G—DRUM COMPOSED OF RUNDLES. H—DRAWING ROPE.
 I—POLE. K—UPRIGHT POSTS. L—CLEATS ON THE WHEEL.

Fig. 36 – Aparelho de elevação in *De re metallica* (George Agricola, 1556)

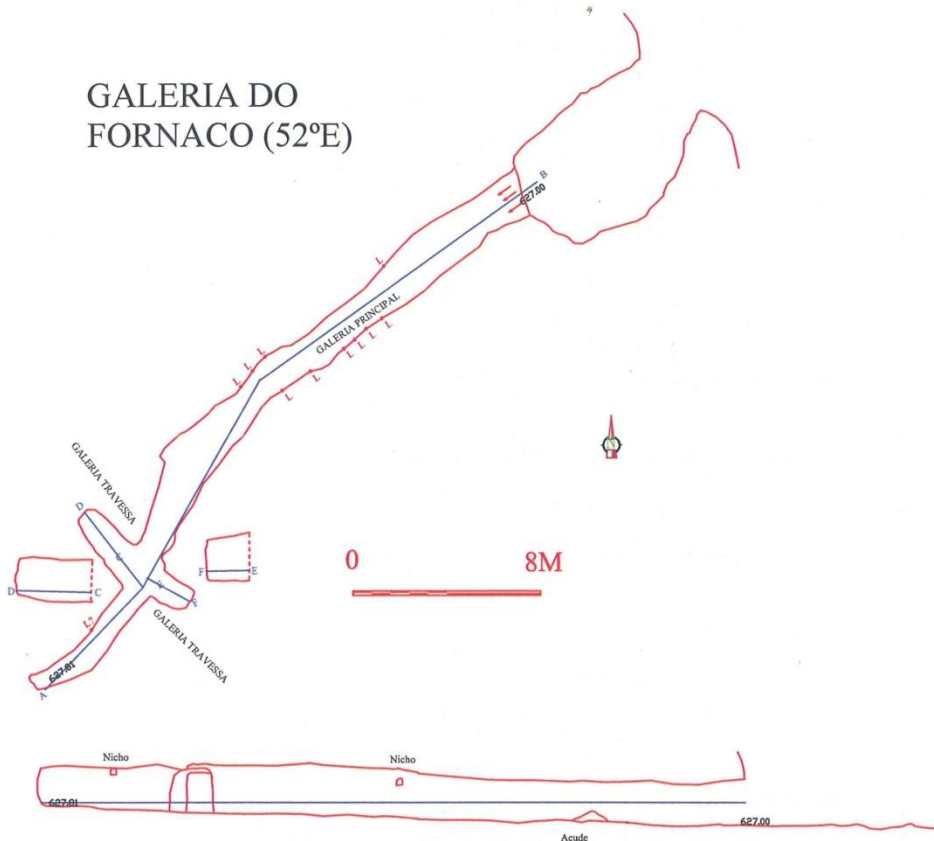


Fig. 37 – Galeria do Fornaco, ao fundo da povoação de Ribeirinha, Tresminas

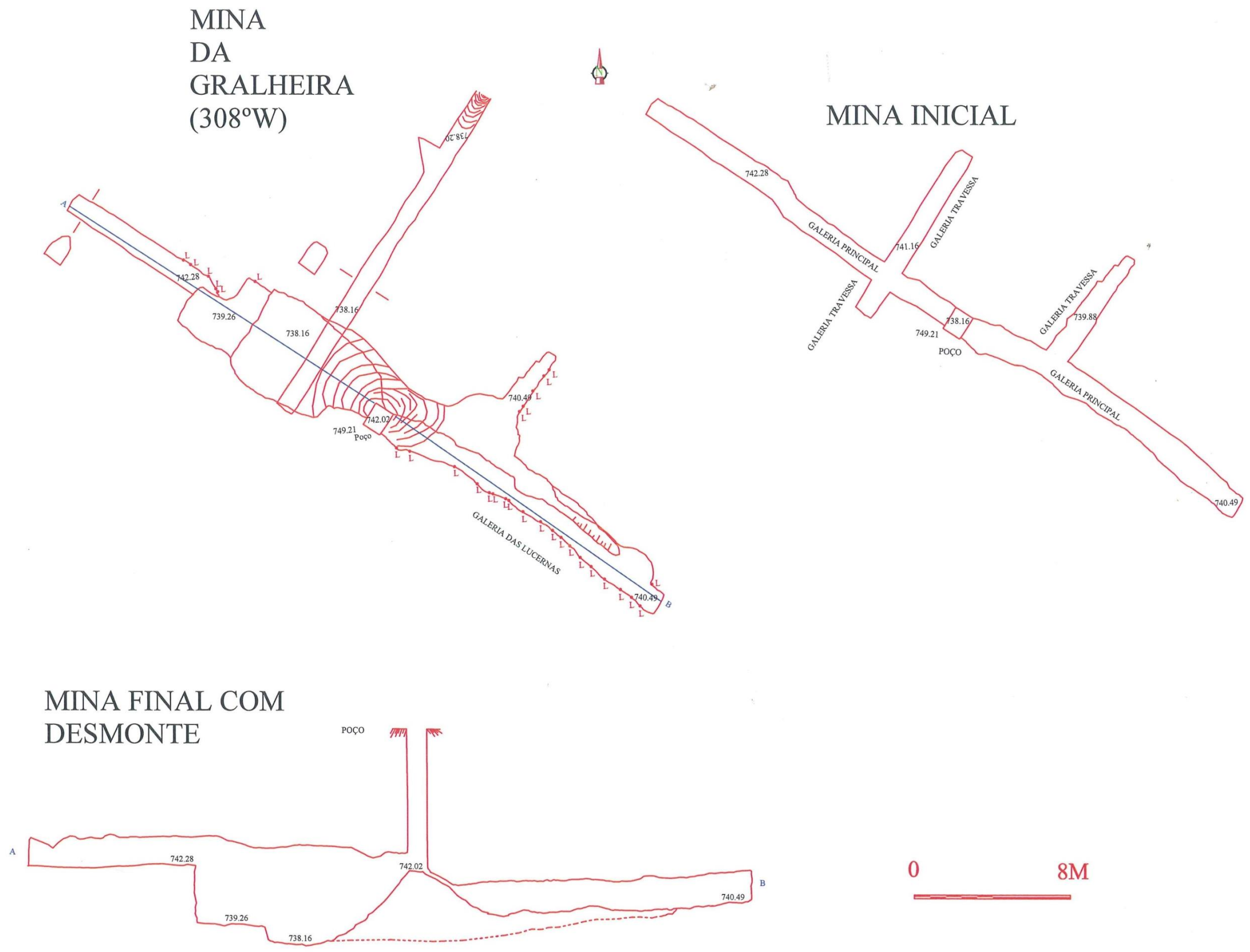


Fig. 38 – Mina da Gralheira em Tresminas

MINA ORIENTAL DE LAGOINHOS (302°W)



MINA INICIAL

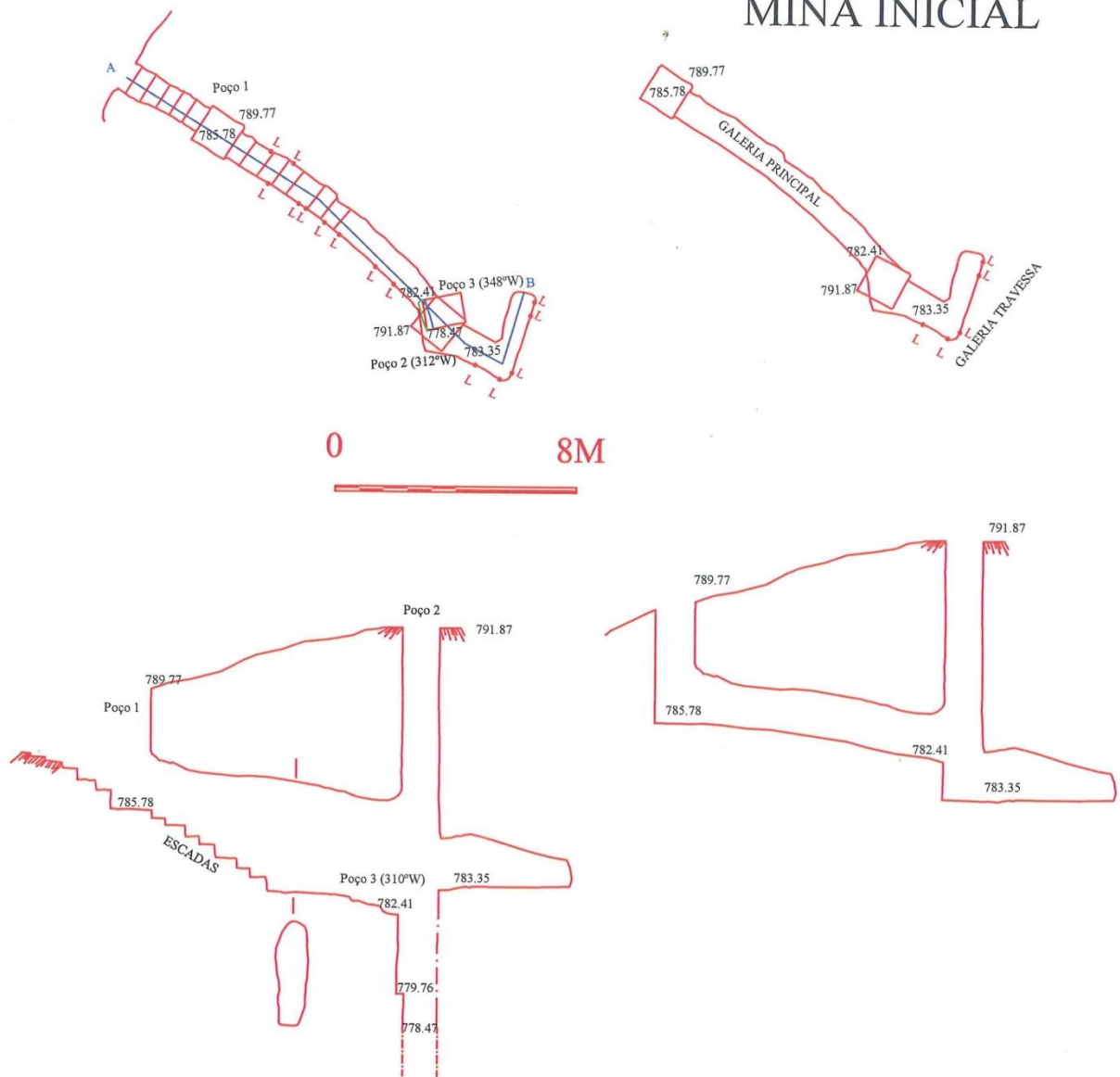


Fig. 39 – Mina Oriental de Lagoinhos em Tresminas

POÇO 1 DE LAGOINHOS (22°E)

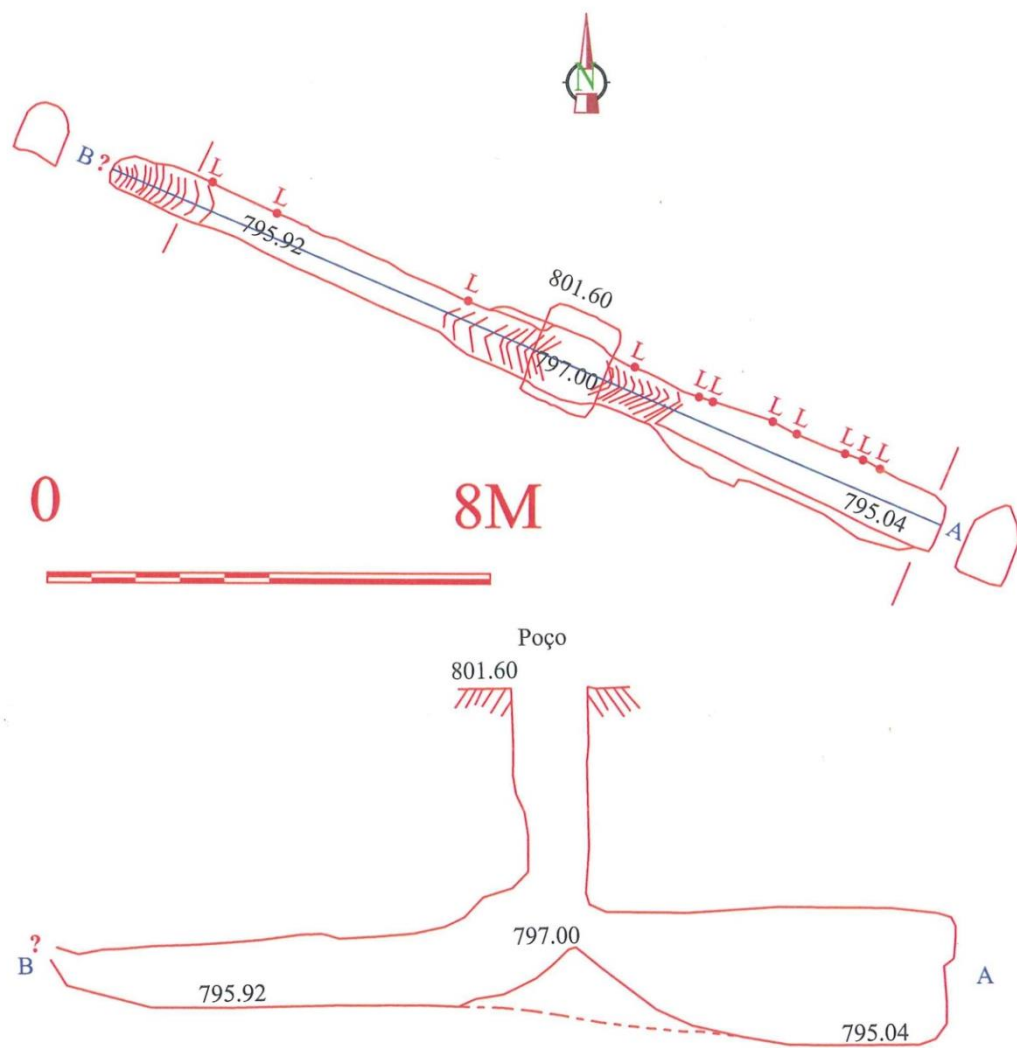


Fig. 40 – Poço 1 de Lagoinhos em Tresminas

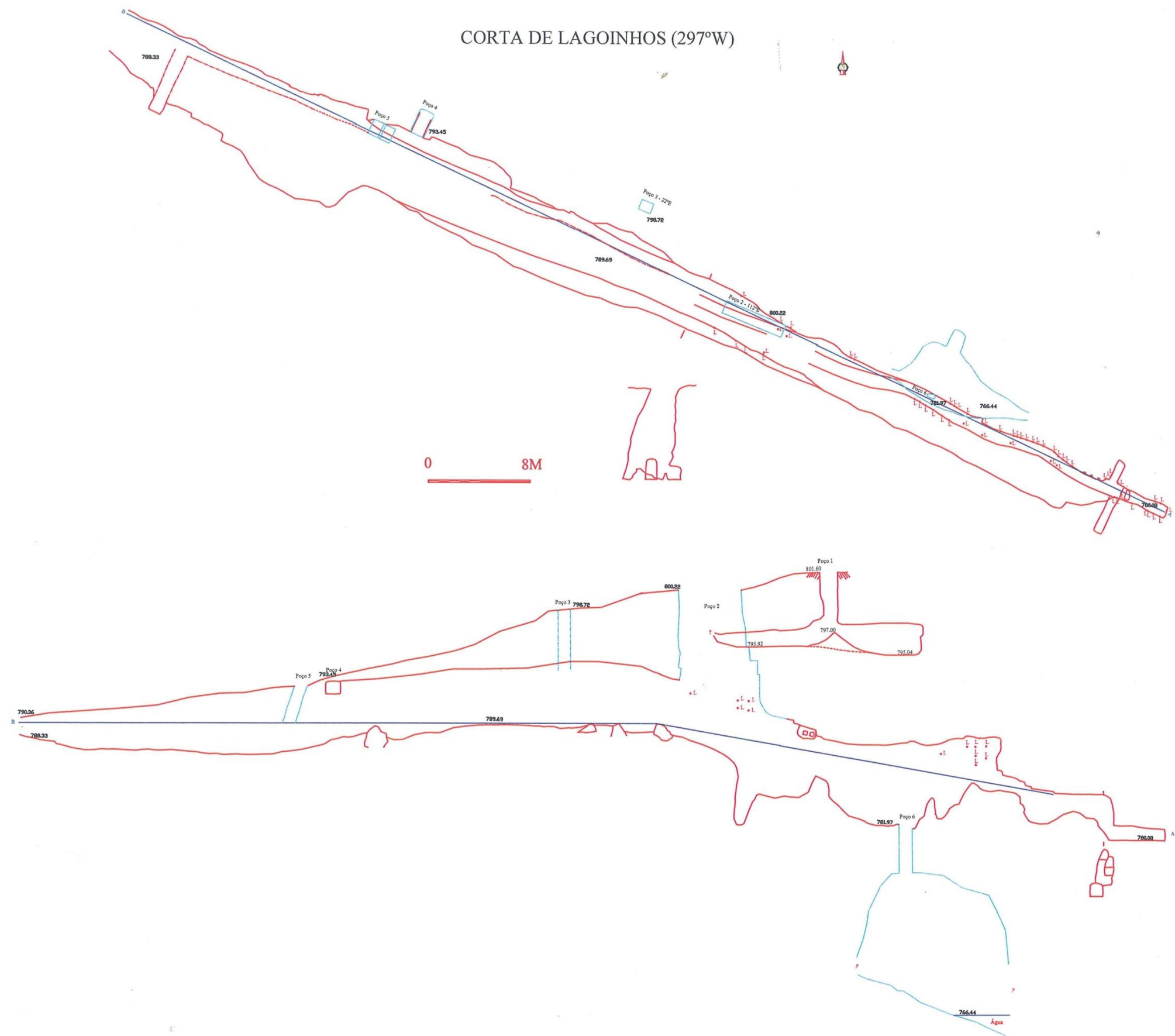


Fig. 41 – Complexo de poços e galerias da Corta de Lagoinhos, Tresminas

GALERIA DO PASTOR II (12°E)

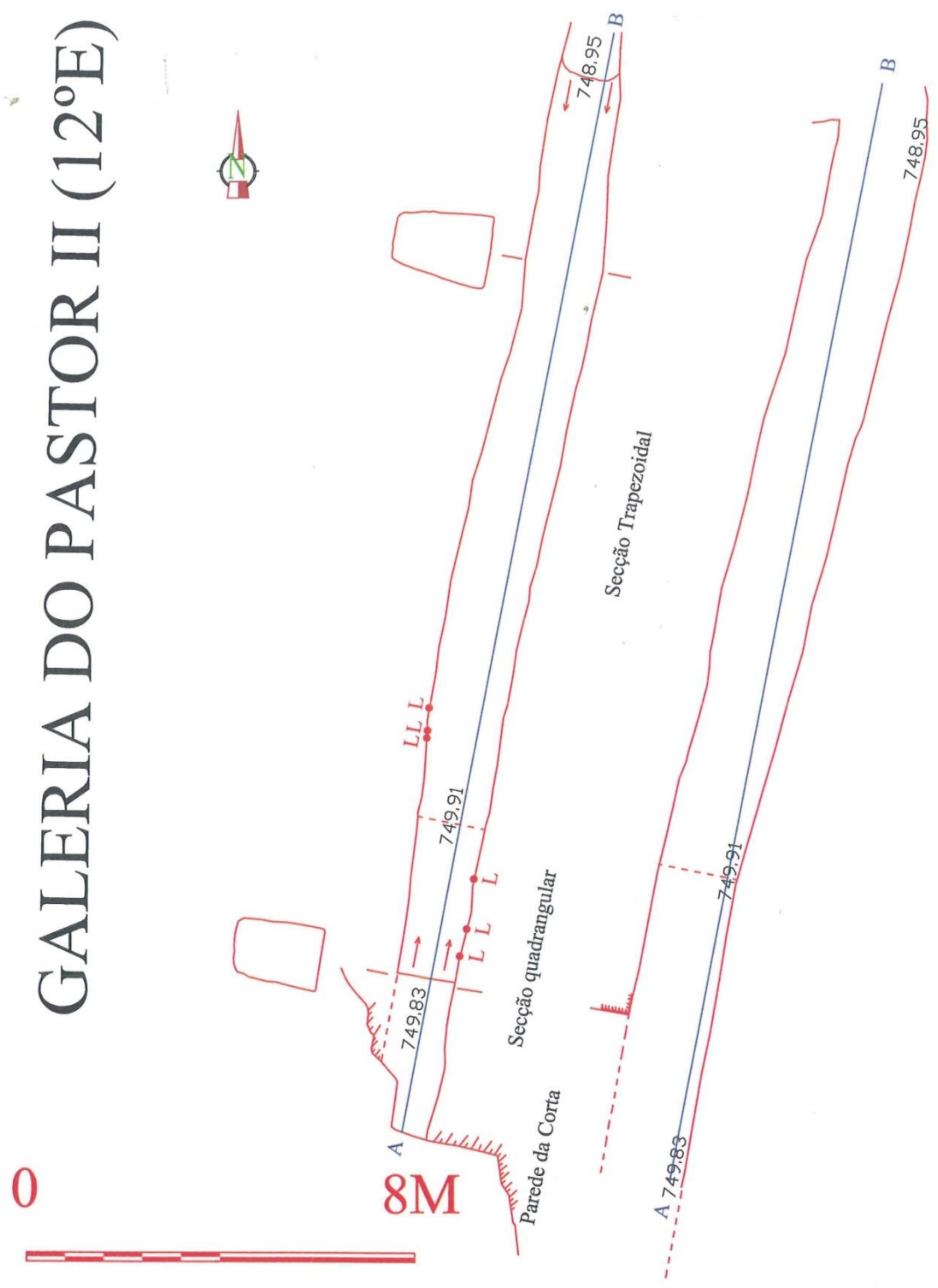


Fig. 42 – Galeria do Pastor II, Corta da Ribeirinha, Tresminas

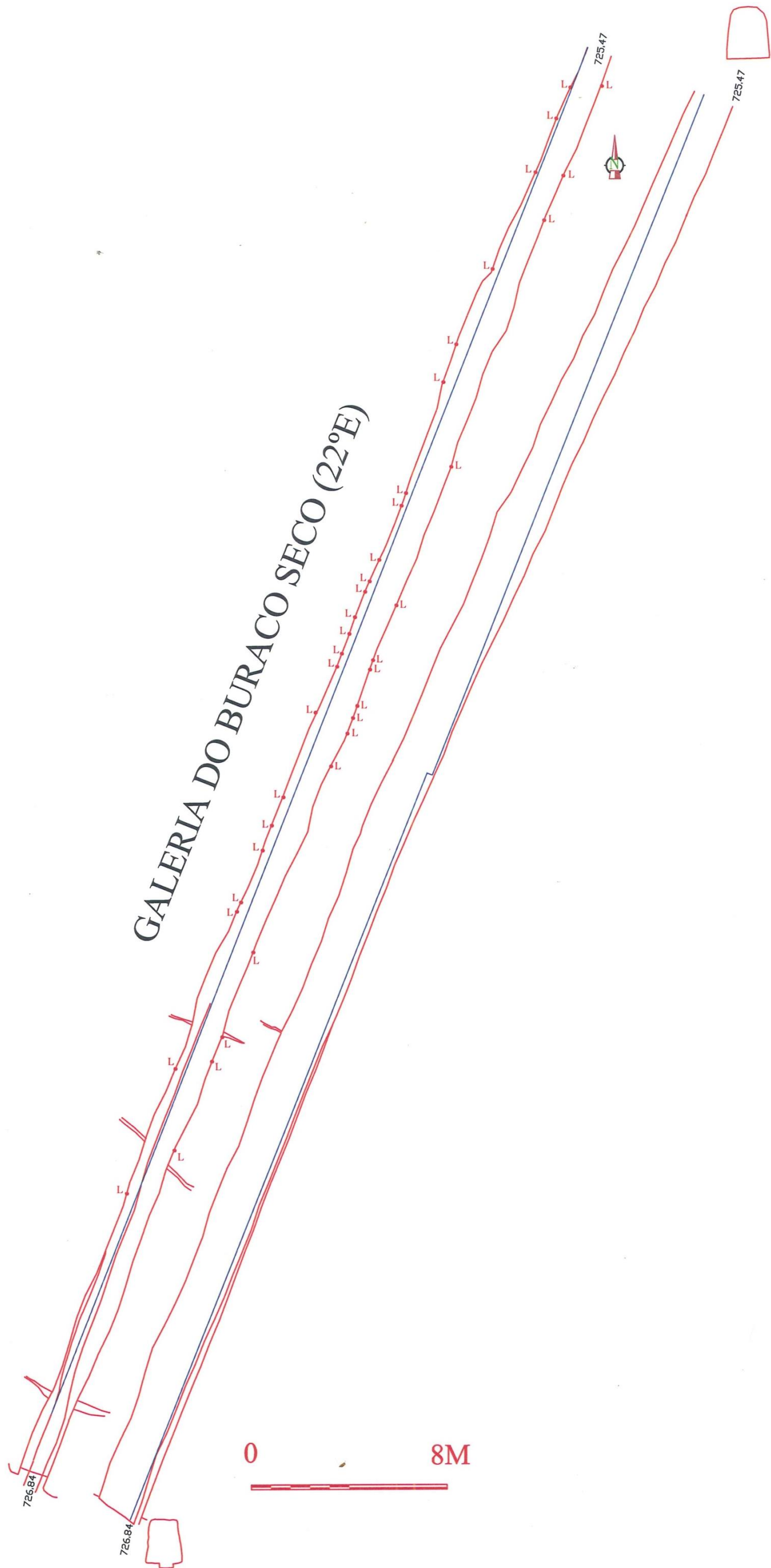


Fig. 43 – Galeria do Buraco Seco, Corta da Ribeirinha, Tresminas

GALERIA JOÃO 92 (22°E)

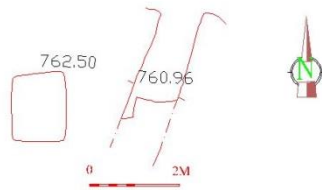


Fig. 44 – Galeria João 92, Corta da Ribeirinha, Tresminas

GALERIA DO PASTOR (132°E)

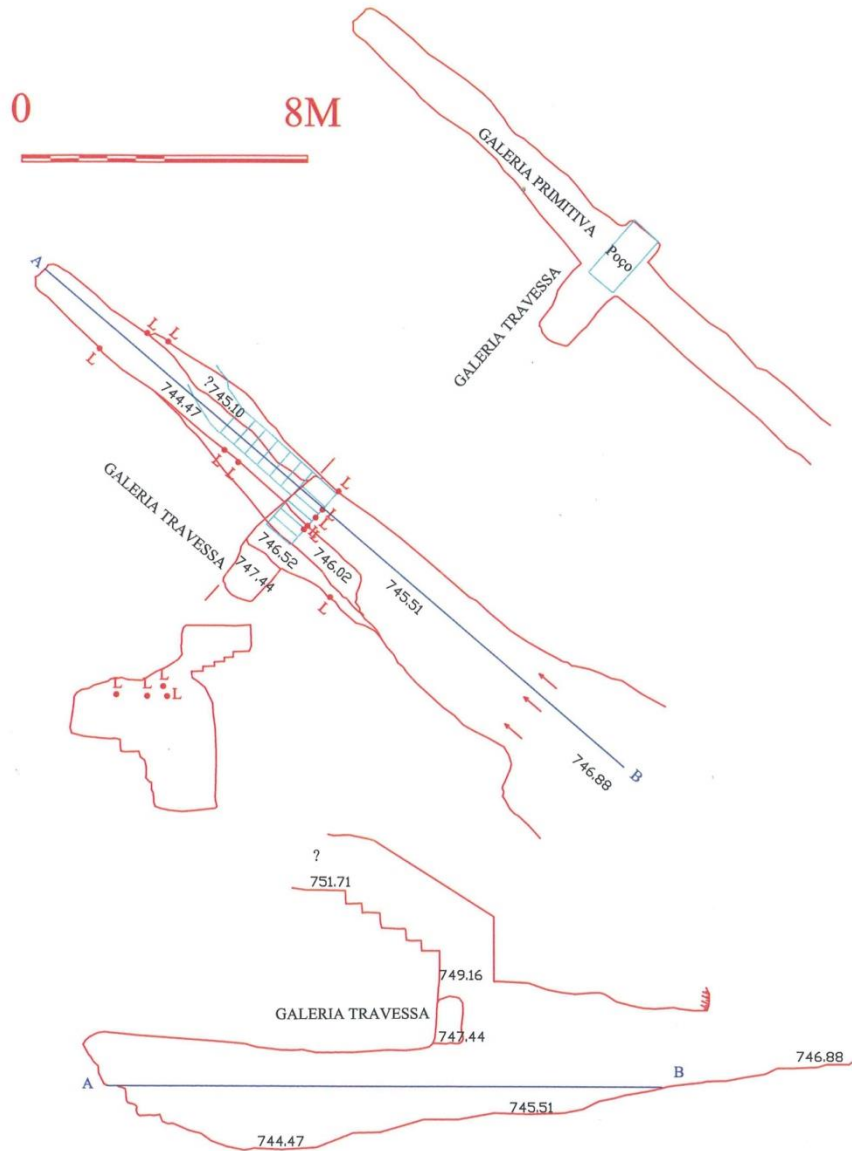


Fig. 45 – Galeria do Pastor, Corta da Ribeirinha, Tresminas

GALERIA DO
SOBREIRO (292° W)

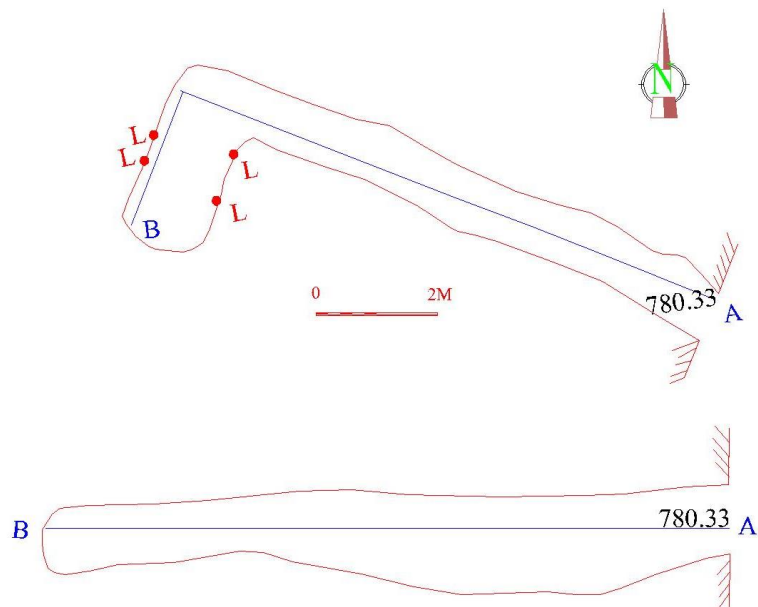


Fig. 46 – Galeria do Sobreiro, Corta da Ribeirinha, Tresminas

GALERIA CARDOSO PINTO (332°W)

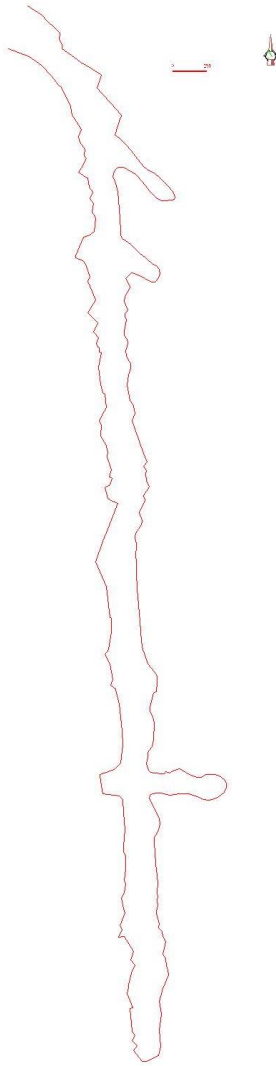


Fig. 47 – Galeria Cardoso Pinto, Corta da Ribeirinha, Tresminas

GALERIA CB (22°E)

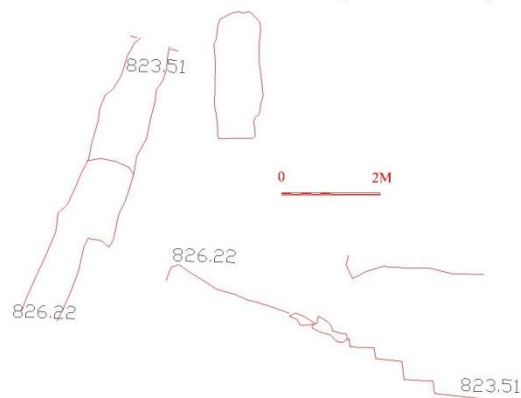


Fig. 48 – Galeria CB, Corta de Covas, Tresminas

GALERIA BUSTORFF (52°E)

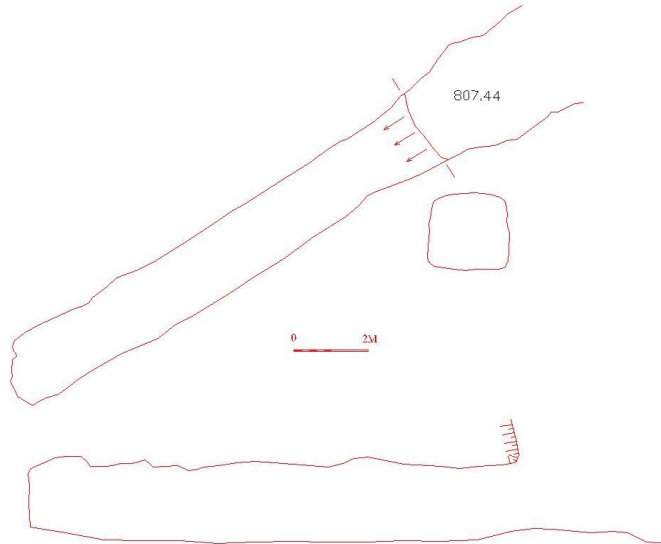


Fig. 49 – Galeria Bustorff, interior da Corta de Covas, Tresminas

GALERIA DA FALHA (32°W)

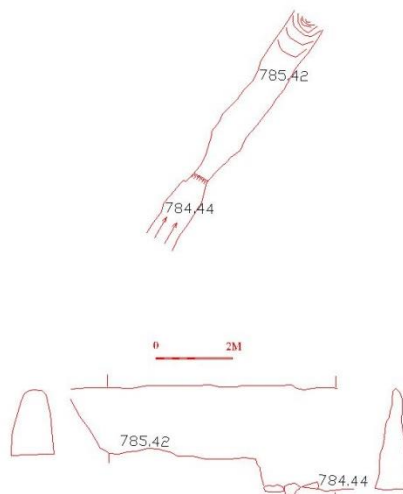


Fig. 50 – Galeria da Falha, interior da Corta de Covas, Tresminas



Fig. 51 – Galeria dos Morcegos, Corta da Ribeirinha, Tresminas

GALERIA ESTEVES PINTO (222°S)

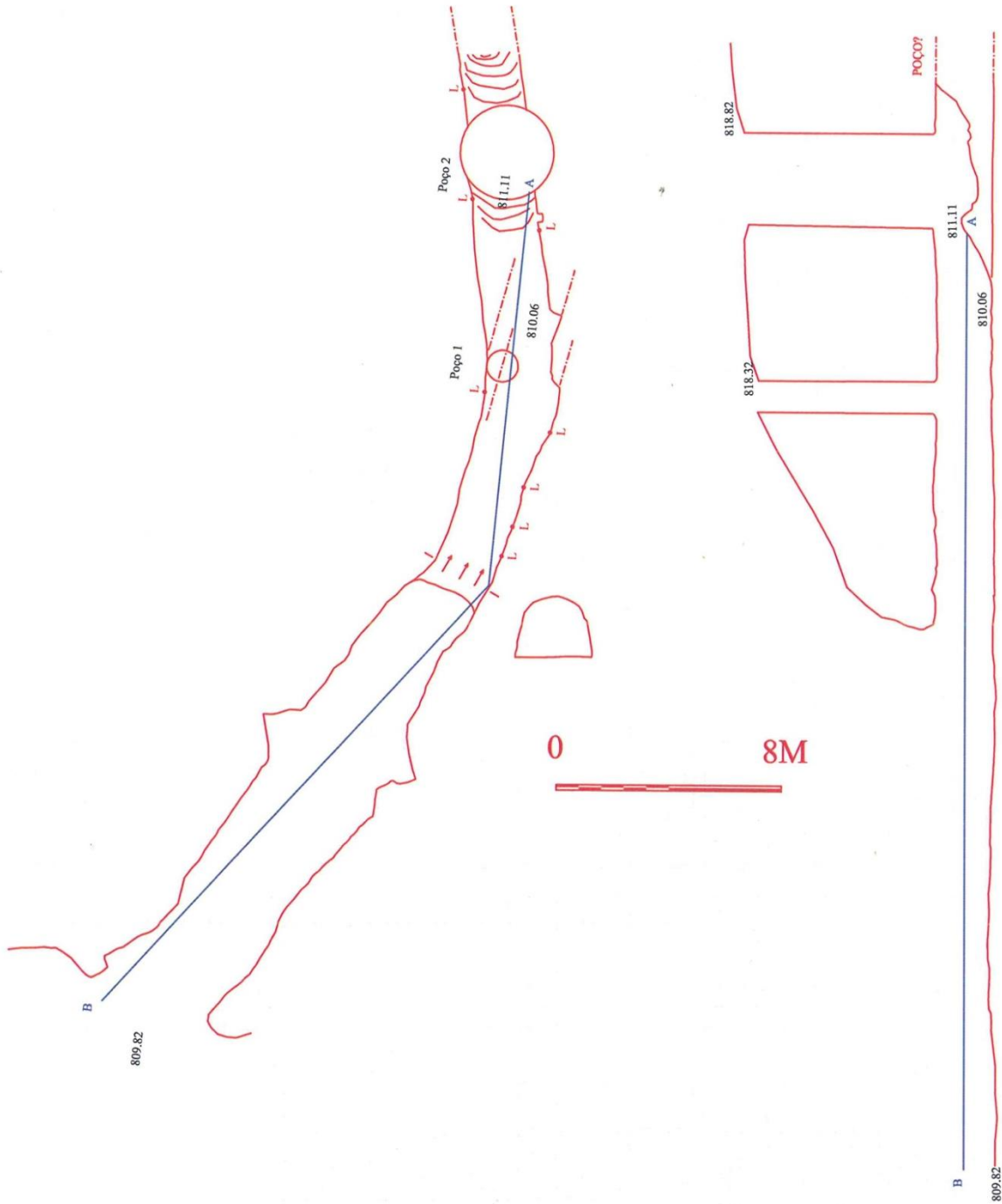


Fig. 52 – Galeria Esteves Pinto, Corta de Covas, Tresminas

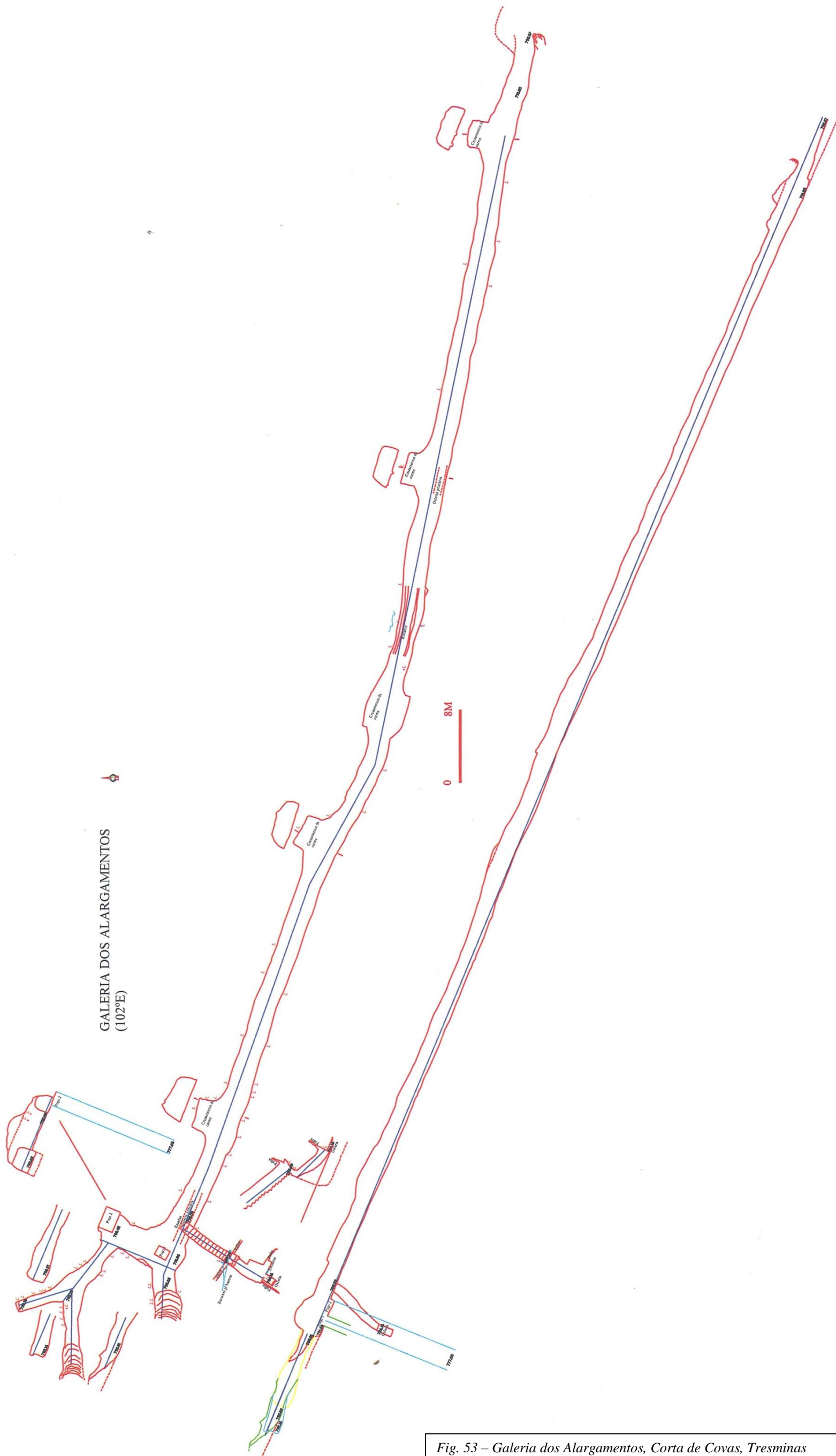


Fig. 53 – Galeria dos Alargamentos, Corta de Covas, Tresminas

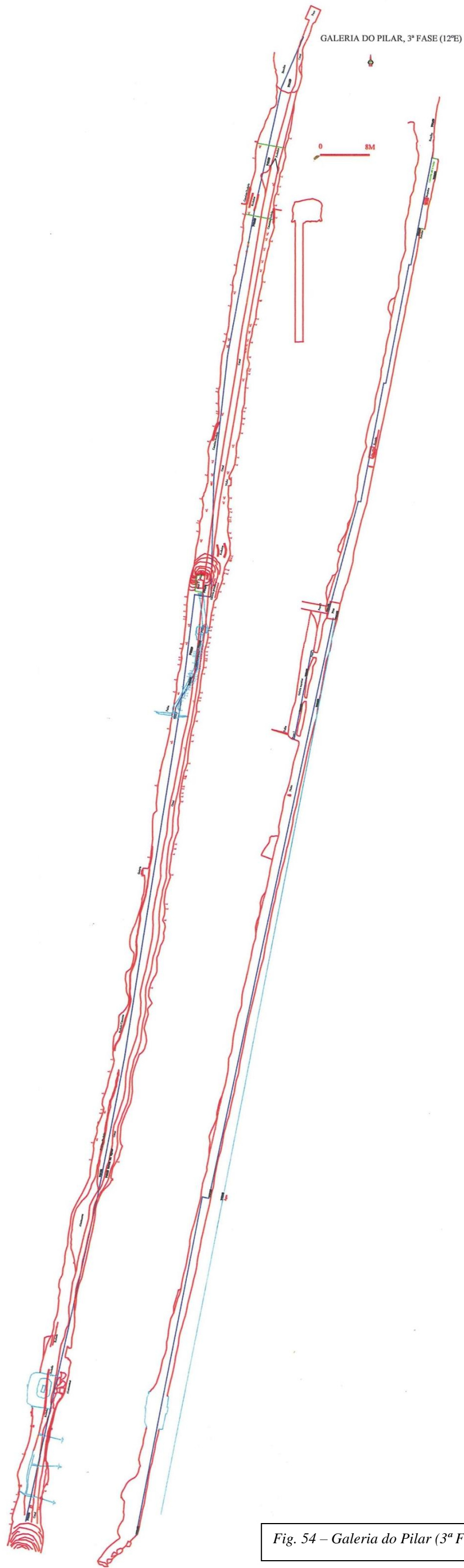


Fig. 54 – Galeria do Pilar (3ª Fase), Corta de Covas, Tresminas

GALERIA DO PILAR, 2ª FASE (20°E)

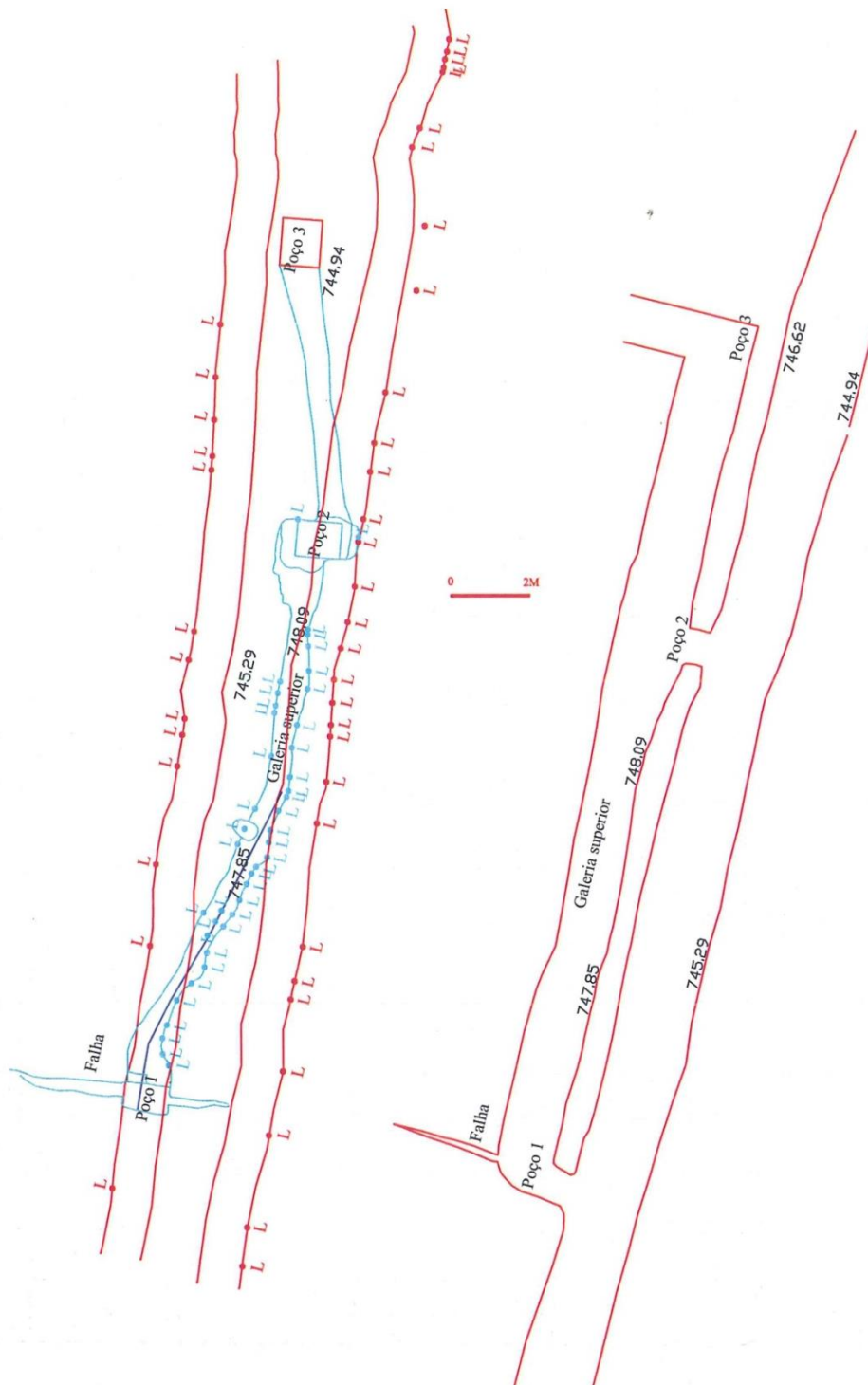


Fig. 55 – Galeria do Pilar (2ª Fase), Corta de Covas, Tresminas

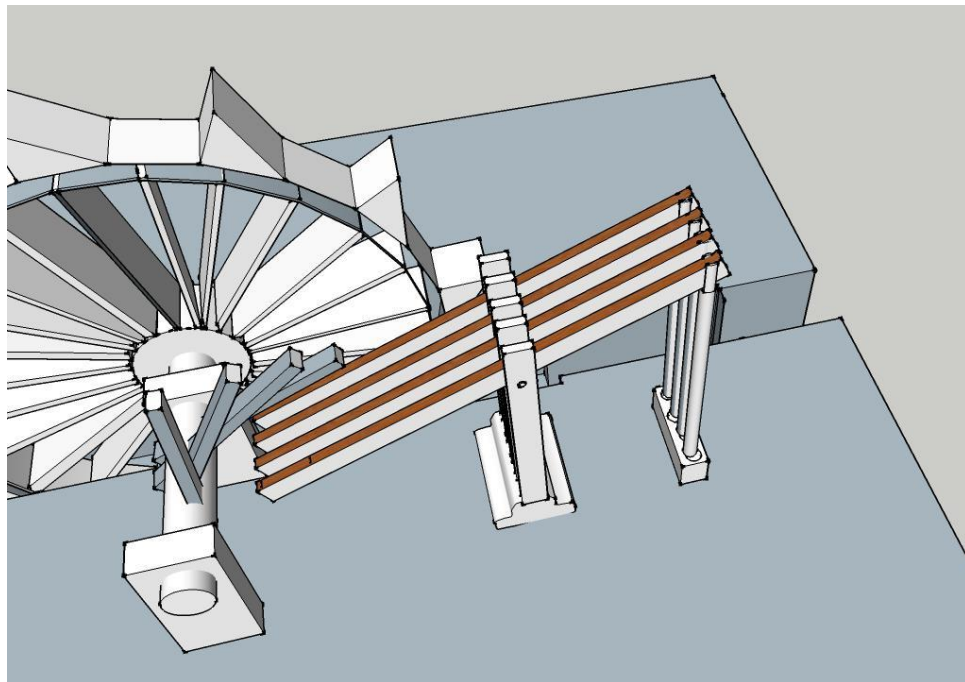
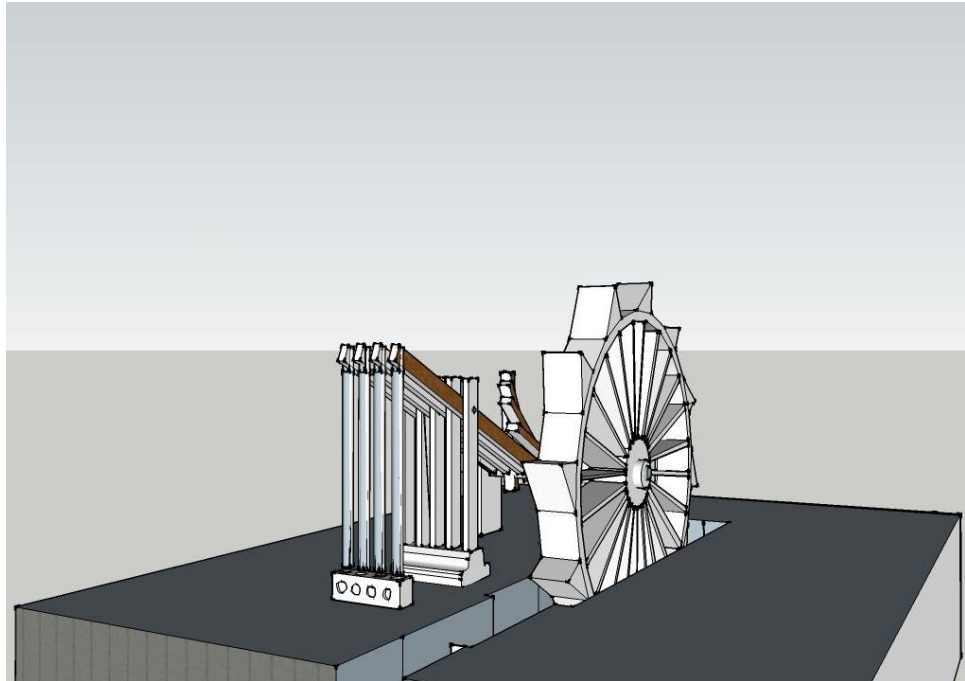
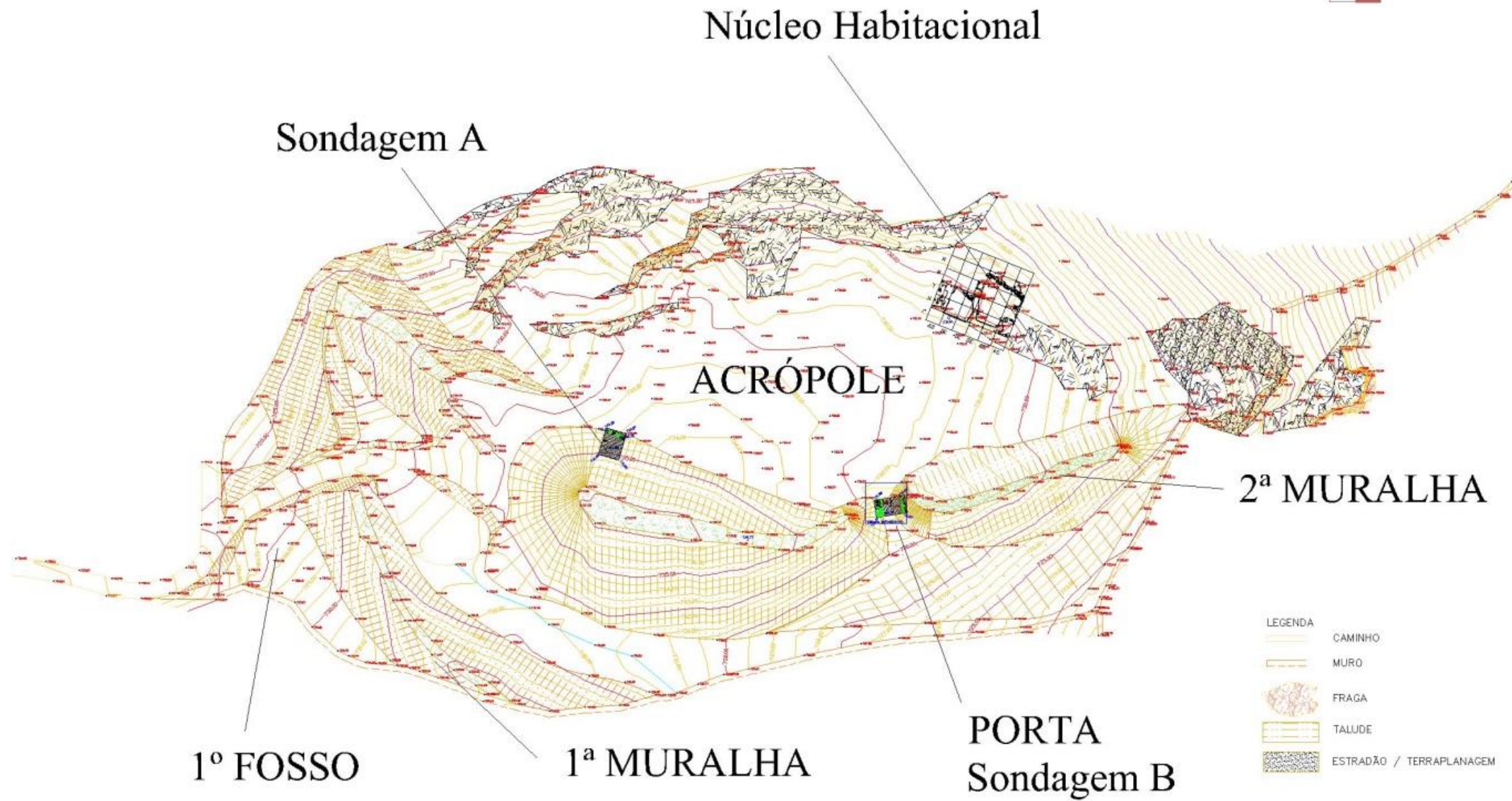
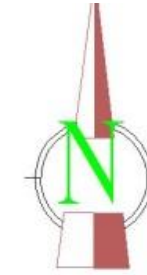


Fig. 56 – Reconstituição hipotética do moinho de pilões hidráulico

CASTELO DOS MOUROS - CIDADELHA DE JALES



	Assento: CASTELO	Out. nº: 01
	Divisão: DIVISÃO DE URBANISMO - D.U.	Processo nº:
	Local: CIDADELHA DE JALES	
TOPOGRAFIA 	LEVANTAMENTO TOPOGRÁFICO DO EXISTENTE	Escala: 1/500 <small>1:000000 G. 407</small>

Fig. 57 – Castro do Castelo dos Mouros, Cidadela de Jales

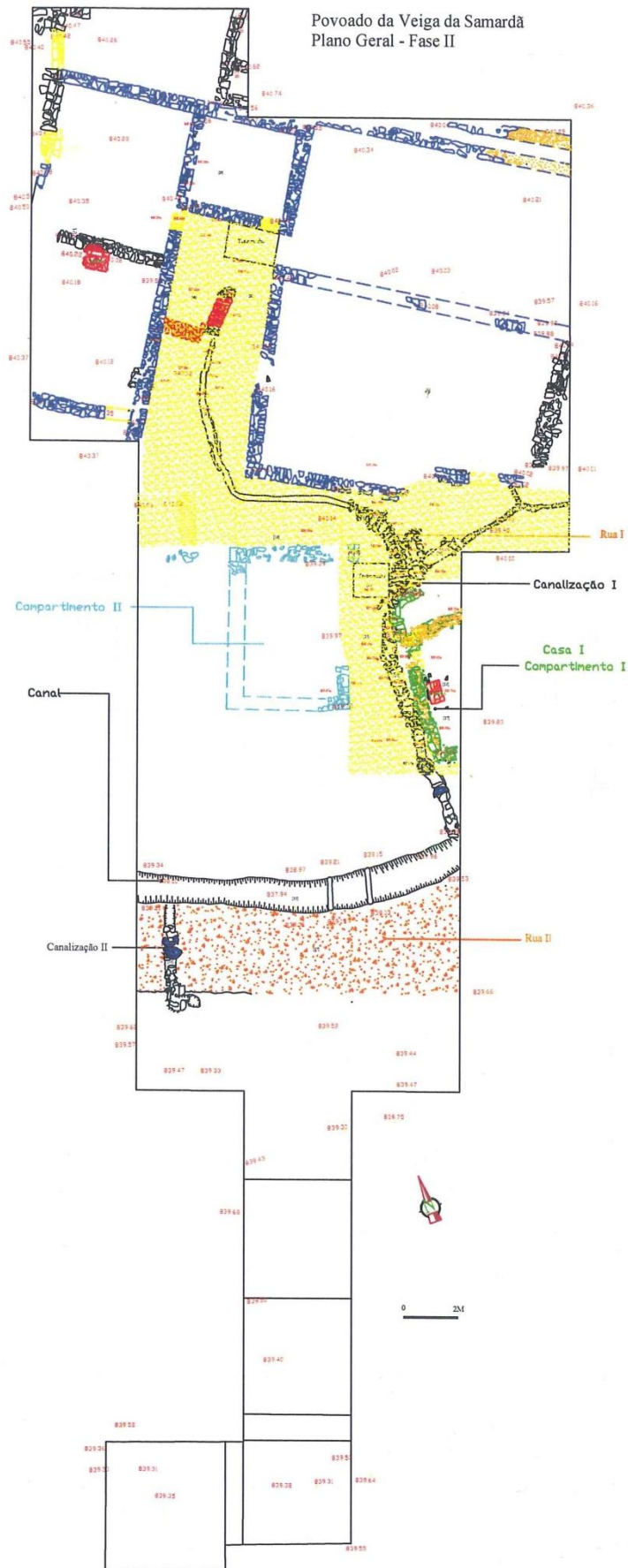


Fig. 58 – Fase II do Povoado da Veiga da Samardã, Tresminas

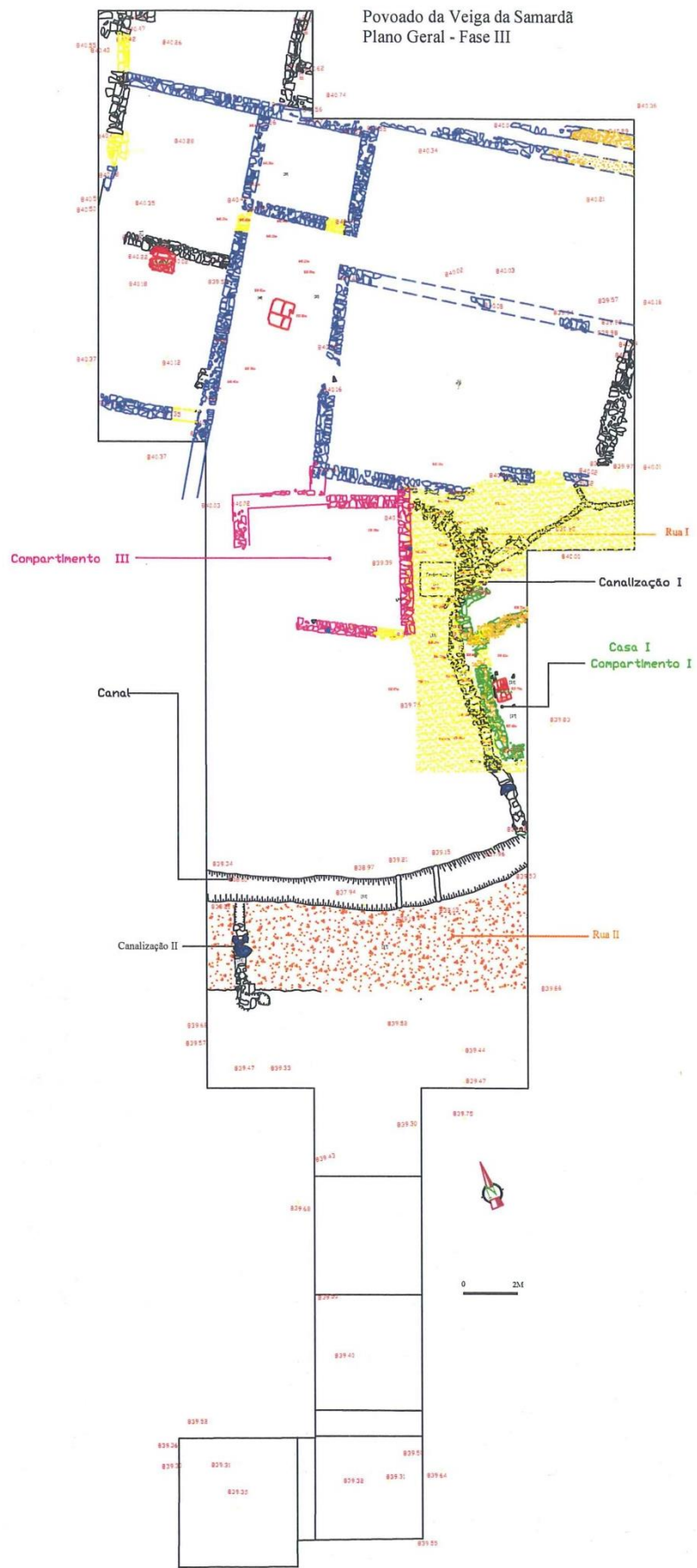


Fig. 59 – Fase III do Povoado da Veiga da Samardã, Tresminas

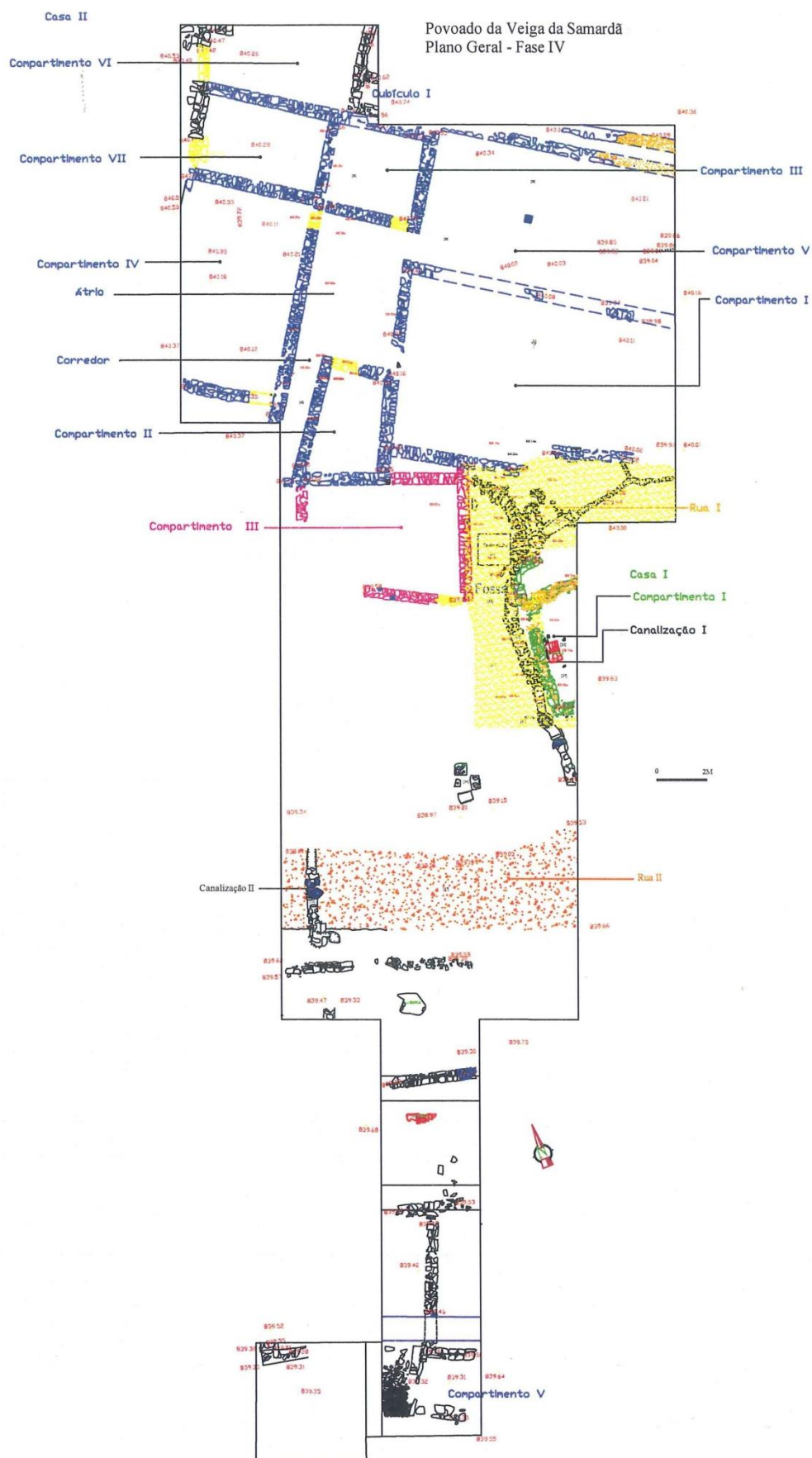


Fig. 60 – Fase IV do Povoado da Veiga da Samardã, Tresminas

NÚCLEO DA CORTA DE COVAS

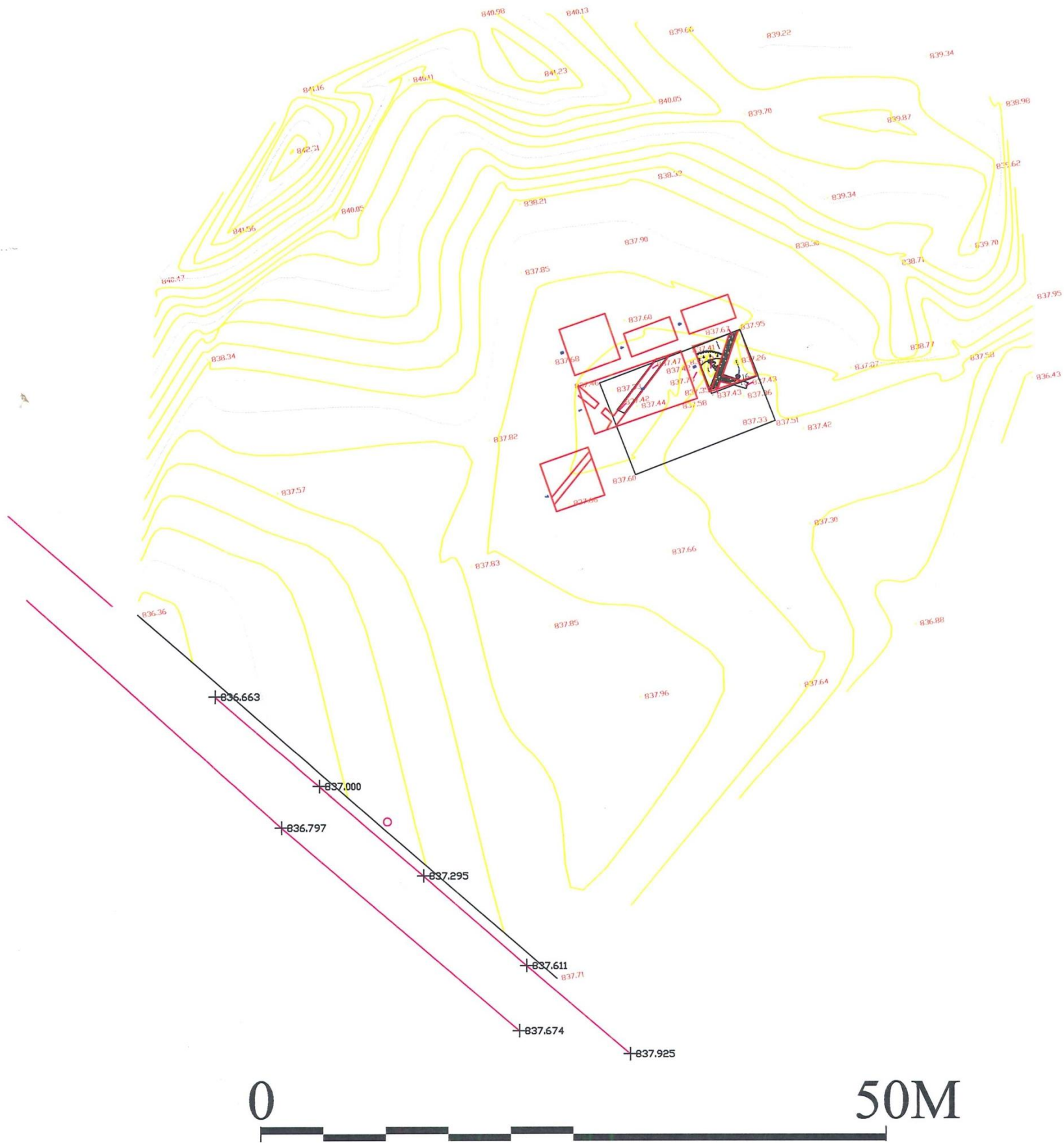


Fig. 61 – Núcleo habitacional/oficinal da Corta de Covas, Tresminas

RECINTO DO ALTO DO CIMO DOS LAGOS

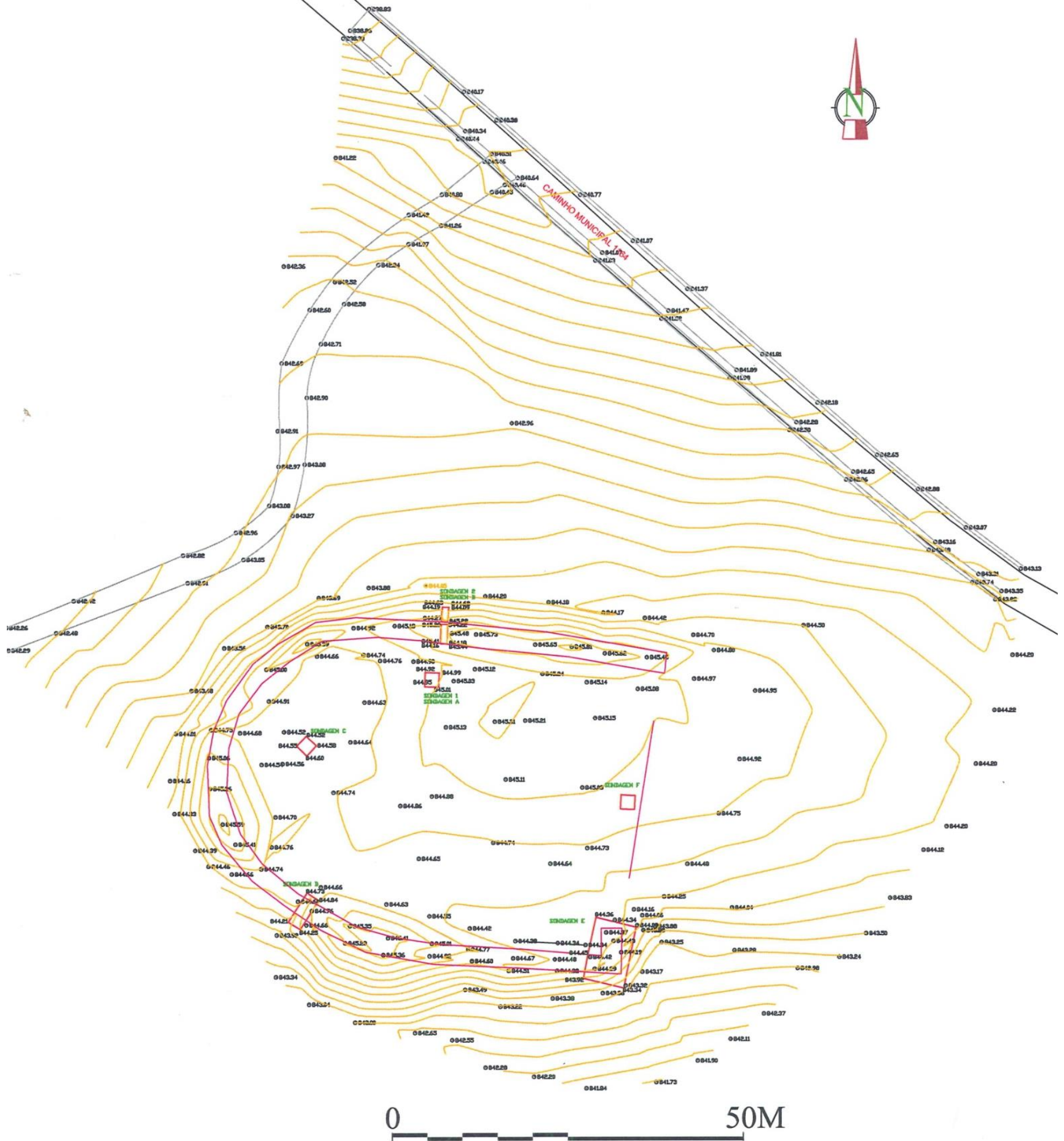


Fig. 62 – Recinto do Alto do Cimo dos Lagos, Tresminas

NECRÓPOLE DA VEIGA DA SAMARDÃ

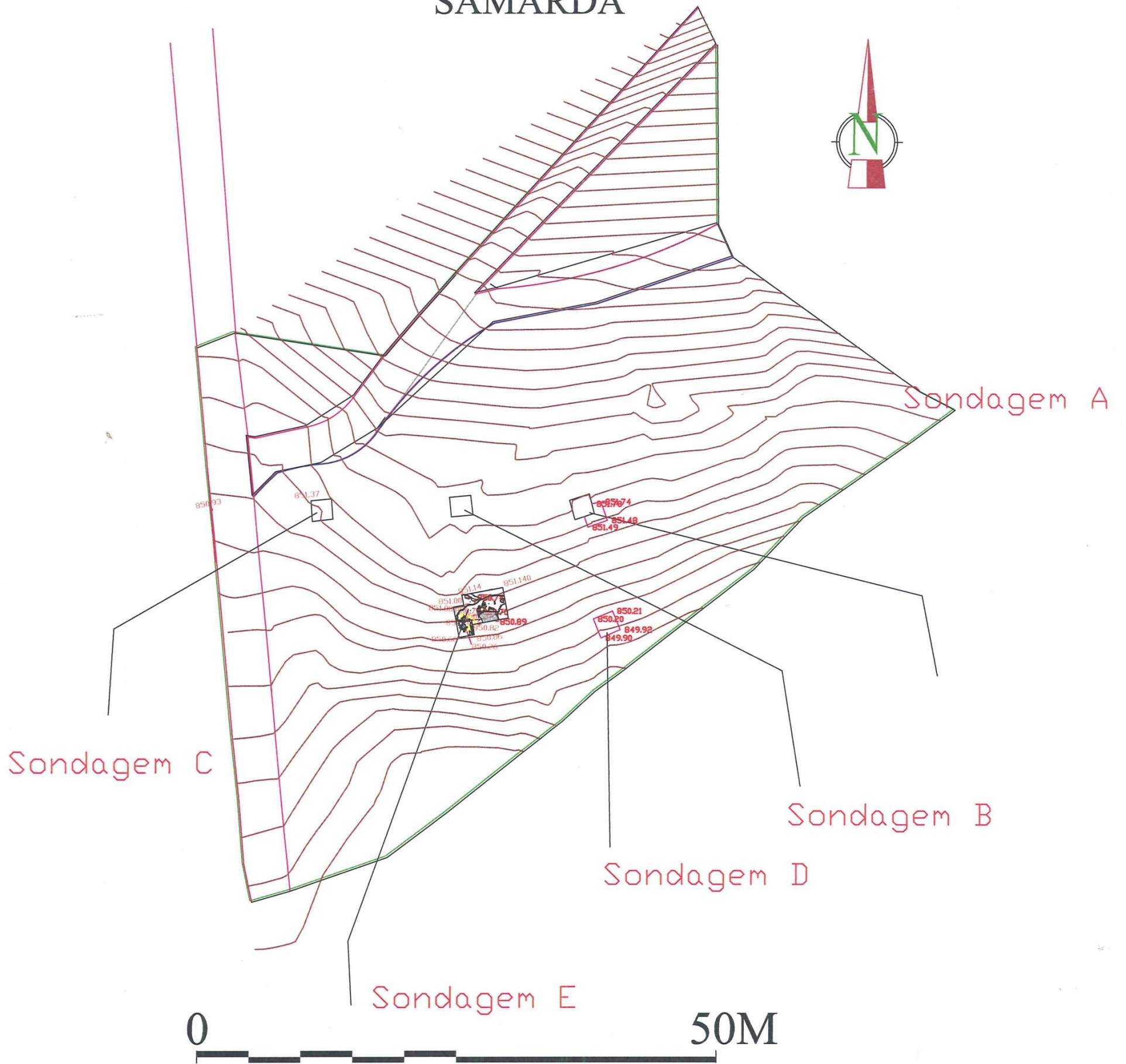


Fig. 63 – Necrópole da Veiga da Samardã, Tresminas

SOND. E, NECRÓPOLE
DA VEIGA DA SAMARDÃ

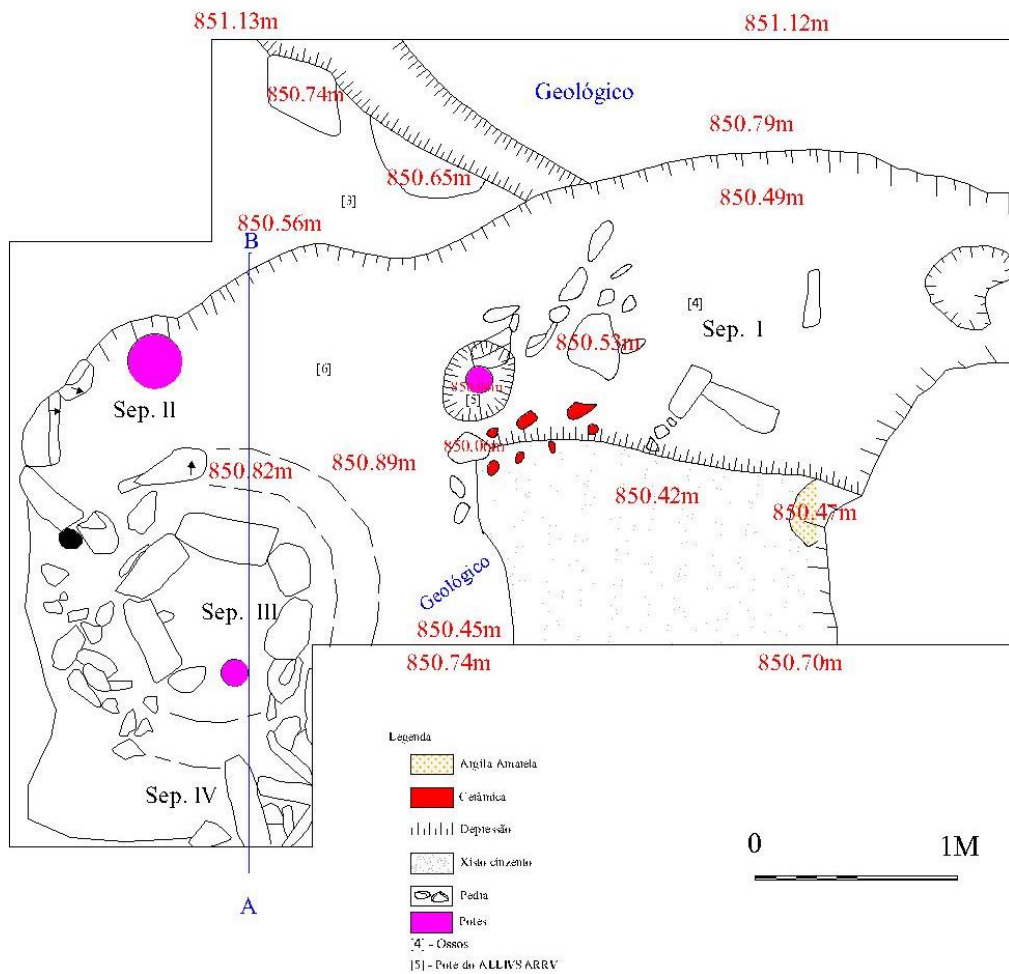


Fig. 64 – Sond. E da Necrópole da Veiga da Samardã, Tresminas

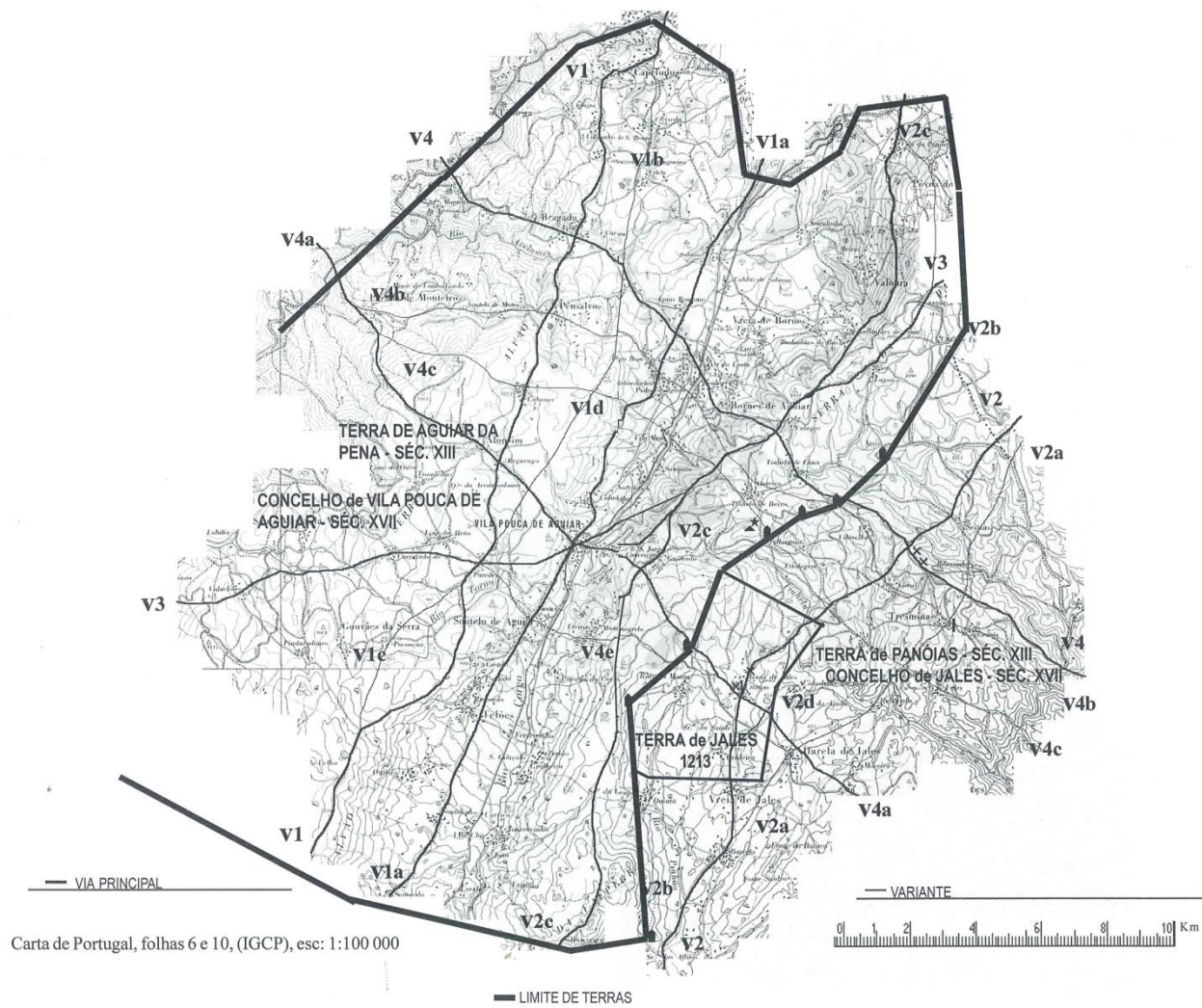
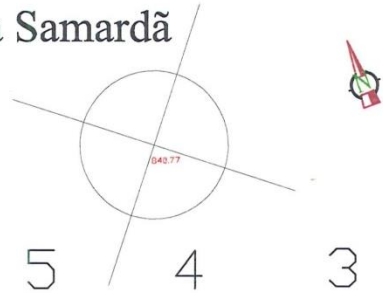
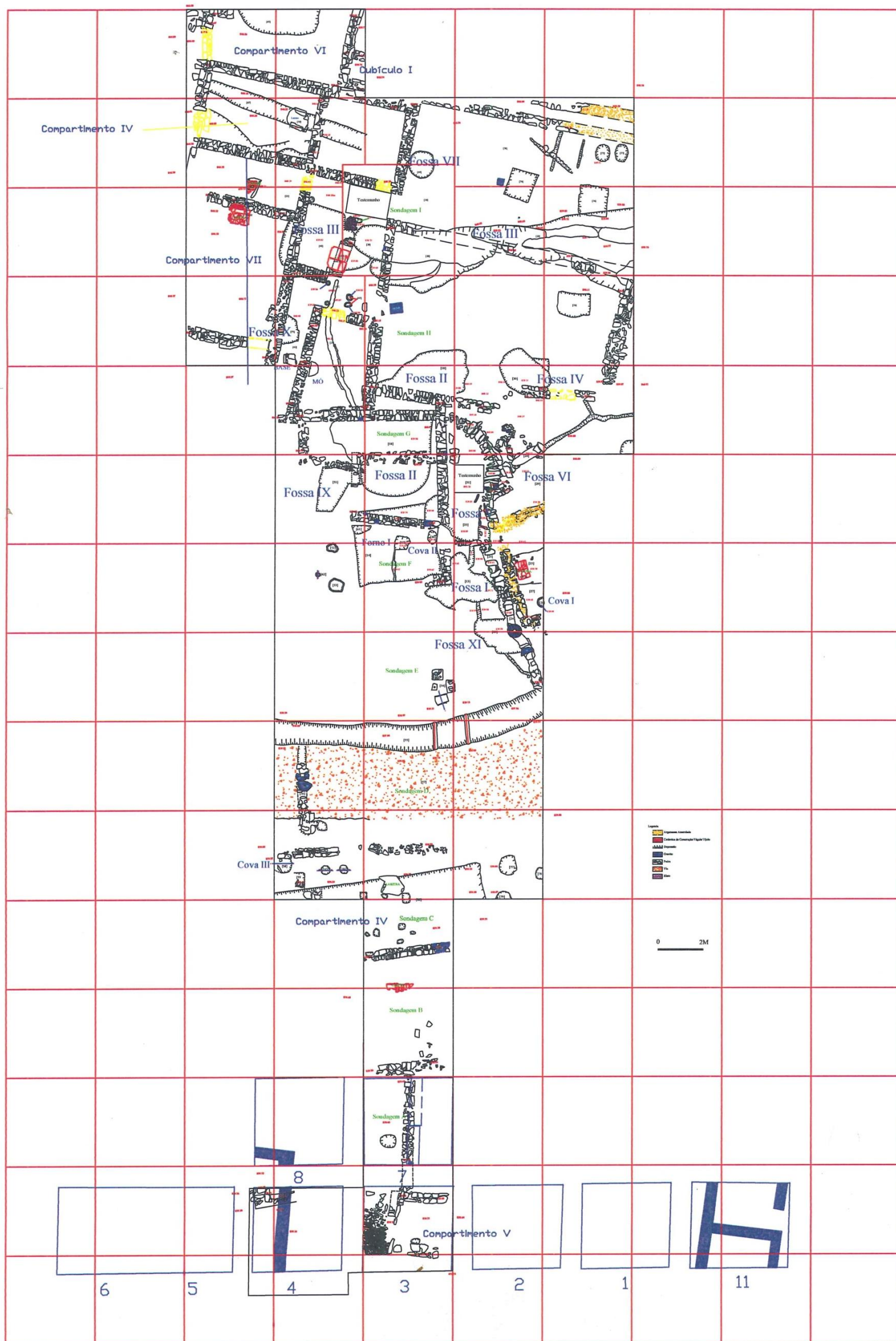


Fig. 65 – Mapa das vias romanas, terras e concelhos

Povoado da Veiga da Samardã



10 9 8 7 6 5 4 3 2 1



A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

Fig. 66 – Quadriculagem do Povoado da Veiga da Samardã, Tresminas

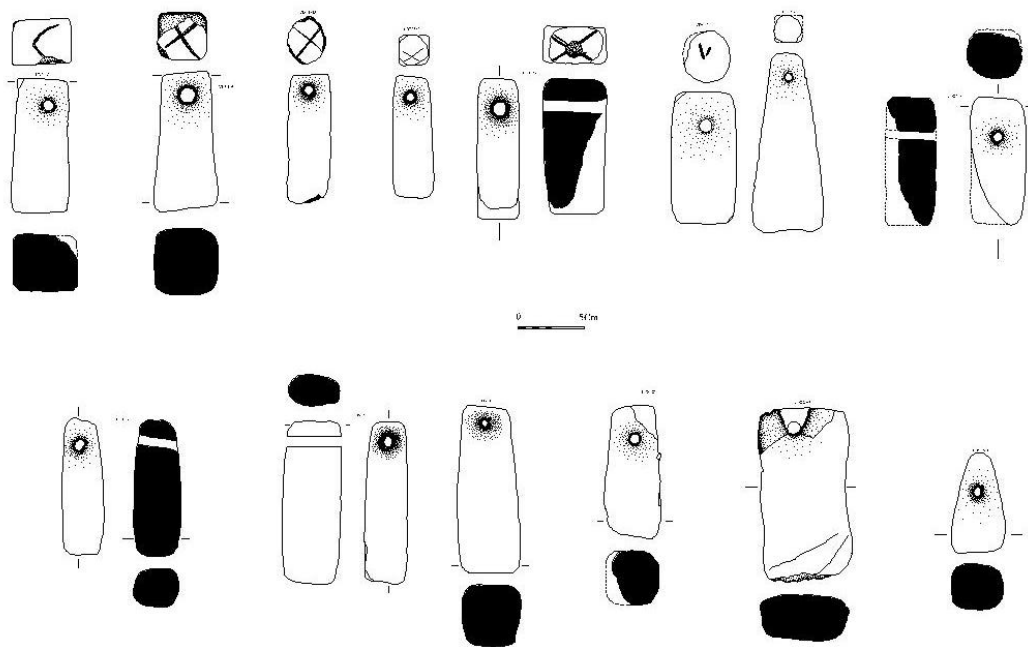


Fig. 67 – Pesos de tear romanos padronizados do povoado romano, Tresminas

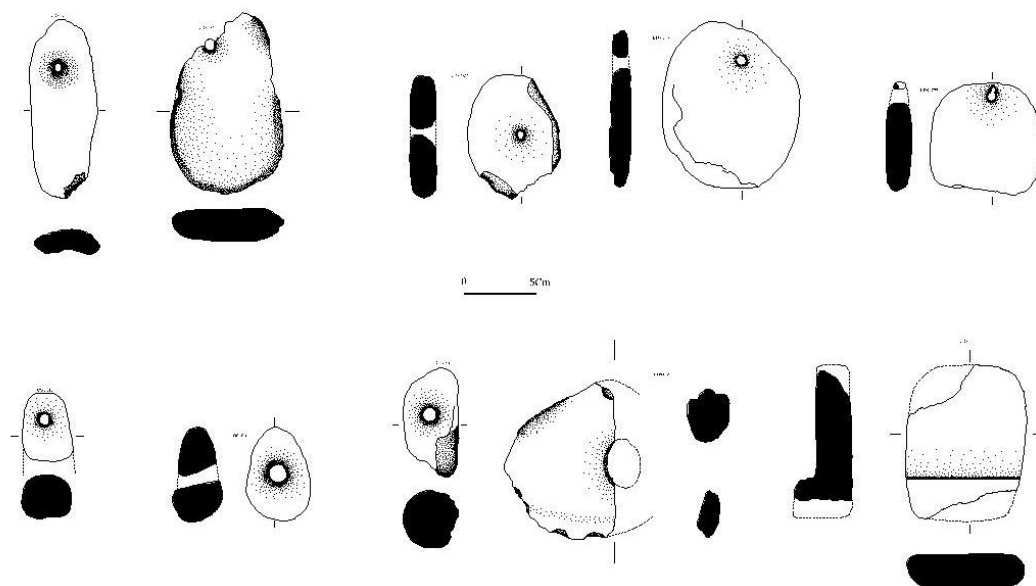


Fig. 68 – Pesos de tear de tradição indígena do povoado romano, Tresminas

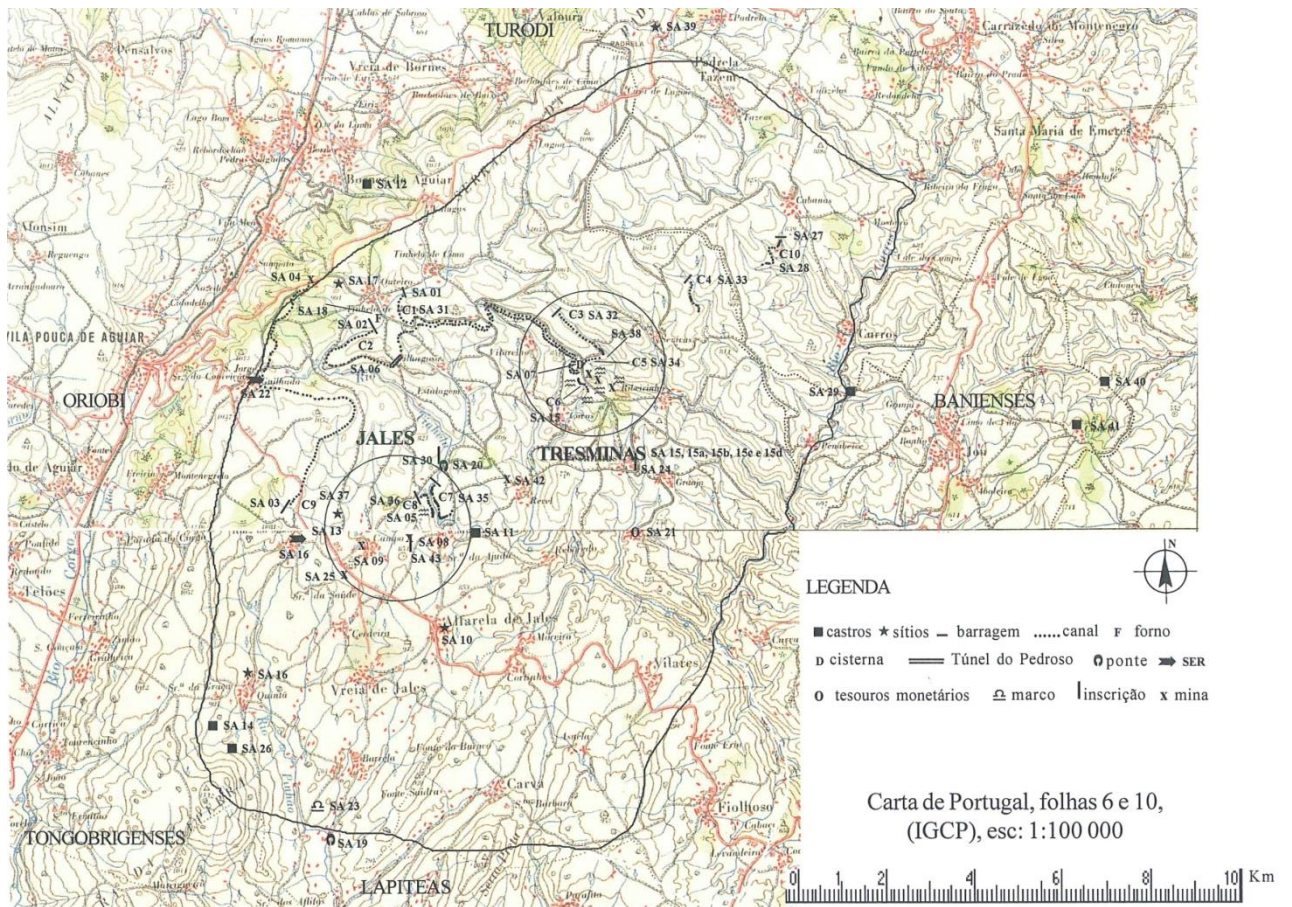


Fig. 69 – Território do Complexo Mineiro Romano de Tresminas e Jales

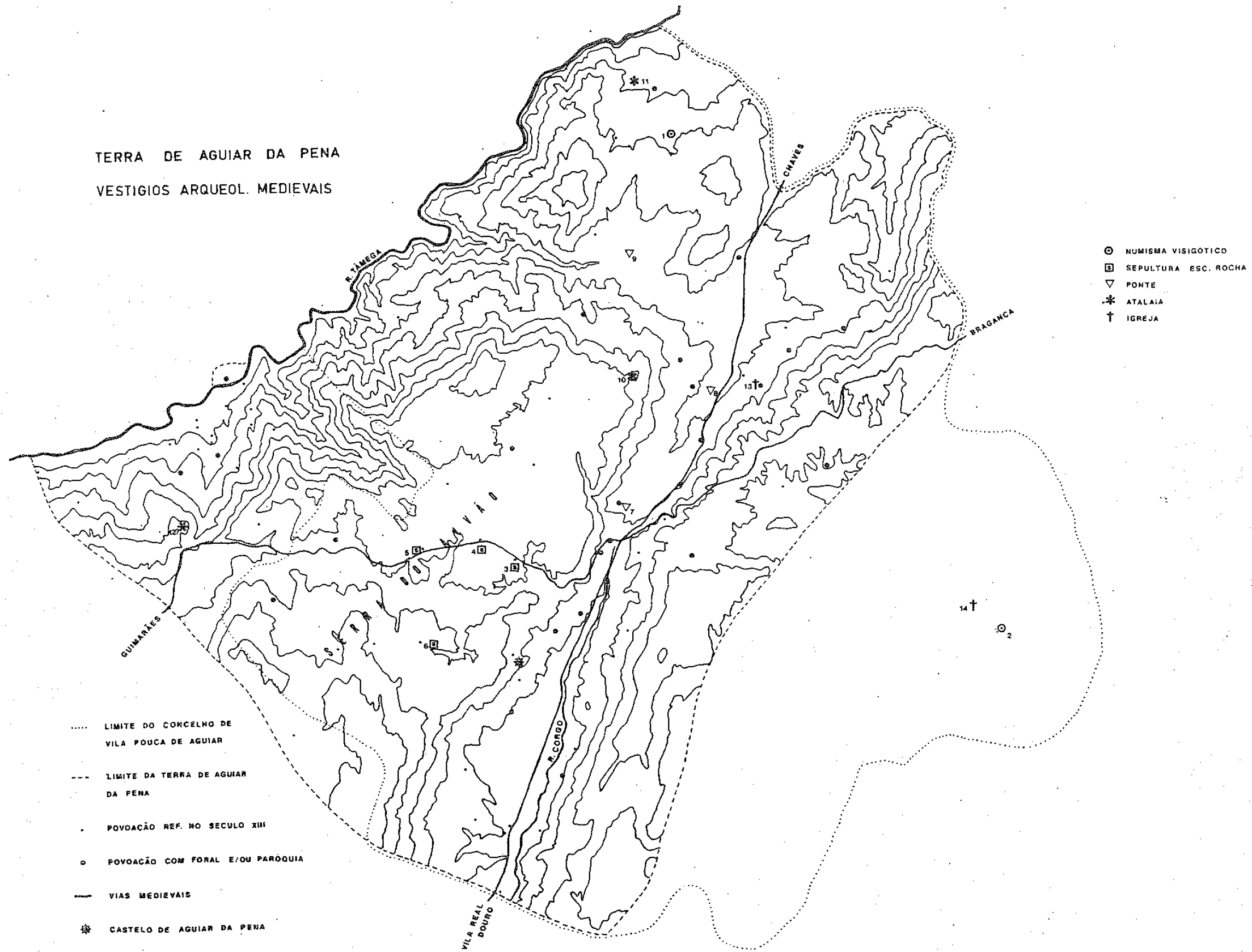


Fig. 70 – Terra de Aguiar da Pena confrontando com o Termo de Alfarela, (Barroca et al., 1986)