NEWSLETTER OF THE TASMANIAN CAVERNEERING CLUB

Newsletter Annual Subscription $21.00, Each $2.00 Non-members $3.00

PRESIDENT:		
Trevor Wailes	214 Summerleas Road, Kingston, Tas 7050.	Ph 291382
SECRETARY:		
Nick Hume	9 Primrose Place, Sandy Bay, Tas 7005.	Ph 251934
TREASURER:		
Leigh Douglas	33 George Street, North Hobart, Tas 7002.	Ph 343789
QUARTERMASTER:		
Bob Reid	21 Haig Street, Lenah Valley, Tasmania 7008.	Ph 280983
EDITOR / TYPIST:		
Stuart Nicholas	7 Rupert Avenue, New Town, Tas 7008.	Ph 283054

IDA BAY QUARRY SPECIAL ISSUE

Rolan Eberhard

This Speleo Spiel documents caves in the vicinity of Benders Quarry at Ida Bay. The fate of many of these caves will depend on whether quarrying breaches the Marble Hill-Lune Sugarloaf divide. So far mining has been confined to the northern side of the divide, but reserves of quality limestone here are running out; the problem is exacerbated by impurities in the form of clay through much of the deposit. The purest limestone (up to 95% calcium carbonate) is located at the top of the quarry, and extends south of the divide. It is in this direction that Benders Pty Ltd wish to expand their operations.

The very pure limestone south of the divide has been extensively karstified, and has led cavers to refer to the area as "The Potholes". This field of closely-packed dolines is unusual and possibly unique in local and national contexts. Moreover, in addition to the variety of surface karst, the area contains an abundance of caves. These range from minor solution features extending only a few metres below the surface, to deep shaft systems such as Little Grunt (-130m). Thus the area is an important recreational resource, as well as being of considerable scientific interest. Further exploration is likely to yield much more.

Many of these features will be destroyed or otherwise modified by an expanded quarry. Of particular concern is the potential to harm the integrity of Exit Cave. Exit's world heritage status was recognised by the Helsham Inquiry in 1988, which did not fail to observe that a cave's catchment area "forms an essential part of the cave itself". Though it is unlikely to be threatened in an immediate physical sense, current knowledge of the area's hydrology suggests that a southward extension of the quarry will impinge on Exit Cave's catchment.

The regrettable state of Bradley Chesterman Cave attests to the deleterious effects of quarrying in the catchment area of a cave. Benders Quarry is undoubtedly responsible for the glutinous mud, probable organic and inorganic pollution, and the extinction of most aquatic fauna in Bradley Chesterman. That "The Potholes" contribute water to Exit Cave, has not yet been formally demonstrated. However, the

alignment of passage development in Exit, and the existence of a traced hydrological connection from National Gallery (circa 300m from the present edge of the quarry), make this highly probable. If such a connection exists, then quarrying beyond the Marble Hill-Lune Sugarloaf divide is clearly unacceptable.

The case against an extended quarry appears strong. But, if Benders are denied access to the area south of the divide, the question arises as to where Pasminco Metals EZ - the principal consumer of Ida Bay limestone - will obtain its current annual requirement of 40 000 tonnes of high grade limestone? Existing quarries at Junee, Railton, Mole Creek, and Flowery Gully are unlikely to be able to supply the demand. Thus the success of a campaign to halt quarrying at Ida Bay will place new pressure on karst resources, elsewhere in Tasmania.

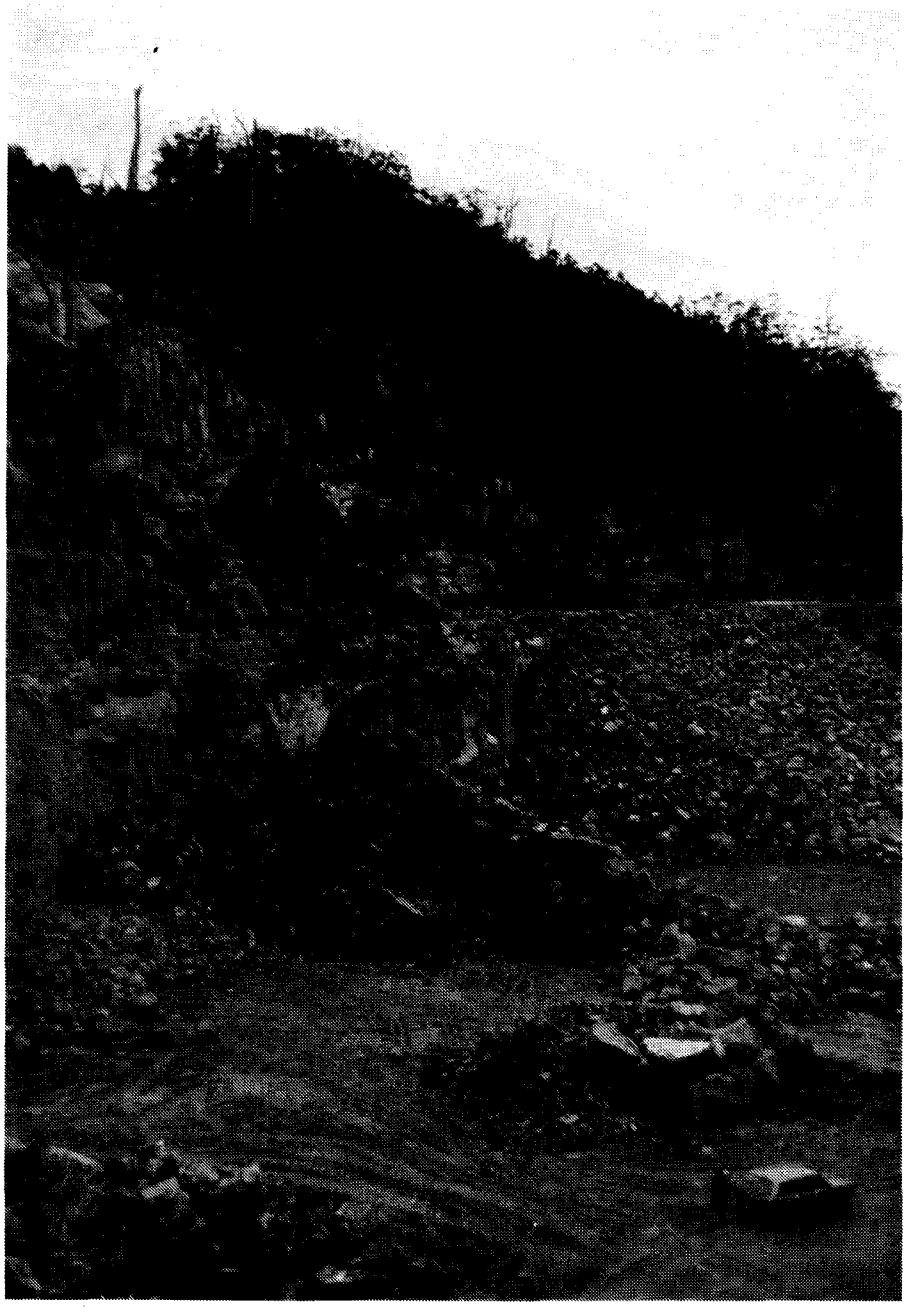


Figure 1: View of Benders Quarry with Marble Hill behind, August 1990. A hole in the quarry face on the left is probably part of ASF Pot.

CAVE DESCRIPTIONS

S. Eberhard

The 70 caves listed below are located in the vicinity of the present quarry operation at Ida Bay. At least one of these caves, ASF Pot, has already been removed by quarrying. The list comprises 28 numbered caves and 42 un-numbered caves. Numbered caves are physically tagged with a small metal plate bearing the identification number and fixed to the cave entrance. With the exception of IB-X13, all other un-numbered caves are recorded here for the first time. The following abbreviations are used: L=Length, D=Depth, P=Pitch.

NUMBERED CAVES:

IB4,5,6 BRADLEY CHESTERMAN CAVE. Major efflux cave with perennial stream and several entrances. Polluted by drainage from Benders Quarry. L=286m. See Figure 2.

IB23 LITTLE GRUNT. Deep pothole located in blind valley. Intermittent swallet with good airflow. Multiple shafts of P13, P6, P12, P11, P5, P10, P9, P7, P12, P27m. Unexplored lead at top of last pitch. D=130m. See Figure 3.

IB46 MARCH FLY POT. Dry pothole. Entrance P12; two 6m pitches following can be free-climbed. Six Thylacine skulls and Sthenurid bone found in this cave. See Figure 4.

IB51 Located 30m SW of IB46. Cave trending south from doline, or 6m shaft. Twilight cave only, but narrow fissure continues down. L=10m. D=6m. See Figure 5.

IB90 Located downhill of IB23. Shaft entrance in doline, P10 or free-climb. L=30m. D=15m. See Figure 5.

IB91 STRAW CAVE. Entrances from small doline lead to climb and intermittent watercourse. Ends in decorated chamber. D=15m. See Figure 5.

IB92 CHANGE OF CHARACTER. Cave in base of steep-sided doline leads to rockfall section. L=6m. See Figure 5.

IB93 JUST A POT. Dry pothole, no continuation. P9.5. Contains tree roots. D=9.5. See Figure 6.

IB94 TUMBLEDOWN. Cave entrances from doline with cliff, lead to rockfall, intermittent watercourse and shafts. P15 (or free-climb), P34 & P4m. See Figure 5.

IB95 MAMMAL TRAP. Large, obscured dry death trap! Fissure entrance and unexplored shaft.

IB96 ROOT POT. Alternative entrance to IB97. Contains tree roots. See Figure 6.

IB97 PSEUDOCHEIRUS. Large dry shaft (P40m with bolt) into old phreatic level, blocked by sediments and formation. Small intermittent watercourse and drip pools at bottom. Contains bones and invertebrate fauna.

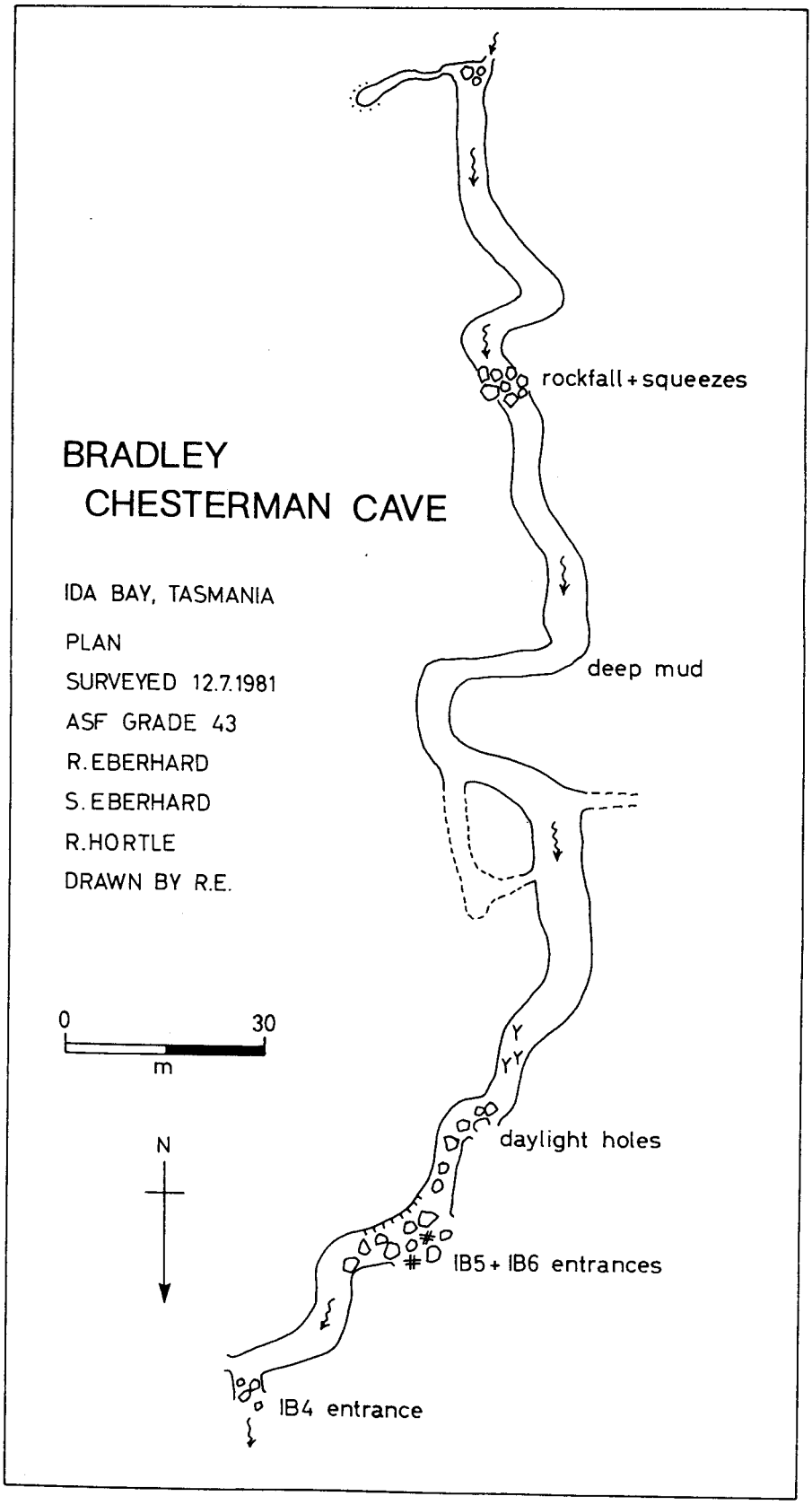


Figure 2: Plan of Bradley Chesterman Cave (IB 4,5 & 6)

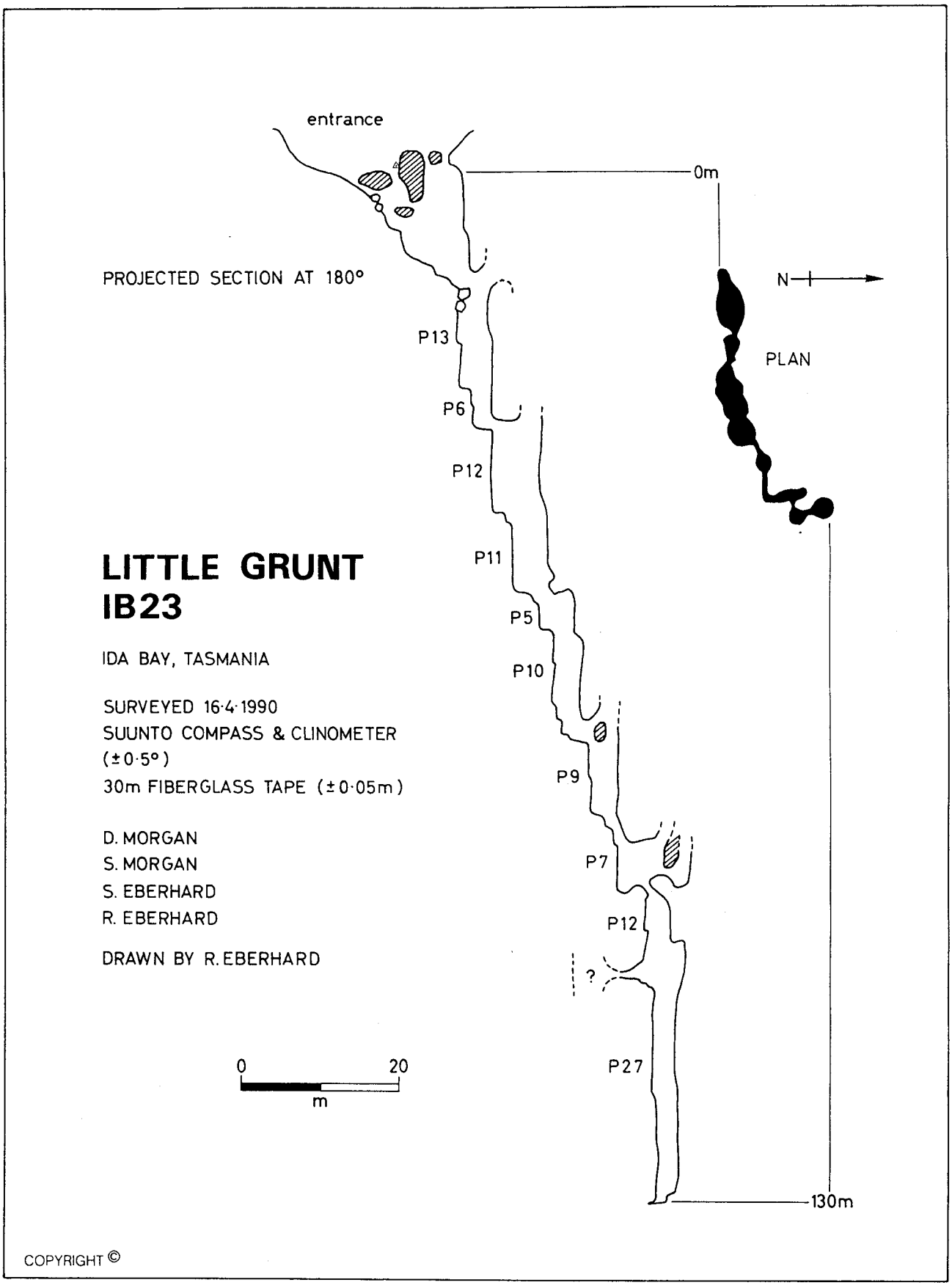


Figure 3: Section of Little Grunt (IB23); plan view in silhouette.

IB98 COMET POT. Deep doline east of IB97 track. Multiple entrances from doline in rainforest lead to narrow, steeply descending fissure then squeeze onto P50m and P15m. Wet and muddy with drips and watercourse at bottom. D=85m approx. Ref. Speleo Spiel No.219.

IB99 SALT AND PEPPER. Deep pothole located west of IB97 track. Entrance in doline acts as sink for small intermittent stream. Steep descent onto P18 and rockfall chamber. Squeeze through loose rocks drops into lower chamber at approx. 55m depth. Ref. Speleo Spiel No.219.

IB100 Dry pothole located approx. 25m north of IB23. P12m and narrow fissure continues down. Contains rich bone fill, including macropod skulls. See Figure 6.

IB101 FLY WIRE. Dry pothole in same doline as IB100. Two entrances, sloping entrance or P6 to blind chamber. Contains formations. L=15m. D=10m. See Figure 5.

IB102 COMET DUST. P12m. Located west of IB98 and IB104.

IB103 Dry pothole located approx. 10m south of CAVES 19 and 20. Sloping fissure to mud choke. P14m.

IB104 GIOTTO POT. Deep pothole located east of IB97 track. Narrow entrance fissure leads to P58, P11, P13, P6m, continues beyond constriction. Contains mud, formations, dripping aven with pool and intermittent watercourse.

IB105 Located north-west of IB96. Large rift with vertical entrance, steep fissure continues. P6m.

IB106 CORALLINE CLEFT. Large horizontal system 60m long. Gently sloping entrance from large doline leads to stream passage and avens. Contains formations and fauna (snails, crickets, spiders, bones).

IB114 Located north-northeast of IB103.

IB115 Located near IB114.

IB116 Located near IB114.

IB117 Located in gully 20m uphill of CAVE 22. Dry pothole with entrance shaft 1m by 5m. P12m to flat-floored chamber, mostly twilight. Contains tree roots. See Figure 6.

IB118 Located in gully downhill of IB117. Wet pothole 9m deep. See Figure 6.

IB124 Located approx. 15m north of IB100. Two entrances, walk-in rift with natural bridge. Twilight cave only. D=6m. See Figure 5.

IB125 Located 20m north of IB92 and adjacent to CAVE 15. 3m diameter entrance shaft. Twilight cave only. D=11m. See Figure 5.

IB132 Dry pothole located east of IB23 and south of IB46. P36m. D=36m. See Figure 6.

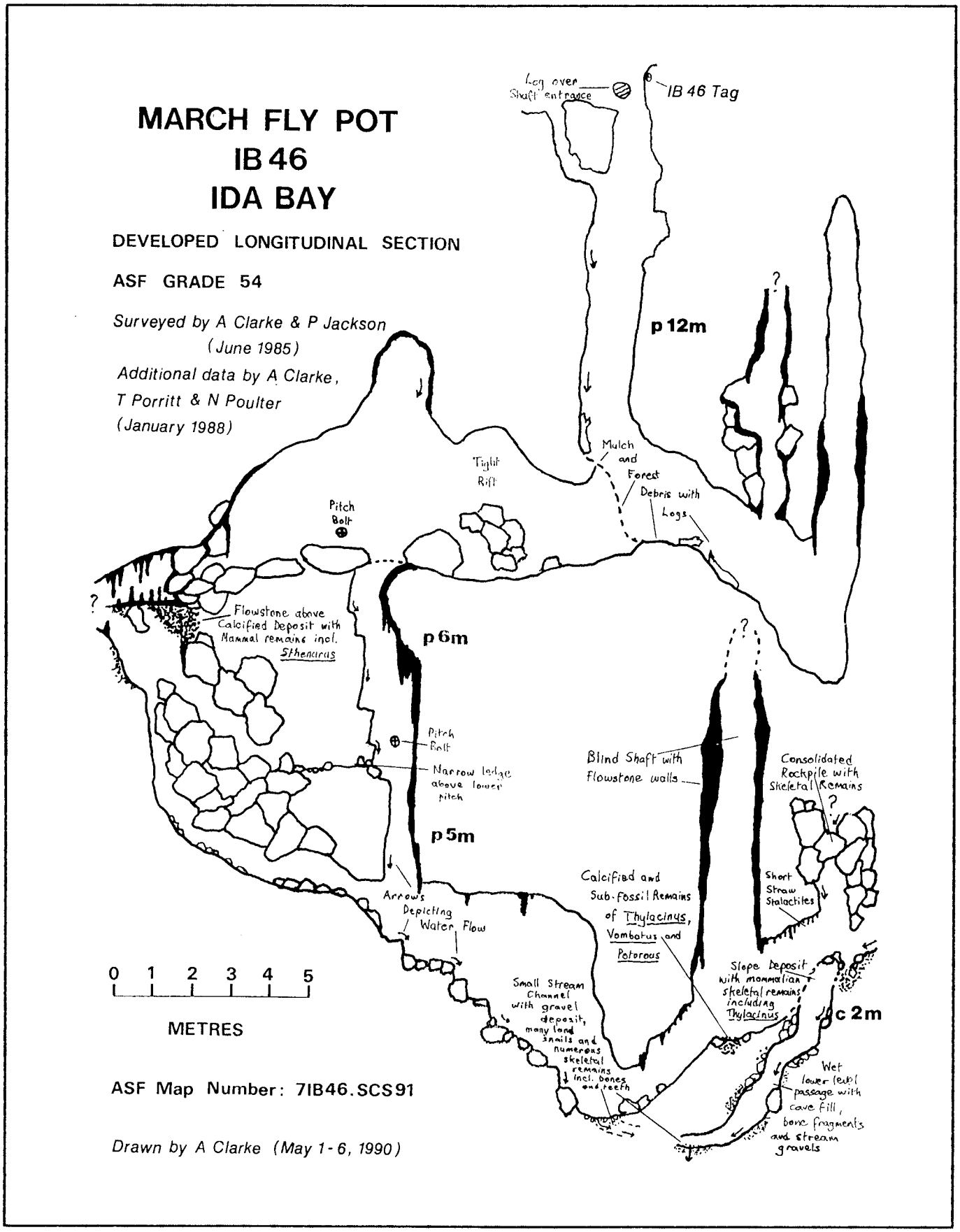


Figure 4: Section of March Fly Pot (IB46).

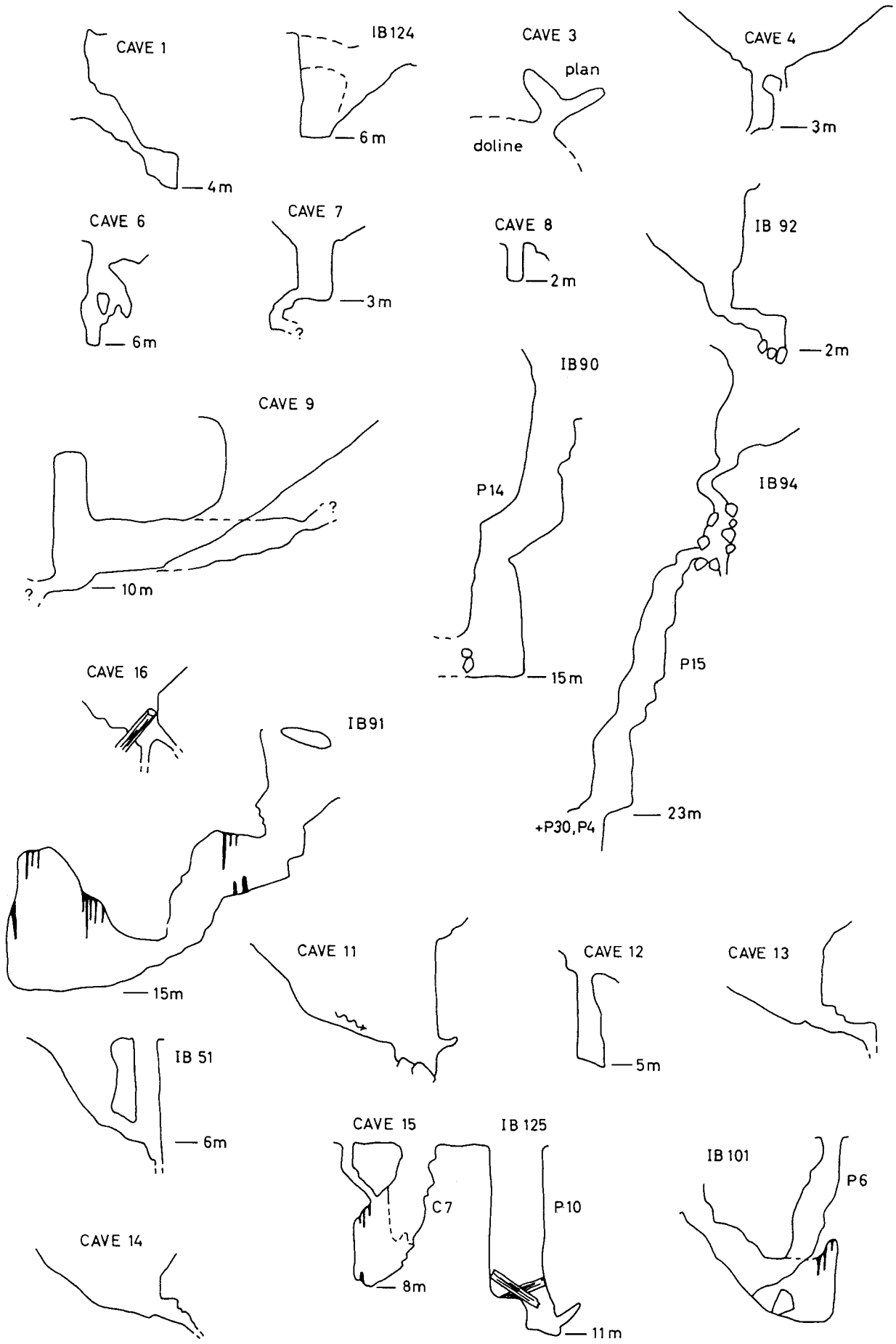


Figure 5: Caves south of the Marble Hill-Lune Sugarloaf divide. From field notes by S. Eberhard, July 1990. All except CAVE 3 are portrayed in section; approx. scale 1:1000.

IB202 ASF POT. Dry pothole 40m deep. P21 and P19m. Major portion of cave now removed by quarry operations.

IB203 Located west of quarry. Dry cave 12m long.

IB204 Dry pothole 8m deep. P8m.

IB205 Located in dry valley west of quarry. Entrance in large doline, intermittent stream cave 12m long.

IB211 TRACK CUTTERS CAVE. Dry pothole beside track. P8m. Survey in Southern Caver No. 50 (1982).

UN-NUMBERED CAVES:

IB-X13 LOO-LANE. Pothole, location uncertain (possibly south-east of of IB132 and east-southeast of IB23). Steep mud slope from doline leads to 25m shaft and spacious decorated chamber. Description in Speleo Spiel No. 200. L=80m.

CAVE 1 Located approx. 10m north-northwest of IB124. Twilight cave only. L=5m. D=4m.

CAVE 2 =IB124.

CAVE 3 Located approx. 10m north-east of IB100. Twilight cave only. L=2m. See Figure 5.

CAVE 4 Located approx. 30m north-east of IB100. Twilight cave only, 3m deep pit in base of doline. See Figure 5.

CAVE 5 Located approx. 15m south of CAVE 4. Twilight cave only. Narrow fissure 2m long.

CAVE 6 Located approx. 10m south-east of CAVE 5. Twilight cave only. Blind shaft 6m deep. See Figure 5.

CAVE 7 Located approx. 8m south-southwest of CAVE 6 and approx. 25m east IB23. Twilight cave only. L=3m. See Figure 5.

CAVE 8 Located approx. 20m north-northwest of IB23. Solution pit 2m deep. See Figure 5.

CAVE 9 Located approx 15m north-northwest ofIB90 and approx 20m north-east of IB23. Dry cave trending towards IB90. Entrance is narrow fissure with steep slope leading to muddy avens. Narrow passage continues. Contains tree roots. L=15m. D=10m. See Figure 5.

CAVE 10 Located in inosculating doline to IB94. Dry pothole with small entrance leading to 5m climb down. Ends in aven, but with narrow passage continuing below. L=10m.

CAVE 11 Located 50-70m west of IB51. Large doline in main gully below the saddle. Not an enterable cave, but acts as an intermittent stream sink. See Figure 5.

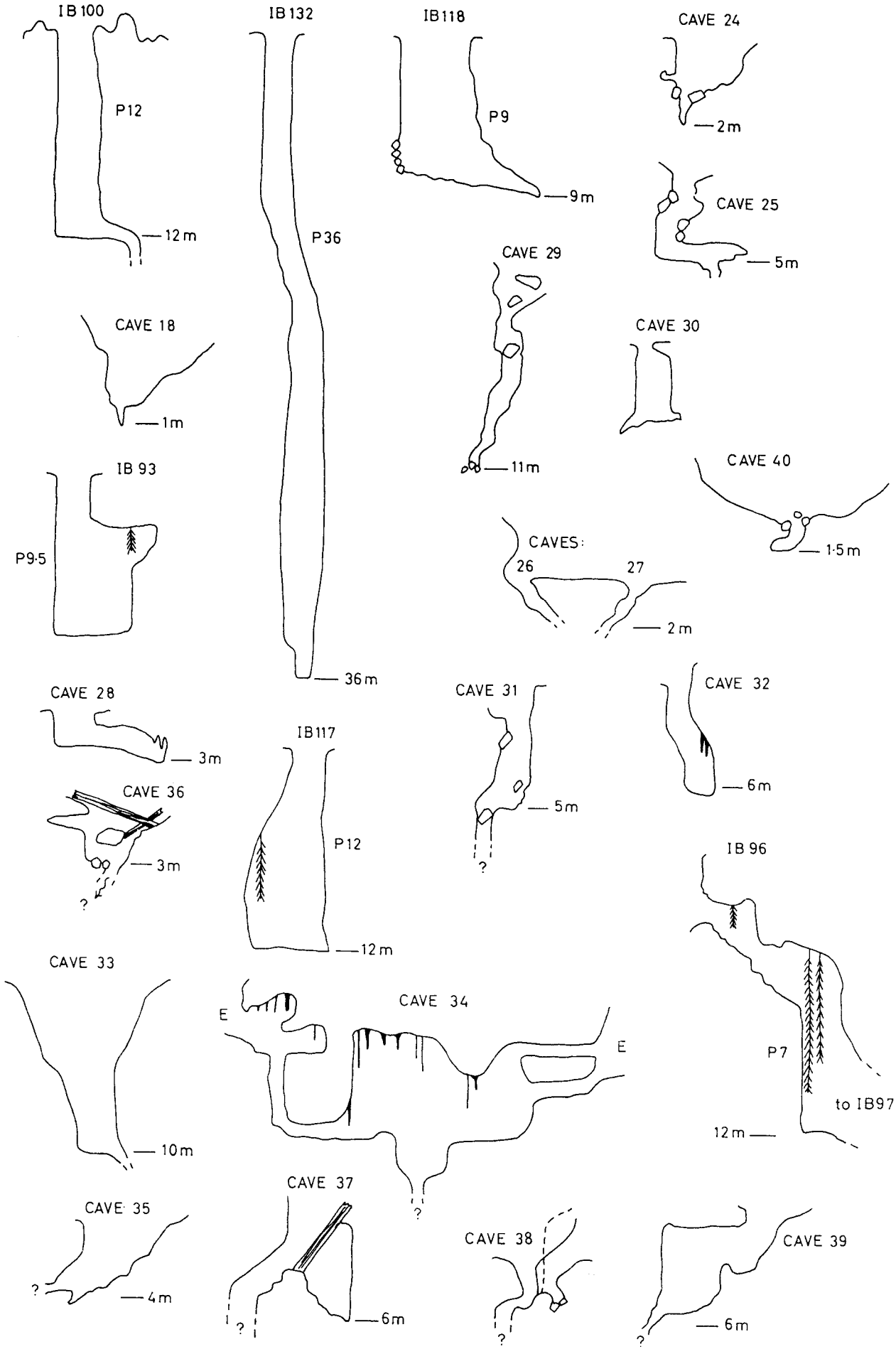


Figure 6: Caves south of the Marble Hill-Lune Sugarloaf divide. From field notes by S. Eberhard, July 1990. All caves are shown in section at approx. scale of 1:1000.

CAVE 12 Located approx. 15-20m west of IB100. Entrance is 1m diameter shaft. D=5m. Twilight cave only. See Figure 5.

CAVE 13 Located south-west of IB23 gully. Entrance in doline leads to narrow fissure 3m long (twilight only), but passage continues below. See Figure 5.

CAVE 14 Located in inosculating doline to CAVE 13. Twilight cave only. L=2m. See Figure 5.

CAVE 15 Located approx. 20m downhill from CAVE 14 and next to IB125. Dry pothole with two entrances. Climb down to bottom at 8m depth. Contains formations. See Figure 5.

CAVE 16 Located uphill from CAVE 15. Entrance in doline with narrow passage extending down. Twilight cave only.

CAVE 17 =IB125.

CAVE 18 Located west of CAVES 13 and 14. 1m deep hole in base of doline. Twilight only.

CAVE 19 Located 15m south-west of IB93. Dry pothole 3m deep and 5m long. Twilight only.

CAVE 20 Located 3m from CAVE 19. Dry pothole 4m deep.

CAVE 21 Located approx. 50m downhill and east of IB97. Entrance is narrow fissure dropping 4m to floor. Not fully explored.

CAVE 22 Located in gully approx. 100-150m east-southeast of IB97. Dry shaft 2m across and 4m deep. Entrance only.

CAVE 23 =IB117.

CAVE 24 Located approx. 20m south of IB118. Hole in base of doline. D=2m. See Figure 6.

CAVE 25 Located next to CAVE 24. Grotty pothole 5m deep. See Figure 6.

CAVE 26 Located approx. 30m north-west of CAVE 25. Narrow inclined passage 2m long. Twilight only. See Figure 6.

CAVE 27 Located 5m from CAVE 26. Narrow inclined passage 2m long, continues. See Figure 6.

CAVE 28 Located approx. 40m north-west of CAVE 25. Short cave 3m deep, twilight only. Contains formations. See Figure 6.

CAVE 29 Located approx. 10m downhill and to right of CAVE 28. Small entrance in doline leads to squeeze and climb down through loose rockfall. Caver temporarily trapped by unstable boulder. D=11m. See Figure 6.

CAVE 30 Located 5m south-west of CAVE 28. Dry pothole 5m deep. See Figure 6.

CAVE 31 Located approx. 30m uphill of IB117. Dry pothole 5m deep. Continues below loose boulder. See Figure 6.

CAVE 32 Located approx. 30m uphill from CAVE 31. Dry pothole 6m deep. Contains formations. See Figure 6.

CAVE 33 Located 20m north of CAVE 32. Entrance is funnel-shaped doline 10m diameter. 8m climb to bottom, twilight only. D=10m. See Figure 6.

CAVE 34 Located 20-30m west of IB97. Two entrances in inosculating dolines. Fissure complex containing formations and drip pools. L=32m. D=10m. See Figure 6.

CAVE 35 Located approx. 20m from CAVE 34. Entrance in base of doline. Horizontal passage 2m long (twilight only), continues beyond constriction. See Figure 6.

CAVE 36 Located approx. 40m south-west of IB104. Entrance in small blind valley, acts as intermittent stream sink. Descending passage through loose rocks. D=3m. See Figure 6.

CAVE 37 Located west of IB99. Steep-sided doline with fissure entrance 6m high and 2m long, twilight only. Another entrance in the same doline connects with IB99. See Figure 6.

CAVE 38 Located in doline next to CAVE 37. Fissure complex 6m long with tight descending continuation, twilight only. See Figure 6.

CAVE 39 Located on edge of doline approx. 20m from CAVE 38. Twilight cave only. D=6m. L=8m. See Figure 6.

CAVE 40 Located downhill and south-east of CAVE 39, next to IB97 track. Hole in base of doline, twilight only. L=1.5m.

CAVE 41 Cave exposed in top bench of quarry. Contains seepage pool, formations and airflow. L=15m; extension possible.

IDA BAY POTHOLES

by Stefan Eberhard

Shown here are vertical profiles of three more deep potholes at Ida Bay. They are located in The Potholes region and hence are threatened by any expansion in the quarry operation south of Marble Hill - Lune Sugarloaf divide. All three are clustered in reasonable proximity to each other, access is via the track to Pseudocheirus which leads downhill off the Exit Cave track somewhere between the Little Grunt and National Gallery turnoffs.

Chris Davies was the principal protagonist in the initial exploration of these caves.

Giotto Pot is situated in a prominent sinkhole immediately on the LHS of the track, which skirts the edge of it. This is a nice straightforward cave and a worthwhile sporting exercise, if only for its superb 58 metre shaft. At the bottom is a constriction which needs enlargement. The cave continues down below this - maybe worth pushing if you're the desperate type!

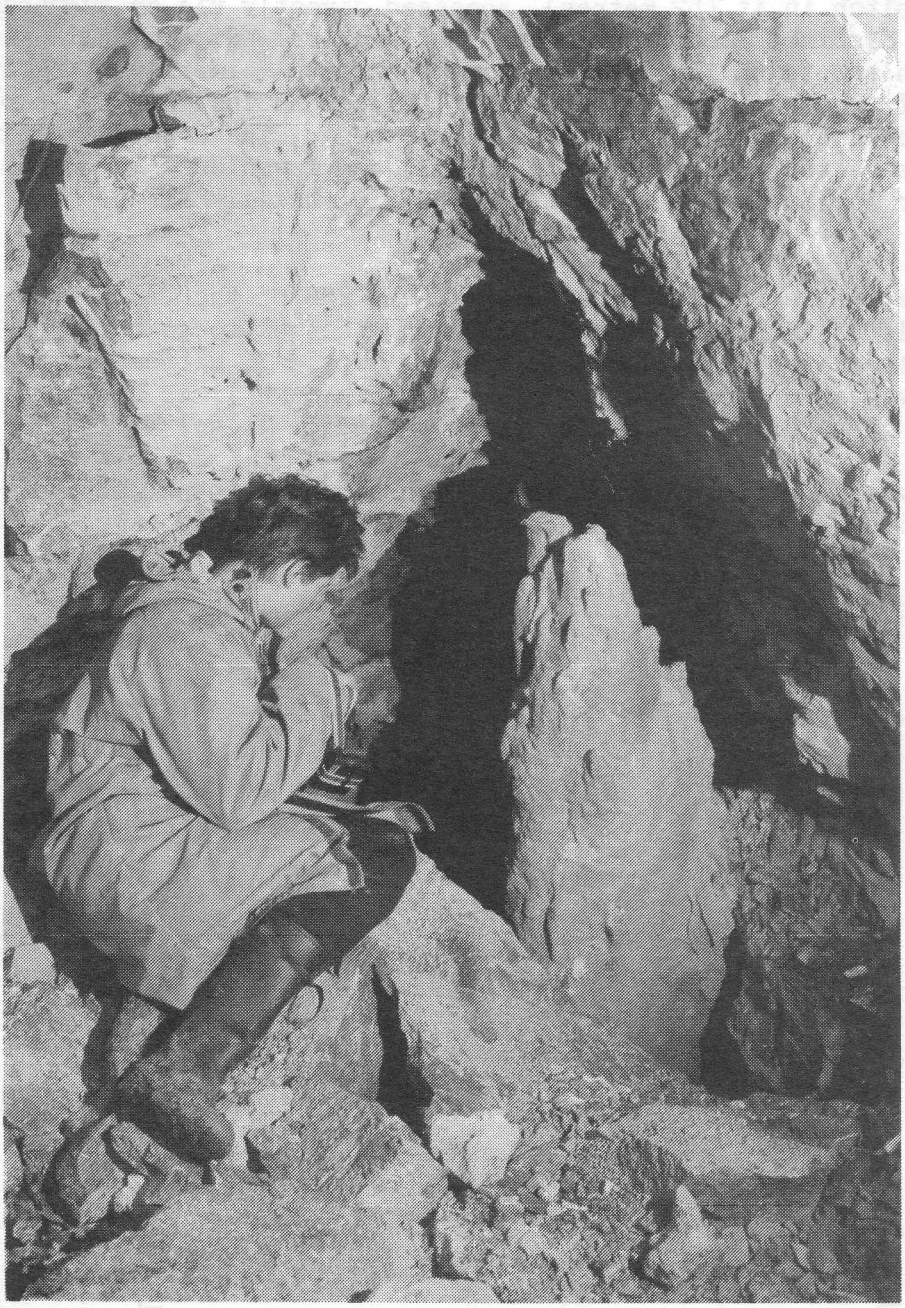
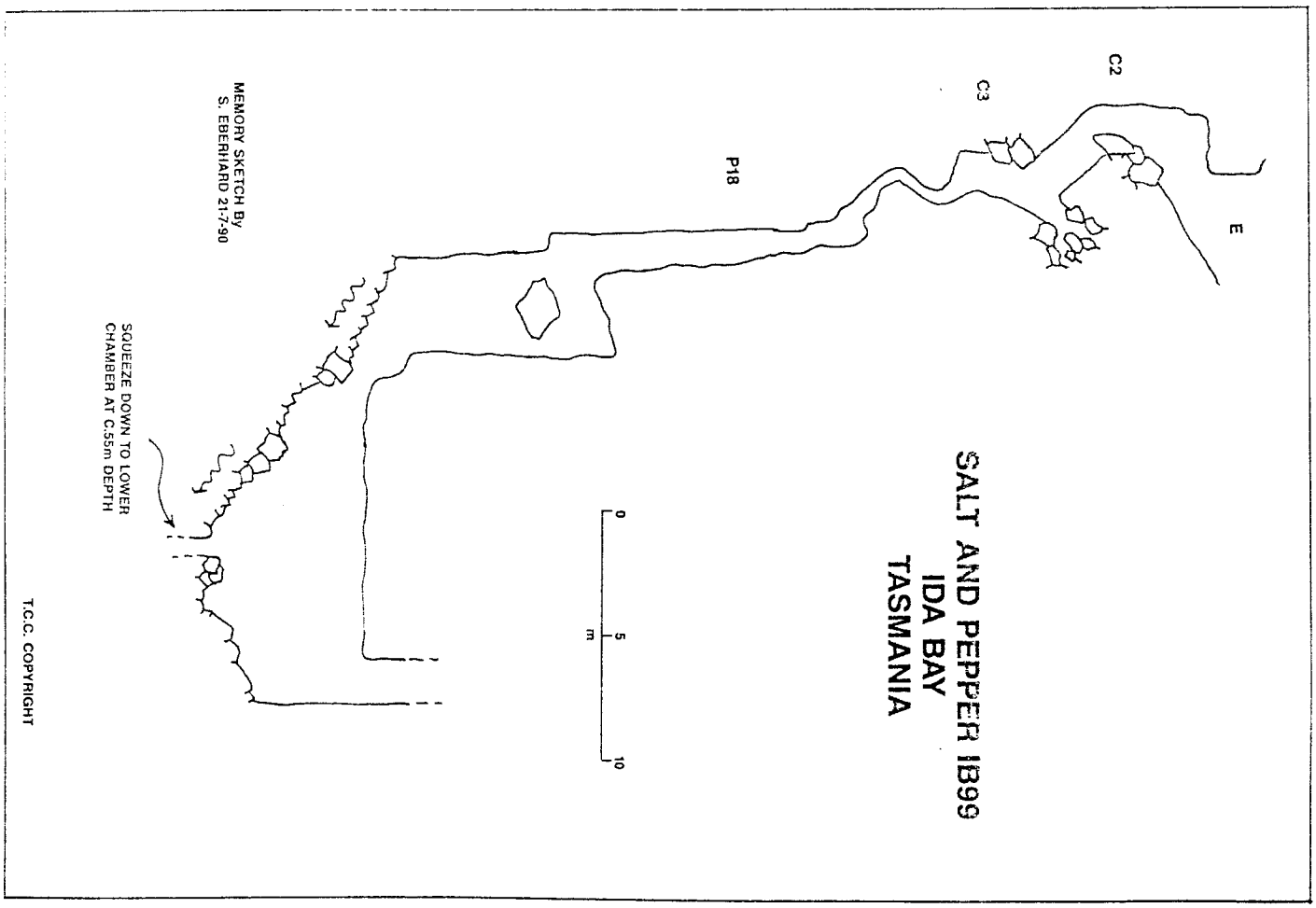


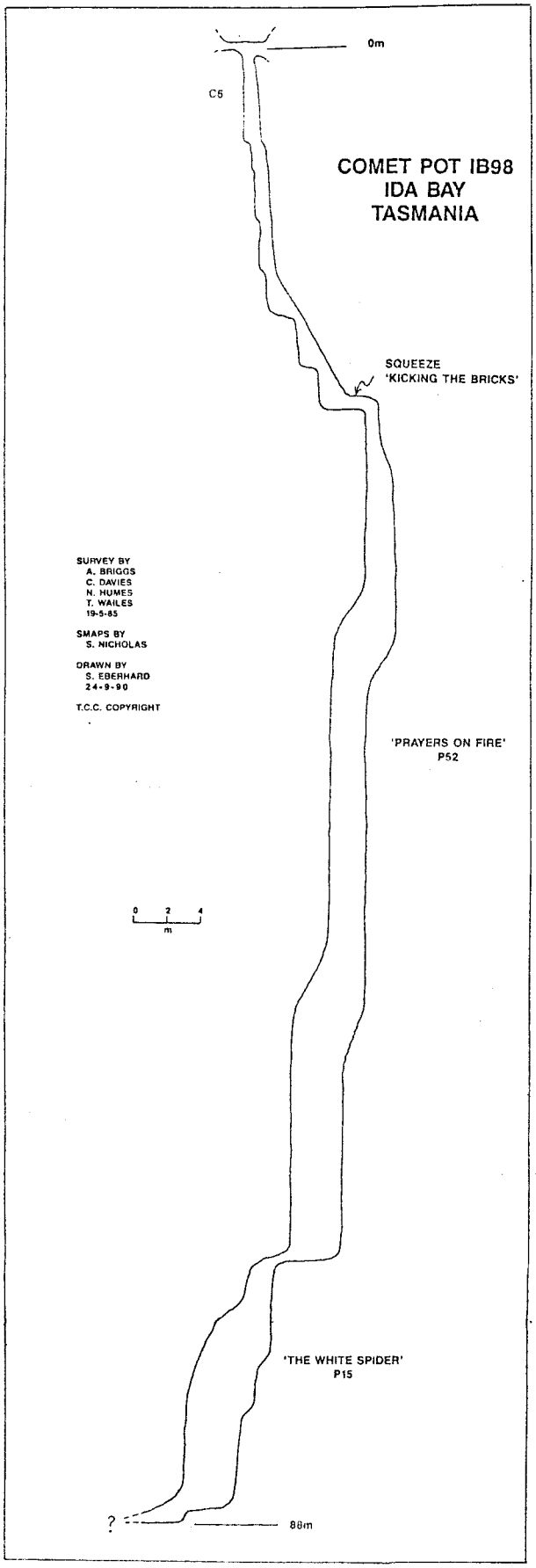
Figure 7: Large stalagmite in cavity exposed by quarrying.

Comet Pot is also located on the immediate LHS of the track, a short distance downhill from Giotto Pot. There is a complex of entrances in the side of a sinkhole with a small limestone bluff - the track skirts this one as well. Comet Pot also has a big pitch in it (52 metres), accessed directly via an awkward squeeze where there is a distinct lack of solid natural anchors. Rigging this requires some imagination and faith in rotten-looking substrate - ideally it needs some bolts! The rest of the shaft is stepped, as it follows an inclined fault plane - rebelays and redirections are needed to give a free-hang. The cave is scungy throughout (scunginess factor increasing with depth!) and I wouldn't recommend it to anyone looking for a pleasant sporting trip. As a technical SRT exercise, its excellent - go for it!

Salt and Pepper is located somewhere off the RHS of the track near Giotto and Comet Pots. It is an intermittent swallet which deserves to go deeper than the circa 55 metres depth presently explored. It has a single 18 metres pitch in it. Not shown on the survey is a nasty looking climb down through loose boulders to a lower chamber at circa 55 metres depth, first pushed by Trevor Wailes.

For company in the field during these excursions, I thank Judy McNeal, Grant Else, Dean and Simon Morgan, Peter Ackroyd (VSA), Ian Houshold (ANU) and Peter Shaw (MSS).




0m
C6
COMET POT IB98
IDA BAY
TASMANIA
SQUEEZE
'KICKING THE BRICKS'
SURVEY BY
A. BRIGGS
C. DAVIES
N. HUMES
T. WAILES
19-5-85
SMAPS BY
S. NICHOLAS
DRAWN BY
S. EBERHARD
24-9-90
T.C.C. COPYRIGHT
'PRAYERS ON FIRE'
P52
0 2 4
m
'THE WHITE SPIDER'
P15
?
88m